Social, transformative and sustainable learning:
a study of a Jamaican school and community

Romina De Angelis

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Supervised by:
Dr. Nicole Blum
Prof. Shirley Simon

Institute of Education, University College London, UK
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Declaration:

I, **Romina De Angelis**, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

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Romina De Angelis

Abstract

Jamaica faces several environmental threats, related to socio-economic inequalities, as a result of its sustainable development path. The latter stems from the island's relationships with broader international policies as a Global South country. Within this context, the role of sustainable learning can be crucial to address environmental and societal challenges. At the same time, current literature on Education for Sustainable Development (ESD) emphasizes the need to (i) explore the contributions of local sustainable learning models to the global ESD policy framework, and (ii) link local contributions to national and international contexts. Critical scholarship on ESD advises to consider diverse sustainable learning practices from developing countries, in order to shape ESD theories and practices in inclusive and participatory terms. Akin to the international discourse, studies on ESD in Jamaica highlight the need to bridge disconnects that exist between sustainable learning in schools and in communities. Hence, this study contributes to addressing existing gaps within ESD globally and in Jamaica, through the exploration of social, transformative and sustainable learning in a Jamaican rural school and community. I employed two main theoretical approaches in this research. Namely, transformative learning theories that draw on Mezirow, Sterling, Bateson and Freire guided the investigation of sustainable learning practices in the studied school and community. Secondly, I combined social learning with transformative learning theories to analyse the relationships among learners, teachers, community members, stakeholders and sustainable learning. Based on an ethnographic exploration of research participants' meanings and practices, as well as content analysis of policy documents, findings show the predominance of issues around learning, values and leadership within sustainable learning. Additionally, local attitudes of resistance towards transformation among learners coexist with the role of local civil society organisations (CSOs), leadership and counter-culture values, which contribute to more transformative approaches to sustainable learning. The exploration of the relationships between local issues and broader policies and structural arrangements at the national and international levels uncovered a variety of disconnects. Therefore, understanding local sustainable learning experiences, combined with their interrelations with the broader ESD context, reveals insights to envision more effective sustainable learning approaches within ESD in Jamaica and abroad.

Impact Statement

This doctoral research focused on: (i) how local knowledge, practices and values of a Jamaican school and community interact with dominant Western approaches to sustainable learning and (ii) how diverse local and Western perspectives challenge each other. Therefore, one of the contributions of this study has been to provide evidence and to raise awareness among scholars and policy makers of local challenges and gaps between local and international ESD policies and sustainable learning practices. Additionally, there is a dearth of research studies on the above aspects in the Jamaican context. As a result, one of the main areas of impact of this thesis has been knowledge production to guide ESD policy planning in Jamaica and globally, in a way that constructively challenges traditional ESD paradigms and institutional arrangements.

Theoretical contributions of this study include how the combination of transformative and social learning theories can represent an effective approach to sustainable learning for learners within schools and communities. In particular, transformative and social learning approaches to sustainable learning can contribute to innovatively shape larger ESD discourses by re-envisioning Global North-South relationships in more participatory and inclusive terms. Entwining transformative and social learning theories can improve the effectiveness of sustainable learning pedagogies and practices both in the Global North and South.

This thesis also provides methodological contributions with regard to the potential of broadening the perspective on learning to a scale beyond the school unit, by including the surrounding community within the site of investigation. This choice bridges methodological gaps within the literature on educational ethnography and ESD, largely focused on traditional case-study approaches and confined to exploring education and learning within the school environment.

In the future, I plan to disseminate the findings from this study through publications. For instance, I have been invited to submit a research paper for publication based on this PhD study to *The International Journal of Environmental, Cultural, Economic, and Social Sustainability*. Additionally, I would like to update my previous publication based on transformative, Buddhist and indigenous-community learning by including aspects of Rastafarian perspectives that I learnt from this study. Furthermore, through a more practice-based type of public engagement, I would like to explore the possibility to apply

the lessons learnt from my study by cooperating on sustainable learning projects with ESD experts and grassroots stakeholders in Jamaica and elsewhere. In this way, I also intend to further contribute to ESD scholarship and policies and to be actively involved in school- and community-based sustainable learning projects.

Dedication:

To Luciana Manfrini, who taught me the importance of pursuing my own passion with dedication as an independent woman; Pietro Torrente, who never failed to show support for my choices and encouraged me to write, even when he was unable to verbally express it; and Giovanni De Angelis, whose life-example played an inestimable role in broadening my outlook to appreciate the simplicity and wisdom found in a rural life in connection with nature.

Also, to the Grade 6 student of Uphill school who suddenly and tragically left us. Your brightness, sweetness and kindness will forever be remembered.

Finally, to Stumpy and his generous soul. Always ready to help and share his food from the land and life-wisdom. Your 'Natural Vybz' will always live through all those you have met and touched with your Love. Rest-In-Power my friend.

Acknowledgements

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List of abbreviations

ASA: Association of Social Anthropologists

BERA: British Educational Research Association

CBO: Community-Based Organisation

CSO: Civil Society Organisation

EE: Environmental Education

EFJ: Environmental Foundation of Jamaica

ESD: Education for Sustainable Development

ESP: Environmental School Projects

4H: Head, Heart, Hands and Health

GDP: Gross Domestic Product

GOJ: Government of Jamaica

GSAT: Grade Six Achievement Test

IMF: International Monetary Fund

JANEAP: Jamaica National Environmental Action Plan

JCDC: Jamaica Cultural Development Commission

JD: Jamaican Dollar

IEEP: International Environmental Education Programme

JET: Jamaica Environment Trust

JNEEAP: Jamaican National Environmental Education Action Plan

MEGJC: Ministry of Economic Growth and Job Creation

MoE: Ministry of Education

MP: Member of Parliament

NEEAPSD: National Environmental Education Action Plan for Sustainable Development

NEEC: National Environmental Education Committee

NEPA: National Environment and Planning Agency

NRCA: Natural Resources Conservation Authority

NSC: National Standards Curriculum

RADA: Rural Agricultural Development Authority

REAP: Relief Environmental Awareness Programme

RPC: Revised Primary Curriculum

SD: Sustainable Development

SDC: Social Development Commission

SEP: School Environment Programme

TIME: Theoretically Informed Methodology for Ethnography

TISS: Tata Institute of Social Sciences

UNEP: United Nations Environment Programme

Chapter 1.
Introduction to the study

1.1 Introduction

> "The pathology of wrong thinking in which we all live can only in the end be corrected by an enormous discovery of those relationships which make up the beauty of nature" (Bateson G., in Bateson N., 2010).

These words by anthropologist, biologist, psychologist, philosopher and social scientist Gregory Bateson embody both the initial reasons that inspired me to conduct this study and the lessons that I learnt from it in the end. As I outline in detail below, in fact, a focus on 'relationships' is at the heart of current Education for Sustainable Development (ESD) scholarship and policies. Sustainable learning based on critically understanding and re-envisioning environmental, cultural, social, political and economic relationships within ESD is key to ensure a sustainable future. Additionally, this research taught me that, as Bateson suggests, attributing nature intrinsic values holds the potential to transform socio-economic relationships in an effective and sustainable manner locally and globally. Perspectives and insights from the fieldwork setting of this study relate to the quote above both directly and by contrast. Respectively, effective sustainable learning practices were rooted in views of humankind and nature as being mutually and intrinsically worthy and interrelated. Contrarily, relationships and structural arrangements based on anthropocentric and instrumental models presented manifold limitations to effective sustainable learning practices. Therefore, in what follows in this thesis I present a comprehensive exploration and interpretation of the relationships among multiple factors and stakeholders within ESD in Jamaica and globally.

This PhD thesis presents the ethnographic study of social, transformative and sustainable learning in Uphill school and community, located in Jamaica. As I clarify later in this chapter, I chose to focus on the aspects of social, transformative and sustainable learning in this specific fieldwork setting for multifold reasons. The latter include my personal experiences with and interests in issues related to sustainability in disadvantaged communities in developing countries. By living in said communities, I could notice that their daily

challenges were related to larger discourses on sustainability. At the same time, I could observe that daily community practices could meaningfully inform such discourses to spur change. I then developed the desire to explore community members' culture, perspectives and practices in relation to sustainability through ethnographic research. This personal desire also contributed to addressing gaps within the ESD scholarship (as the broader discipline within which this study is located). Therefore, I start from the latter to introduce my research study.

The initial proposal for this doctoral research dates back to the end of 2013, when just one year was left until the end of the UN Decade of Education for Sustainable Development (DESD 2005-2014). Current scholarship (Kumar, 2008; Reid and Scott, 2007; Scott and Gough, 2003; Sterling, 2001, 2010) and international reports (Earth Charter Commission, 2004; UNESCO, 2012) at that time urged towards meeting the need of shaping sustainable education and learning through holistic, dialogical and transformative approaches. These three attributes were encouraged, respectively, through: multi-disciplinarity and infusion of ESD into all aspects of life; interrelation of economic, social and environmental processes; and promotion of change in learners' views and interactions with the environment towards sustainable attitudes and lifestyles. In research and policy-making, there was an emphasis to focus on (i) exploring the contributions that local sustainable learning models can offer to the global ESD policy framework, and (ii) linking local contributions to national and international contexts.

ESD academic critics (Bowers, 2011; Kahn, 2008; González-Gaudiano, 2005; Jickling, 2005; Lumis, 1998) too contended that dominant discourses and scholarship on sustainable learning were exceedingly rooted in Western intellectual traditions, research methodologies and policy arrangements. They exhorted scholars and policy-makers to consider diverse sustainable learning perspectives and practices from developing countries, to inform educational theories and practices in more inclusive and participatory terms. Addressing these points thus matched my initial research interests and aims.

Aspects related to exploring and including alternative perspectives in the ESD discourse are still relevant today, at the completion of this study. The UNESCO (2014) final report on the Decade, in fact, re-stated the need for more coordination and harmonization between ESD and sustainable development policy and for 'holistic, integrative and critical ways of tackling sustainability

issues' also in view of the end of the Millennium Development Goals (MDGs) in 2015 (UNESCO, 2014, p. 10). Additionally, the report identified systemic issues across countries, where for ESD to be successful, it needed to be institutionalized and politically supported. Lastly, the report also underlined the need to conduct research aimed at contributing to developing and improving effective ESD practices (UNESCO, 2014). Building on the Decade and the MDGs, Agenda 2030 (UN General Assembly, 2015) together with its Sustainable Development Goals (SDGs) and the UNESCO (2017) reflections on the progress of ESD through the Chairs programme, confirmed the crucial role to be assigned to education in promoting sustainable development and lifestyles. In the reflections, Prof. Arjen Wals acknowledged a continuing educational weakness in ESD with regard to equipping learners with the ability to realise the variety of interconnections incorporated within ESD. Accordingly, he suggested pursuing research that would 'focus on the understanding and design of learning processes and learning environments that are conducive to advancing socioecological sustainability, as well as on the monitoring and evaluation of these processes and environments' (UNESCO, 2017, p. 21).

In view of the above considerations, through this thesis I contribute to addressing issues that -through a literature review- I identified as essential to ESD at the very beginning of this doctoral study and are still pressing at the time of writing. In particular, I chose the research site and methodology by bearing in mind central questions raised by both ESD policy and educational experts as well as ESD researchers. As mentioned above, these questions related to exploring local contributions, linking them to national and international ESD frameworks and overcoming intellectual and methodological limitations of Western traditional approaches. Afterwards, an article by Prof. Lorna Down in Diamond et al. (2011) that I came across in 2015, titled *Education for Sustainable Development in the Caribbean - Latest Buzzword or a Paradigmatic Shift in Education?*, brought me to choose Jamaica as a site for fieldwork (besides my personal journey outlined in section 1.2 below). Here, Down highlighted remarkable ESD programmes carried out in some Jamaican schools and communities as well as the general shortcomings of ESD in Jamaica. Outside of these specific programmes, in fact, Down reported a disconnect between ESD as part of schooling and its relevance to local community values and needs. Furthermore, other studies (Ferguson, 2008), expressed the need to conduct future research in Jamaican schools with a focus on assessing the relationship between how ESD is envisioned in the curriculum and its practical enactment. The information I gathered from these

articles revealed links between the gaps in the broader literature and those in the Jamaican context, which I considered worth exploring. Furthermore, I found a context specific gap with regard to lack of ESD research studies in Jamaica. I identified this gap through a thorough literature search of several library sources, databases and journals focused on education in the Caribbean, in combination with information shared by Jamaican ESD experts. For this reason, throughout this thesis, reference to previous studies in the Jamaican context is mainly limited to the work conducted by the same authors over the years (e.g. Prof. Lorna Down, Dr. Therese Ferguson and Prof. Marceline Collins-Figueroa). In other instances, I chose to refer to relevant studies conducted in different locations, which presented similar features to the settings of this study.

In consideration of said gaps in the international and Jamaican literature, I refined my initial research interests mentioned above and defined the focus of exploration of my study to include:

(i) how local knowledge, values and practices in Uphill school and community interact with dominant Western approaches to ESD;

  (i.i) how various community members conceptualize the notion of environment;

  (i.ii) the nature of local knowledge and values and what role they play in influencing sustainable learning practices;

(ii) how diverse local and Western perspectives challenge each other and inform academic and policy ESD discourses of the -yet unexplored- lessons that this experience reveals;

  (ii.i) how and what type of sustainable learning occurs within (and between) Uphill school and community;

  (ii.ii) what lessons can be learnt from this context and how they relate to broader ESD policies and practices.

These two focal points were also aimed at bridging the disconnect mentioned above between formal schooling and community perspectives and practices existing in the Jamaican context (Down in Diamond et al., 2011). At the same time, points (i) and (ii) above were intended to address the need to bring to the fore voices from local contexts to inform larger ESD discourses. Specifically, I wanted for experiences from the Global South to participatively contribute to redefining international ESD discourses, which are largely dominated by Global North paradigms. Additionally, I aimed to contribute to overcoming the limitations of predominant Western methodological research

traditions that explored learning mainly within the school perimeters. I did so by choosing to explore learning spaces beyond the school settings to include the whole community. I will, however, expand on this aspect in more details later on in chapter 4.

In line with the focus of research and with the orientation of ESD identified in the literature, I devised a theoretical framework which draws from and combines the notions of social, transformative and sustainable learning theories to guide my data gathering and analysis. Briefly, as these will be explored in detail in chapter 3, social learning enabled me to consider the role of various types of relationships in shaping the learning that occurred in the school and community studied. Concepts pertaining to transformative learning in a sustainability context, permeated by a Freirean approach which embraces also socially emancipatory aspects (Freire, 1970; Taylor, 1998), allowed me to evaluate the nature of the learning taking place in the fieldwork settings.

Lastly, in order to explore local perspectives, values and practices and the conceptual interest in social, transformative and sustainable learning, I chose an ethnographic approach as a methodology through which I could thoroughly investigate these aspects with the research participants. Ethnography allowed me to 'reveal the multiple truths apparent in others' lives' (Emerson, 1995, p. 2) to inform and to reduce "gaps" between ESD policies and practices. The specific location where I conducted the ethnographic study was Uphill school and community, namely a government school and village community located in a rural area in the South-West of Jamaica. I chose the pseudonym 'Uphill school and community' according to the features of the location and it was agreed with some research participants. This choice ensured that they could still identify with the name assigned, despite not being able to be identified by others. The choice of extending the area of exploration beyond the school settings to include the whole community helped me bring to light the relationship between the conceptual and practical sustainable learning in school and the perspectives and daily practices in the community. Ethnography is also a process in which the researchers' background heavily influences how they perceive the fieldwork settings and participants and the way they interpret data (Brewer, 2000). Therefore, after clarifying my terminological choices in this thesis, I will provide some background information about myself in order to shed light on aspects that influenced my data generation and interpretation.

1.1.1 The Global North/South divide

Some elucidations are required with regard to the recurrent use of the phrases Global North/South in this thesis. In referring to the Global South, Mahler (2017) distinguishes among three main interpretations. The first meaning, originating from the Brandt Report, refers to poor nations that were previously defined as the Third-World and are now identified according to a geographical North/South division that corresponds to economically rich/poor nations. The second definition, filtered through a more sociological lens, encompasses areas and communities adversely affected by capitalism and globalisation. These go beyond national notions, as they include Souths that are geographically located within the Norths, but peripheral and subordinate to them. A related, yet different, third understanding identifies the Global South with a resistant political and ideological subjectivity to capitalist globalisation, akin to a postcolonial perspective (Mahler, 2017). Because clear-cut definitions are problematic, it is not possible for me to ascribe a specific definition of the term that excludes the other two when referring to the context of this study. All three apply, to differing degrees, to the fieldwork site of this research. When considering Jamaica at a national level, the first definition of it as an economically poorer country compared to richer countries in the Global North is relevant. When narrowing the focus to the specific community of this study, the second meaning provides a useful perspective to highlight social inequalities, issues of power and marginalisation and lack of access to resources, not only in comparison to nation-states in the Global North, but also within Jamaica itself. Finally, both Jamaica and the community studied are characterized by socio-cultural, political and economic relationships with and influences from the Global North, which are inseparable from their colonial past and neo-imperialist present. Hence, the inclusion of aspects of a postcolonial perspective is inevitable when referring to Global South in the context of this study. It is with these understandings in mind that the juxtaposition between Global North and South is intended in this thesis.

1.1.2 Why 'sustainable learning'?

Some clarifications are needed also regarding my choice of using the phrase sustainable learning in this thesis, instead of other available terms widely used within ESD scholarship (Dobson, 1996; Jickling and Sterling, 2017). My choice, in fact, derives from a thorough pondering over a few terminological considerations, which raise some concerns. As stated by Jickling (1992),

uncritical acceptance of the term education *for* sustainable development would imply unquestioned acceptance of an education that seeks to implement a controversial and unagreed upon concept such as sustainable development (Disinger, 1990). Promoting this type of education would thus 'obscure understanding of the economic, political, philosophical, and epistemological roots of environmental issues and adequate examinations of social alternatives' (Jickling, 1992, p. 5). Furthermore, Jickling (1992) noted, this phrase reduces the notion of education to an instrumental tool used to achieve the aim of sustainable development, rather than viewing it as a learning process that enables learners to think critically about sustainable development issues. In these regards, Wals' remarks about the fact that 'what is actually done on the ground in terms of teaching and learning is more important than the label under which these activities and actions take place' (Jickling and Wals, 2012, p. 53) are also born in mind here. Indeed, the choice of the phrase sustainable learning connects to these ideas of what education is (for) and how is manifested.

Consideration of the above-remarks leads to what Smith (2002) labelled as sustainable learning, an education deemed effective not based merely on performativity and focused on outcomes, but as a process. In these terms, the notion of sustainable learning within this thesis also draws from the definition of sustainable education provided by Sterling (2003) in his doctoral thesis *Whole systems thinking as a basis for paradigm change in education: explorations in the context of sustainability*. Here, sustainability is seen as a '*property of the sets of relationships that evolve*' through a process of learning seen '*as* change' (Sterling, 2003, p. 286) for the individual learner and the whole community engaged in exploring sustainable living. Differently from Sterling, though, I favoured the term learning over education as it better suited the exploration carried out in this study. An etymological search (Online Etymology Dictionary) of the two words reveals the reasons behind this choice. Respectively, the noun education derives from the Latin verb 'educare', 'to bring-up', 'rear', which (under 1530s French influence) became related to child-rearing (and training of animals), a form of instruction on social customs that conveys a sense of systematic indoctrination. The noun learning, on the other hand, derives from the Old English verb 'leornian', 'to get knowledge, be cultivated; study, read, think about', which in turns originates from the Proto-Germanic 'lisnojanan', 'to follow or find the track'. The related noun 'leornung' is understood as 'study, action of acquiring knowledge'. In this way, it expresses a sense of knowledge-

acquisition as a process of critical exploration, which is more attuned to the way learning about sustainability is meant in this study.

1.2 Research(er's) Background

The journey that led me to design and conduct this research study played a vital role with regard to shaping my research interests, theoretical framework, methodological approach and, more broadly, it influenced my interpretation of the findings that emerged from this research.

In view of these considerations, I deem it essential to provide a brief overview of my personal background as an individual, especially by virtue of the crucial function that a researcher has in an ethnographic study in terms of being themselves a 'tool' of data generation and interpretation (Gordon et al., 2001; White et al., 2009). In Troman's words (in Walford, 2002, p. 101): "in ethnographic research the researcher is the main research instrument, and character and biography feed into the research and writing."

My personal academic, professional and life experiences too contributed to developing particular sensitivity towards specific aspects of the topic under study and, as a consequence, they also contributed to choosing what to pay attention to when narrowing my research focus, both while engaging with the relevant literature and during fieldwork. Additionally, highlighting connections between my personal path and the area of expertise resulting from carrying out this doctoral study bears relevance to the fact that the PhD process represented, in itself, part of my personal development in the last six years. Therefore, I view the two as deeply intertwined and mutually affecting each other. Accordingly, in what follows, I elucidate a broad outline of the pivotal steps that guided me in conducting this doctoral research.

My undergraduate degree in Science of the Linguistic Mediation at the University of Turin, Italy, focused on cultural and theoretical aspects of English and German language translation and interpretation (including a study-abroad year at the University of Leeds). This degree introduced me to the appreciation of cultural diversity and the role of language and context in cognitive construction of meaning. Simultaneously, my involvement in volunteering and activism with Amnesty International in Italy and an NGO working in the Democratic Republic of Congo sparked my critical interest on issues related to the Global North-South gaps, related inequalities and development

programmes. These aspects, in combination with my working-class family background and being a first-generation university student, contributed to my sensitivity towards issues of empowerment of disadvantaged sections of society, especially in developing countries. After completing my bachelor degree, I spent a gap year working and volunteering in India as an English/Italian teacher, translator and interpreter for both the Indian corporate, upper middle-class and for NGOs working with disadvantaged sections of the population. Covering these roles further increased my insights into inequality issues and the influence of cultural values, education and national and international policies on everyday practices. The insights gained from these experiences triggered my decision to enrol for a two-year MA programme in Development Studies at the Tata Institute of Social Sciences (TISS) in Mumbai, India. Here I had the opportunity to acquire theoretical and practical knowledge of the challenges faced by developing countries, especially India, within the broader international development scenario. In particular, my way of looking at development issues and policies is strongly influenced by the highly critical approach and Marxist thinking that surrounded me for two years at TISS. Moreover, my MA dissertation on quality of education in India, at a time of increasing privatisation due to neo-liberal reforms, expanded my interest to the relationship between education systems in developing countries and international development policies (see De Angelis, 2014).

At the same time, on a personal level, my passion for topics such as spiritual development and Buddhist and Eastern philosophies transformed my epistemological understandings on the nature of reality and knowledge by drawing my attention to the dichotomy between Western individual and Eastern collective perceptions (which I have explored and problematized elsewhere, see De Angelis, 2018). This shift in perspective changed also my personal sense of existential purpose, where I became committed to and started deriving fulfilment from contributing to making a positive impact in my relationships with fellow human beings and nature. Thus, the combination of these factors manifested in my encounter with the founder of a Buddhist children's community located in the North-Eastern Indian Himalayas, where I volunteered for one year in 2012-13, after completing my Masters programme. Covering this role introduced me, through first-hand experience, to issues related to the interconnection among cultural values, education, sustainable development practices and challenges faced by communities located in underdeveloped areas. Most importantly, living in this community inspired me to conduct an ethnographic research project focused on ESD, which then evolved into my previous (ESRC funded) PhD

research proposal. The educational model I witnessed in that community was based on the combination of Western progressive pedagogies (such as Montessori and experiential learning) and local Buddhist spiritual training, values and practices. These elements also guided my theoretical orientation towards notions related to transformative and social learning. In particular, this experience shaped my understanding of sustainable learning to indicate a process of self-transformation leading to the re-envisioning of one's relationships with oneself, the surrounding community, nature and broader socio-economic structures (see chapter 3 for details).

Due to the inability to obtain a research VISA to conduct my research fieldwork in said community, I was forced to interrupt my PhD for twelve months and to explore the literature again in order to identify an alternative country of fieldwork. During this time, my personal connections with Jamaican descendants in London and the emphasis found in the literature on the lack of community-based research in ESD in the Caribbean brought me to consider this geographical area as a potential alternative research site. Indeed, this option allowed me also to maintain the theoretical interest of my research in exploring notions related to transformative and social learning in ESD. After having gained insights about Eastern perspectives by living in India for four years, I was fascinated by the idea of exploring the relationship between ESD and a different set of cultural values and perspectives originating from a similar, yet radically different, colonial background mixed with the influences of the Rastafarian philosophy. The Jamaican context also matched my desire to explore and my attempt to give voice to the experiences of disadvantaged sections of the population in a developing country, with the intention of sharing knowledge that can contribute to making steps towards changing local and global ESD paradigms and practices.

In the light of the above considerations highlighting my personal journey and motives for carrying out this PhD study, in the next section I delve into the ESD journey and current debates, in order to offer an overview of where exactly this specific study is located within the relevant literature.

1.3 Overview of the evolution of the ESD policy context

ESD can be identified as the discipline of reference for this PhD study. Therefore, in this introductory chapter, I outline its inception and evolution, while in section 1.4 I take into consideration the main debates identified in the literature.

The concept of sustainable development was first introduced internationally in the United Nations Conference on the Human Environment (known as the Stockholm Conference) in 1972 (UN General Assembly, 1972). The Conference was followed by the mandate of the World Commission on Environment and Development by the UN General Assembly. However, the first document that explicitly acknowledged the importance of connecting environmental issues with the multi-faceted (social, economic and political) aspects of development was, perhaps, the report of the Brundtland Commission, formulated in the late 1980s (Brundtland, 1987). In the report, the responsibility of politicians all over the world in contributing to changing economic unsustainable patterns is stated as crucial, as well as the impacts and implications of said patterns on people and the environment. There, a call is made for long-term commitment and cooperation among various governments, civil society organisations (CSOs), the private sector and individuals in support of 'sustainable development' for developing as well as developed countries. Similarly, the report makes a strong case for the responsibility of the present generation towards ensuring a prosperous future for the coming ones and it phrases issues of environmental degradation in terms of a 'debt' that would be left to pay to younger generations.

Half a decade after the Brundtland Report, the United Nations Conference on Environment and Development 1992 (Rio Earth Summit) was held in Brazil. The Agenda 21, the declaration that was compiled as a result of the conference, states, in its first principle, that 'human beings are at the centre of concerns for sustainable development' (UNCED, 1992, p. 1).

A decade after the Rio Earth Summit, financial and political trends within the global international scene significantly affected the outcomes of the World Summit on Sustainable Development, held in Johannesburg in 2002. Here, a Declaration on Sustainable Development and a Plan of Implementation were developed based on the progress on the implementation of Agenda 21. What catches the eye from the first pages of the report (UN, 2002, p. 3) is the

acknowledgement of the changes brought about by globalisation since the first inception of Agenda 21:

> "Globalization has added a new dimension to these challenges. The rapid integration of markets, mobility of capital and significant increases in investment flows around the world have opened new challenges and opportunities for the pursuit of sustainable development. But the benefits and costs of globalization are unevenly distributed, with developing countries facing special difficulties in meeting this challenge."

Particularly challenging in the Johannesburg negotiations was, in fact, the achievement of agreements related to the leading role that developed countries needed to play for driving sustainable development and their support to developing countries in terms of financial and technological resources. These challenges were, indeed, symptomatic of a weakened scenario in international cooperation (Khor, 2012; Osofsky, 2003). This unsteady picture was, then, encountered again ten years later in occasion of the UN Conference on Sustainable Development in Rio de Janeiro. Here, the focus on institutional reforms and the growing room for civil society and private stakeholders to contribute to addressing sustainable development challenges was emphasized. Increased control assigned to the private sector, though, coincided with the expansion of the power of global markets and the shrinking functions of governments. The predominance of a market-based system was embodied in the introduction of the idea of 'green economy'. This idea was disputed, as it is based on the same paradigm of continuous growth within a market model and it fundamentally assigns an economic value to nature as a commodity in the market, rather than shifting the socio-economic structural issues at the core of unsustainability (Bina, 2013).

The Decade of Education for Sustainable Development (DESD), developed by UNESCO in 2005, gave rise to a range of educational approaches whose outcomes reflected the confusion about their nature, purpose and methods (Landorf et al., 2008). At the same time, the introduction of the Sustainable Development Goals (SDGs) with related targets to measure achievements was, on the one hand, a step to encourage concrete improvements. On the other hand, though, it uncovered the fluctuating international relationships through countries' ongoing debates over shared costs and responsibilities (Linnér and Selin, 2013; UN, 2012). In a similar fashion, Agenda 2030 as an outcome of the United Nations Sustainable Development Summit held in New York in 2015 displays analogous incongruencies. Donor countries' responsibilities for funding

and technology transfer to developing countries remain controversial, as well as the specifics to review the implementation of the Agenda and the SDGs (Beisheim, 2016; UN General Assembly, 2015).

In this section I provided a brief outline of the main steps in the evolution of the ESD context within which a variety of educational approaches developed for its implementation. These gave rise to several criticisms, which I consider in what follows.

1.4 ESD criticism and debates

The framework that I outlined in the previous section is characterized by a lack of clarity about definitions and conflict of interests between Global North and South. In this section, I take into consideration further critical aspects related to ESD in general terms, which are also relevant to understand some of the issues that emerged from the fieldwork findings. Specifically, the critical aspects that I consider in this section include the pedagogical implications of: an anthropocentric, instrumental and transmissive approach, the oxymoronic juxtaposition of the terms 'sustainable development' and broader issues of power within ESD policies and approaches.

ESD was initially formulated in the contradictory context described in section 1.3, as it can be noted in the Brundtland Report (1987), where the existence of institutional gaps and the underprivileged position of developing countries are recognized. Its recommendations towards manageable growth and development were made in terms of 'limitations' and 'transformation' of existing social, economic and political arrangements. Nevertheless, the report was conceived within increasing neo-liberal trends, evident in the restatement of the possibility for unlimited growth, as long as carried out in a limited and manageable way, which implied a reinforcement of the existing state of affairs (Hopwood et al, 2005; Appleton, 2006).

Of similar importance, the ethos of the report maintains an anthropocentric perspective, whereby nature is perceived as instrumental to human needs, and it does not reflect the considerations advanced by eco-centric advocates (Appleton, 2006). Additionally, the goal stated in the report: 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (Brundtland, 1987, p. 8) raises further issues related to the problematisation of the notions of 'sustainable' and

'development'. What and how ought to be sustained and developed, what and whose exact present and future needs are to be met, as well as the practical political implications deriving from this lack of clarity are not critically addressed (Jacobs, 1999; Landorf et al., 2008). Therefore, whereas on the one hand the report appears to be characterised by an enticing progressive vision (or at least wording), its lack of specificity in defining effective ways through which economic growth and environmental protection can be accomplished simultaneously (Appleton, 2006; Jacobs, 1999) renders its impacts quite feeble.

With the Agenda 21 placing the focus of sustainable development on humans, an underlying anthropocentric outlook was reaffirmed. The Earth Summit that conceived the declaration certainly contributed to increasing global awareness about environmental issues, where international leaders had to negotiate and develop related policies, although without having to comply to mandatory international legal agreements or being monitored by any specific international institution (Imber, 1993; Palmer, 1992). Similarly, the predominance of an attitude of preservation and defence of individual states' interests (Imber, 1993; Palmer, 1992) resulting from the negotiations is palpable in the way the declaration's principles are worded as desirable resolutions, rather than legitimate mandates. Additionally, the lack of clear explanation and precise interpretation of the concepts of 'sustainable' and 'development' observed in the Brundtland Report remained unresolved in the Summit too, as was the overarching paradigm promoting the problematic co-existence of increasing growth, consumption and environmental preservation (Palmer, 1992).

With regard to the educational implications following the Agenda 21, which introduced Education for Sustainable Development in its Chapter 36 and defined it as: 'Education for Sustainable Development is an emerging but dynamic concept that encompasses a new vision of education that seeks to empower people of all ages to assume responsibility for creating a sustainable future' (UNESCO, 2002, p. 1), criticism emerged. Such criticism related to the inadequacy of existing educational systems and teachers' training. The former, in fact, were not designed with a focus on learning as a process to generate change (Sterling, 1996). The latter did not suffice in preparing educators to tackle the complexity entailed in devising appropriate pedagogical approaches aimed at efficiently engaging with the questions encompassed by unclear definitions of sustainable development and environment (Jickling, 1992; Smyth, 1999; Tilbury, 1995). Moreover, these not yet agreed upon notions also faced

further messiness in that Environmental Education (EE) meant different educational goals and approaches in different parts of the world (Disinger, 1990; Gough, 1990; Jickling, 1992).

An implicitly agreed goal from the above mentioned international environmental consultations, however, seemed to be the role that education needed to play in inducing learners (and citizens) to conform to and promote sustainable development, as the phrase education *for* sustainable development suggests. The tacit assumption within this stance is the unquestioned and uncritical acceptance of the (neo-liberal, consumption and growth-oriented) paradigm itself within which sustainable development (and education as its 'tool') was conceived, which leaves no room for a type of education that spurs learners to think beyond this set paradigm (Jickling, 1992, p. 7; Jickling and Wals, 2008; Tilbury, 1995). Hence, it is important here to consider *how* and *why* growing global neo-liberal economic flows adversely affect sustainable development notions and practices. As noted in the literature on eco-pedagogy, economics often remains the central focus around which desirable environmental action is defined within ESD frameworks (Misiaszek, 2018). This trend is based on an inherently contradictory view, as at the heart of global neo-liberal economic policies there is an emphasis on profit maximisation through exploitation of resources and people, rather than a concern about issues related to socio-environmental justice. Accordingly, within a neo-liberal view where market forces are believed to be an all-encompassing solution (to environmental problems as well), nature's value is strictly dependent on its commodification, without questioning who are the beneficiaries of such established value. In this way, neo-liberal development policies have often been imposed by developed on developing countries by creating relationships of dependency between them, instead of being aimed at generating the latter's economic growth. Globally, this perspective contributes to benefitting already developed nations and powerful sections of the population, by reinforcing extant hegemonic structures. As a consequence, at the local level, already marginalised groups suffer from the environmental ills brought about by the exploitation of nature in the name of global economic development. The resulting paradox is that continuing global development co-exists (or can only continue to exist) through oppressive practices against the environment and marginalised people, by maintaining the less powerful in a condition of actual de-development (Misiaszek, 2018).

The pedagogical approach to sustainable learning deriving from such a model tends to be transmissive, behaviouristic and problem-solving oriented, where successful educational outcomes expected from students would be to, simplistically, devise solutions to environmental and sustainability issues (Jickling and Wals, 2008). Lack of teachers' competence to prepare students for such demanding tasks and lack of students' ability to achieve specific solutions would indicate a learning failure (Jickling, 1991). Moreover, such an approach would defy the objective of empowering learners -echoing the above-mentioned ESD definition from Agenda 21- 'to assume responsibility for creating a sustainable future'. The ability to create requires the ability to, first, envision a sustainable future through questioning the present. Accordingly, this can only occur in a student's mind if they have been exposed to a type of learning that is transformative, which elicits critical consideration of the factors that contribute to manifesting a sustainable vision (Jickling and Wals, 2008; Misiaszek, 2018).

During the same period, but on a different tone, environmental education for sustainability approaches underpinned by more holistic philosophical orientations, proposed that the scope of this type of learning is to shed light on the intertwined historical, social, economic, political, cultural, emotional and technical aspects characterizing the emergence of (as well as the solution to) individual environmental issues (Meadows, 1990). This pedagogical approach, thus, incited learners to investigate the connections between environmental problems and broader related national and international questions (Huckle, 1991; Sterling, 1990; Tilbury, 1995).

As a consequence of the complexities (noted in section 1.3) related to ESD purposes and methods and international relations emerged from the DESD, Agenda 2030 and SDGs one would expect the development of a type of education for sustainable development that reflects such challenges. Indeed, to respond to these challenges ESD should equip students with the critical thinking and moral skills needed to understand the individual and collective impacts of systemic issues (e.g. Global North/South inequalities and unsustainable growth patterns) and, as a result of this contemplation, to question them accordingly (Kyle, 2006; Orr, 1994).

In this mesh, exacerbated by the blurred lines between what constitutes, differentiates and is valued by EE and ESD among a lager variety of denominations, some progressive instances could be observed (Jickling and Wals, 2012; Sauvé, 2005). ESD was included, for instance, in national policy

approaches and in both formal and informal learning institutions, with particularly promising results for whole-school approaches, which revealed the importance of practices on the ground versus the uncertainty of conceptual disputes over definitions (Jickling and Wals, 2012; Wals, 2009). The co-occurrence of such varied outcomes indicated the internal conceptual weaknesses in education for sustainable development as a contradictory notion, as well as its ethnocentric character in the way it has been widely enforced as an a priori accepted concept (Hesselink et al., 2000; Jickling and Wals, 2012). As argued by Misiaszek (2018) and Van Poeck et al. (2019), there is need for more critical (eco)pedagogical approaches, which bring into the picture questions related to the way in which the notion of development is taught within ESD, whose perspectives are included and whose are omitted when teaching about the idea of progress, as well as the politics and ethics involved in determining the inclusion/exclusion of certain perspectives.

Interestingly, as noted by Sutoris (2019), the inherent contradiction within the way in which problems and solutions were framed in various ESD initiatives lies in the fact that their envisioning does not take into account and, hence, does not confer agency to those who are most affected by the consequences of unsustainable development. Namely, the most deprived sections of society in various (especially developing) countries have not enough voice in determining what the terms 'sustainability' and 'development' need to signify, how these meanings translate into institutional and daily practices and whether such terminology is acceptable at all. Most importantly, the perpetuated hierarchical Global North to South approach to devising these international recommendations fails to address the historical inequalities that gave rise to our current circumstances in the first place. The neo-liberal framework dominated by decreased worth and influence of political thought and action, vis-à-vis increased sovereignty being transferred to market and corporate powers, is not conducive to a status quo-altering ESD (Jickling and Wals, 2008; Misiaszek, 2018). An ESD conceived within such a paradigm also fails to successfully incite learners to ponder over restructuring the nature of global and local patterns in a way that would promote equitable sustainability (Gough, 2000; Jickling and Sterling, 2017; Sutoris, 2019). Meaningful contributions to this aspect are provided, for instance, by postcolonial theories within ESD. The postcolonial theory approach, in fact, brings to the fore the historical colonial influences that created relationships of economic inequality and poverty between the Global North and South. These unequal relationships are further reinforced by global neo-liberal markets operating based on the principles of

continuous economic growth and development, which also bypass the issue of the environmental ills they cause (Van Poeck et al., 2019).

What bears relevance to the context of this study from this wider frame of reference is the fact that ESD is born of these intrinsically inequitable models. Therefore, I will further explore this aspect in the next section.

1.5 Rationale and purpose of this study

In this doctoral research I bear in mind the existing debates and challenges observed in the literature, with a view to relating them to the specific context of this study. Specifically, the key ESD debates outlined in the previous sections relate to: anthropocentric, instrumental and transmissive approaches, Global North/South tensions and issues of power, as well as implications of lack of clarity about definitions, pedagogical and practical approaches. Therefore, I aim to highlight how they manifest into the local practices of a school and community located in an environmentally at risk and socio-economically disadvantaged area in Jamaica. In particular, by relating broader ESD criticism to the specificity of a school and community in the Global South, I intend to address some of the aspects emerging from the ESD debates mentioned above. They also emphasize an excessive ethnocentric nature and a lack of critical consideration with regard to experiences in the Global South. Additionally, within the latter, the voices of the most disadvantaged sections of the population are not adequately brought to the fore in ESD discourses. In these regards, by merging together the critical understanding derived from thoroughly engaging with the literature and the insights gained through first-hand fieldwork experience, this study enriches the broader ESD literature by sharing the outcomes of the investigation. In a like manner, through the use of a theoretical framework for analysis focused on social and transformative learning, I interpreted the nature of the learning witnessed in the fieldwork settings with a view to bringing to light strengths and weaknesses of ESD learning practices in Uphill school and community. In these regards, despite applying theoretical notions drawn from a Global North-dominated discourse for the analysis of data generated in a Global South location, conversations conducted with various research participants revealed the presence -and relevance- of these concepts in local practices. These interactions allowed me to employ a sensible approach, in the attempt to avoid superimposing theoretical notions on the context studied in an ethnocentric manner.

Additionally, in this study I also outline ways forward according to the lessons learnt from the findings, which are relevant both for the local and national contexts studied and for international ESD pedagogical and policy approaches in analogous contexts.

Concisely, the issues identified in the findings of this study can be broadly summarized within three main thematic areas: i) issues around learning, ii) issues around values; and iii) issues around leadership, which I then discuss with reference to the national and international ESD policy contexts. In the case of 'issues around learning', these include aspects related to how the notion of environment is envisioned and practiced in both the school and community as well as instances of resistance to learning, which indicate parallels with attitudes towards local policies. Furthermore, the effect of national and international policies is reflected in the element of commodification of the environment that is observed both in policy documents and in the daily practices within Uphill school and community.

This last aspect then connects the discussion to the second main theme, namely 'issues around values', where the instrumental value attributed to the environment echoes larger cultural traits linked to a survival and 'get-rich-quick' mentality as a reverberation of global market-oriented influences. Worth noting here are also differing takes within members of Rasta(farian) groups. On the one hand, in fact, traditional Rasta views reject global tendencies in support of the nurturing of a relationship with nature and the environment based on its intrinsic value and interconnection with humankind. On the other hand, though, alternative Rasta perspectives stemming from the same appreciation of the environment support and legitimize the use of a business model as a tool to achieve environmental and sustainability goals. Within the thematic area of values, strong local Christian religious values are also considered and their influence in reinforcing an anthropocentric view of the environment is analysed.

Lastly, 'issues around leadership' surfaced as a consequence of the aspects involved in local cultural values. The role of leadership, in fact, appeared as being central both at the school and community level to implement environmental and sustainable programmes and practices. Experiences and lessons gained by comparing the context on which this research is focused and other nearby communities highlight how the presence and lack of leadership can affect the outcomes of ESD activities, through their effects on school staff and community members. Connections between leadership at the local and

national levels are also taken into account as emblematic of how national priorities in political decisions and policy-making can affect local realities.

Following from the discussion of these issues, the conclusions I draw in this research study are based on the lessons I have learnt from this experience and the views generated with the research participants. Lastly, I offer recommendations for how ESD policy-making, pedagogical approaches and further research could contribute to addressing the gaps identified.

1.6 Conclusion

In this introduction, I have outlined some of the main issues within ESD which are relevant to the focus of exploration of my study. I have then provided some terminological clarifications in relation to key terms and notions, which I use recurrently in this thesis.

I, then, provided some relevant background information regarding the crucial steps of my personal journey that led me to conduct this PhD study. These included academic expertise, personal interests and experiences that shaped my identity as a researcher and, in particular, as an ethnographer. Sharing these details from the very start is important in order to acknowledge the perspectives that influenced where I position myself as a researcher within my discipline of study and my approach to the fieldwork settings, research participants and data interpretation. I will delve into further methodological implications of these aspects more thoroughly in chapter 4, where I explore their impacts throughout the research process.

Secondly, I presented a general outline of the ESD context and related debates. This process included revisiting the major environmental and sustainable development milestones at the international level over time. This overview helps clarify the broader economic and political climate within which ESD was conceived and evolved. Moreover, in this analytical description I also included references to the various pedagogical approaches implied within the extant ESD paradigms. Here, two main trends that emerged are, namely, an anthropocentric and transmissive approach to learning which is juxtaposed to a more eco-centric and transformative one. I covered critical considerations about these and their educational effects only briefly here. I expand on them in further details in chapter 3, where I relate them to the theoretical framework that I

employ in this research, which includes notions from transformative and social learning.

Finally, both my personal academic and volunteering background in relation to developing countries, education and sustainability issues and the ESD broader picture are essential aspects with regard to the particular context of this study. The former, in fact, constituted an experiential asset that directed me towards choosing the specific location where I conducted my fieldwork. My previous experience living in rural communities and underdeveloped areas in India, in fact, ensured that: I could quite easily adjust to a lifestyle where basic amenities were lacking (e.g. running water, electricity, internet connection, etc.) and I could quickly get accustomed to local customs and be perceptive to community members' concerns. The latter, is useful as a wider setting within which Jamaican national ESD policies and programmes were devised. In view of these considerations, in the next chapter I illustrate the characteristics of the national and local Jamaican context. In particular, these will cover a brief mention of the development of the Jamaican education system first and, then, of ESD in the country. Afterwards, I describe more specific features of the area where Uphill community and school are located, in order to set the stage for chapter 5, which focuses on the fieldwork findings. In like manner, having a clearer picture of the contextual features of the national and local settings is useful to highlight relevant connections with chapters 3 and 4. Both theoretical and methodological choices, in fact, are meaningfully connected to the features of the fieldwork settings. However, before getting into the details of chapter 2, I present below the chapter outlines of this thesis.

1.7 Chapter Outlines

Following the above introductory chapter, in the next chapter, I provide more details of the specific context of study. By choosing to introduce the background of the fieldwork settings before the theoretical framework chapter, I intend to first highlight the characteristics and the various issues present in the context. Then, introducing the theoretical framework after the local context helps me define how I approached the variety of issues encountered in the data. Therefore, in chapter 2, I first outline an analysis of the introduction of sustainable development in the country, followed by the major environmental threats affecting the island. To follow, I cover the evolution of the education system and ESD in Jamaica. The focus then shifts from the national to the local

level on the characteristics of the area where this ethnographic study is situated. The range of features emerging from this context are meaningful for the discussion of the findings in chapter 6.

In chapter 3, I introduce the theoretical framework I used in this research as a lens through which I analysed and interpreted relevant data. Therefore, I explain how the theoretical notions of social, transformative and sustainable learning are pertinent both to the ESD scholarship and to Uphill school and community.

In the fourth chapter, I delineate the ethnographic methodological approach that I employed in this study, as well as its relevance for fulfilling the research aims and as the most suitable approach for the context studied. In this chapter I also clarify the position of this study within the existing methodological literature. Specific details of demarcation of the fieldwork site, data generation and analysis and triangulation techniques are illustrated. Ethical issues and considerations on the process of reflexivity are contemplated in this chapter too.

In chapter 5, I present the fieldwork data through the three central themes established through analysis, which include: i) issues around learning; ii) issues around values; and iii) issues around leadership. Additionally, I also include the analysis of the primary curriculum, which highlights three main elements: (i) an anthropocentric and instrumental view of the environment; (ii) the equation of the notion of environment with those of one's 'surroundings' and 'home', and (iii) the promotion of an attitude of stewardship of the environment in learners. All thematic areas from the findings show strong connections with broader ESD existing research.

In chapter 6, I discuss the implications of how the relationship between the curriculum and local practices throws light on inconsistencies and contradictions. Secondly, I explore the connections of the findings from fieldwork data and the primary curriculum with broader ESD policies and practices through the analysis of Jamaican national sustainable development and ESD.

In chapter 7, based on the areas of concern determined in the previous chapter, I outline sustainable learning and ESD policy recommendations to address them, as well as possible directions for further research. Here, I view re-envisioning the nature of the unsustainable relationships between developed

and developing countries as imperative in order to enable more sustainable learning patterns to occur at the local level.

Chapter 2.
National and local research context

2.1 Introduction

In this chapter, I explore the features of the Jamaican national and local contexts where this research was conducted in order to link them to the ESD gaps identified in the literature (see section 1.1). As I elucidated in detail in the previous chapter, these gaps are related to the need to explore local contributions and to connect them to national and international ESD frameworks, as well as to reduce the excessively Western-based conceptual and methodological approaches. Furthermore, as stated in Prof. Lorna Down's (in Diamond et al. 2011) article mentioned in chapter 1, some of the ESD shortcomings in Jamaica were identified as gaps between sustainable learning in school and community values. The drawbacks of the Jamaican context bear relevance to the gaps within the wider literature. They led me to explore the relationship between Uphill school and community values and practices and broader (Western-influenced) ESD approaches, as well as the challenges that emerge by exploring these relationships. An overview of the features of the national and local contexts is, thus, helpful before focusing on the exploration of the relationship between these and ESD approaches.

The site of this ethnographic study included a rural village community in the parish of St. Elizabeth, in Jamaica and a government primary school located in the same area. The choice to expand the focus of observations and interactions beyond the school borders was aligned with the research aim of unveiling the role of local social structures, community values and practices. These aspects helped me determine the type of sustainable learning taking place within and outside the school. Moreover, these elements were also aligned with the theoretical framework I employ in this research. Notions of transformative and social learning are connected to the characteristics of the fieldwork settings, where both the school and the community influence learning processes. At the same time, living within the community helped me elucidate the links and disconnections between the sustainable learning taking place in a formal context (i.e. the school) and the multi-levelled factors affecting it in the outside reality of the community.

In order to better understand the relationships between sustainable learning and the variety of local features, in what follows, I provide a detailed contextualization of the local environment where this study was conducted. I first start from an overview of the Jamaican sustainable development policy framework and its relationship with the major environmental questions present in the island. This analysis underlines how such a delicate relationship risks exposing people to being vulnerable to the effects of unsustainable patterns in the lack of adequate political responses. I then present the evolution of the Jamaican education system to help better comprehend how this influences the way ESD is currently perceived and implemented in schools. In the final sections, I narrow down the focus to the specific characteristics of Uphill community and school. In this chapter I also provide a background for theoretical and methodological choices in this study (see chapters 3 and 4), which relate to *how* I chose to look at and interpret the context and its issues.

In the next section, I explore the broader development phases in Jamaica to outline the context within which sustainable development was introduced and how it contributed to environmental degradation in the country.

2.2 Jamaica's economic and sustainable development context

In this section, I delineate the fundamental questions and concerns related to the development situation in Jamaica, by taking into consideration the functions of various national and international bodies, as well as the outcomes produced by their interventions. This will enable the reader to grasp the wider picture within which sustainable development and ESD programmes are embedded in the Jamaican context, with a view to gaining insights into aspects that will be relevant for later considerations related to the findings of this study.

Historically known as the 'land of wood and water' (JIS, 2018 (b)), Jamaica distinguishes itself for its appealing landscape, a large variety of local species and cultural artistry. It has a population of 2,728,864 (SIJ, 2017 (c)) by the end of the year 2017, an unemployment rate of 10.4% (SIJ, 2017 (a)) by October 2017 and an incidence of poverty of 21.2% as a whole by October 2017 and of 28.5% (SIJ, 2017 (b)) in rural areas in 2015. At the same time, though, the country's beauties are threatened by its most productive sectors, such as the bauxite industry and tourist activities (Collins-Figueroa et al., 2007). As

classified by the World Bank (2018), Jamaica is considered as an upper-middle income country, although its economy is characterized by a low growth and high public debt. This current situation stems from decades of economic policy reforms being determined by Jamaica's economic agreements with international bodies, such as the International Monetary Fund (IMF) and the World Bank (Bernal, 1984; Brown, 1981).

Concisely, Jamaica's history of economic development includes differing economic policy trends at various times. During most of the colonial period, with a view to protecting the British economy, industrialisation in the colony was avoided (Stephens and Stephens, 1986). This choice stemmed from multiple reasons. As a colony, in fact, Jamaica provided the empire with the supply of agricultural and mineral materials, while at the same time remaining an output market for British goods. In relation to the latter, manufacturing in the island was limited to prevent competition with British products (Farrell, 1980). Between the late 1940s and early 1960s, to create employment and attract foreign investments, the government adopted regulations to promote increasing industrialisation and tourism, thanks to national natural resources such as bauxite and beaches (Figueroa, 1993; King, 2001). At the same time, government protectionist measures were limited. As a consequence, growth rates expanded, although they excluded large amounts of the rural population, which was involved in an agricultural sector focused on export rather than subsistence production (King, 2001).

The Jamaican government undertook a more populist and protectionist approach between the 1970s and the 1980s. Its active economic intervention consisted in the acquisition of several enterprises, introduction of subsidies, price controls and establishment of a minimum wage. These measures were aimed at, first, providing social equity and, later, sustaining employment during economic decline. At the same time, import tariffs and restrictions were introduced, which disengaged the country from international markets. While this approach promoted growth at first, in the early 1980s exclusion from international markets caused poor economic results (Bernal, 1984; Brown, 1981; King, 2001). Furthermore, economic stagnation resulted also from opposing objectives between the Jamaican government and the IMF, which intervened in the country due to its balance of payments deficit. The IMF is concerned with 'maintain(ing) an environment that facilitates the accumulation of capital on a world scale' (Bernal, 1984, p. 53), through a range of measures that ensure openness of borrowing countries' economies. Such measures differ

drastically from the Jamaican government's protectionist approach outlined above (Bernal, 1984; Brown, 1981). In the remaining part of this section, I will focus mainly on the reforms undertaken by the Jamaican government starting from the late 1970s. External borrowing from multilateral organisations like the IMF, in fact, began at that time, concomitantly with the change from a left- to a right-wing oriented government (Bernal, 1984).

Since signing the first Stand By Agreement with the IMF in 1977 and the World Bank Structural Adjustment Loan agreement in 1983, a number of (externally imposed) provisions and restrictions have been linked to Jamaica's economic reforms over time (King, 2001). These, at an increasing pace during the 1990s, included: reduction of import tariffs; liberalisation of domestic capital markets; opening of capital account; privatisation of publicly owned enterprises; tax, fiscal, monetary and exchange rate policy reforms. Such measures, however, have not resulted in impressive growth rates, especially if compared to the pace of growth of Latin American and other Caribbean countries. The adverse effects of these reforms manifested already in the 1980s, when economic stagnation and rising poverty characterized the country's economy (Bernal, 1984; Brown, 1981; King, 2001). These were consequences of the structural reforms that reduced the importance of the agricultural sector (steered towards exports rather than self-subsistence) to favour the service and industrial sectors. At the same time, the role of the government in driving the Jamaican economy gradually decreased to be replaced by private sector bodies, as part of IMF prescriptions (Bernal, 1984). This government reduced role included also reduced public social expenditure, which further increased social inequality gaps in the country (Bernal, 1984; King, 2001). Furthermore, as other Caribbean countries, Jamaica is exposed to natural disasters, such as hurricanes, flooding (especially during rainy seasons) as the effects of climate change. These hazards can be detrimental for the country's economic infrastructures, as in the case of Hurricane Gilbert in 1989. Consequences of all these features are inconsistencies between the overall country economic development and the needs of its population, resulting, for instance, in poor water supply, health and education (King, 2001).

Given the overall situation in relation to the economic development of the country, the introduction of the aspect of sustainable development in Jamaica in the late 1970s co-existed with an economy based on the exploitation of environmental assets for profit-generation for national economic growth. These consisted mostly of development programmes to support the tourist sector and

mining activities for the industrial sector (King, 2001). Hence, the contradiction inherent in the phrase 'sustainable development' highlighted in the previous chapter becomes especially rampant in the context of small-island economies like Jamaica, where reduced use of environmental resources can translate into economic dullness (Singh, 1992). Furthermore, the unfavourable effects brought about by the introduction of the structural adjustment programmes mentioned above included, for instance, increased rates of deforestation due to the abolishment of kerosene subsidies by the government, with consequent soil erosion (Eyre, 1990) and fires. This subsidy removal has led disadvantaged sections of the population to rely on the (illegal) burning of wood and charcoal retrieved from hill areas for cooking purposes. Another example of the effects of economic reforms is constituted by the import of old vehicles from abroad, which do not comply with emission control regulations and thus increase air pollution. In like manner, waste from industrial and urban activities, as well as intense (especially bauxite) mining result in worrisome water pollution and ecosystems destruction. Similarly, pesticides and chemical fertilizers used in industrial farming generate high levels of soil pollution. The destruction of mangroves and swamps for various construction development projects has created areas that are more exposed to the risks of earthquakes and floods. Additionally, reduced government expenditure on social welfare programmes and oil pollution have caused beach and coral reef deterioration deriving from river pollution and blockages in gullies (Ahmed, 1998; Hulm, 1983).

The set of repercussions resulting from the implementation of structural adjustments in Jamaica at the national level directly affects people's daily practices, especially in more disadvantaged areas. These effects in people's everyday life are, in fact, observed in the findings that have emerged from the study of Uphill community. Highlighting these aspects is also pertinent to the larger ESD discourse, as a sustainable learning process of a transformative nature would require students to critically engage with these systemic issues both in Jamaica and internationally.

A symbolic example of the current impacts of the trends in the Jamaican government structure mentioned above can be found in the information I came across when scrutinizing the Government of Jamaica (GOJ) website. My intent was to clarify the Ministry of Environment's responsibilities and functions. When searching for the list of ministries, I was redirected to a document titled *Assignment of Subjects and Departments, Agencies and Other Public Bodies*. Here, I discovered that the former Ministry of Water, Land, Environment and

Climate Change (created in 2012) had been renamed as Ministry of Economic Growth and Job Creation (MEGJC). As per the document, various subjects and departments are allocated under this ministry. Both subjects and departments are divided into areas that include: general; land, environment and climate change; housing; water and works (GOJ, 2016). A further search on the specific ministry website (MEGJC, 2019) revealed that the MEGJC was, indeed, established in 2016 following the change of the political administration. Of interest are the ministry's vision and mission statements articulated here, where the former asserts: "A Jamaican economy which consistently meets or exceeds its growth targets, while providing meaningful jobs and economic opportunities for all in a sustainable manner". Along the same lines, the second one states: "Provide visionary leadership, appropriate legislation, innovative policies and coordinated implementation which facilitate investments, sustained growth and prosperity for all in an environmentally sustainable manner".

In order to compare the difference between these later statements with the former ministry ones, I conducted a more in-depth online search. Despite being unable to retrieve older documents from the government website, I could find a mention about the previous ministry's vision on a different website (Work and Jam, 2019): "The vision of the Ministry of Water, Land, Environment and Climate Change is to provide an environment in which natural resources are sustainably managed and made accessible to all Jamaicans". What stands out from these statements and from the renaming of the previous Ministry of Water, Land, Environment and Climate Change into the Ministry of Economic Growth and Job Creation is precisely the fact that such relabelling indicates a significant shift of emphasis. The former vision statement was characterized by an anthropocentric approach, where natural resources were perceived as instrumental assets to be exploited by humankind. However, it nevertheless placed the focus on the importance of these natural resources and their sustainability. By contrast, the mentions from the newly assigned ministry place the attention on the 'economy' and its ability to 'meet' and 'exceed' growth targets, as well as political action towards 'investments', 'growth and prosperity'. Here, the environment and sustainability aspects become ornamental words to the central focus on economic growth. Bearing these remarks in mind helps relate these issues with the themes emerged from the findings in chapter 5.

The lack of consistency in sustainable policies derives from the fact that, when environmental concerns proliferated among middle classes in countries within the Global North during the 1960s, developing countries like Jamaica

were not yet involved in these discussions. Their main focus revolved around facing poverty issues and ensuring economic development. Jamaica's engagement with sustainable development initiatives has been linked to the programmes attached to the provision of financial assistance from various donor agencies –such as the World Bank and the IMF- since the late 1970s (Mishra, 2013; Ferguson and Thomas-Hope, in Hill et al., 2012). It was not until the late 1980s, however, that ESD was officially instituted in the country as part of international organisations' initiatives (Collins-Figueroa et al., 2007).

In consideration of the effects of Jamaica's economic development path, in the section below I summarize the main environmental threats in Jamaica, as recently identified in a document issued by JET in 2018. The overview below is particularly relevant in relation to the government structure outlined above, especially in consideration of the lack of a Ministry of Environment and lack of focus on environmental issues in the current MEGJC's vision and mission statements. It also shows in more detail the negative repercussions of Jamaica's development path under structural adjustments and some of the concrete consequences of the way in which the environment is perceived. The general background on environmental issues in Jamaica also serves as a way to contextualize the fieldwork settings of this research, which are characterized by a disadvantaged section of the population in a rural location. That is to say, Uphill community is even more exposed to the risks represented by these threats.

2.3 Major Environmental Threats in Jamaica

This section will provide a brief review of the major environmental threats in Jamaica, according to a recent document issued by JET in 2018 titled *Nuff Respect For Nature* (i.e. *A Lot Of Respect For Nature*). The formulation of this document was supported by European funding, as part of a two-year (2017-2109) project aimed at improving competences and responsibilities of Civil Society Organisations (CSOs) and Community Based Organisations (CBOs) in the country in order to enhance governance aspects. Besides representing a background within which the context of Uphill school and community can be located to highlight their risk exposure to environmental hazards, the project is also representative of the crucial role played by JET and CSOs in carrying out ESD initiatives in the country. The latter is, in fact, a significant aspect emerging from the discussion that I conduct in chapter 6.

In this document, JET reminds the reader about the GOJ Charter of Fundamental Rights and Freedoms. Here, in relation to the environment, it is stated that the Charter should ensure: "The right to enjoy a healthy and productive environment free from the threat of injury or damage from environmental abuse and degradation of the ecological heritage" (JET, 2018 a, p. 8).

To follow, the authors identify what constitutes the main environmental challenges in the island according to various elements. Namely, they divide issues related to: air, water, soil, forests, animal and plants, and a final section on the general implications of climate change for Jamaica. Accordingly, air-related issues include: burning of fossil fuels, forests and sugar cane by local companies and burning of garbage and other waste, of charcoal and coal for cooking by people, vehicle and industrial emissions and wildfires. Some of these issues, as it is covered in chapters 5 and 6, are directly related to the practices observed in Uphill school and community.

Hazards related to water comprise: pollution caused by waste deriving from agricultural activities, industries and storm water; drought; damage of watersheds and forests and of river-side vegetation, which deprives them of protection from pollutants; "river training" (JET, 2018, p. 12); and excess irrigation water causing salinization. A separate part is dedicated to marine type of threats, which refer to: drastic (sometimes illegal) reduction of the mangrove-covered areas on the coastline due to the development of ports, airports, roads and tourism infrastructures. Mangroves are important to filter water and reduce pollution into the sea, expand land, provide habitat for animals and protection from floods. Similarly, destruction of seagrass due to coastal construction or to make sea-side areas more tourist-friendly, results in a decrease in: sand-production and stabilization, filtration of pollutants and marine habitat. Another marine-side element endangered by water pollution are coral reefs, which are essential for: storm-protection; habitat, including fisheries used as food, production of organisms used for drugs. In addition to these, over- and illegal fishing, garbage disposal and the effects of various tourist activities also damage the marine environment. In this case too, in chapters 5 and 6 I observe how some of these activities relate to how the environment is envisioned within ESD policies and curriculum, as well as by research participants.

With regard to soil and forests, the main damaging activities are: erosion and pollution from agriculture; farming and deforestation; mining; urbanization and

desertification; logging; destruction brought by development projects, mining and natural threats, such as fires, charcoal burning and increased temperature due to climate change. Animal and plants, as a consequence, are threatened by: loss of habitat, hunting and poaching and introduction of invasive species. As I examine in chapter 5, some of these issues pertain directly to the community studied, as community members often resorted to cutting trees in the local area to use as coal for outdoor cooking.

In general terms, the most dangerous adverse effects of climate change in Jamaica include: sea-levels rising; natural disasters caused by hurricanes and cyclones as a consequence of warmer water; extreme conditions in both wet and dry seasons; increase of pests and diseases and species extinction (JET, 2018 a). These too, as it is observed in the findings of this study, are issues that affected Uphill community, especially with regard to exposure to the risks of hurricanes and spread of diseases related, for instance, to the breeding of mosquitoes.

The analysis I presented in the previous two sections highlights how agreements with foreign bodies affect the government structure in the context of economic and sustainable development in Jamaica. As a consequence, these influences manifest in the environmental challenges that the country faces at present, which I summarized in this section. Analogous trends can be found in the evolution of the Jamaican education system, which was shaped by the effects of external colonial power over time. Therefore, in the next section I will look into these aspects in more details.

2.4 Development of the education system in Jamaica

This section provides a brief outline of the evolution of the Jamaican education system since colonial times and an overview of the national curriculum. This illustration will be useful to point out how education and its purpose(s) have been conceived over time, in relation to varying socio-economic and political circumstances in the country. Looking at the broader education system and curriculum structures is helpful to gain insights for the understanding of how and where ESD fits into this picture.

The introduction of the formal education system in Jamaica was shaped on the British model during colonial times. Its evolution can be contextualized according to crucial historical milestones for the country, such as the

Emancipation Act, 1834, the universal adult suffrage in 1944 and the gaining of independence in 1962 (Coates, 2012; Whiteman, 1994). Before 1834, indigenous people and slaves were not educated and schooling for white colonizers' children was provided either through private tutoring or in their home country. In some instances, free schools were established by white traders and they were based on the British curriculum with a view to cultivating knowledge and skills that would allow learners to adequately conform to society's requirements (Hamilton, 1997). Missionaries started to contribute to educating children of slaves, at times including girls as well. This type of schooling, though, was aimed at instilling religious values and developing an attitude of compliance to the existing colonial system (Leo-Rhynie et al., 1997; Wilkins and Gamble, 2000).

After the abolition of slavery in 1834, a formal system of education was established for the (submissive) integration of former slaves within the colonial economy and society (Morrison and Milner, 1995). Formal education was introduced first through missionary initiatives and, then, undertaken by the British government in the early 1860s. As articulated in the Lumb Report, 1898, specific types of schooling were devised for male and female students. This planning was an attempt to avoid threats to the economic and social colonial system and to ensure that children of former slaves refrained from engaging in white-collar jobs in urban areas. Male students, in fact, were offered the opportunity to develop agricultural and manual skills, whereas females were trained in household and sewing abilities (Gordon, 2017; Hamilton, 1997). Further into the 1900s, this model of education continued to be propagated until the need to educate Jamaicans to higher levels arose, due to the diminishing number of British available to cover specific professional positions in the country. In this way, government financial assistance began to be granted for studying abroad and secondary educational institutions started to spread locally (Coates, 2012; Hamilton, 1997; Wilkins and Gamble, 2000).

The period of economic Depression faced during the 1930s -where unemployment rates peaked and were combined with widespread poverty that led to several protests in the country- contributed to the creation of the Jamaica Workers' and Tradesmen's Union and the Peoples' National Party (Whyte, 1983). Following these events, the Plan for Post-Primary Education in Jamaica, 1943-44, instituted a system of secondary education aimed at tackling the increasing challenging social and economic issues in the colony. This system, though, did not address the gender disparities existing in the school curricula

(Gordon, 2017; Hamilton, 1997). Steps towards a more independent organisation of the Jamaican educational system from the British were not made until the establishment of the University of the West Indies in Mona in 1948, with its own Department of Education created in 1952. Prior to this, in fact, the colonial education system was provided merely to satisfy the needs of the Empire and hindered the possibility for Jamaicans to develop the ability to self-organize and regulate. Transformative forces were subsequently brought about by the aftermath of the Second World War and by the issue of the Moyne Report in 1945. With this report, a perspective shift in relation to racial prestige and imperialism resulted in the arrangement of a colonial development welfare fund and amendment of the Jamaican Constitution in 1944, which introduced universal adult suffrage. Following the Report, curricular reforms and amelioration of educational infrastructures were recommended with a focus to improving health and sanitation standards in schools (Sherlock and Bennett, 1998).

In 1958, under nationalist and independentist forces, Jamaica and other nine Caribbean countries became part of the West Indies Federation. In 1962, following a referendum where Jamaicans voted against remaining in the Federation, Jamaica drafted its first Constitution and gained independence (JIS, 2018 (b)). At this time, under the rule of a populist government (Miller, 1999), the Education Act, 1965 (MOJ, 1965) spurred further developments toward the determination of Jamaican educational goals, as well as structural and systemic reforms to promote social mobility and equality (Miller, 1999). Briefly, these reforms aimed at the expansion of educational opportunity for children and adults and at shifting the focus of the curriculum from British imperialist to national and Caribbean features. These changes, however, were made within an educational system that retained the colonial imprint and were limited by lack of financial resources. Furthermore, from the late 1970s, the international donors' support and related structural adjustments affected the education sector as well (Miller, 1999). The cuts in social expenditures mentioned above influenced the education system by: ceasing the provision of resources established by the previous government (e.g. school uniforms and grants) and introducing educational fees and taxes. These interventions brought an educational imprint in line with the contemporary competitive needs of globalised markets, as opposed to the earlier impetus on nation building and social equality (Miller, 1999).

With regard to the structure of the public system of education, today this is still shaped on the British model and it is regulated by the Ministry of Education, Youth and Information (former Ministry of Culture and Education). This is headed by the Honourable Minister of Education, who is assisted by a Permanent Secretary, supported by a Chief Education Officer and Divisional Heads. Furthermore, municipal school districts are in charge of local administration (MOEYI, 2018).

The structure of the Jamaican educational system is prescribed by the Education Act, 1980 (MOJ, 1980) -amended in 2010 (GOJ, 2010) and is divided into four main levels, respectively: (non-compulsory) early childhood education (i.e. pre-school) for children below six years; (compulsory) primary education for children between six and twelve years; secondary education for students between eleven and nineteen years and tertiary education for students of at least fifteen years.

Teaching at the primary level is based on the Jamaican Revised Primary Curriculum (RPC), whose structure is of relevance to the settings of this study. In chapter 5, in fact, I conduct a content analysis of the same to explore how sustainable learning is incorporated in it. The *Curriculum Guide* of the RPC provides an overview of how this is organised:

> "Grades 1-3 are fully integrated using the overarching theme of "Me and My Environment" and this represents the emphasis being placed on these in the curriculum.
>
> At Grades 4-6, the format changes to discrete disciplines – Drama, Language, Arts, Mathematics, Music, Physical Education, Religious Education, Science, Social Studies, Visual Arts, with thematic integration across subject areas being encouraged in the pupils' project and research work.
>
> The Grades 1-3 units are preceded by an overview of the themes, sub-themes and topics for the lower primary programme. At Grades 4-6, subject units are preceded by introductory pages which give the philosophy, as well as an overview of the upper primary programme for each." (Ministry of Education and Culture, 1999, p. viii)

Each subject is arranged into 'teaching units' based on 'attainment targets, objectives and skills'. Subject units also contain 'focus questions' and 'activities' to guide teaching and assessment (Ministry of Education and Culture, 1999, p. viii). These aspects are useful to bear in mind with regard to the analysis of the curriculum presented in chapter 5.

In the next section, I look at the evolution of ESD within the Jamaican education system. This overview is useful as a background to the analysis of ESD in the primary curriculum and to the sustainable learning practices in Uphill school and community. I present and analyse these, respectively, in chapters 5 and 6.

2.5 ESD in Jamaica

In this part, I explore in more detail how ESD was introduced in Jamaica through the initiatives of various international and national bodies. This analysis helps understand the structural arrangements through which ESD is carried out in Jamaica and highlight the complementary role played by NGOs and CSOs to the government and schools. Considerations on this aspect are pertinent to contextualize the sustainable learning activities that I cover in chapter 5, as well as the links between the findings and ESD policies that I discuss in chapter 6.

As mentioned at the end of section 2.2, in the 1980s, following the UNESCO/UNEP International Environmental Education Programme (IEEP) and with a top-down approach, EE was first introduced in the Jamaican formal education system (Collins-Figueroa et al., 2007).

In the early 1990s, national agencies such as the Natural Resources Conservation Authority (NRCA) were invested with the mandate to increase public awareness about the interconnectedness of social, economic and ecological systems in the country. Along the same lines, in 1993, the NRCA also initiated the National Environmental Education Committee (NEEC), constituted by a group of environmentalists, educators, community and private sector stakeholders (Mishra, 2013). This committee, starting from 1996, concurrently with the introduction of the Government of Jamaica and Canadian International Development Agency Environmental Action Program, began to frame an environmental education plan. The plan was aimed at developing actions and attaining concrete outcomes throughout the country through a National Environmental Education Action Plan for Sustainable Development (NEEAPSD) (Collins-Figueroa et al., 2007; Mishra, 2013). Additionally, as a former British colony and following Agenda 21, environmental and sustainability education began to be integrated into the school national curriculum framework based on the UK model during the first decade of the twenty-first century (Wyse et al., 2016). In 1998, the NEEAPSD promoted a vision for Jamaica where the

environmental, economic and social spheres could be attuned. Similarly, the Jamaica National Environmental Action Plan (JANEAP) provided policy guidance for the establishment of the main environmental and sustainable development concerns to be included in environmental education for sustainable development programmes at the national level (Mishra, 2013).

With regard to orientations in education policy, some of the main features that followed these developments were the focus on 'school-based planning', 'community involvement', 'curriculum planning' and 'teacher professional development' (Mishra, 2013, pp. 48, 49). Government agencies and CSOs, such as the Jamaican Environment Trust (JET), have been contributing to the works of the Ministry of Education, Youth and Information. They, in fact, provide educational materials to schools and promote initiatives in relation to curriculum planning and implementation, as well as teacher professional development. Moreover, a variety of government agencies and CSOs also engage in the delivery of non-formal EE and sustainable development programmes at the community level. For instance, JET stands out in the national context for its long-standing involvement in EE, advocacy and conservation since 1991 (UNESCO, 2014).

Central government agencies (sometimes in collaboration with NGOs at the parish level), including the NRCA and the National Environment and Planning Agency (NEPA), focus on actions with national purposes related, for instance, to infrastructural projects, resource management, health education for the general public and community outreach. In like manner, local authorities operate at the parish and community levels on issues related to 'land use planning and regulation, public cleansing, public health, minor water supply activities, and parochial roads' (Mishra, 2013, p. 50). A narrower focus is found in local NGOs and CBOs. These may concentrate on specific issues of concern in different contexts and on sustainable development programmes in designated communities. Often, they receive private sector's support through the provision of human and financial resources. Furthermore, independent agencies such as the Environmental Foundation of Jamaica (EFJ) promote environmentally sustainable initiatives by supporting a range of civil society organisations and educational institutions' activities (Mishra, 2013).

Understanding how ESD is structured and the various bodies in charge of its implementation at different levels is useful for a more thorough understanding of the discussion of the findings of this study in chapter 6. Here, several

disconnects are observed with regard to, for instance, government policies' prescriptions and their practical implementation. Similarly, another disconnect is found in how sustainable learning is envisioned within the Jamaican policy framework and the actual daily practices in Uphill school and community.

The above analysis of the broader scenario on the national development, environmental threats, education system and ESD in Jamaica is useful as a frame of reference for various issues emerged from the findings and further discussed in chapter 6. In the next section, I narrow down the focus on the specific area where this ethnographic study was carried out, with a view to providing a better contextualization of Uphill school and community.

2.6 The parish of St. Elizabeth

Uphill community is located in St. Elizabeth, one of the fourteen parishes that constitute Jamaica. Geographically, it is situated in the southwest end of the island and it borders with the parishes of St. James and Trelawny on the north side, that of Westmoreland on the west, Manchester on the east side and the Caribbean Sea on the south. The parish is divided into four districts (or constituencies) located in the north-western, north-eastern, south-western and south-eastern areas. The former two are mainly mountainous (including three mountain ranges, i.e. Lacovia Mountains, Nassau Mountains and Santa Cruz Mountains), whereas the latter are characterized by a large plain mainly constituted by morass (The Gleaner, 2018), dry grassland and swamp (St. Elizabeth Parish Library, 2018). St. Elizabeth's main river is the Black River (the longest in Jamaica), which shares the name with the capital of the parish. Other major towns are Santa Cruz, Malvern, Junction and Balaclava.

St. Elizabeth derives its name from the wife of Sir Thomas Modyford, Governor of Jamaica between 1664 and 1671. Originally including parts of what today belongs to the parishes of Westmoreland and Manchester, its area covers 1,210.7 sq. km (JIS, 2018 (a)) and its population by the end of the year 2017 was estimated to be of 151,961 (JSI, 2017 (d)) people. The maps below show, respectively, a satellite view and a physical map of the Jamaican island where the parish of St. Elizabeth is demarcated:

Map 1 Satellite view of Jamaica, St. Elizabeth Parish.

Source Google Earth.

Map 2 Physical map of Jamaica, St. Elizabeth Parish.

Source Google Maps.

The original inhabitants of this region, especially in the Pedro Plains according to the evidence retrieved in the caves at Pedro Bluff, were the Tainos/Arawaks. They are believed to have led a simple lifestyle and their descendants are still present in the parish (JIS, 2018 (a) and (b); St. Elizabeth Parish Library, 2018). After the Spanish defeat in 1655, a number of fleeing African slaves today known as the Maroons fled to the Cockpit Country, whose territory is comprised in the parish. Today, the Maroons are still established in St. Elizabeth in the town of Accompong.

When the British took over from the Spanish between the end of 1600s and the early 1700s, they established extensive sugar plantations which made the parish very prosperous, with a well-known sugar factory still active today in the Appleton Estate and renowned for its rum production (JIS, 2018 (b); St. Elizabeth Parish Library, 2018). Moreover, thanks to the approximate 40 km

navigability of its river, the town of Black River became a noted seaport and the first town in Jamaica where electricity was introduced (St. Elizabeth Parish Library, 2018). When the port of Black River was closed in 1968, the bauxite industry began to expand, fuelled by private investors (MST, 2018).

Today St. Elizabeth is known as the bread-basket of Jamaica, due to its provision of locally grown fruits and vegetables to the tourism industry, although the agricultural sector is continually challenged by recurrent periods of droughts (Campbell et al., 2011; Rhiney, 2009). River and sea fishing are also predominant in the region, with the area of Middle Quarters being known as the 'Shrimp Capital' of the country, due to its abundance of seasoned shrimp vendors on the roadsides. These, together with the bauxite and sugar industries, constitute the major areas of economic activity, with the tourist sector gradually growing around the natural attractions found in the parish (Jamaica 55, 2018).

Additionally, as gathered from observations and interactions with local community members, as well as documented by current research (Schnakenberg, 2013), the region is characterized by challenges related to agricultural production and profitability and high unemployment rates. These are some of the reasons why local farmers and youth engage in ganja (i.e. marijuana) plantation and trade. Unable to meet basic livelihood needs, local community members either complement revenues from traditional farming activities with ganja production to increase their income or, when unable to find an occupation, this can become the main source of income for some. Revenues are then used to buy food, pay taxi fares and school lunch fees to send children to school.

2.7 The bamboo area

The bamboo area where Uphill community is located is a heritage site protected under the Public Gardens Regulation Act (BLJ, 2007) and tourist attraction. It is constituted by bamboos that grow on both sides of the road to form an arch which extends for a stretch of about 4 km. Its importance for the local community was reflected in the bamboo preservation, restoration and research activities that were carried out by the school and community members during the period of fieldwork.

Dating back to the 1700s, it was planted by the owners of a local sugar cane Estate and it is believed that it was originally created to provide shade for the slaves of the local sugar plantation. In a similar way, Uphill community originated from a sugar-cane slave settlement. Following the damages brought by various hurricanes (remarkably Hurricanes Gilbert and Ivan in, respectively, 1988 and 2004), the density of the arch is reduced at present due to the thinning of the bamboo strands. In this regard, a restoration project -focussed on plantation of new bamboos and pruning of dead ones- is ongoing and led by the Tourism Product Development Company, the National Environment and Planning Agency and the Ministry of Agriculture (MICAF, 2018).

The area is also a very popular tourist attraction, where tourists travelling to and from other locations in the island traditionally stop to take pictures, to drink local 'jelly wata' (i.e. fresh coconut water) and buy locally produced peanuts sold by a female vendor on the roadside. Similarly, many often stop here to purchase meals at the small restaurant on the opposite side of the road, which is well-known for the quality of its Indian dishes and 'rotis' (i.e. Indian type of round, flat bread). In this area, in fact, the local population is mixed with descendants of Indians who settled in Jamaican in the past, whose culinary influence introduced items from the Indian cuisine into the Jamaican one. These two activities are, in fact, a minor source of employment and economic profit for a few members of the community.

Having looked at the larger picture at the national and parish level, in the next sections I focus on illustrating the features of Uphill community and school in more details.

2.8 Uphill community

Although there is little published material about Uphill community, in the following I provide a picture of its descriptive features and daily life, based on my observations and interactions with community members over the fieldwork year. Specifically, I was unable to retrieve precise and up-to-date demographic data about Uphill community, due to its very small size. According to the information provided by an employee of the Jamaican Social Development Commission (which I obtained with the help of Uphill school principal), based on data gathered from the 2011 census, the registered population of Uphill village was of 535 people and its size was of 2 square kilometres. It is surrounded by

four similar village communities of about the same size and population, whereas it is about a 20 minutes' drive from the nearest town. Furthermore, although the description I provide below is highly detailed, the features of Uphill community are common to other communities in the area. This resemblance ensures the non-identifiability of the specific community.

Uphill village community, where I conducted this study, is situated in one of the lowland areas at the feet of the surrounding hills and adjacent to the bamboo area described above. Historically, according to information gathered from locals, it developed as a residential village from the settlements of (first slaves, then) workers of a nearby sugar cane plantation located in the territory on the opposite side of the bamboo area. At the time of my fieldwork, the buildings within Uphill community included merely people's houses, a few shops that sold essentials and alcoholic drinks, one church, one restaurant and Uphill primary school. Additionally, the area contained a field that was used as a football ground, where community members gathered, especially on weekend days, to support the Uphill football team during matches. This activity, according to the words of a local community member and player in Uphill football team (who once 'scolded' me for having missed one of the village football team's matches) served to create a 'sense of community' in Uphill village, and -according to him- that is why it was important for community members to be there to support the team. Each village in the area, in fact, had their own football team, which strengthened locals' sense of belonging to their own community, and made the latter distinct from the neighbouring ones. In other occasions, the field was used for local parties and set up with tables, a DJ section with a sound system, a cooking corner and stall where people could buy food and drinks. In these regards, parties and 'cookouts' (a party where food is cooked and consumed outdoor) were also kept in other areas of the village at different times. For instance, on Thursdays my host used to cook steamed fish and locals used to attend the event and buy the food and drinks from her. On Fridays, instead, another household down the road who also had a drinks' shop outside their house used to hold the 'fried chicken party'. These occasions were an opportunity for locals to show 'support' to other community members by buying their food and drinks and helping their small business. In fact, if someone repeatedly missed out on these parties over the weeks, the gesture would usually be taken personally and considered as a sign of 'diss' (disrespect) for not showing support to other community members. Usually, those who did not support other members' business would experience lack of support to their own business in return. Another occasion for community

celebrations, although for a very different reason, were the 'nine nights' gatherings. These were celebrations constituted by a 'wake' of several days at the 'yard' (home) of a deceased person, where community members gathered with the family members of the deceased person and consumed food and drinks together, usually while also singing and dancing throughout the night. Attending these ceremonies was also a way to strengthen the sense of community and to show respect to the deceased person and their family.

The village included also a small pond, where local adults and children went fishing when they did not have enough money to buy food or when they were bored, due to the lack of access to resources to find a job or carry out other activities (see pictures in Appendix 3). Other daily activities in the village included women from neighbouring families gathering altogether at someone's (usually ours) backyard to hand-wash clothes together, on Saturdays and Sundays, starting from around 5 or 6 am. At times, while some women were doing laundry, others washed, creamed, relaxed, parted and styled each other's hair, while they were waiting for their turn to use the bucket to wash their laundry. This was also a time when news and gossips about the community were shared. Often, male members of the community would be around too at that time, although they would be carrying out their own activities, such as washing or fixing their car (those who worked as taxi drivers), cleaning ganja (i.e. marijuana) after the harvesting, attending football training and then gathering in their own separate groups smoking and drinking rum, while also often playing dominoes. After carrying out these activities, breakfast would often be prepared by my host (probably, since she was the school's cook, she was considered to be a good cook in the area), shared with the neighbours and eaten together outdoor. Generally, on weekends locals would also kill someone's chickens and then sit together to remove the feathers, clean them and cut some into pieces for freezing and use some for the daily cooking. Similarly, but more rarely, they would also kill a pig during a weekend and usually cook some parts for breakfast on an outdoor fireplace. During the crab season instead, locals (usually males) would go out at night to 'hunt' land crabs, which would then be kept alive in a barrel and cooked on outdoor fireplaces on weekends or during holidays. Typically, on Sundays, after finishing the laundry and breakfast, many of the local women would also attend the local Church's services or go to the nearest town together to buy groceries. Therefore, based on my observations as well as what community members directly expressed to me, being part of or supporting a local football team, taking part to local dancehall and 'cookout' parties and celebrations, together with carrying out

common activities in the 'yard' were the practices that constituted their sense of belonging to Uphill community.

If one reaches the location by car, by taking a turn from the main road to enter the village, suddenly the road becomes bumpy, due to the uneven pavement. Right opposite the village signpost there is a large, open garbage tank filled with garbage bags accumulated by community members and the nearby school. Some of the bags are spread beside the tank and their content lies on the ground, visibly, as the result of stray dogs having torn the bags in search for food. While walking along, the smell released by the garbage left lying under the Sun (probably for several days) causes the need to cover one's nose and mouth. At the corner at the bottom of the road, before taking another turn on a road that leads further into the village, there is a small shop with yellow wooden walls, decorated with the symbols of the Jamaican flag and the image of a man drinking and smoking gangja. Inside the shop, there are a few young males drinking rum and playing 'domino' with local Jamaican reggae and dancehall music playing in the background. Further ahead on the same road, there is the local community church constituted by a white building surrounded by a garden and a metallic fence. Opposite the church is another alcohol shop, owned by a Rasta man who also provides technical services to the primary school in the community. Different to the other shop, this one is built with concrete yellow walls. Next to it there is a bamboo shelter under which a car is parked and big speakers play a radio programme broadcasted from a local radio station. Shops similar to these can be found all over the village. They usually host regular weekly events, or parties in special occasions, and community members attend them in order to 'show support' (intended as economic support) to one another by purchasing drinks and food.

Walking further into the village, the road splits into four perpendicular directions, each characterized by a set of houses which share similar features. They all have concrete colourful walls (the colours range from pink, to yellow, green, blue, etc.), steps that lead to the entrance door and they are all surrounded by grass and bushes. Some have a wooden fence, whereas others are located in an open space on the grass. In the open space behind the house there are bamboo sticks holding some kind of rope, where the household laundry is hung. The backyard of most houses includes a chicken coop and some of them also have pigs tied to one of the coconuts, mango or other fruit trees that are found in the area. Similarly, cows and goats can be found wandering and grazing on the grass around in the village. Almost all

households also have tanks filled with water outside their houses, due to the lack of continuous provision of running water within the house. Therefore, whenever the water starts running, this is collected in the tanks with a hose connected to a pipe. Alternatively, the tanks are also filled with rain water. The water collected in the tanks is then used for multiple purposes, to include: cooking, bathing, washing dishes, doing laundry, flushing toilets, etc. Occasionally, when there is a water shortage for an extended period of time, a truck delivers water to households in the village, upon payment of a fee. However, households who cannot afford to pay are not entitled to receive said water tanks. This often leads to acts of 'thiefing' (as defined by locals) water from the neighbours' tanks at night time.

Notably, in all backyards there is also a pile of garbage that is periodically burnt as, apart from the big tank at the entrance of the village, there is no other garbage bin on the streets in the village. Thus, locals often resort to burning garbage in their backyard, either because it takes too long to walk to the entrance of the village to throw the garbage in the tank (and this would require multiple trips from a household) or because this is unfeasible, especially during the heavy rains of the rainy season. Indeed, while walking on the road, cartons of fruit-juice or plastic bags and candy wraps can be found lying on the grass. This is especially the case on the road that leads to Uphill school, as a sign that students tend to throw paper and plastic from their snacks on their way to and back from school.

Inside the house, there is usually a living room with a sofa and some furniture and a television, three or four bedrooms, a kitchen with a stove fuelled by a gas tank and a bathroom. Some households cannot afford to buy gas tanks, hence they either cook food by making a fire in their backyard or, when it rains, they eat dried or canned food, or at times receive cooked food from the neighbours. The village, in fact, does not have any restaurant (or better, the only small local restaurant situated on the main road is open only at breakfast and lunch-time) or shop that sells cooked food, apart from when there are special events or parties. There are only two main local shops that sell basic accessories for the house and packaged snacks. In order for community members to purchase their groceries, they need to take a local taxi to the nearest town (which is around a half an hour drive away), where one can find markets and supermarkets.

What caught my eye in some houses is the fact that there are some cables - connected to the electricity wires on the main road- that lead into the house to provide electricity for the household. These, however, are only connected by community members after the sunset and are disconnected again early in the morning. Despite this being a context where the provision of water and electricity are often interrupted, water taps, lights and electronic devices are usually left open or switched on throughout the night, even when unused.

With regard to the structure of the family within the households in the community, most families included various male and female family members, such as mother, children, uncles, aunties and cousins who all contributed to the household. However, in most families, there was not a constant husband/father figure and most women raised children that they had from different male partners. In some cases, the latter at times visited their children and provided some form of financial assistance with regard to food and school expenses. In other instances, though, single mothers were uneducated, unemployed and unable to provide for their children. Thus, they often sought bonds with new partners in the hope of finding some form of financial assistance to survive.

In relation to the level of education and employment that I observed within the community, most adult males had a minimum level of primary education and were either self-employed as local taxi drivers, seasonal farmers (supporting their revenues with ganja plantation and trade), or had casual jobs as construction workers, welders, car mechanics or a combination of these. In these cases, however, their salary was very low and the cost of travelling to work could reach up to more than a third of their monthly income. Adult females, too, had often achieved only primary levels of education and were mostly unemployed (usually after having lost their job following the closure of the local sugarcane industry, which had provided jobs for the previous generation). Younger males had usually completed primary education and, in some cases, also secondary levels of education. Most of them, however, were either unemployed or had casual jobs as welders, seasonal farmers (including the ganja business) and construction workers. A minority of them covered positions in local tourist attractions, worked in shops, supermarkets or call-centres in nearby towns. A similar situation was observed for younger females who did not have children yet.

Among those who were unemployed, both males and females usually spent their days carrying out some chores in their house and backyard, went fishing at

the nearby river and pond, or assisted other community members with work in their houses. In a few instances, adult women were employed as cooks in the local small restaurant and in the local school. Both males and females, though, often spent a large number of hours idling or drinking alcohol, smoking weed and playing games (e.g. dominos) at the local shops and they often complained about being bored during the day.

Community gatherings usually took place on weekends at the playfield of the community, during daytime, to attend the football matches of the local football team. At night, community members (including children) attended parties that were held at local shops. In this regard, the socialization dynamics that took place during these events were strongly influenced by and emulated what is now known as 'dancehall' style. Dancehall, rather than being simply a music genre, entails a more elaborated cultural aspect that I describe -although briefly- in a separate section below, in order to better comprehend locals' perspectives and every day actions.

2.9 Dancehall culture

The presence of dancehall in people's everyday life in Jamaica, and especially in less developed, rural areas of the country, cannot be overlooked. It, in fact, manifests in people's outlook on life and their daily practices. Understanding it is, indeed, imperative in order to better comprehend its links with the contemporary history of the country as well as societal behaviours.

Originating, first, from an alternative version of reggae music in the 1970s, its rhythms became increasingly faster during the 1980s and, today, this music is characterized by lyrics largely composed in Jamaican Patois, although it has become popular among Jamaican diaspora communities as well as Western mainstream music (Niaah, 2010; Stolzoff, 2018).

Of particular interest is the controversial content of dancehall songs, which entails topics such as: a connection with God in relation to finding a source of support with daily 'ruff life' and hustling for survival; promotion of individuals' economic improvement in the fastest way possible and through any (often illegal) necessary means; proclamation of materialism and of the fact that an individual's public image holds high value and is enhanced by standing out from the 'normality' of the mass; continuous reference to indecent sexual behaviour, where female figures are misogynistically objectified by both male and female

artists and homosexuality is condemned. In recent years, though, some female artists have started responding to the messages contained in males' songs with equally vulgar lyrics, in an attempt to gain gender empowerment and egalitarianism. The way in which these ideas take material form can be observed in the kind of fashion followed by male and female clothing and their possessions. On the one hand, males focus on exhibiting branded items and jewelry. On the other hand, females wear very revealing dresses, jewelry, noticeable make-up and wigs, while both males and females are expected to own the latest models of cell phones. These outfits are accompanied by provocative dance moves, which very explicitly mimic sexual acts. Furthermore, following the lyrics of dancehall songs, many youngsters undertake the 'badman' lifestyle, which entails becoming involved with the activities of gangs, such as scamming and drug dealing (Hope, 2006 a, b; Niaah, 2010; Olsen and Gould, 2008; Stolzoff, 2018).

The link between the main themes of dancehall music and the issues of poverty and inequality brought about by global capitalist and neo-liberal markets are evident (Hope, 2006 a). What is especially intriguing is the double-take that this style has on the whole issue where, on the one hand, it denounces the harsh conditions that economic circumstances have forced people into. On the other hand, though, it reacts to it by glorifying materialism, consumerism and a lavish lifestyle and by, indeed, setting it as individuals' highest goals in life. In its uncontrolled outcomes, thus, it almost becomes a caricature of the Western world and ways. In an attempt to reclaim one's identity, for instance, men who lack economic status try to compensate it through exhibition of their masculinity. They do so by having many women and children. It is also a symbolic way for them to reclaim political power, in a system where they feel helpless in response to the lack of support received by the government, where the figure of the 'don man' (equal to a mafia boss) provides people with 'security and protection' (Hope, 2006 a, p. 94). This social behaviour, however, leads to instability in society and in the family structure, as these men are economically unable to become a husband or a father figure. The other side of the coin sees women, too, attempting to have children from multiple partners and tolerating their infidelity in the hope of securing financial support from them (Hope, 2006 a; Olsen and Gould, 2008). Thus, the dancehall culture can be viewed as a symbolic cultural space where the marginalized sections of society have established their own ways and rules without the need for the larger system's validation (Cooper, 2004).

This quick glimpse into the dancehall world serves the purpose of connecting the socio-economic characteristics and the behaviours of community members, which I illustrate and discuss more extensively, respectively, in chapters 5 and 6. However, it is important to keep in mind that these features were not restricted to the lifestyle in Uphill community. They, in fact, percolated into the school and were observed in some students' behaviours as well. These aspects too are covered in chapter 5, whereas in the following section I look at the main characteristics of Uphill school.

2.10 Uphill school

Uphill school was located in the same territory as the village community and it was a government primary school. The main entrance gates were located along the main road, although many students (and, sometimes, I too) used to walk into the school compound by using shortcuts that run through the village 'bushes' (the word bush was generally used to refer also to backwoods areas). The school compound was constituted by an uphill road from the main gate that led to an open ground outside the school library and principal's office. The latter, within the same building, was followed by the staff's room, three classrooms and the school's canteen. Opposite the school canteen there was a water tank used to collect rain water to irrigate the school's vegetable garden and another building (the same as the school's library), where three more classrooms were located. On the left side of the road, coming from the main gate, there was a hilly green space with apple and mango trees and swings. At the top of the hilly area, there was an empty building that, in the past, used to be an on-site home for the school principal or head teacher and a water tank with the political map of Jamaica drawn on it. On the right of the water tank there was another building containing three more classrooms and, slightly more uphill, after that there was another building with the male and female bathrooms (see Figure 1).

On the right side of the entrance gate, instead, there was a wide plain field used as a playground by students during recess time and as a football ground and for various sports training. At the bottom end of the field, there were two rows of coconut trees which, by going uphill on the left side, led to the school organic garden and composting site. The crops grown in the school organic garden included: green and red cabbage, corn, carrots, cucumbers, beetroots, calaloo, different varieties of lettuce and tomatoes. Furthermore, the school had

a nursery for bamboos and fruit trees, such as coconuts, local cherries, avocados and june plums. Similarly, outside each classroom there were their respective flower gardens, which were maintained daily by class teachers and students. Below is a figure of the map of Uphill school:

A. Uphill school entrance road
B. Water pipes and sinks
C. Principal's office
D. Staff room and bathrooms
E. Grade 6
F. Grade 6
G. School canteen
H. School library
I. Grade 1
J. Grade 5
K. Grade 4
L. Grade 1
M. Grade 3
N. Grade 2
O. Female bathrooms
P. Male bathrooms
Q. School organic garden
R. School playground
S. (Rain) Water tank
T. Grade 6 classroom flower garden
U. Water tank
V. Composting
W. Live fencing
X. Uphill community

1. Grade 6 classroom flower garden
2. Grade 1 classroom flower garden
3. Grade 5 classroom flower garden
4. Grade 4 classroom flower garden
5. Grade 2 classroom flower garden
6. Grade 3 classroom flower garden

Figure 1 Uphill school map

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2.11 Uphill school structure

The total number of students registered in the school across Grades 1-6 with an age-group ranging approximately from 5 to 12 years old was 256 and they were organized in eight classrooms. Namely, there were a Grade 1, Grade 2, Grade 3, Grade 4, two Grade 5 and two Grade 6 classrooms. The total number of grade-specific teachers was eight, with an additional Guidance/Counsellor and Physical Education teachers who delivered a variety of lessons across grades. Therefore, the average pupil-teacher ratio was 32:1, although the higher number of students were concentrated in single classrooms across Grades 1-3, whereas the high number of Grade 5 and 6 students was divided, respectively, in two different classrooms for the same grades. Most students belonged to the Uphill community where I conducted my fieldwork, although there were a number of students who lived in other nearby communities and travelled to school either by taxi or school bus.

Three regular teachers left during the period of fieldwork, two of which left within the same school year as they were temporarily replacing former teachers on leave that returned later in the year. One teacher left at the beginning of the following school year and was replaced by a returning teacher, whereas the Guidance teacher left at the beginning of the school year to relocate in a secondary school in her parish and she was not replaced during the time of fieldwork (which ended two months into the new school term). Neither the teachers nor the school principal belonged to the local community. All of them, in fact, came from different locations including the nearby town and other parishes. Members of the school board and the school chairperson, in contrast, where all either members of the local village community or of communities in the neighbourhood. Other school staff members included the school principal, a chairperson, two cooks in the school canteen, a gardener, a technician, a school cleaner and a number of school board members who regularly visited the school and assisted with its activities.

The school day was structured starting with a period of nearly half an hour dedicated to 'devotion', where Christian prayers, the national anthem and various announcements were delivered. Once a month, prayers were delivered by a local pastor, who was usually the same who held the Sunday services at the church in Uphill community. After devotion, the first school subject was taught until the first morning break, occurring at about 10 am. A different subject

was then taught until the lunch break, which started at about 12 pm for Grades 1-3 and 12.30 pm for Grades 4-6.

The school canteen offered two different types of meals, which had two different prices. The cheapest meal (which was provided for free to students belonging to particularly disadvantaged economic backgrounds) consisted of curry chicken, rice and peas and salad, whereas the most expensive meal included fried chicken, rice and peas and salad. The regular afternoon classes, thus, lasted until about 2/2.30 pm and they were followed by extracurricular activities on some days of the week, or tutoring classes offered by the Grade 6 teachers to better prepare students to undertake their GSAT (Grade Six Achievement Test) exams. Teachers regularly remained at school until evening (about 5/6 pm) to hold meetings, work in the school garden or plan other activities and events. Moreover, each day a different teacher was invested with the 'on duty' task, which consisted of remaining on the school compound until all students had left or been picked up. Usually, even when no particular activity was planned after school time, other teachers remained with the teacher on duty to keep them company. Very often, children who were not picked up by their parents or taxi drivers were offered a lift home by teachers and the school principal.

On Thursdays, instead of regular afternoon classes, students were divided into multi-grade groups to attend various 'clubs'. These included: 4H Club, drama and performing arts club, environmental club, red cross club and boy scouts club. School activities also included a community outreach programme, which was performed on a monthly basis, where teachers took different groups of students outside in the nearby community to deliver food and beverages and perform prayers with community members, who were elderly people or children with disabilities.

Monthly parent-teacher meetings were also held, where parents were invited to participate in order to receive updates on school activities, share community news and concerns and were encouraged to take part to various events planned during the school year. These were mediated by the school principal and a parent's representative. Attendance at these meetings was regular for parents who lived at a walking distance from the school, while those who belonged to nearby communities which could only be reached by driving (e.g. by paying a taxi fare) did not attend the meetings regularly, mostly due to economic restraints.

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A number of other events and activities were held in the school throughout the school year, as I explore in more details in chapter 5.

2.12 Conclusion

In this chapter, I presented various features pertaining the context of the fieldwork site where I conducted this ethnographic study. These included a critical description of how sustainable development and ESD were introduced and evolved in the country over the years, by emphasizing some implications that bear relevance for further analysis related to the themes identified in the findings. The influence of international organisations' financial aid and related structural adjustments and reforms revealed to play a crucial role with regard to their impacts on sustainable development and ESD policies, as well as the government structure in the country. Afterwards, I outlined the evolution of the education system in Jamaica from colonial to present times. The focus of the description then narrowed from the national to the local levels, where I illustrated, respectively, the geographical, socio-economic and cultural features of the area at the parish, local community and school levels. Here, preliminary remarks related to the local reality (e.g. family structure and social practices linked to local socio-economic status and cultural values) served as a way to prepare the ground for further contextualisation and analysis of the findings that I will present in chapter 5.

In the following chapter, I will outline the theoretical framework used as a filter for the analysis of the findings of this study. This framework includes the notions of sustainable, transformative and social learning as conceptual abstractions that directly relate to the main issues identified in the ESD literature and in the field, such as: the relationship between anthropocentric/instrumental/transmissive and eco-centric/intrinsic/transformative approaches, tensions between the Global North and South and the role of social settings and power relations within which sustainable learning occurs, both globally and locally.

Chapter 3.

Social, Transformative and Sustainable Learning

3.1 Introduction

The aspects outlined in the previous chapters, namely: the international perspectives and policies on ESD, past and ongoing debates, the Jamaican sustainable development and ESD policy context and the geographical, historical, cultural and social settings of Uphill school and community, constitute the background with which the conceptual framework of this research evolved. Stemming from a thorough exploration of relevant literature, in this chapter I delineate the details of said theoretical framework, which also informed my research design, data generation, analysis and interpretation. In particular, the theoretical approach in this study is based on and combines literature that draws from transformative and social learning, as well as sustainable learning through existing research on EE and ESD. In particular, as I elucidate in the discussion later in this chapter, the rationale for the choice of these specific theoretical notions is based on their relevance to the understanding of sustainable learning, the broader ESD policy discourse and the specific context of Uphill school and community.

The concepts included within this framework are intended to be all-embracing. Namely, through them I propose an underlying understanding of a sustainable learning process that is transformative both locally (for learners, teachers and leaders) and systemically (at the national and international levels). The theoretical frame of reference for this study is attuned to broader beneficial outcomes of critically re-envisioning ESD as a learning practice aimed at *liberating* people from the limitations of their situation (Freire, 1970). In this way, I also aim to contribute to devising a learning approach that facilitates the re-thinking and re-shaping of the relations between the Global North and South in the ESD context in co-constructionist and dialogical terms. Considering integration of transmissive, transformative and social learning allows, in fact, to contemplate an overall transformative approach to sustainable learning (Sterling, 2010 a).

The choice of employing transformative and social learning approaches together is in line with the understanding of sustainable learning within this study. As it is accurately expressed by Wals (2011, p. 180):

"These forms of learning [...]:

- Consider learning as more than merely knowledge-based.
- Maintain that the quality of interaction with others and of the environment in which learning takes place as crucial.
- Focus on existentially relevant or 'real' issues essential for engaging learners.
- View learning as inevitably transdisciplinary and even 'transperspectival' in that it cannot be captured by a single discipline or by any single perspective.
- Regard indeterminacy a central feature of the learning process in that it is not and cannot be known exactly what will be learnt ahead of time and that learning goals are likely to shift as learning progresses.
- Consider such learning as cross-boundary in nature in that it cannot be confined to the dominant structures and spaces that have shaped education for centuries."

Furthermore, as I explain more comprehensively in the sections below, these approaches to learning take into consideration the three dimensions of learning that are necessary for a thorough exploration of learning processes. Namely, these include the content and incentive, in relation to the individual sphere of the learning development process (e.g. cognitive and emotional), and the social dimension, related to the interactions between individual learners and their surroundings (Illeris, 2007).

In order to outline the relevance of the theoretical notions here employed both to international ESD discourses and to the specific context of Uphill school and community, I define the concepts of social, transformative and sustainable learning in relational terms with these in the following sections.

3.2 Current power and inequality issues within ESD

In this section, I look at the relationship between views of nature and issues of power and inequality within EE and ESD in a critical manner. I consider it particularly important to analyse these issues in relational terms because, as I explain in detail below, broader structural issues affect perspectives and approaches within ESD.

A brief -but necessary- premise for this analysis concerns the evolution of the notion of transformative learning in the context of ESD over the last five

decades. Although in this exploration I outline the development of transformative learning in sequential terms, I nevertheless acknowledge the fact that characteristics belonging to earlier views are still present nowadays within sustainable learning approaches. This aspect is, indeed, observed in later chapters (e.g. 5 and 6) with regard to elements pertinent to the findings of this study.

In its origins, sustainable learning was based on a mechanistic and adaptive approach aimed at addressing specific individual and isolated environmental issues (Scott, 2004). Within this approach, EE was introduced in the school curriculum with the aim of equipping learners with knowledge and skills apt to deal with environment conservation and protection (Marcinkowski, 2009). Broadening the spectrum of environmental concerns to their interrelations with the economic, social and political spheres, ESD was coined as a new term in the Agenda 21 (United Nations Conference on Environment & Development, 1992) and subsequently included among the post-2015 SDGs (United Nations, 2014) within the Agenda 2030, as detailed in the 4.7 SDGs and targets:

> "By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development" (UN General Assembly, 2015, p. 21)

Inherent in the early ideas on EE and ESD was an anthropocentric view of reality, where human beings are seen as entities separate from the environment. As a result, they are perceived as the main agents with the ability to act upon the earth and its resources. This conception confers humankind a sense of responsibility and stewardship for the environment, as the latter serves their interests. This Cartesian view, though, based on the separation between the human and the natural realms (and, similarly, on the separation among environmental, social and economic spheres), underlay learning approaches where human beings were legitimately entitled to exploit nature, therein seen as merely instrumental and devoid of moral values (O'Sullivan et al., 2002).

The separation and exploitation characterizing environmental learning evoke an analogy between developed and developing countries within the international ESD scenario. Conventionally, in fact, in the same way as active and passive roles are attributed, respectively, to humans and nature in this dualistic separation, similar functions are assigned to developed and developing

countries in the broader ESD discourse (i.e. 'active' humans are entitled to exploit the resources of a 'passive' nature, in the same way as 'active' developed countries are entitled to exploit the resources of 'passive' developing countries) (González-Gaudiano, 2005). On the one hand, this paradigm is relevant to the Jamaican context with regard to its positioning as a developing country in relation to developed countries that establish ESD policies in it. On the other hand, this consideration highlights the close relationship between the systemic conception and structuring of ESD and how this is reflected in its pedagogical approaches. Namely, as mentioned in the introductory chapter and as advanced by González-Gaudiano (2005), the ESD paradigm is based on a conception that promotes an education *for* sustainable development. As a consequence, this phrase translates into an education for the continuation of the above-mentioned exploitative patterns. Despite Gonzàlez-Gaudiano's perspectives stemming from the experiences within the Latin American reality, they are pertinent to the Jamaican context too. Jamaica and Latin American countries alike, in fact, experience a position of subordination to developed countries within ESD. Therefore, the acceptance of the existing ESD model implies the acceptance of the legitimate subordination of nature to humans and of developing to developed countries, rather than problematizing this unequal relationship and recognizing it as the source of enduring unsustainable patterns. It also follows that an anthropocentric approach to ESD perpetuates local and global practices that are not conducive to either challenging the status quo or achieving sustainable outcomes.

Progressing from the earlier view, and as it can be noted in the above quote from the Agenda 2030, the notion of sustainable development at the basis of ESD has expanded from that of EE by including aspects pertaining to the social, cultural and economic spheres. Nevertheless, as noted by Mccloskey (2018), who uses a Marxist and Freirean perspective to critically assess the SDGs, some discrepancies can be identified. Specifically, whereas Goal 8 re-emphasizes a core focus on (sustainable) economic growth, Goal 13 urges us to take action to fight the effects of climate change. Therefore, he argues, the SDGs avoid facing the root cause of the problem; that is to say, the need to challenge the neo-liberal (and unsustainable) economic growth patterns that originally caused -and continue to perpetuate- poverty, inequality, injustice and environmental harm (Mccloskey, 2018). Finally, he persuades development education experts to ponder over the dangers of the SDGs' failure to address such structural issues.

Within today's neo-liberal framework, in fact, structural inequalities are related to how developed nations are still often playing an active role in devising sustainable development educational practices to be implemented in (passive) developing nations.

Another similar analogy within this framework can be drawn, in Freirean terms, about the relationship between those in power and their *oppressed* objects. Within this view, the *oppressors* (whether reflecting the power-relationship between developed and developing nations or that one between more and less affluent sections of society) do not perceive themselves as possessing a privileged position. Rather, they feel legitimately entitled to it and view others who are in a more disadvantaged condition as being responsible for it, since the latter are 'incompetent and lazy' (Freire, 1970, p. 83). As elaborated by Freire (1970), this view does not take into consideration the disparities in possession of privilege that distinguish the oppressor/oppressed positions. What is more, as remarked by critical eco-pedagogues, the inequalities mentioned above also need to be interpreted within historical constructions of development, which highlight how development is conceived in current neo-liberal terms and how this conception (negatively) affects understandings and practices of sustainability. In particular, the ideas of economic growth, progress and development need to be deconstructed to overcome a simplistic view where they are perceived as beneficial concepts. Doing this would allow to bring to light the complex oppressive mechanisms that influence people's behaviour toward the environment and their apparent lack of care toward good environmental actions. Similarly, global neo-liberal notions of progress and modernisation have furthered understandings that define being modern as valuing consumerism and individual economic success, rather than the common good and connection with nature (Misiaszek, 2018). These aspects are particularly relevant to the Jamaican national and local settings. In chapters 5 and 6, in fact, these elements emerge both as part of community members' self-perceptions, where they have internalized the *oppressed* role imposed on them by society, and of government policies, which assign responsibility (but not resources) to citizens. Furthermore, these systemic and inequality issues of power and oppression lead to considerations related to the promotion of global justice and social change. In particular, sustainable learning requires the critical examination of historical patterns of oppression, where the dominant notions and practices of development and progress are problematised through a multi-perspective approach (Andreotti et al., 2018). For this purpose, for instance, the HeadsUp tool is provided by Andreotti (2012; Andreotti et al., 2018) as a

powerful pedagogical instrument when engaging in development and social justice discourses between the Global North and South and with marginalised sections of the population. The 'HeadsUp' acronym is derived from the key points that constitute it:

> "- Hegemonic practices (reinforcing and justifying the status quo)
>
> - Ethnocentric projections (presenting one view as universal and superior)
>
> - Ahistorical thinking (forgetting the role of historical legacies and complicities in shaping current problems)
>
> - Depoliticised orientations (disregarding the impacts of power inequalities and delegitimising dissent)
>
> - Self-serving motivations (invested in self-congratulatory heroism)
>
> - Un-complicated solutions (offering 'feel-good' quick fixes that do not address root causes of problems)
>
> - Paternalistic investments (seeking a 'thank you' from those who have been 'helped')" (Andreotti et al., 2018, p. 15)

Accordingly, to generate critical evaluation, the HeadsUp tool intersects each point with questions related to two areas, namely "Whose idea of development/education/the way forward?" and "Whose template for knowledge production?" (Andreotti, 2018, pp. 16, 17). Similarly, based on Stein et al.'s (2017) 'the house modernity built' model, together with the TREE metaphor and the EarthCARE framework, Andreotti (2018) proposes multi-layer levels of critical analyses and possible directions for envisioning diverse solutions to the complexities of the issues entailed within existing models of development.

The relevance of the above analogies to the ESD context becomes even more blatant when considering the top-down approaches adopted by the Global North to introduce sustainable development programmes in the Global South (see section 1.1.1 for a critical discussion of the Global North/South divide), without this actively participating to the process of shaping them (González-Gaudiano, 2005; Misiaszek, 2018). Furthermore, within the Global South itself (and, frequently, as a result of structural adjustment programmes associated to financial aid received from developed countries' agencies) similar top-down methods are launched by local governments to implement ESD programmes without consultation and active participation of their populations. Critics, however, exhort scholars and policy-makers to understand the relations between Global North and South in a new, inclusive and participatory light. According to them, wider sustainable learning initiatives need to take into consideration and establish linkages with specific contexts, and they need not necessarily have to abide to the North-South dichotomy (Bowers, 2011;

González-Gaudiano, 2005; Jickling, 2005; Kahn, 2008; Lumis, 1998; Marcinkowski, 2009).

What still remains unexplored by contemporary approaches in ESD, in fact, are concrete steps towards innovative learning from sustainable learning experiences in the diverse contexts of the Global South. Despite these being promoted, for instance, by the concept of Global Learning which represents an educational milestone in advancing a new view of world relationships, there is still a need to establish pedagogies aimed at learning not only *about* issues of global poverty and inequalities, but also *from* them. In this regard, the idea of dialogism proposed by Scott and Gough (2004) as a confrontational process among various voices, where none predominates over the others, could be enhanced.

Furthermore, as advanced by Bristol (2012), learning *from* poor and marginalised contexts in the Global South requires acknowledgement of the historical role played by colonialism (and neo-colonialism) in their educational systems. Doing this implies adopting a post-colonial lens, through which the hegemonic colonial development apparatus of education is brought to light with a view to devising pedagogical practices for social justice. Bristol (2012) proposes an analysis based on the notion of 'plantation pedagogy', which she observed in her research study in Trinidad and Tobago. However, the concept is relevant to the Jamaican context as well and, in general, to post-colonial education systems globally. In her view, a plantation pedagogy is an educational practice that occurs within classrooms and it can have both an oppressive and a subversive nature (Bristol, 2012). In an oppressive view, the notion of plantation stems from the typical colonial top-down 'sugar estate' system, where a hierarchical and oppressive power-relationship was established between the master (located at the top of the hierarchy) and the slaves (situated at the bottom). Here, the master monitored and dictated the slaves' work, which they executed without questioning, for the preservation of the organisation of the plantation. The author compares this metaphor to both local and global scenarios. At the local level, post-colonial educational systems (such as in the Caribbean) function on the same lines, where the Ministry of Education personifies the role of the master that overlooks the educational activities of teachers, and teachers are viewed as the slaves who -through their teaching- convey ideas and values that reinforce the existing system. In this way, teachers lack agency to teach critically in their classroom practices, which would be required to question the existing order and bring about social change.

Similarly, at the international level, the structures of globalisation and neo-liberal economic development are established in such a way that the Global North (and its international aid agencies) performs the role of the master, by imposing top-down policies to be carried out in the Global South, which impersonates the part of the slaves. Moreover, this global structure creates a situation of economic dependency of the Global South to the North, which deprives it of the agency to bring about change. What is more, the economic dependency is transferred also in the educational realm through ideological dependency, where the content of teaching in post-colonial systems is dependent on the ideas promulgated by the Global North, thus reinforcing their state of oppression (Bristol, 2012).

On the other hand, the idea of plantation pedagogy as a subversive practice is envisioned by Bristol (2012) as a critical interrogation of the power-relationships between the economy and education outlined above, through the active role played by teachers in the classroom. In her view, teachers can gain agency in the process of de-colonising education, through the re-definition of their own and learners' cultural identity by critically questioning the role of colonial and neo-colonial history and, thus, develop intellectual independence from the master (i.e. the Global North and its ideas of economic development and consumption). Another fundamental aspect of this praxis is its contextualisation within the educational community, a link that allows the transformative process of subversive teaching to engender change for social justice (Bristol, 2012).

Based on the above considerations and discussions, the notion of sustainable learning advanced in this thesis is to be understood as being imbued with perspectives that draw from Freire and Bristol's works, as well as broader post-colonial, critical and eco-pedagogies. According to these approaches, ESD can be envisioned as an educational practice aimed at redefining unequal power-relationships among different parts of the world and developing new truly sustainable conceptions.

After having considered ESD power and inequality issues in this section, in the next section I provide a brief and general overview of learning theories. To follow, I focus on scrutinizing the specific pedagogical approaches resulting from two differing views of ESD, namely transmissive and transformative views and learning approaches.

3.3 Learning Theories

In this section, I concisely outline the main learning theories that serve as a general background to how I understand learning and the theoretical notions that I employ in this study. In this simplified analysis I include three main theories: behaviourist, cognitive constructivist and social constructivist. Furthermore, understanding the difference among these varied approaches also helps better comprehend the discussion I conduct in chapter 6, with regard to the implications of different types of learning that emerged from fieldwork data in various occasions (see also chapter 5).

Behaviourist theories developed, through behaviourists such as Watson and Skinner, as a response to Wundt's introspective psychology, which relies on personal accounts of individual experience to understand consciousness (Schunk, 2014). Behaviourists, on the other hand, focus on physically and objectively observable and measurable facts, such as stimulus-response based behaviours. Within this approach, knowledge is viewed as a set of mechanical responses to stimuli originating from the surrounding environment and, hence, not related to cognitive processes (Illeris, 2007; Schunk, 2014; Skinner, 1974). Therefore, the learning approach associated with this theory relies on the transmission of information from teachers to students, in order for the latter to develop the appropriate response to specific stimuli. Additionally, the achievement of students' desired responses is obtained through the use of a set of positive and negative reinforcement techniques (Skinner, 1974).

A return of attention to the role mental processes was advanced by cognitive constructivists such as, first, Piaget and, then, Perry. According to this type of learning theories, knowledge includes the combination of mental symbolic representations and processes that regulate them (Illeris, 2007; Schunk, 2014). Based on Piaget's early development of the theory, differently from behaviourist positions, knowledge is actively constructed by learners based on their reference background, level of development and cognitive structures. Accordingly, the pedagogical approach associated with this view of knowledge construction entails the teacher as a facilitator of learners' active exploration to assimilate and accommodate new knowledge (Piaget and Elkind, 1968; Schunk, 2014). Variations and further developments within cognitive constructivism include, for instance, Perry's (1999) notion of positionality, which emphasises various aspects of learners' background to understand how they construct knowledge, rather than merely focusing on their levels of cognitive

development. A constructivist approach underlies also Mezirow's (1991) transformative learning theory, which I draw on in this thesis (see sections below). Although originating in the context of adult learning, transformative learning can lend itself to the exploration of sustainable learning in school-age learners too (Bivens et al., 2009; Haas and Ashman, 2014). Furthermore, the type of knowledge development through a transformative learning process is particularly apt to a sustainability context in comparison, for instance, to Piaget's model. Piaget's conceptualisation of the notions of assimilation and accommodation lead, respectively, to an application- and an 'understanding- or interpretation-oriented knowledge' relevant to specific subjects or range of contexts. On the other hand, transformative learning implies the development of 'personality-integrated knowledge', which enables learners to make connections across subjects and contexts (Illeris, 2007, p. 49). As I explain in details in the sections below, this type of knowledge application is pertinent to the notion of sustainable learning employed in this study.

Finally, the third model of learning theories considered here has to do with social constructivist theories, based on Vygotsky's model (Schunk, 2014). Differently from cognitive constructivists, social constructivists attribute the origin of cognitive functions to learners' social interactions, with an emphasis on language and culture (Illeris, 2007, Schunk, 2014; Vygotsky et al., 1978). Vygotsky identifies two developmental stages, actual and potential (or zone of proximal development). The first reflects the knowledge already developed by learners, whereas the second one constitutes the level where learning occurs, only in association with others (Schunk, 2014; Vygotsky et al., 1978). Accordingly, pedagogical approaches associated with this learning model emphasize teamwork and group learning, where the teacher acts as a mediator of peer interaction (Schunk, 2014). Linked to this approach to learning is also Bandura's (1971, 1989) social learning theory within social cognitive theory, where there is a similar emphasis on environmental influences on the learning process. However, differently from Vygotsky, in Bandura's theory the relationship between learners and their environment is seen as bidirectional. Through the notion of reciprocal determinism, in fact, learners and the environment they interact with mutually influence each other (Bandura, 1989). Therefore, as I explain in detail in section 3.6, social learning theory presents aspects that are relevant to the understanding of sustainable learning that I propose in this thesis.

After having briefly looked at main extant learning theories, in the following sections I consider more thoroughly the features of learning approaches that have been employed within the ESD field.

3.4 '*Transmissive*' Learning in ESD

In this section I look at the transmissive learning approach within ESD, by considering its implications, advantages and disadvantages. Consideration of the implications of transmissive learning is useful both as an element of comparison with the effects of a more transformative type of learning in a sustainability context and also because often elements of the two learning types tend to co-occur, as I will present thoroughly in chapters 5 and 6.

The pedagogic methods employed within the human-centred view introduced in section 3.2 relied on '*transferring*' environmental knowledge and facts to learners, in order for them to develop adequate skills to prevent and solve specific environmental issues (Murray et al., 2013). This pedagogical model can be paralleled to Freire's banking concept of education, where ignorance is projected onto learners vis-à-vis teachers, who are seen as depositaries of knowledge. This model is characterized by an inherent contradiction between teachers and learners and it deprives the learning process (and students) from the elements of inquiry and creativity. Here, in fact, learners are expected to receive and store the knowledge and information transferred onto them by teachers, allowing no room for mutual co-creation of knowledge between students and teachers. Additionally, this transmissive approach to learning includes behaviourist aspects, where (positive or negative) external reinforcements are used as incentives for learning (Jickling and Sterling, 2017). As a result, the effects produced by this type of learning approach on students consist in the increase of a disengaged attitude towards reality, thus annihilating their potential to actively take part in re-envisioning it (Freire, 1970).

Some key authors have suggested that the outcomes of various educational programmes based on this approach, in the long-term, have often not proved effective in addressing the wide range of environmental issues at a global level, especially in developing countries (Scott and Gough, 2003; Sterling, 2001). Nevertheless, transmissive learning approaches can be beneficial in certain circumstances. For instance, as mentioned by Ham (1997), a transmissive approach can be very effective in tackling specific environmental issues that are

caused by particular actors in a society. He proposes, in fact, that this method can succeed by addressing different actors through strategic planning of a varied set of communication media. An example of this approach is constituted by the 'interpretation of nature' method, based on presenting learners with environmental facts through their meanings (Ham, 1992). In this way, short-term environmental and sustainability goals can be accomplished. At times, as advanced in Ham's work with Weiler (2004) and Krumpe (1996), this transmissive method has the potential to trigger further transformative shifts in learners' attitudes and beliefs that lead individuals to appreciate the interrelated connection between humankind and nature. However, this transformative shift is not a purposed outcome of the interpretive approach (Ham, 1997).

The intrinsic nature of transmissive approaches negates the opportunity to modify a reality that is perceived as fixed (Freire, 1970). This is particularly the case in the context of developing countries whose people -due to factors related to their colonial and postcolonial history- often already lack a sense of active participation in (re-)shaping their world. Studies (Scott and Gough, 2003; Sterling, 2001) have outlined that the dichotomous view of humans and nature (and, more broadly, of humans and the world) is an essential factor for the ineffectiveness of such pedagogical programmes. This separation also recalls the division between subject and object characteristic of the positivist paradigm, where the nuances intrinsic to the unified nature of the relationships between humans and the environment cannot be grasped (Shahjahan, 2005). Furthermore, as noted in the results of the banking model above, another aspect of such dichotomous view is the alienation of individuals from reality: "a person is merely *in* the world, not *with* the world or with others" (Freire, 1970, p. 48). Therefore, as a consequence, this conception is disempowering for people in that individuals perceive themselves as passive spectators of reality rather than as engaged co- or even re-creators of it (Freire, 1970).

Accordingly, the shortcomings of earlier views of ESD highlight a central aspect of current discourses on sustainable learning, namely the need to thoroughly comprehend the patterns of relationships (Bateson, 1987) among various interrelated elements pertaining to the individual, social, cultural, environmental, economic and political realms. Consequently, there has been a shift of interest from addressing separate environmental issues to focusing on their connections to wider systems, which resulted in revised approaches to sustainable learning. As I elucidate in detail in the section below, such approaches entail simultaneous consideration of phenomena that influence

each other -despite belonging to different disciplines- for the above-mentioned relationships to be brought to light, understood and acted upon.

In response to the limitations of earlier approaches, recent ESD scholarship encourages holistic and transformative initiatives, wherein the notion of sustainable learning includes a multi-disciplinary dialogue based on the interconnectedness of various aspects of learning -e.g. social, economic, policital, cultural, ecological (Kumar, 2008; Reid and Scott, 2007; Scott and Gough, 2003; Sterling, 2001). On the one hand, disagreement with this view in favour of the promotion of transmissive and instrumental learning approaches within ESD and EE is proposed, for instance, by Kopnina (2012). Her perspective challenges the effectiveness of a multi-disciplinary approach to address the environmental crisis. Her argument suggests that multi-disciplinarity within ESD can divert the focus away from directly dealing with severe environmental concerns and, indeed, it risks to reinforce anthropocentrism (Kopnina, 2012). On the other hand, transformative educational practices entail a revised perspective on the nature of the relationship between humankind and the environment in co-evolutionary terms (O'Sullivan et al., 2002; Scott and Gough, 2003). In this view, the boundaries that divide the individual self from the environment dissolve to embrace both in a continuum, where the relationships between humans and nature are understood on equal terms, and thus ascribe intrinsic and instrumental values to both humankind and the environment in a mutual way (O'Sullivan et al., 2002). Implicit in this understanding is also an ever-changing and unpredictable equilibrium between the two, which can be understood only by constantly acknowledging and focusing on their interdependence (Bateson 1987; O'Sullivan et al., 2002; Scheunpflug, 2010).

As it can be inferred by its far-reaching effects, criticism of the transmissive and instrumental approach to ESD needs to involve considerations related to broader trends within which current education is envisioned and practiced. In order for transformative pedagogical processes to occur, there needs to be an overarching structure that is conducive to and supportive of it. Present models of education existing within a neo-liberal framework -and based on a market-oriented approach- compel teachers to adopt forms of teaching/learning that tend to divert the focus from the benefits of learning as a *process* towards learning as a *product* of test-results (De Angelis, 2014; Jickling and Sterling, 2017). In this way, teachers and students have limited opportunities to resolve the contradiction inherent in their juxtaposition by engaging in a process of

mutual and co-intentional co- and re-creation of knowledge to transform reality, as their relationship and the transfer of knowledge is unidirectional (Freire, 1970).

In this section I considered the benefits and shortcomings of transmissive approaches to ESD and the shift towards transformative learning. In the following sections I look into the features of *transformational* and transformative approaches to sustainable learning. These approaches have emerged as a response to shortcomings of transmissive learning and as a result of generally more sophisticated and nuanced understandings of learning, which have developed through research, theory and practice.

3.5 '*Transformational*' Learning in ESD

Following from the section above, in this section I outline more details of the transformational shift within ESD and conclude with a table on the comparison of the differences between transmissive and transformative learning as they are understood in this study. I am aware that clear-cut divides between the two approaches can be problematic, as it is demonstrated by the above references to existing scholarship in support of and disagreement with aspects of both positions. However, the comparison between transmissive and transformative learning that I provide here is a synthesis based on the literature I refer to throughout this study. The synthesis is also aimed at providing some reference points for the analysis and discussion of the findings of this research in chapters 5 and 6.

Moving away from the transmissive mode, in the revised ESD framework the dichotomous representation between humankind and environment established earlier is now replaced by a comprehensive conception of reality, where social and ecological processes mutually influence each other (Antunes and Gadotti, 2005; Earth Charter Commission, 2004; Jickling and Sterling, 2017; Scott and Gough, 2003; UNESCO, 2012). Subsequent to this shift is a change in the way learning is conceived, namely as fundamental to spur deeper changes in individual learners' consciousness and in their relations with the environment (Bourn, 2014; Murray et al., 2013; Jickling and Sterling, 2017; Sterling, 2001). The pedagogies used in this context intend to be '*transformative*' rather than '*transmissive*' for learners (Murray et al., 2013; Sterling, 2010). The purpose is no longer to merely inculcate environmental knowledge, but to guide students

through a process of critical self-reflection and self-discovery. Accordingly, this leads them to the acquisition of enhanced awareness about themselves and their role into and interdependence with wider social and ecological systems (O'Sullivan et al., 2002; Reid and Scott 2007; Sterling, 2001, 2010).

Within a learning paradigm that is transformational, learners' perspective-transformation occurs when there is recurrent divergence between their preconceptions and perceptions of themselves, of reality, and of the relationships between the two (Freire, 1970). In order to overcome the incongruities generated by differing former and new perceptions, learners need to develop a new way of conceptualizing and organizing their experiences and knowledge. As a consequence, their altered views represent a transformative shift from old to new patterns of understanding themselves and reality (O'Sullivan et al., 2002).

Underlying the transmissive and transformational perspectives there are also considerations related to the purpose of education within ESD. In a transmissive/instrumental mode, education is *intended as* a tool to produce a change in learners' environmental behaviour in a predetermined manner. Successfulness of this approach is determined by the assessment of the extent to which learners display the expected behaviour. In contrast, the educational scope of a transformative mode is more emancipatory in nature, where the intent is to *equip* learners *with* tools that enable them to think critically and independently about the environmental and sustainable behaviours to adopt (Wals, 2011). In these regards, Sterling (2010 a) acknowledges the complementarity between transmissive and transformative methods in pursuing sustainable learning. In his view, the former can be effective in adopting a 'remedial' approach, while the latter a more 'developmental' one according to the specific issue considered (Sterling, 2010 a, p. 516). Therefore, he illustrates the limitations of each approach, which constitute the basis for their complementarity. On the one hand, in fact, transmissive learning can be very effective in achieving specific objectives, but it can lack critical thinking in relation to the interconnections between individual matters and wider systems. On the other hand, transformative approaches can be useful to develop critical understanding of the relationships between learners and their environment (intended both as nature and broader systems), but they can lack focus on definite goals (Sterling, 2010 a).

What is important to consider about these two approaches is the purpose(s) attached to sustainable learning from an educational perspective. A comprehensive understanding of sustainable learning entails learners' development of both practical skills apt to problem-solving and critical thinking abilities for problem-posing and adaptability to the uncertainty of ecological problems (Freire, 1970; Sterling, 2010 a). A balance and complementarity of the two is needed to ensure effective solutions to urgent individual environmental issues and re-envisioning of larger political, social, economic and ecological relations influencing sustainable patterns. These reflections are relevant to the findings of this study presented in chapter 5 and I will link them to the discussion I conduct in chapter 6.

The table below summarizes the differences between the transmissive and transformative/transformational approaches to learning in relation to ESD:

Table 1 Comparison between Transmissive and Transformative Learning in ESD

	Transmissive Learning in ESD	Transformative learning in ESD
View of humans and value of nature	Anthropocentric, instrumental	Eco-centric, intrinsic
Knowledge production	Transferring knowledge to learners	Co-construction of knowledge with learners
Role of teachers	Repositories of knowledge	Facilitate learners' self-reflection
Role of learners	Ignorant, passive, empty vessels to be filled with knowledge	Possess knowledge and actively contribute to producing new knowledge
Learning Process	Problem-solving, no inquiry, no creativity	Problem-posing, inquiry and critical thinking
Pedagogical approach	Behaviourist (positive and negative reinforcement)	Co-constructionist (teachers and learners co-construct knowledge together)
Focus and outcomes	Fixed (dualistic) view of reality, focus on solving isolated issues	Reality can be transformed (viewed as a set of interconnected, ever-evolving relationships), process of re-shaping it through perspective-transformation

After this brief introduction to a general understanding of the transformational shift and the differences between a transmissive and a transforma-tional/-tive approach, below I now conduct a more in-depth exploration of the theoretical aspects of a proposed transformative learning pedagogy within ESD.

3.5.1 Understanding Transformative Learning

The overview on the ESD framework in the previous sections emphasizes the benefits of a form of learning understood as transformative. Therefore, a more detailed analysis of this concept is required in order to outline the focus of the exploration that I conducted in this study. In this analysis I refer to transformative learning theories in the broader educational literature, which are also linked to ESD. In this section, although in a synthesized way, I dissect and compare notions drawn from the works of Jack Mezirow, John Dewey and Paulo Freire. The choice of focusing on these authors' works is due to their inherent potential to spur transformative change in learners at the individual, societal and political level (Rennick, 2015). These aspects are, indeed, all very relevant both to the context of sustainable learning in general and to the research participants and settings of this study in particular.

The notion of transformative learning originates from the works of Mezirow in the context of adult learning, and is further developed by Sterling in relation to sustainable education, also by drawing on the ideas of three orders of learning proposed by Bateson (1987). As I elucidate in what follows here and in the next section, an analytical synthesis of the concepts proposed by these authors presents insightful parallels with notions pertaining to the problem-posing education advanced by Freire (1970). These notions bring to light the potential contributions of combining these approaches in the context of sustainable learning.

In one of Mezirow's (2009) latest works, in agreement with current research, the author reconsiders the notion of transformative learning previously developed, by acknowledging the role of emotional – in addition to cognitive– knowledge, to foster critical reflection in learners. Central in his formulation of transformative learning practices is learners' individual experience, understood both as prior experience and experience produced in the classroom. In the latter, the interconnection between individual experience and critical thinking - both stimulated by a course content based on values- in relation to a 'disorienting dilemma' (Mezirow, 1991; Kitchenham, 2008) leads learners to develop new perspectives and promotes the transformative learning process.

At this point, it is relevant to draw a parallel between Mezirow and Dewey's conceptualization of how the process of (new) learning occurs. Dewey too, in fact, allocates a central role to direct individual experience in the learning

process through abduction (Dewey, 1958; Prawat, 1999), as a unique means of physical authentication of ideas, where these constitute the bridge between old and new learning. Briefly put, and certainly oversimplified, the abductive process consists in the formulation of a range of potential inferences based on observations and experiences, although not verified in a positivist manner (Paavola, 2015). Moreover, experiences are further translated into linguistic 'metaphors' or 'imaginal representations' that offer 'epistemic access' to phenomena (Prawat, 1999, pp. 61, 62, 65), so that the development of new knowledge occurs through individual testing of ideas. This final stage of knowledge development is strictly dependent on the learners' 'reflective process' (Prawat, 1999, p. 70) about the ideas derived from experience for both Dewey and Mezirow. Both authors, in fact, despite designating different elements for the transformative process to occur, stress on the importance of the combination of individual experience and reasoning.

For Dewey (1958), when new ideas developed by learners move from particular experience to a broader level, they can be transformative for students (Prawat, 1999, p. 71). In this process of inquiry, however, he acknowledges the role of learners' cultural background in shaping their ideas (Paavola, 2015). According to Mezirow, the transformative process requires some essential components for critical reflection to occur in learners. This, in particular, encompasses three aspects of thinking, namely (i) 'content', which refers to the object of perception, thought, emotions and actions; (ii) 'process', referred to the mode in which reasoning operates; and (iii) 'premise', related to understanding the causes of thinking. In this way, critical thinking enables learners to consider thoroughly the beliefs and assumptions that constitute the way they understand reality for their transformation to take place (Mezirow, 2009, pp. 7, 8).

However, the disproportionate focus on rationality in Mezirow's theory has been largely criticized, in that it excessively confides in Western epistemology, which remains detached from experience (Taylor, 1998). Therefore, critics suggest integrating rational elements with "extrarational" and spiritual ones (Dirkx et al., 2006; Susan, 1998). Accordingly, in response to said criticism, Mezirow introduced the components of 'dialogue' (Mezirow, 2009, p. 9), as an instrument that facilitates critical thinking and transformation through active questioning and meaning-making; 'holistic orientation' and 'awareness of context' (Mezirow, 2009, pp. 10, 11), concerning feelings and emotions, which relate to enabling learners to develop a comprehensive awareness about themselves and larger socio-cultural facets that have an impact on the learning

process; and 'authentic relationships' (Mezirow, 2009, p. 13) between educators and learners. Moreover, the inclusion of these aspects into the earlier version of the theory also contributes to addressing another possible shortcoming of the theory itself. Namely, this has to do with the employment of transformative learning to young learners, as their full identity has not yet been 'formed' and, hence, the potential to 'transform' it would be unlikely.

As it is shown in Haas and Ashman's study (2014) on the implementation of a sustainability-focused Global Education learning approach to kindergarten pupils in Tasmania, results are promising. Here, in fact, elements common to those outlined in the transformative learning model, such as individual experiential learning and interactions with nature facilitated by teachers - although following pedagogical approaches adjusted to the needs of the specific age-groups- showed the learners' transformative potential towards becoming global citizens (Haas and Ashman, 2014). Similar positive outcomes for employing a transformative learning approach to young learners can be found in Bivens et al. (2009). In this study, transformative education displayed the potential to enable students, especially in marginalised communities, to overcome the limitations of their disempowered environment, with positive repercussions also for their community at large (Bivens et al., 2009).

Another interesting aspect of Mezirow's definition of transformative learning concerns the association of this notion with that of 'cosmology' (Mezirow, 2009, p. 28), where he considers the approach of O'Sullivan and others on transformative learning and sustainability. Here, transformative learning is linked to environmental and consciousness aspects, in order to elicit change in learners' perspectives with the possible result of envisioning alternative ways of relating to themselves and to the world, which bear relevance for sustainable education (O'Sullivan et al., 2002). However, a few remarks need consideration in these regards.

Current studies (Nicolaides and Holt, 2016) report that transformative changes can present more complicated traits than formerly contemplated. In some cases, in fact, learners displayed sustained socially engaged behaviours, while at the same time maintaining a dualistic perspective of the world and witnessing a sense of nonseparation (Nicolaides and Holt, 2016). Therefore, the development of cosmological and planetary consciousness perspectives does not need to be considered as indispensable for a transformative process to occur. This is exemplified, for instance, by Freire's approach which is aimed at

social emancipation (Taylor, 1998). In his problem-posing model of education, a process of continuous active inquiry of the world by the students (and encouraged by their teachers) leads to the emergence of a critical understanding of reality. This takes place through a process where students are posed with multiple problems that are relevant to their contextual reality, thus increasing their level of awareness of their relation to the world and to other people. Posing such problems also challenges students' existing understandings of reality. In facing said challenges, they develop a renewed consciousness of themselves and their environment, which evolves into their commitment and 'critical intervention' in it (Freire, 1970, p. 54). In fact, Freire further explains, it is their reality itself that is presented to them as a problem and, through this method, learners conceive their active role in re-shaping their situation. Moreover, this model implies that critical reflection and praxis (understood as action rooted in critical understanding) are not separate, but concomitant, steps.

Similarly to Mezirow, Freire too considers the aspect of dialogue as fundamental to spur transformation. Dialogue, for Freire, needs to be grounded in feelings of love for and faith in people. In particular, when learners are given the opportunity to critically and dialogically explore themes relevant to their context, they also develop the ability to realise what Freire terms as 'limit-situations'. Development of consciousness (or, rather, conscientizaçao) about their perceived limit-situation, thus, not only allows learners to envision -in opposition to it- an 'untested feasibility' (Freire, 1970, p. 75), but it also represents for them the only way to perceive the opportunity to actively contribute to bringing about change. The consciousness of this opportunity then translates into 'testing action' through this model of education and, by so doing, it allows what was a 'potential consciousness' to replace 'real consciousness' (Freire, 1970, p. 88). The manifestation of the new consciousness into praxis, thus, is emblematic of this transformative learning process, which can lead to a transformed reality through transformative action. Indeed, Freire also relates this process to the condition of people in the Global South, where the aim is to challenge and overcome their intrinsic limit-situation to spur broader changes, through the transformation of their (power-) relations with the Global North. The table below offers a visual representation of the above-described transformative learning processes:

Table 2 Transformative Learning processes compared

	Mezirow	Dewey	Freire
Elements	value-based course content Individual experience (prior + classroom experience) + dialogue + holistic orientation awareness of context autentic relationships process premise +	Individual experience abduction through authentication and testing of ideas +	Individual experience + praxis continuous active inquiry critical reflection + dialogue +
Lead to	disorienting dilemma critical thinking + cosmology	reflective process	critical understanding of reality and 'limit situation' renewed consciousness, 'untested feasibility' critical intervention through testing action
Allow	new perspective development: new view of oneself and the world	(new) knowledge development	potential consciousness replaces real consciousness

In view of this conceptual understanding of transformative learning, considered here as a beneficial pedagogical approach in the context of sustainable learning, in the next section I delineate its relevance to the broader ESD context.

3.5.2 Transformative and sustainable learning

In the previous section I examined the details of the transformative learning process according to Mezirow, Dewey and Freire within the broader educational literature. In this section, I expand the analysis by connecting those notions with the understanding of transformative learning proposed by authors within the literature on ESD. In this way, I demonstrate the potential of employing a transformative pedagogy within and as sustainable learning.

The above understanding of transformative learning and Mezirow's earlier considerations on cosmology are referred to by Sterling (2010) too, as a basis for the conception of its model of 'levels of knowing' (Sterling 2003, cited in Sterling 2010, p. 20), which draws on Gregory Bateson's (1987) three orders of learning. Briefly, learning of the first level recalls the mechanistic 'transmissive' approach of imparting knowledge, hence 'conformative'. Learning of the second level involves critical reflection on and, possibly, a change of the learner's beliefs and assumptions, hence 'reformative'. Learning of the third level extends to a wider change in and expansion of learners' consciousness to include a paradigm shift in their epistemological views, and hence 'transformative' (Sterling, 2010, p. 25). Respectively, within a sustainability context, first level learning is viewed by Sterling (2003, pp. 284, 285) as being 'adaptive' or defined as 'education *about* sustainability' whereby content and information about sustainability issues are included in the curriculum and in policies and are often in contrast with the educational and social values of the overarching (unsustainable) paradigm. Therefore, Sterling (2003) posits, this level of learning about sustainability is beneficial, but it does not challenge the dominant structures within which it is encompassed. The second 'reformative' level or 'education *for* sustainability', despite being adaptive, is characterised by sustainable learning and actions rooted in critical considerations about broader paradigmatic values. Learning at this level, thus, generates structural changes, although these are based on the tensions between former and new values rather than on a deeper awareness of the functioning of the broader paradigm. Finally, the 'third' level of learning or 'sustainable education' is characterised by

a learning process where sustainability is understood in more systemic terms and it is continually explored. Accordingly, continuous understanding of the ever-changing and uncertain relationships that constitute the notion of sustainability defines this process as 'learning *as* change'. This learning process entails integral change of individual learners and (potentially) learning communities and their involvement in bringing about change within the broader social paradigm. Consequently, this level of learning also allows for the transformation of the education system itself in more sustainable terms, although -Sterling (2003) admits- this level of learning and change are in great discord with current values and systemic structures and are, indeed, rare to accomplish.

Likewise, Scott and Gough's (2003) notion of 'meta-learning' recalls the idea of interdisciplinary, transformative/third order learning and co-evolutionary theory employed by Sterling. The effects that educational practices aimed at spurring higher order of learning produce on learners are inherently holistic and can be linked to the three aspects of critical thinking (i.e. content, process, premise) and components that constitute Mezirow's model of transformative learning, defined elsewhere also as 'meta-cognitive reasoning' (Mezirow, 2003, p. 61). Additionally, in what O'Sullivan (2002, p. 83) defines as 'third level of presence' acquired by learners, there is an understanding of reality in terms of continual and interconnected internal and external processes, which govern the self and the environment, and which become the central focus of attention vis-à-vis the former emphasis of sustainable education on problem-solving skills. In like manner, Morgan (2007) acknowledges the potential achievement of a further 'fourth' learning level, by extending it to an eco-spiritual aspect beyond cognitive and conscious thinking, whereby the notion of 'wisdom' drives human intentions towards actions for the common good. Morgan's (2007) holistic concept of wisdom is based on the development of a cognitive level of learning termed as 'reflexive relationality', where thinking in binary terms (i.e. either/or) is replaced by thinking in more reflective and dialectical (hence, relational) terms (i.e. both/and). Therefore, this type of thinking allows learners to acquire a multi-perspectival and transdisciplinary view on the nature of reality, where some perspectives are more suitable than others to satisfy sustainability purposes (Morgan, 2007).

As elucidated by Morgan (2007), and as applicable to the definition proposed in this thesis, the notion of transformational/transformative in relation to education and learning in a sustainability context can be viewed through a two-

fold perspective. On the one hand, there is what Morgan (2007, p. 19) defines as 'horizontal' educational categories, where more radical, liberal and conservative ideological approaches are all placed in a continuum from left to right. In this linear view, the transformative approach corresponds to the left/radical one, with the aim of altering the status quo. On the other hand, there is a 'vertical' view (Morgan, 2007, p. 19), where transformation is thought of as a set of developmental stages of learning. In this perspective, ascending towards the highest transformative level coincides with the development of an ecological and spiritual awareness based on the realisation of humankind's role in its relationships with the Earth and within communities.

For Morgan (2007), the epistemic shift to a higher level of learning is related to 'multiple-loop' learning. Similarly to Sterling's (2003) learning levels, single-loop learning focuses on acquisition of skills to address sustainability issues; double-loop learning involves critical consideration of the values and assumptions underlying existing behaviours and structures; whereas triple-loop learning not only critically questions, but also changes existing values and structural arrangements. Most importantly, both Morgan (2007) and Sterling (2003) concede that all three orders of learning are needed in the pursuit of sustainability, while at the same time acknowledging their respective limitations. With regard to the first level of learning, in fact, the transmission of knowledge and skills to deal with the problem-solving aspect of sustainability issues are a necessary practical aspect. However, limiting learning to this level would entail maintaining the same values and structures that engendered unsustainable patterns in the first place (Morgan, 2007; Sterling, 2003). Accordingly, the second level of learning is required in order to critically assess the current situation and identify the underlying values and structures that hinder establishing sustainable patterns. Limitations of this level have to do with the inability to bring about actual change and transformation of the very values and structures that are being criticized (Morgan, 2007; Sterling, 2003). Therefore, the third level of learning, which recognizes a more comprehensive view and realisation of the paradigm within which unsustainable values and patterns exist, allows the envisioning of a new integrated worldview where such values and broader structures can be transformed to suit the achievement of sustainable patterns (Morgan, 2007; Sterling, 2003). In this understanding, the third (at times, even fourth) transformative level contains within it the cognitive understanding and emotional and spiritual awareness brought about by the combination, rather than the negation, of the first and second levels (Sterling, 2003). Additionally, Morgan (2007) notes the importance for teachers to have

achieved the transition from the first to the third (or even fourth) level of learning, in order for them to be able to successfully guide learners in doing so too. This last aspect is, indeed, relevant to the findings of this study emerged from the fieldwork.

The view outlined above promotes an understanding of transformative learning that emphasizes it as a process rather than a set of outcomes to be achieved by learners. The focus on the ever evolving nature of this type of learning represents a key feature in this approach, for measuring it in terms of accomplishing a specific goal would represent a limitation rather than an advantage (Bourn, 2014).

Employing sustainable learning practices that facilitate this higher order of learning can have promising repercussions in dealing with environmental challenges, as it would enable learners to develop skills and perspectives on manifold levels (i.e. technical, social, emotional), which would enable a paradigm shift in the pattern of relations amongst humans and between humans and the environment.

In these regards, Van Poeck et al. (2019) by drawing on Hopwood et al. (2005) too refer to three views in relation to change towards environmental and sustainability issues, which are comparable to the three levels of learning mentioned above. Namely, the 'status quo' view is based on the belief that the existing economic growth-driven system is able to address sustainability issues (including poverty and social justice aspects of sustainability) through market forces and technology. These, in fact, would automatically re-distribute profits among the less affluent sections of the population and use advanced technology to solve environmental problems (Hopwood et al., 2005; Van Poeck et al., 2019). This view does not challenge current economic and political structures and can be equated to the transmissive and conformative level mentioned earlier. The second is a reformist view, where more explicit criticism towards economic and political actions of the present system are expressed, without, though, implying their unsuitability to solve sustainability challenges (Hopwood et al., 2005; Van Poeck et al., 2019). This view is similar to the second level of learning above, of a reformative nature. Finally, the third transformative view identifies the current neo-liberal economic and political arrangements as the very source of sustainability issues and, therefore, requires a radical change in these and in the relation between humankind and the environment (Hopwood et al., 2005; Van Poeck et al., 2019). This third

approach aligns with the transformative learning level described earlier in this section. Furthermore, Van Poeck et al. (2019) propose sustainable learning teaching strategies that challenge traditional practices. Their work encompasses five principles to guide teaching, such as: an emotional level that is required to engage learners with content; choosing the adequate focus; relating to local sustainability issues; employing a pluralistic approach, where both knowledge and values guide thinking and actions; and including ethical and political aspects (Van Poeck et al., 2019).

As exemplified by the Community Action Project in Jamaica reported by Lorna Down (in Gentles and Scott, 2009), a pedagogical approach where students experienced the combination of: academic learning about locally relevant environmental issues, development of solutions to the same, active involvement with the local community based on rooted relationships, increased awareness about wider socio-economic and power-relations issues brought to the conclusion that '...in becoming agents of change, they were being transformed' (Down in Gentles and Scott, 2009, p. 16).

With regard to this study, the pedagogical practices employed in Uphill school and community are, thus, explored in chapters 5 and 6 through the lens of the notion of transformative learning outlined in this section. Looking at the fieldwork data through this lens allows, in fact, to represent and interpret participants' meanings in relation to this framework and to determine the type of learning taking place in the studied context. Furthermore, the use of this conceptual framework when employing triangulation techniques (that include the analysis of relevant policy documents on ESD in Jamaica) is also useful to identify broader trends at the systemic (i.e. national) level in relation to learning approaches.

Given the importance that relationships play both within a transformative learning framework and in shaping participants' learning experience and behaviours in Uphill school and community, in the next section I connect aspects of transformative learning and sustainability with the notion of social learning. This theoretical perspective, in fact, constitutes another layer of analysis of the fieldwork data that I present in the following chapters.

3.6 Social Learning: linkages with Transformative Learning in a sustainability context

In this section, I outline the linkages between aspects of social and transformative learning theories and their relevance within the context of sustainable learning. Specifically, I do so by drawing on concepts from the broader social learning literature and by taking into consideration connections with elements of the notions of transformative learning outlined in the previous section. In doing so, I also explain how a social learning perspective can address some of the criticism of transformative learning in Mezirow's approach. Finally, I look at the way in which social learning theories correspond to aspects of the ethnographic methods employed in this explorative study.

There are multiple reasons why I chose to include social learning perspectives within the theoretical framework of this study. Firstly, this conceptual perspective offers the opportunity to highlight features that are relevant to transformative learning within a sustainable learning discourse. Namely, the identification of diversity in perspectives and roles among learners connects and gives rise to the elements of disorienting dilemma and consequent reflective and critical thinking described in section 3.5.1. Furthermore, social learning's focus on both individual and collective characteristics of members of a learning community enables one to stress the potential of concerted activity as well as the influence played by members' differences. The emphasis on these aspects can be found in the attention that a social learning perspective places on 'relating to' or 'mirroring' of an individual's views with those of other members of a learning community (Wals, 2011, pp. 182, 183). Additionally, on the one hand, looking at collective characteristics through social learning is particularly useful to better understand the possibility of bringing about transformative systemic changes within a sustainability context (Sterling, 2010 a). On the other hand, investigating individual differences can throw light on the meaning of perspectives and practices that prevent or limit sustainable learning processes (Wals, 2011). These considerations pertain to the findings from Uphill school and community presented in chapter 5 and discussed in chapter 6.

The use of social learning can be particularly relevant also to the exploration of ESD processes in contexts where sustainable learning is investigated beyond the boundaries of traditional formal education settings. This concept, in fact, facilitates the study of the learning that occurs in the relationships among a

variety of subjects involved in transformative sustainable learning processes. Through social learning, sustainable learning can be investigated by looking at the interactions taking place within the school, such as teachers, students and school staff, but also beyond the school settings, namely parents, community members and other stakeholders participating in or initiating ESD activities (Wals, 2015). By looking at how this set of relationships shapes learning processes, social learning also allows one to expand and connect the level of analysis between the details of a specific local context and the influence of wider systemic structures (Reed et al., 2010). It is precisely in view of these remarks that I chose to employ social learning as another conceptual element for the study of Uphill school and community. In line with my ethnographic research focus (see section 1.1) on exploring the interactions between local values and practices and dominant ESD approaches, as well as the systemic relevance of the lessons learnt through such investigation, social learning offered me a conceptual perspective to reveal the function of these relationships in shaping sustainable learning in Uphill school and community and broader national and international links.

In consideration of the key role that relationships play within ESD discourses in general, as well as within transformative learning, they can be meaningfully analysed and correlated to such approaches in the study of Uphill school and community. This exercise is aimed at, first, better comprehending and, then, incorporating insights emerging from Uphill school and community into broader sustainable learning pedagogies.

Notions of transformative learning naturally lead to further linkages with features of social learning theories on various aspects. Firstly, the notions of transformative learning analysed above attribute an essential role to learning practices focused on value-laden content to trigger individual experience in learners and promote their critical thinking. However, within these, values are not considered as the sole element that by itself could spur transformative learning (Mezirow, 2009; Sterling, 2010). Combining social and transformative learning theories also contributes to addressing criticism that has been posed to Mezirow's work (Taylor, 1998). His transformative learning theory, in fact, has been noted to be lacking critical consideration of the impact of cultural values on the transformative process of learning (Clark & Wilson, 1991). Additionally, as advanced by Freire (1970, pp. 93, 94), taking into consideration the notion of culture is a way of acknowledging the transformative role of individuals, who exist 'in the world and with the world'. In these regards, as advanced by

Ferguson and Thomas-Hope (in Terry and Hill, 2016), environmental discourses need to be understood in terms of a social construction of nature, where environmental relationships are expressed through language, actions and interactions with it. Likewise, in Uphill school and community local cultural values are embedded in the learning processes taking place in the school and community's daily activities.

Secondly, both social and transformative learning in a sustainability context emphasize the need to focus on understanding relationships of various kind (e.g. within the social, environmental, economic, political contexts). In these regards, the significance of taking into consideration (power) relations in the analysis of experiences of social learning emerges from numerous studies on social learning and sustainability both in the Global North and South, where links are also made between local and global interrelations (Wals, 2009). The usefulness of combining transformative and social learning theories was observed, for instance, in a study on adaptive comanagement of three African communities located in disadvantaged areas (Cundill, 2010). In this case, in fact, the combination of a transformative (there labelled as 'triple loop') and a social learning lens allowed the researcher to understand the reasons underlying the differing outcomes emerging from the monitoring of adaptive comanagement under the implementation of similar collaborative strategies in three different communities. As defined by Reed et al. (2010), social learning takes place through the diffusion of perspectives and actions among members of communities of practice. The latter can be viewed as simple social systems that, through their interrelation with other communities of practice, constitute more complex systems (Wenger, 2010). In these communities, the learning process is understood as resulting from the relationships among community members/learners, who are seen as 'social beings' (Farnsworth, 2016, p. 144). Therefore, processes of transformative and sustainable learning are considered with reference to the structure of relationships existing within a 'learning community' (Wals, 2009, pp. 13-15).

Concerning the acquisition of cognitive and behavioural learning, social learning theories concentrate on the analysis of the reciprocal interaction between individual factors inherent in learners and external influences (Bandura, 1971, 1989). That is to say that in both a social learning and in a sustainable learning perspective, humans and the environment mutually influence each other. Specifically, in this prospect, learning is understood as learners' (positive or negative) behavioural reinforcement resulting from the

occurrence of direct experience, observation, and –symbolic- social relations (Bandura, 1971), which all contribute to shaping their learning. Awareness of the importance of values and social behaviours, and their interplay, in the learning processes carried out in Uphill school and community provides another facet for the exploration of their daily practices and the learning perspectives that derive from them. Investigating local cultural values and the role they play within the context under study also has methodological implications. It is, indeed, necessary for a researcher to adopt an 'attitude of *understanding*' (Freire, 1970, p. 83), which enables them to critically comprehend how research participants' values and customs affect their perspectives and practices.

Finally, as I explain in more details in chapter 4, the above discussion on the interconnections among transformative, sustainable and social learning also underlines the importance, in this study, of understanding the context of learning in relation to the whole community rather than being limited simply to the school environment.

3.7 Conclusion

In this chapter, I looked at the critical implications of existing paradigms within ESD learning approaches (i.e. transmissive vs transformative approaches), briefly outlined main learning theories and identified the elements that constitute a transformative learning approach in a sustainability context. I also considered the features of social learning theories and how these, together with aspects of transformative learning, present relevant links with sustainable learning. Furthermore, I explained how the combination of these theoretical notions is pertinent to the exploration that I conducted in this study.

In the next chapter, I focus on the ethnographic methodology employed in this study. Indeed, I consider ethnography as being coherent with the aims of this research mentioned in chapter 1 (i.e. to explore participants' perceptions and daily practices in relation to ESD in Jamaica). Moreover, the use of an ethnographic approach is also pertinent to the theoretical framework described in this chapter. The study of the cultural values, practices and relationships in Uphill school and community can be helpful to explore the types of learning taking place in this context. Finally, ethnography is also useful to investigate the connections with broader national and international influences that contribute to determining participants' perspectives and practices.

Chapter 4.

Ethnographic approach to the study of Uphill community and school

4.1 Introduction

In this chapter, I outline the methodological approach employed in this study, that is to say an ethnography. Accordingly, I provide an overview of what constitutes ethnography, followed by the origin and evolution of the ethnographic methodology and a rationale for choosing it in this PhD study. This analysis is useful in order to identify where my study is positioned within the methodological literature, by aligning mostly with the works conducted within the anthropology of education, but also taking into account useful aspects from educational ethnographies. I also highlight some imperative remarks related to conducting fieldwork studies in other-than-Western settings and demarcate the fieldwork site by including both Uphill school and community in it, with a view to addressing methodological gaps identified in the methodological and broader ESD literature. Specifically, including both the school and the community as part of the fieldwork site enabled me to gain enriched insights into the learning processes taking place, by overcoming the limiting notion of learning deriving from the equation of learning with schooling.

Following this introductory part, I then delve into the details of the data generation process, by providing detailed information about the aspects of fieldwork (participant) observations and conversations with a purpose, interviews and focus groups. From this description, the need will then emerge for including remarks related to ethical issues and difficulties, as well as personal reflections on my role as a researcher. After providing an illustration of the data generation process, I describe how the ethnographic data was organized and analysed. Finally, I explain the process of conducting content analysis of relevant documents to ensure a thorough understanding and contextualisation of the fieldwork data.

4.2 What is ethnography?

In this section, I present a general overview of what constitutes ethnography. Having an initial understanding of ethnography as a methodology and of the range of ethnographic techniques available is useful to later introduce the specific methodological choices undertaken in this PhD research.

Ethnography originated from the anthropological study of culture and the social meanings attributed to research participants' activities and understandings in a particular context of study. In Brewer's words:

> "Ethnography is the study of people in naturally occurring settings or 'fields' by methods of data collection which capture their social meanings and ordinary activities, involving the researcher participating directly in the setting, if not also the activities, in order to collect data in a systematic manner but without meaning being imposed on them externally." (Brewer, 2000, p. 6)

As pointed out by Willis and Trondman (2000), ethnography is a process centred on comprehending and representing lived experiences. In particular, ethnography uncovers the symbolic meanings, structures, words and practices internal to research participants' experiences in a particular culture (Wolcott, 1980). It does so by providing a reflexive and relevant theorization of experiences embedded within larger contemporary historical, cultural and contextual features of the settings explored. Crucial in ethnographic research is also a "critical focus" (Willis and Trondman, 2000, p. 9), where issues of power-relations are acknowledged and inform the meaning-making of observed experiences.

In order to learn and then portray research participants' experiences in the fieldwork settings, researchers adopt a set of ethnographic techniques to generate data. These techniques include fieldwork notes from participant observation of members' life in the culture studied, more or less structured interviews and focus groups with a variety of participants, pictures, video recordings and consultation of various documents that can throw light on the research topic (Harrison, 2008). Conventionally, following a stage when a research design is defined and access to the field is gained, an ethnographer spends a long-term period (e.g. usually about one year) in the culture studied, with a view to becoming familiar to the new settings and developing trustworthy relationships with research participants. Often becoming familiar with a new culture also entails learning a new language and adopting local customs.

Through this long-term process, research participants too become accustomed to the researcher's presence in their life. In this way, through witnessing and taking part in daily activities, the ethnographer gradually acquires knowledge of local ways of understanding reality (Harrison, 2008). The systematic recording of occurrences observed in the field takes place through different stages and forms of note-taking. On the one hand, in the attempt of capturing as much as possible about what goes on in the field while observing, ethnographic researchers often take notes in the form of jottings about: physical locations, people and their actions and interactions and particular events. On the other hand, fieldwork notes can include methodological, analytical or conceptual and personal reflections which are developed at a later point in time, after instances have occurred (Emerson et al., 1995). Although ethnography is characterized as a systematic process, an element of improvisation is also required. This relates to the researcher's ability to be flexible and make unplanned decisions which are appropriate to changing circumstances in the fieldwork settings (Cerwonka and Malkki, 2007). Improvised decisions, however, stem from a deep understanding of the settings rather than constituting researchers' arbitrary choices (Harrison, 2008).

As I explain in detail in relation to this study in the following sections of this chapter, the period of ethnographic field work is followed by the production of ethnography as a written document, in the form of 'thick descriptions' (Geertz, 1973). To be precise, ethnographic writing is an ongoing process and no clear-cut line can be drawn among the phases of data recording, analysis, interpretation and presentation. The writing process in ethnography is, indeed, a tool in itself for not only presenting but also processing and making sense of data. Nevertheless, some typical steps that lead to the production of the final ethnography as a document include the identification of: specific themes emerging from the data, examples that illustrate such themes, background information that informs them and their analytical discussion (Harrison, 2008).

With regard to producing an ethnographic text, Harrison (2008) formulates the concept of TIME (Theoretically Informed Methodology for Ethnography), where a continuous back and forth process of 'induction' and 'deduction' between data and theory gives rise to moments of 'surprise'. In particular, both theoretical notions and empirical data can mutually inform each other by triggering moments of 'surprise' to elicit new theoretical or interpretative insights to 'illuminate' the data. In other words, the conceptualisation of empirical experience should represent the experienced social, cultural and structural realities, but in a different way from what is recorded within ethnographic data

and without imposing theoretical frames (Willis and Trondman, 2000). Through ethnography as a text, in fact, researchers aim at reconstructing the social realities studied and the experiences of their members (Atkinson, 1992). I elucidate the application of this approach through the presentation and discussion of findings in chapters 5 and 6.

An intended purpose of ethnography is to offer a source of information to a variety of social actors, research participants first and foremost, to aid them in the process of understanding their positions and the origins and effects of certain practices. At the same time, ethnography allows the dissemination of socio-culturally different experiences which can provide comparative instances to learn from in order to re-envision specific aspects of human life (Willis and Trondman, 2000).

After this brief overview focused on outlining ethnography's constitutive elements, in the next section I look into the specificity of the origins of the ethnographic tradition within anthropology and its application in educational settings. Therefore, in the following section I focus on explaining the particular ethnographic approach adopted in this study, as well as the criteria used to define the learning environment explored.

4.2.1 Approaches to ethnography and education

Historically, ethnography developed from the growth of the British and North-American anthropological traditions of the twentieth century. In particular, within the former, social anthropology was initially focused on the study of people and their cultures within British colonies. As part of the second one, based on the sociological work of the Chicago School, there were studies of the marginalised sections of the society within American urban industrial cities (Brewer, 2000; Gordon et al., 2001).

This methodological approach encountered a variety of criticism, especially in its early years. Said criticism can be identified from two major sources, namely the natural sciences and the postmodern school of thought (Brewer, 2000). Within the former critique, ethnography is assessed against the scientific methods employed within the natural sciences and, hence, considered as less scientific in those regards, as its methods appear as less systematic, more flexible and its outcomes can be perceived as being too subjective (Brewer, 2000, Giddens, 1996). With regard to the latter, the changed perception of

reality occurred within postmodernist thought involves the replacement of the search for ideal methodological ways to make reliable statements about a universal truth with the acknowledgment of the plurality of views and understandings that constitute reality (Brewer, 2000; Gordon et al., 2001). As a consequence, ethnography too is perceived as being unable to convey any realist representative truth about the social spheres and ethnographic accounts could, at best, be constructions about social reality (Clifford and Marcus, 1986; Gordon et al., 2001; Hammersley and Atkinson, 2010; van Maneen, 1988). Therefore, there has been an equal variety of responses to these critiques from the ethnographic community (Gordon et al., 2001). For what concerns the positioning of this research study, I concur with two main points advanced by Hammersley (1990). Firstly, he defines "the explicitness and coherence of the models employed and the rigour of the analysis" as determining the distinctiveness of ethnography (Hammersley, 1990, p. 609). Secondly, he emphasizes the importance of the concept of 'relevance', which is understood as the purposes for which ethnographic descriptions and explanations are written. In particular, he argues for the need to make explicit and to justify such purposes, as well as the value assumptions implicit within ethnographic writing (Hammersley, 1990).

Another important aspect of the ethnographic approach I adopt in this study is its affinity to the methodological techniques used within the literature on anthropology of education, especially in rural communities. This approach, in fact, provides the opportunity to construct knowledge both about the community as a whole and about the learning processes that occur within it (Spindler and Spindler, 1974, 1987; Delamont and Atkinson, 1980). In these regards, as asserted by Froerer (2011), cultural and social anthropology's focus on learning issues (where the significance of the influence of psychological perspectives and studies on the individual's learning process is acknowledged) is connected with larger social processes involved in the studied settings. These include both formal learning processes occurring in schools as well as culturally informed daily practices in informal contexts (Froerer, 2011).

Differently, educational ethnographies were originally rooted in empirical studies of schooling as part of the sociology of education discipline. Such studies, in fact, were conducted by researchers trained in sociology rather than anthropology and did not encompass investigations of the rural and community contexts within which schools were embedded (Gordon et al., 2001). Studies about communities did exist, although their main focus was sociological and not

on learning processes and schools per se (Delamont and Atkinson, 1980). What this study aims to pursue drawing from educational ethnographies, an aspect which lacked in the older anthropology of education tradition (Wax et al., 1971; Gordon et al., 2001), is the ability to provide a sound conceptualisation deriving from the fieldwork findings, which can uncover structural issues that can be useful for broader policies and practices (Ball, 1981).

However, unlike many studies encompassed within the literature on anthropology of education and educational ethnographies (Anderson-Levitt, 2012), in this study I not only acknowledged the significance of the local community's cultural and social values on the learning process, but I also included within the focus of investigation both Uphill school and the surrounding Uphill village community as a whole. In doing so, both community members and students were understood as learners. With this methodological decision I also aimed at addressing current gaps pertaining to the literature on educational ethnographies, which relate to the problematic equation of education with schooling (Anderson-Levitt, 2012). Such confusion about associating education and learning with schooling has left the territory linked to spaces, people and activities occurring outside the formal school environments largely unexplored, as they have been considered irrelevant to processes of learning under study. Therefore, the role of educational ethnographies that cover non-school settings has been recently reconsidered and promoted to unveil the connections between local and global contexts and meanings and between these and educational policy making (Anderson-Levitt, 2012; Blum, 2008).

The need to broaden the context of learning to be studied identified in the literature coincided with the focus of analysis in this research project. Uphill school and its pedagogical methods are, in fact, constantly linked and embedded within the context of its wider community, hence suggesting the need to demarcate and investigate the learning experience beyond the school nucleus to include the community as a whole. This aspect recalls Levinson et al. (1996, p. 162) assertions about the cultural production of students in indigenous communities, where "[t]heir identity, therefore, is entirely bound to their learning experiences, which are in turn influenced by the structuring features of the social environment". Furthermore, Levinson et al.'s (1996) perspectives on the cultural production of individuals in different contexts emphasize how ethnographic methods for data generation can help researchers to gain more insights and in-depth understanding of the dynamics taking place inside and outside school environments, through the combination

of interviews and observations of subjects belonging to minority communities. In particular, as noted also in Gordon et al. (2001), these studies bring to light the fact that awareness about local values of a specific community of people is fundamental in order to comprehend and interpret their behaviours. As a consequence, these considerations indicate the importance of establishing a balance between maintaining a focus on the aspects of investigation mentioned above (according to pre-established theoretical notions) and – to some extent – 'unlearning' personal pre-conceived ideas that could affect the interpretation of community members' actions (Blum, 2008).

In conclusion, in this section I briefly considered the evolution of the ethnographic tradition, its criticism and different approaches. These were identified especially between the British and North American traditions. Within these, the former has been characterized by educational ethnographies that draw on the sociological discipline and focus more on formal school settings, whereas the latter derives more directly from the anthropological tradition and its focus on cultural and social interactions, with less development of theory in sociological terms. Therefore, this analysis and considerations of the methodological gaps within the ESD literature, served as a basis to demarcate the focus of fieldwork settings in this study. Accordingly, in the next section I focus on the rationale for using ethnography as the most appropriate methodological approach for the exploration conducted in Uphill school and community.

4.3 Rationale for Ethnography

The methodological approach employed in this study is qualitative and interpretive in nature, namely an ethnographic study, as the most appropriate form of enquiry for the research focus and information sought. Particularly, ethnographic techniques constitute an effective way to explore and convey research participants' meanings, through interactions and participant observation of their daily practices (Emerson et al., 1995). Through observing as well as engaging in these processes with members, in fact, I pursued the investigation of key aspects for my research interest. These aspects included four elements within two main research focus areas (previously mentioned in chapter 1):

1) how local knowledge, values and practices in Uphill school and community interact with dominant Western approaches to ESD;

   1.1) how various community members conceptualize the notion of environment;

   1.2) the nature of local knowledge and values and what role they play in influencing sustainable learning practices;

2) how diverse local and Western perspectives challenge each other and inform academic and policy ESD discourses of the -yet unexplored- lessons that this experience reveals;

   2.1) how and what type of sustainable learning occurs within (and between) Uphill school and community;

   2.2) what lessons can be learnt from this context and how they relate to broader ESD policies and practices.

The effectiveness of using ethnography to explore similar aspects in the literature can be found, for instance, in a year-long ethnographic study by Urrieta (2013) in a Mexican indigenous community. Here, this methodological approach enabled the researcher to reveal how learning processes are organised in the community through daily activities. What is more, the use of ethnography also uncovered the philosophical attitudes within the community, which influenced how children's learning processes took place. Therefore, bringing to light these perspectives was deemed relevant to informing teaching and learning approaches at the systemic level. In a similar manner, McDonogh's (2011) ethnographic study of social ecological policies in Barcelona exposed the contradictions between policies oriented towards sustainability initiatives and (what hinders) daily practices for sustainability in the city. In this way, meaningful insights were provided for policy-making.

In line with my personal motives for conducting this research project, and with the requirements identified in the broader ESD literature (see chapters 1 and 3), ethnography provides a pertinent methodological framework for the epistemological and ontological assumptions inherent to this study (Crotty, 1998; Pole and Morrison, 2003). Namely, as expressed by Crotty (1998, p. 32), in a constructionist perspective: "*all knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context*" [emphasis in original]. Ontologically, hence in relation to "what is" (Crotty, 1998, p. 13), ethnography allowed me to explore understandings of sustainable learning within a social

world, to which research participants attributed their own interpretations and meanings. In these regards, one could argue that I could have conducted the exploration through the use of a qualitative case study. However, differently from qualitative case studies, ethnography acknowledges "*that ethnographers play* [an] *important role as research instrument*" [emphasis in original] (Suryani, 2013, p. 123). In this way, it is within the aims of ethnography to capture both the participants and the researcher's views in the final ethnographic account (Hoey, 2014). Additionally, ethnography can be defined as both a process and a product (Agar, 2008), deriving from protracted and intense immersion in the settings and relationships with research participants, which can hardly be equalled by the (usually shorter) time of a case study approach (Parker-Jenkins, 2018).

Ethnography as a technique of enquiry conforms with the intention of conducting research that is fundamentally relevant to the people involved (Denzin et al., 2008). In this regard, of particular importance is the use of a critical methodological perspective within the ethnographic research design, whereby the adoption of a "moral lens" enables the researcher to establish a participative relationship with the members of the community. Such moral lens can be established through the researcher's contemplation of issues that include questions about whom the research is for, what difference it will make, how it will be done, how to establish its worthwhileness and who will be its beneficiaries (Denzin et al., 2008, p. 9).

Methodological remarks regarding conducting research in other-than-Western communities are also needed. Despite Uphill community not being strictly 'indigenous', the characteristics of the specific context, nevertheless, require a sensitive approach where traditional Western pre-conceived notions on schooling and learning are not taken for granted. The distinctive features of Uphill school and community members are essentially tied to their contingent identity in a rural settlement and their values originating from a history of slavery in the local sugar plantation, combined with the contemporary global influences and the local mixed Rasta(farian) and dancehall culture. Research participants' inherent characteristics entail considerations on whom the research is for, what their understanding of reality and of human and environmental knowledge and practices is, and how these come to light through their daily activities and ways of interacting (Denzin et al., 2008). However, in contrast to the stance advanced by Denzin et al. (2008), which implies the rejection of Western notions when dealing with research on local systems of knowledge, there is a need for

maintaining an interrelation between differing views of the world. In this research, I encompassed within the purpose of my study the aim of carrying out dialogical, constructive, and mutually transformative processes of learning between Uphill community and me as a researcher (and the broader ESD discipline that this research informs). On the one hand, there are *quasi*-clear differences emerging from the juxtaposition of institutionalized traditional Western educational systems and local ways of learning, which are more directly related to local places and a sense of community. However, specific contextualization and problematization of the same are unavoidable (Tuck et al., 2014). On the other hand, in fact, the efforts implicit in developing an understanding of local ways of learning necessitate cautions to avoid stereotyped definitions of local systems of knowledge (Tuck et al., 2014). In the light of these considerations, in this study I sought to identify how sustainable learning is conceived in Uphill school and community and in what ways this conception arising from their local knowledge relates (or does not relate) to a transformative view of the relationship with the environment. Accordingly, determining the nature of this understanding unfolded influential insights for enriching ESD notions and practices in traditional Western systems of knowledge in a dialogical way (Kumar, 2008).

It is also necessary to take into consideration some remarks on the difficulties related to the attempt of outlining a methodological framework that is sensitive to ongoing debates on issues of representation of local knowledge within the current literature (Tinker, 2007). In the effort to overcome ethnocentric perspectives on the existing dichotomies between 'Western' and 'local' knowledge systems, way too often eventually Western researchers reinforce such essentialist positionings, by maintaining this divide and simply transposing validity and legitimacy from traditional Western systems of thinking to the 'holistic, communitarian and natural' perspectives attributed to so-called 'indigenous knowledge systems' (Giri and van Ufford, 2004). Concerning this aspect, in this research study I certainly intended to give a voice to 'other' ways of perceiving the relationship between humans and the environment. Nonetheless, I aimed to do so not without problematizing this division in the first place. Through the exploration of the research participants' perspectives, in fact, in this study I brought to the analysis the complexities involved in trying to establish contextual representations that overcome the limitations implied in the static and polarized view of Western versus local knowledge systems. I pursued this aspect by making an effort to thoroughly include the research subjects in

the process of "self-representation" (Spencer, 1989, p. 159) and by exploring learning beyond the school boundaries.

The choice of extending the exploration of learning practices outside the school environment is also in line with the literature on indigenous knowledge and sustainable learning of a transformative nature. The latter points to the importance of considering a learning environment which extends beyond the school unit to include, at least, relationships and interactions with local communities. For instance, Dewey's approach to the process of learning in learners' formulation of new ideas presupposes that communities play a crucial role 'at all stages of idea development' (Dewey, 1958; Prawat, 1999). Furthermore, in studies on community-based learning in the U.S.A., the (more or less physical) 'spaces' (Fine et al., 2000) where community encounters occur seem, in fact, to facilitate transformative learning not only for students as learners, but for learners intended as all members involved in common activities. Learning in non-institutionalised settings and for the benefit of the whole community is common to various non-Western societies too, where the latter are understood in this context as '"indigenous" knowledge systems' (Merriam and Kim, 2008, p. 72). As a result, this implies the requirement of exploring the different ways of learning and constructing knowledge in these societies (Denzin et al., 2008), where –in comparative terms with research in Western educational systems- there is increased emphasis on the learning occurring in daily activities and traditions to promote the development of individuals in holistic terms (Merriam and Kim, 2008; Urrieta, 2013). Therefore, the investigation of sustainable learning practices beyond school settings in Uphill community was also aimed at informing ESD initiatives internationally. Indeed, as pointed out by Down in Gentles and Scott (2009, p. 1), with particular reference to the Jamaican context: "The planetary crisis- of climate change, depleted energy resources, air and water pollution, species extinction, violence, poverty, HIV/AIDS etc- requires a radical shift from education that is narrowly confined to the classroom to one that places students in community".

The exploration included the participants' perceptions, perspectives and daily actions and interactions within and between the school and village community in relation to the notions of social, transformative and sustainable learning. The particular emphasis that ethnography assigns to everyday actions and their 'situated meaning(s)' within a specific context (Pole and Morrison, 2003, p. 5) helped, in fact, reveal (if and) how social, transformative and sustainable learning practices occurred in Uphill school and community. On the one hand,

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the ethnographic approach unveils how social arrangements within the community influence its members' actions, and it brings to light their views as "insiders" (Pole and Morrison, 2003, p. 8). On the other hand, the protracted period of fieldwork prescribed by ethnographic techniques allowed me to gain insights into wider social dynamics occurring between the community and external actors from the surrounding area. Specifically, this methodological approach enabled me to witness and explore in detail the various levels of learning (on a transmissive to transformative spectrum, as outlined in chapter 3) taking place in the pedagogical approaches in Uphill school and daily practices in Uphill community. What is more, it also allowed me to uncover specific factors that either bolstered or hindered sustainable learning practices. Thus, ethnography was also aligned with the understanding of sustainable learning that I propose in this thesis (see section 1.1.2), where the emphasis is on the learning processes, rather than its outcomes, and on the set of relationships among individual learners, the community to which they belong and their surrounding environment (intended both as natural environment and broader social arrangements). In this way, ethnography also offers the opportunity to highlight broader connections with sustainable education policy discourses at the local and international level (Blum, 2008). At the same time, this aspect implies an understanding of ethnography in terms of what Pole and Morrison (2003) – drawing on Brewer and Wolcott- define as 'big' ethnography, encompassing both methodology and methods employed. This definition also refers to the notion of fieldwork as the researcher's intention and engagement with the specific place and situation under study. In this regard, my previous experience as a volunteer in rural communities in India for four years (i.e. 2009-2012) allowed me to acquire necessary abilities required by ethnographers, such as flexibility and open-mindedness, which were crucial to ensure understanding and contextualization of meaning (Swain, 2006).

Finally, in this section I have clarified the main reasons for choosing ethnography as the most appropriate methodological approach for this study. As mentioned above, with a view to accomplishing my research aims, it allowed me to gain insights into participants' perspectives by fully immersing myself in and taking part to their activities. Furthermore, it also ensured that the study was relevant to the participants by bringing to the fore their areas of concern in relation to sustainability issues. Lastly, it threw light on the nature of the dynamics of local social relationships, which helped bridge connections with larger national and international linkages.

In the sections below I provide details about the specific ethnographic tools and strategies that I employed to generate data.

4.4 Research tools and strategies

The broader ethnographic methodological approach in this study included the use of participant observations, purposeful conversations, interviews, focus groups and attending local events within Uphill school and community as methods of generating data. As this approach best suited the features of the community studied, I considered that the combination of varying degrees of participant observation in four separate stages of fieldwork would satisfy both the study' and the research participants' needs. Namely, overt observation (Hammersley and Atkinson, 2010) was used within school, including with teachers, students, school principal, parents, kitchen, garden and other school staff (e.g. school technicians) to ensure the highest level of transparency in our relationships. Furthermore, these members were used to local volunteers' participation as well as observation practices by experts and judges, who periodically conducted evaluations and feedback activities to appraise various (often environmental) projects. Therefore, this feature ensured both minimum interference and maximum participation in their daily activities. In this regard, the school principal, with whom I had established regular phone contacts six months prior to my arrival, was considered the main 'gatekeeper' in the school, in that she provided me with advice on when and how to conduct observations and participate to events as well as introducing my presence and role to the whole school (Pole and Morrison, 2003).

Within Uphill village, instead, my main gatekeeper was my host (who was also the school cook), who initially introduced me to the whole neighbourhood and community. Here, a more 'sensitive' attitude while conducting observations was adopted with community members in the village, in view of the power relations implied in my role -as a (white) foreign, middle-class and educated woman- researcher and to ensure a relaxed and calm atmosphere (Pole and Morrison, 2003). This sensitive approach entailed participating in as many aspects as possible of the life in the village by being careful about taking notes while experiencing them, so as not to make participants uncomfortable. This choice stemmed from both the intention to be able to witness local practices to the greatest possible extent of authenticity and to avoid making community members (e.g. my housemates and neighbours) feel uncomfortable in my

presence (Schensul and LeCompte, 2012). In these instances, whenever I felt the urge to record specific aspects in my notes to avoid losing the richness of important details with time, I usually excused myself from the group gathering by following their local custom of simply announcing 'soon come!' (Gobo, 2008). Local people, in fact, often used this phrase to make an exit from a social situation, which could mean either leaving for a brief period of time and shortly joining the group again, or leaving for an undefined amount of time without being questioned or noticed by other members.

Carrying out observations while undertaking various activities in the community also facilitated the achievement of the greatest extent of integration with its members (Atkinson et al., 2007; Bernard, 2011; Schensul & LeCompte, 2012). In fact, active contribution of all members to community daily activities was considered as part of the roles that needed to be fulfilled by all those regarded as family and community members. The aforementioned activities included: conducting cleaning of the 'yard' (e.g. house); doing the dishes; feeding the chickens and the pigs in the backyard; putting garbage in a pile and burning it; 'catching' (e.g. collecting) water in tanks when it suddenly started running from the outdoor pipe, often around 2 a.m.; looking after children in the neighbourhood while parents were partying; preparing the settings for and cleaning after parties; washing, treating, combing and 'parting' members' hair; going for groceries to the nearest town, and so on. In this regard, my status as a researcher employing an ethnographic approach constituted a double-edged tool. On the one hand, in fact, living within the community for one year and having adjusted to their lifestyle quite quickly (due to my previous experience of living in developing countries' rural communities) represented a challenge in trying to make the 'familiar strange' and to be able to constantly see the whole environment and its events in a new light (Hammersley and Atkinson, 2010).

Maintaining this outlook was facilitated by regularly reminding myself of the research interest and focus, often by revising my previously gathered notes and books on ethnographic methods during my (very limited) free time. On the other hand, though, past experience living in communities in India taught me that great efforts are required by newcomers to understand how decisions are taken and enacted on a daily basis in the community. Similarly, my past experience also prepared me in terms of not rushing my interpretations and drawing conclusions about local members' actions and interactions, as these only become clearer after a long period of time (Emerson et al., 1995). Understanding of local members' perspectives and actions, in fact, can be

achieved only through thorough knowledge of local culture, customs and belief system (Spencer, 1989). Therefore, this aspect constituted a challenge in order to make the strange familiar as well, and I dealt with it by maintaining a curious, patient, silent and mindful attitude, which are all features required especially by ethnographers (Hammersley & Atkinson, 2010). This was particularly tough at times as when, for instance, I witnessed students being beaten with a belt by teachers as a form of punishment and -despite feeling as if I was about to burst into tears- I had to actively stop myself from intervening or saying anything. In the long-term, indeed, as I learnt what meaning locals attribute to such actions, how they emotionally respond to it and what educational role they play in that specific context, despite still not agreeing with it in principle, I was glad to have withheld my initial instinctive reactions and allowed local meanings to unfold.

After having introduced the tools for data gathering in general terms in this section, in the following part I provide more information regarding the timeline according to which the whole PhD research study, and the fieldwork in specific, were organised and carried out. This illustration also includes the rationale for the choice of the specific fieldwork settings.

4.4.1 Fieldwork structure and selection of the settings

I carried out this research study between September 2013 and June 2019. In my first year, I conducted a preliminary literature review of the field, outlined the research aims and focus, arranged the methodological approaches relevant to the context and obtained ethical clearance. It is necessary to mention, though, that I had to take a 12 months interruption from my PhD studies between September 2015 and September 2016. As illustrated in section 1.2, the original doctoral research project, in fact, was designed to be conducted in a sustainable community in India, where I had previously lived and volunteered for one year (in 2011-2012). Complications related to obtaining a Research VISA to conduct my fieldwork there did not allow me to carry out the original proposed research.

Thus, I convened with my supervisors to change the country of fieldwork and modify my research proposal accordingly. During the months of interruption from my studies, I explored further literature about ESD in the Jamaican context, as well as the personal connections I had in London –both within and without academia- that could help me familiarise with the Jamaican culture and carry out the administrative processes required to conduct research there. After

determining the gaps in the literature within ESD (including methodological ones) in the Jamaican context and about Jamaica internationally, exchanges with local academics introduced me to the JET. This connection was useful in order to gather information about schools and communities in the island that could potentially be relevant for my research. In this regard, the JET shared with me a list of more than forty schools participating to their Environmental School Projects (ESPs) and highlighted the five best performing schools within that list. I then proceeded to contact the school principals of all those schools spread across the island and received a positive response from a few of them. After conducting more thorough research about such schools, I selected some specific ones located in rural areas, as they better suited my research interest on sustainable learning in underdeveloped contexts.

I was then informed by one of my colleagues of Jamaican origins at the Institute -and who was conducting his PhD study on a Jamaican school as well- that, in order to be allowed to carry out my research on site, I needed to obtain an official permit from the Jamaican Ministry of Education. When I requested such permit for the selected schools, I was granted it for a specific government school in a rural area in the parish of Saint Elizabeth. The other schools on the list were private ones and, considering the aims of my research being to relate the learning dynamics of the school with broader national and international policies, I considered that choosing that specific government school (which also happened to be one of the five best performing schools in the list provided by the JET) was a sensible decision for my study.

When (in May 2016) I obtained the permission from the Jamaican government to conduct my research there, I then arranged my fieldwork in four different stages. Namely, from the end of September 2016 to the end of December 2016 I carried out the first stage of fieldwork aimed at familiarising with the new environment and culture, building relationships within Uphill school and community and conducting some preliminary observations and interviews. From January to February 2017, I visited London for one month, in order to discuss the perspectives gathered during the first stage of fieldwork with my supervisors, transcribe interviews and conduct some preliminary data analysis in order to narrow the focus of my research. From February 2017 to April 2017 I conducted the second stage of fieldwork, including more observations and interviews according to a slightly narrower research focus based on the preliminary insights gained from stage one. During this time, I also had the opportunity to attend Uphill school and community events and an environmental

workshop for teachers organized by the JET. During the Easter break, I moved away from the school and community for two weeks and visited a nearby sustainable community. There, I had the chance to carry out some preliminary data analysis of the information generated in the second stage. Furthermore, I gained insightful perspectives on their community sustainable learning by participating in the activities of this community, interacting with its members and conducting interviews with its leaders. As I illustrate in chapters 5 and 6, these insights enriched my understanding of aspects of sustainable learning related to Uphill community and the broader national settings. From the end of April 2017 to the beginning of July 2017, I then carried out the third stage of fieldwork, where I explored specific aspects of members' practices and perspectives in more depth. During the Summer break, I moved away from the village and, again, looked at the data and ideas I had developed up to that point and refined my focus for the brief, final stage of fieldwork. The period between September and October 2017, thus, constituted the fourth stage of fieldwork, where I compared the insights gained during the previous school term with the perspectives and practices at the beginning of the new school year. Despite this being a shorter period, it nevertheless revealed some interesting aspects that enriched my understanding of what I had observed and experienced in the previous school term.

Upon my return to London at the beginning of November 2017, I focused on completing interview transcriptions and reviewing fieldnotes for further analysis of data. I discuss the process of data analysis that followed (although data analysis was ongoing throughout my fieldwork as well) in section 4.8 below. Before that, though, I proceed by covering more details related to carrying out fieldwork observations and purposeful conversations in Uphill school.

4.4.2 Observations and conversations with a purpose in Uphill school and community

Participant observation during school time enabled me to establish individual relationships of mutual trust and cooperation with pupils, teachers and school staff, with a view to having direct access to the exploration of school practices and multiple dynamics occurring within the school. In this regard, the research interest on how sustainable learning occurred within the school guided the focus of my observations at the initial stage. Furthermore, purposeful conversations with school and non-school staff (e.g. parents, visiting experts

from government and non-government agencies) were employed to better capture information and interactions taking place, without (or with minimal) interference. In these instances, my judgement as a sensible researcher on how to deal with my 'multiple identities' covered within the community was essential (Hammersley & Atkinson, 2010; Pole & Morrison, 2003). In particular, daily observations and conversations with a purpose within both Uphill school and community also allowed me to explore the relationship between participants' views on sustainable learning, the nature of the learning that took place (i.e. transmissive/transformative levels of learning) and the processes through which such learning occurred.

Despite having been introduced in the school by the school director and having recurrently introduced my-self as a researcher (when I first arrived, as part of the announcements that were communicated during the morning devotion and, then, almost on a daily basis by explaining what my role entailed to students, teachers, parents and school staff), I soon realised that my role was perceived differently by different members. For instance, initially students had the tendency to see me as one of their teachers and addressed me by calling me 'Miss' or came up to me to report other students' behaviour. I pursued ensuring that I would develop a relationship with students that differed from a teacher-student relationship by: spending time playing with them in the school yard; teasing each other; eating together during breaks; using jokes to request them not to call me 'Miss', but by using my name (whenever they called me 'Miss', I would respond to them by calling them 'Miss/Sir' too, to which they laughed and then readdressed me by calling me using my name); sitting at students' desks during classroom observations; watching movies on my laptop and, with those who lived in my neighbourhood, by playing football and cricket together in the playfield in the village (playing with children was something quite unusual for local adults).

Teachers, on the other hand, often perceived me (or at least treated me as if they perceived me) as either an environmental expert or a volunteer. In the first case, they would ask me for expert advice during their environmental club meetings and activities. In the latter, they would assign me tasks such as monitoring their students while they excused themselves from their classrooms, helping them with teaching and assessment activities or with selling snacks during break time. For a few weeks, I was also put in charge of teaching weekly dance classes in an improvised 'dance club'. However, this class was soon discontinued because it did not allow me to attend the environmental club

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meetings that were relevant to the purpose of my research. Kitchen and garden staff and the school janitor at times treated me as a volunteer too, by assigning me tasks such as, respectively, "sharing" (e.g. distributing) meals for students during lunch time, washing dishes, watering plants, 'weeding' the school's organic garden, 'picking garbage' on campus and cleaning the school library.

The school principal, instead, had a more thorough understanding of my role and she involved me in activities, often by explaining to me that she thought these would specifically help with my research. Nevertheless, I welcomed being appointed to different roles and activities as part of the opportunity to gain more insights into various aspects of the learning that took place in the school, relationship-building, as well as a way of reciprocating participants' accommodating approach towards me and my needs. In some cases, however, I had to set clearer boundaries both to fulfill my research needs and to avoid interfering too much with the learning process. For instance, I was once asked by a teacher to conduct a research project on behalf of some students as part of an environmental project. In that case, I agreed to contribute to the activity, but I strongly suggested that the teacher still requested the students to submit their assignment as conducting the research was part of their learning process.

Likewise, my 'multiple' roles enabled me to have access to different meetings, such as school teaching staff meetings, parents/teachers meetings and more informal gatherings that occurred during school breaks or in the evenings after school time. In these cases, the atmosphere was usually more relaxed and it allowed me to interact with different participants by engaging in purposeful conversations related to relevant aspects of learning, students' backgrounds and challenges that various members faced. When these took place, I often at first tried to take notes simultaneously, but most of the times I eventually got very involved in the conversations and decided to return to writing my notes soon after the interactions ended.

Differently, I often conducted conversations with a purpose with students while carrying out activities together on the school compound, such as: planting, watering plants, weeding and picking garbage in the school garden; sitting together under the fan (the only functioning fan in the school, besides the one in the principal's office) in the school library to get some relief from the heat; cleaning the school compound; taking strolls on the school compound during morning and lunch breaks; and walking to and from school with the students who lived in my neighbourhood. Informally talking with students while carrying

out activities often resulted in gaining more insights into their understandings than when I conducted recorded interviews with them.

With regard to participant observations conducted in the community, I did not record these through fieldnotes right away, to avoid making participants feel uncomfortable and also to facilitate my full involvement in community activities. Therefore, I added daily notes about life in the community either whenever I was able to have some private time in my room throughout the day, or in the evenings when I elaborated detailed descriptions from the field notes taken in school during the day time.

Besides participants observations and purposeful conversations, which I described above, other tools of data generation in Uphill school were interviews and focus groups with teachers, students, various members of Uphill school and community and other stakeholders. I illustrate these in the section below.

4.4.3 Interviews and focus groups

Due to the nature of the research and to ensure that I undertook a flexible approach as a field worker, I held a variety of types of interviews and conversations during the fieldwork. Within these, the number of recorded interviews (including focus groups) amount to thirty-two on my recorder and phone, to which three non-recorded interviews need to be added, as the solid waste manager and two members of the NEPA government body did not allow me permission to record the interviews with them. In these cases, I had to rely on note-taking (in such instances, the school principal who was with me during the interviews took her personal notes too, which I later combined with my own to ensure that all aspects discussed during the interview had been included). Additionally, an invaluable amount of precious conversations occurred outside the official 'recorded interview' structure almost on a daily basis. These interactions took place spontaneously in so many different occasions and settings and, although they are not recorded, I systematically took note of the insights gained from them in my daily fieldwork notes and memos.

I conducted semi-structured and in-depth interviews with teachers, students, parents, school principal, school chairperson, educational officers, members of government and non-government agencies collaborating with Uphill school and community, some manual workers in the school and in the community, the manager of the local solid-waste management agency, a local politician

involved with agricultural sustainable projects in the school and community, sustainable education experts and academics, activists and community leaders of other sustainable communities I visited in the island. With some school members (e.g. school principal, some teachers and parents) multiple interviews were carried out at different stages of fieldwork in order to unravel the development of educational projects and ongoing learning processes, as well as to explore relevant aspects that emerged during the course of fieldwork. These interviews were also particularly helpful in order to reveal the participants' views about the relationship between the *intended* transformative nature of the sustainable learning occurring in the school and the *actual* more transmissive nature of the pedagogical practices taking place on a daily basis, as well as the relationship between the learning processes in the school and the surrounding community.

Differently, community members in the village did not welcome the idea of conducting recorded interviews. Perhaps, the idea of formally sitting in front of a recorder with a defined set of questions to answer evoked antagonistic feelings in them, similar to those generated by government officials or other institutional figures. Therefore, their perspectives were mainly gathered through fieldnotes from participant observations and purposeful conversations carried out during daily activities or in a more relaxed atmosphere, while 'reasoning' (e.g. conversing) and sipping on a glass of local rum or 'dragon and boom' (Jamaican beer mixed with a local energy drink). Finally, focus groups with (often self-) selected students across different grades enabled me to further explore aspects related to the learning processes occurring within and beyond the school. At times, in fact, some students were unwilling to or, perhaps, intimidated by conducting individual interviews and they felt more comfortable approaching them as an activity to share with other fellow students. In other cases, there were too many students insisting to sit for an interview with me at the same time and, in order not to disappoint any of them, I opted for conducting focus group interviews rather than individual ones. Yet in other instances, conducting focus groups allowed me to clarify contradicting information and ideas that I had previously gathered from individual interviews with students. In these regards, purposeful conversations with community members and focus groups with students all contributed to clarifying their views and practices in the school and community in relation to the type (i.e. transmissive/transformative) of sustainable learning that took place within and between the two.

Interviews with teachers explored their perceptions of the environment in relation to both the school textbooks content and the environmental activities and projects carried out in the school and their evolution over the time they had been employed in the school. These interviews, too, were helpful to enrich the understanding related to the nature of the sustainable learning processes in the school. During the school year, some teachers left and some new teachers were appointed or returned after leave. However, these changes did not adversely affect my study, as I was able to establish very positive relationships with the new teachers too. Moreover, I investigated teachers' perspectives in relation to community involvement, the challenges faced by the school and the surrounding community with regard to sustainable behaviours; their relationship with parents, what they knew about students' background and their perceptions of how it could influence their behaviour inside and outside school. Finally, it was also interesting to gather their views on what possible ways forward they envisioned for sustainable learning in schools and communities.

Similar aspects were gathered in interviews with some parents and students. With the latter, interview questions were often broken down in simpler terms and, oftentimes, I had to resort to asking them about very practical examples from their daily practices in school and in their house and community as they struggled with talking about more abstract topics. Interviews with school and a local community's manual workers helped highlight relevant aspects of local culture that played a key role in understanding beliefs and behaviours of community members in that context. Interviews with the school principal and chairperson, besides covering the above-mentioned aspects, also enabled me to gain more insights into school leadership and management aspects, together with the evolution of sustainable learning within the school over the years and local cultural and generational features that influence today's students' behaviours.

Interviews with local educational officers explored more structural aspects of sustainable learning as it is included in the school curriculum. These educational officers were located in the offices of the Ministry of Education in the nearby town of Mandeville, in the parish of Manchester. They were allocated the monitoring of schools in specific parishes, to which they paid regular visits throughout the school year. They also provided me with insightful perspectives on challenges faced by both government and communities and broader international influences that have a –more or less direct- impact on sustainable learning in the Jamaican primary education system.

Local academics and sustainable learning experts included current and retired Jamaican professors, researchers at the University of the West Indies, as well as professionals who had previously worked with UN, state and local agencies and grassroots organisations. They are specialized in ESD teaching and research projects in schools and communities in Jamaica and surrounding islands. They provided me with meaningful insights in relation not only to the aspects mentioned above, but also in terms of refining my research focus. In fact, they shared precious information about the type of research that had already been covered on the subject locally (they also gifted me some books containing results of environmental programmes and research conducted in the Jamaican context, which I refer to at various points throughout this thesis).

Interviews with members of government agencies were often not recorded (as they did not allow me to), but were nevertheless useful to gather perspectives about the challenges that government bodies face within their system and in terms of their interaction with local communities.

Interviewing the manager of the local solid-waste management agency was useful in order to highlight the perspectives of the private sector in relation to sustainability issues in Jamaica.
Interviews with local environmental activists who also collaborate with schools provided me with stimulating perspectives about the (transmissive/transformative) nature of sustainable learning processes in schools and communities. They were especially helpful in offering an understanding of the various strengths and weaknesses existing in the relationships amongst the variety of stakeholders in Jamaica.

Additionally, interviews with leaders of sustainable communities in different villages and parishes uncovered aspects relevant to community leadership, local values and culture as well as the role of government and non-government stakeholders in the field. Therefore, by including the views of a range of different research participants, my role as an ethnographer tried to "reveal the multiple truths apparent in others' lives" (Emerson, 1995, p. 2). Finally, I considered the amount of data generated as satisfactory when I could regard the same as being sufficiently relevant to the topics of exploration (see section 4.3).

The above sections about conducting observations and interviews with a variety of research participants also revealed some aspects related to the implications attached to my multiple identities as a researcher in the fieldwork

context. In these regards, I contemplate further considerations about this aspect in section 4.10. In the following section, I instead focus on the process through which I obtained access to Uphill school.

4.4.4 Negotiating access to Uphill school

I informed research participants about the purpose of my research study and about my role in the settings in several ways and at different stages of the field work. Initially, I made contact with the school principal via email while I was still in London, both individually and through an official letter from the Jamaican Ministry of Education, according to local regulations. I provided her with a brief outline of my research design, aims and of my intended role in the school. She welcomed my requests and also offered to help me find an accommodation in Uphill community surrounding the school. She, in fact, arranged for me to rent a room in the house of the school cook who lived in the village, located just a ten minutes walk away from the school.

On my first day at school, I was officially introduced to all the students, teachers and school staff during the morning devotion time by the principal. The whole school usually gathered in front of the school library during this time, where teachers and other school staff made announcements standing on the school library's steps. After being introduced by the school principal, I was invited to step outside the library to introduce myself to everyone. That gave me the opportunity to provide more details about my research and my role, including informing all members that they would often see me hanging out on the school compound and classrooms with my notepad and pen and taking notes and that they could feel free to ask me any questions about it at any time, or let me know if they had any issue with me including them in my research. Similarly, I also informed students and teachers that I would distribute informed consent forms for their parents (and for teachers) to sign if they chose to opt-in the research. Accordingly, in the following days I visited each classroom (Grades 1-6) and circulated the consent forms to both students and teachers (see Appendix 1 for informed and consent form samples).

It took a few weeks for both students and teachers to return the forms. In some cases, when students returned the signed forms from their parents, they asked me questions about whether these were for them to participate to a trip to London, or to go on some school-trip in Jamaica. They were not aware of what

the consent forms were about, because they had just handed them to their parents to sign and, at times, parents were not able to read and write, besides knowing how to sign. In those cases, I had the chance to explain again to individual students that their parents signing the forms meant that they agreed for me to interact with them and conduct recorded interviews to understand better how they learnt about environmental topics and activities in the school. I also encouraged them to explain this to their parents as well. Moreover, I reminded them that, although their parents had signed the forms, they could still choose not to participate to the research if they did not want to. Other times, students told me that the forms were lost, had been torn apart by their younger siblings or that their parents were still deciding whether to sign them or not. In such cases, I decided not to question them further and whenever I had the chance to meet their parents in person, I clarified with them whether they agreed for me to include their children in the research or not. In most cases they responded positively.

With regard to teachers, some of them signed and returned the forms right away and others forgot and later told me in a friendly tone that, even without signing the form, they were more than happy to be included in and contribute to my research.

Differently, I did not require kitchen and other school staff to sign consent forms. I took this decision according to my previous experience living in Indian rural communities and to the school principal's advice. For them, in fact, filling and signing a form would not have made them feel comfortable and, instead, communicating and reminding them about my research and my role from time to time was more appropriate to their context.

Concerns about ensuring research participants' comfort while participating in the research relate to a range of ethical questions that I had to take into account before, during and after the period of fieldwork. Therefore, I analyse these in more details in the following section.

4.5 Ethical issues and difficulties

Issues related to ethical concerns in this project were manifold, and I addressed them by following the BERA (2011) and ASA (2011) guidelines and by taking a sensitive and considerate approach towards the research participants. In particular, the three main ethical areas – explained in detail below – that

emerged were: obtaining informed consent from research participants, language and communication, and sensitivities related to local cultural customs and traditions. Most of the research participants belonged to a local rural community, whose customs and traditions needed to be acknowledged and respected during daily interactions.

The experience of living in rural communities in India for four years (2009-2012) helped me develop a set of qualities crucial to sensibly approach living in a village school and community context, despite specific cultural differences existing between India and Jamaica. These qualities included receptiveness and being non-judgemental towards members' ways of carrying out daily practices, including expressed and tacit behaviours and body language, as well as their code of conduct in various contexts. Additionally, having been exposed to and interacted with members of the Jamaican community in London further increased my awareness about their cultural habits and style of communication. As mentioned in the previous section, interviews were conducted with under-age students, for which I sought consent from their guardians and guaranteed anonymity. Specifically, it was essential for me to ensure that students felt comfortable during observations and interviews, and that they were informed that they could withdraw from the study at any time. The personal relationships established with individual students, by spending playtime together both in the school and in the village, helped me develop an understanding and sensitive attitude towards them. However, the occurrence of 'multiple roles' (as they perceived me also as a sort of teacher, community member, outsider, and researcher) with the participants at different times, required efforts to maintain balance and concentration.

Another important aspect related to the interaction with various community members and local stakeholders was power relations. Namely, being a Western, educated and female researcher often constituted an innate barrier when trying to establish equal relationships with local participants. My almost immediate ability to grasp key aspects of the culture and to speak the local language, however, helped me establish friendly and trustworthy relationships with the research participants. Difficulties also occurred with regard to conveying the purpose of the study to Uphill community members, who have no knowledge or familiarity with the meaning of conducting PhD research. For this purpose, I sought support, especially at the very start of my fieldwork, from the school principal who knew the local language and people, and could help me explain the purpose of the study to them. Moreover, as regards signing

information and consent forms, some of the villagers were almost illiterate and were not able to read and understand them. Hence, to avoid causing these research participants any discomfort, I did not ask them to sign written consent forms. However, I orally explained to them the purpose of the research in various occasions and they were informed that participation in the research was voluntary and they had the right to withdraw at any time.

In conclusion, in this and the above-sections I dealt with the aspects of the methodological design of this study, followed by the details of the various tools used for data generation. These aspects included obtaining permission to conduct this study and access to the field, carrying out observations, interviews and focus groups, together with the ethical considerations and difficulties encountered. In the following part, I include my personal reflections about my figure as a researcher in this specific context.

4.6 Reflexivity

Implicit within the nature of this interpretive research study -and unlike positivist and naturalist approaches- is an acknowledgement of the fact that there can be no definite separation between the researcher, the data generated with the participants and the research outcomes (Hammersley & Atkinson, 2010). Researchers' personal and theoretical orientations inevitably influence their view of the fieldwork settings, they shape their fieldwork notes and interactions with research participants and, thus, eventually result in 'co-creation' of meanings and interpretations of the information gathered and observed processes and practices (Hammersley & Atkinson, 2010). Therefore, at any stage of this research, I was constantly aware of how -before being a researcher collecting data from the field- I was, first of all, a specific type of human being who came in contact with a specific context and its people.

My being white, Italian, female, in my thirties, educated, middle-class, having previously experienced living in another developing country (India) for four years, interested in environmental issues as well as their connection with spiritual aspects, having studied foreign languages, being a trained dancer and so on are all elements that played a crucial role in the way I interacted with members and in the way they perceived me. Part of my personal features, in fact, certainly contributed to creating a 'gap' and establishing unavoidable power-relations between me and the participants, which determined both the

way we interacted and the type of information such interactions generated (Brockmann, 2011). Particularly challenging, in fact, was the way some young females within the village perceived me and interacted with me in the community due to my ethnicity and socio-economic status. Behind an initial seemingly courteous behaviour, they revealed antagonistic feelings and attitudes over time. Differently, other specific characteristics of my persona allowed me to spontaneously blend with locals in the school and village community and almost instantaneously adjust to and, to an extent, identify with their language, habits and daily practices. As an illustration, my background in studying foreign languages allowed me to quickly learn to speak the Jamaican patois, my ten years of training in different dance styles made me easily pick up the Jamaican dance moves and my experience volunteering in Indian rural communities immediately allowed me to contribute to basic aspects of the life in the village and in the school as other members did. These aspects greatly contributed to being granted access to various community and school gatherings and discussions (Hammersley & Atkinson, 2010). Hence, these too are elements that determined the kind of understandings developed. In view of the above considerations, throughout the research fieldwork as well as in the post-fieldwork phase of data analysis and interpretation, my informants and I engaged in a process of 'co-construction' of knowledge rather than collecting or discovering objective data (Atkinson et al., 2007; Brockmann, 2011, p. 241; Gobo, 2008).

Although I believe it is impossible to completely eliminate the biases and perspectives that are bound to my culture, upbringing and life experiences, and which unavoidably affected the way I looked at and interpreted the data, I tried my best at countering tendencies towards ethnocentrism and exoticisation of the settings. I did so through the relationships I gradually developed with various research participants. In this way, we co-constructed knowledge together and I developed a better subjectivity (Macfarlane, 2009) through in person and phone interactions during and after the fieldwork. During these interactions, I shared my interpretation of aspects of the data with participants at various stages of my analysis and, then, I took into consideration their comments and feedback as my data analysis progressed. As advanced by Macfarlane (2009), who proposes a virtue-based approach to ensure research integrity, trustworthy relationships with research participants and the researcher's sense of virtue are at the core of being open to cultural diversity and avoid excessive ethnocentrism and exoticisation. The virtue-based approach influenced also my sense of responsibility as a researcher after the

completion of both fieldwork and my PhD research. In particular, this aspect involves considering ways to give back to Uphill community in order to have a positive and constructive impact. In this regard, it is my intention to contribute to bringing the participants' experiences and perspectives to the fore of further research and local policy-making, in collaboration with Uphill community members and school principal.

After having covered the various elements that influenced the data generation and interpretation, in the following section I introduce how I organized the fieldwork data during the time of fieldwork.

4.7 Organization and analysis of material from data generation during fieldwork

Dealing with material from interviews and fieldnotes represented a challenge in terms of time, effort and the ability to maintain the focus of this study while being involved in manifold activities. The aspect of taking field, and "out-of-the-field" (Delamont, 2002, p.62), notes constituted a complex aspect of data generation. In particular, while conducting participant observation within the school, I took notes in a notebook where I referred to research participants by using pseudonyms, as an ethical precaution. However, taking fieldnotes often required withdrawing from school and community activities according to the customs used by community members to excuse themselves from the group (Delamont, 2002; Emerson, 1995; Gobo, 2008) in order to write quick notes in the form of 'jottings' –specifically according to my personal visual abilities and memory- (Emerson, 1995). As mentioned above, I often exited a situation by employing their widely used phrase 'soon come!' or by saying that I was going to visit the bathroom.

I then expanded notes taken during the day in school and in the village into detailed descriptions later in the day, precisely after dinner time (around 9 pm), when all community members retired in their houses to watch television or in their rooms to rest. Sometimes, when too tired from participating in very eventful days, or when having to attend night events in the village, I developed descriptions from notes taken the previous day on the following day, often by sitting at a desk in the school library. Awareness of the crucial importance of fulfilling this task daily, whenever possible, and of the risks of producing inaccurate accounts by relying merely on memory ensured meticulous

observance of this practice throughout the fieldwork (Emerson et al., 1995; Gobo, 2008; Hammersley and Atkinson, 2010).

I distinguished descriptive fieldnotes and recorded them on word documents on my laptop, separately from the notebook where I recorded my analytical, interpretive, "theoretical", "methodological" and "emotional" (Gobo, 2008, pp. 210-212) notes, which included personal impressions and reflections about people and situations experienced, as well as feedback on and improvement of the methods used while conducting observations and purposeful conversations (Delamont, 2002). Furthermore, in the fieldnotes I attempted to grasp facts that were considered meaningful by research participants, rather than simply relying on my *a priori* research interest and focus. The processes of note taking and analysis have not, at any point, been clearly isolated and they continually informed each other throughout the periods of fieldwork and post-fieldwork analysis.

In this section I covered what I would refer to as a 'preliminary' stage of data analysis. What remains to be mentioned are, thus, the steps that followed the period of fieldwork and data collection. Therefore, I will illustrate these in the following sections that are dedicated to the way I organized and interpreted data from fieldwork after returning to London.

4.8 Post-Fieldwork Analysis

The processes of simultaneous note taking and analysing mentioned above occurred, first, by developing initial reflections on fieldnotes while conducting the fieldwork. These reflections, thus, steadily refined my research focus while being in the field. In particular, I recorded reflective notes of theoretical nature in capital letters, highlighted in different colours and enclosed within square brackets next to text excerpts related to specific practices or events that I reported in the detailed descriptions I developed daily.

Differently, I wrote notes about aspects related to the changing and narrowed research focus at the bottom of the page at the end of each daily detailed description, as I gradually developed better understandings of local meanings. Secondly, through open and focused coding, I thoroughly analysed fieldnotes and individual events. Therefore, I assigned codes, categories and eventually themes (all differentiated by using text of different colours) to sets of fieldnotes (Emerson, 1995). I labelled these by using both concepts derived

from theoretical notions that guided my research and wording and phrases used by the research participants (Basit, 2003). Moreover, while analysing fieldnotes, I produced further theoretical and reflective memos to develop links with theoretical themes and insights that helped me connect the categories identified and determine sub-categories and themes (Basit, 2003). At times, I used visual representations and conceptual maps to help me clarify connections among categories and themes, as well as evident gaps (see Appendix 1). Therefore, further analysis of sets of fieldnotes, categories and memos, led me to outline themes and patterns that I consequently expanded into thick descriptions.

This was not a linear practice throughout the analysis, but rather a back and forth and dialogic process between categories and data (Pole and Morrison, 2003). Often, in fact, at first I assigned different sets of data to the same categories or themes and, following further analysis and re-interpretation of data, I then instead elaborated them as individual categories or themes. Similarly, at times, following stages of analysis and interpretation highlighted the need to merge themes that I had initially treated individually, by allocating them as sub-categories of a main theme. In other instances, parts of data to which I had assigned codes and categories whose frequency was limited were neither developed into specific themes nor allocated to any sub-categories in the thick descriptions. Nevertheless, I did not discard them straightaway as, indeed, they often constituted valuable data to indicate "unusual" or "exceptional" (Pole and Morrison, 2003, p. 89) occurrences offering additional insights to certain phenomena. These interpretative and analytical processes were aimed at integrating theoretical and reflexive considerations, as well as unravelling cultural and contextualized meanings and links with broader ESD discourses. Finally, conducting manual, rather than computerized, coding was a deliberate choice I made in order to establish and maintain a close and direct relationship with the data.

After having considered the more general process of analysis of data from fieldwork notes, in the following part I focus on the task of transcribing and analysing interviews.

4.8.1 Interview transcriptions

Another exercise included in the analytical process was constituted by the transcription of recorded individual interviews as well as focus groups. This

was, simultaneously, an exciting and tedious task. On the one hand, in fact, the (sub)conscious analysis of data that took place while transcribing recordings gave rise to *aha moments*, where insights shared by research participants suddenly threw light on the meaning of particular contextualized practices or events and on links with broader aspects of my research. On the other hand, though, the poor quality of the recordings (often due to background noise in the school compound or the heavy rain falling during the rainy season) constituted a tough challenge in discerning what interviewees said (also combined with the difficulty of ensuring a correct understanding of local expressions in patois language) or the voice of individual participants in focus groups (Pole and Morrison, 2003).

Verbatim transcription was the approach that I adopted in carrying out the transcriptions of recorded interviews and these took place both during and after the period of fieldwork. Transcribing is not a mere mechanical exercise (Davidson, 2009), but -as mentioned above- it is indeed an integral part of the interpretative and analytical processes (Lapadat and Lindsay, 1999). Therefore, the transcription of interviews while in the field allowed me to further refine both the focus of my research, according to the perspectives shared by research participants, and my interview templates based on how different interviewees responded to specific questions.

It is imperative to note that -despite the ambitious attempt to transcribe participants' words as accurately as possible- the transcription process remains inevitably a selective and theoretical one (Davidson, 2009; Lapadat and Linsday, 1999). I could not report meticulously all aspects that took place during interactions, as these could have interfered with the readability of the transcripts and, as a consequence, could have hindered the overall research purpose. Similarly, whenever participants expressed themselves in patois, I included an English translation was in brackets in the transcripts, for clarity purposes. Therefore, this aspect certainly highlights how transcriptions also include dimensions of representation and power-relations (Davidson, 2009; Lapadat and Lindsay, 1999).

With regard to the practical aspects of how I conducted the transcriptions, I carried these out in multiple rounds. Firstly, I would listen to the whole recording with a view to bearing in mind the contents of the interview as a whole throughout the process. Secondly, I would carry out verbatim transcriptions of parts of the recording, often having to repeat certain parts multiple times when

the sound was not clear enough. Finally, I would listen to the whole interview again, in order to double check the transcripts and make corrections. In some instances, however, it was not possible for me to decipher unclear parts of the recordings and I indicated these in the transcripts by using three dots (e.g. '...') and the wording 'unclear' in brackets.

Both while carrying out the transcriptions and after having completed the transcripts, I treated these in the same manner as the fieldnotes from observations. That is to say, I assigned codes, categories and themes to excerpts in the transcripts and I highlighted them in different colours accordingly. Moreover, I also inserted reflective theoretical and methodological notes in the text within the transcripts to guide my interpretive and analytical thinking, as well as to highlight connections with themes identified in other sets of data. Insights arising from interview transcripts, in fact, often contributed to clarifying (or problematizing) the meaning of information gathered through observations by, thus, adding further layers to my interpretation of the data.

In the above sections I described the processes of analysis of data from field notes and interviews, while in the next part I place the focus on the content analysis of documents, which complemented the analytical process as part of the data triangulation strategies.

4.8.2 Content Analysis of documents

The range of documents that I consider in this analysis include the Jamaican national primary curriculum, documents related to the ESD policy framework in Jamaica, the Jamaican National Development Plan and National Environmental Education Action Plan for Sustainable Development in Jamaica (1998-2010). Following from the interpretations I developed by analysing observational fieldnotes and interview transcripts, content analysis of policy documents on ESD at both national and international level helped me highlight how the themes identified from the data generated during fieldwork related to broader structural arrangements and what potential implications these relations bear for policy making (Pole and Morrison, 2003). Furthermore, this data triangulation technique allowed me to validate, assess the trustworthiness and deepen the understanding of the themes determined from observations and interviews (Bowen, 2009). In particular, with the analysis of policy documents I also tried to outline aspects that are relevant to the broader ESD scenario in Jamaica,

beyond the specific region where I conducted the ethnographic study. At the same time, the investigation of relevant documents aided me in contextualizing participants' meanings and practices within a specific structural background and provided me with more comprehensive economic, social, political and historical perspectives within which I could interpret my data. Moreover, this analysis also brought to light the role played by various national and international agencies and stakeholders and their changes over time in the context of ESD in Jamaica (Bowen, 2009).

Furthermore, I investigated the policy discourses on ESD in order to identify how the findings from my research study can enrich the international dialogue on sustainable learning, by including models from the Global South, not merely as instances to learn *about*, but also to learn *from* (including the lessons that can be learnt from the most challenging aspects that emerged from the findings), in a constructive and dialogical way. This presents the potential of starting to frame a path within ESD discourses where examples from developing countries could play more active roles and contributions.

I then presented the findings from the content analysis of policy documents to complement the findings emerging from the thematic analysis of interview transcripts and field-notes in the form of thick descriptions. The latter constitute an appropriate way to best illustrate the connections arising between the participants' and theoretical perspectives, along with my own reflective and reflexive processes involved in the interpretation and discussion of results (Dobson, 1999; White et al., 2009). In particular, I present the analysis of the primary curriculum in chapter 5, together with the findings from observations and interviews in Uphill school and community, to highlight the relationship between sustainable learning on paper and in practice. Differently, I take into consideration the content of national policy documents in the discussion I conduct in chapter 6. This helps me contextualize the implications of the findings within the broader national framework and their relationship with theoretical notions in critical terms.

In the section below I illustrate in more detail how I conducted the process of coding of data and how I finally determined the main themes from the categories that had emerged from previous stages of analysis of data.

4.8.3 Coding

In this section I present how I gradually determined the three main themes that I identified in the findings.

Before determining 'issues around learning', 'issues around values' and 'issues around leadership' as the three main thematic areas from the findings, in fact, I had identified several other categories from previous coding. In the case of 'issues around learning', I established this main theme after having firstly classified categories from observations and interviews, which included: 'meaning of environmental care for teachers and students', 'envisioning of the environment', 'practicing environment', 'resistance to learning', 'thiefing' and 'sustainable learning through competitions'. Subsequently, I allocated some of these categories as sub-themes of 'issues around learning' as they all raised different issues and constituted different aspects of the sustainable learning processes occurring in Uphill school and community. In the case of 'thiefing', I later discarded this category as a separate one, in that its content became pertinent to broader issues related to the theme of issues around learning. I also merged two categories into a single sub-theme in the case of 'meaning of environmental care for teachers and students' and 'envisioning of the environment'. The latter, in fact, eventually encompassed the views on the environment of all research participants, rather than being limited to only teachers and students.

Similarly, I identified 'issues around values' as a theme that emerged from the categories of 'modelling behaviour (of students from adults)', 'modelling behaviour (of adults from the West)', 'local cultural values', 'survival and get-rich-quick mentality', 'local counter-culture and values' and 'local religious values'. In this case, I decided to discard both the 'modelling behaviour' categories, as I then included their content as part of the practices that were embedded in the broader sub-theme of 'local cultural values'.

In the case of 'issues around leadership', I drew this main theme from the category of 'leadership' that stood out from the data since very early stages of analysis. In this case, the category of 'teachers' sense of ownership and camaraderie', which at first I had not grouped with any other category, later became a sub-theme of leadership. Similarly, I also discarded another separate category which I had labelled as 'vision' and I embedded its content within the issues around leadership.

Additionally, for both fieldnotes and interviews, when the main thematic areas emerged, I informally shared the outcomes from the various phases of analysis and interpretation with some research participants, to ensure that my interpretations also reflected their issues of concern and that they felt included and represented in the study in a dialogical way. In some instances, in fact, these conversations allowed me to make further relevant connections among the data. This was allowed by the fact that, even after returning to London, we kept regular contact through instant messaging and video calls.

4.9 Conclusion

In this chapter I described the methodological approach undertaken in this research study, namely an ethnography. Therefore, I introduced its meaning and relevance to the purpose of the exploration conducted in this research. Then, I analysed the origins of ethnography, its critiques and different schools of thought that have developed over the years. These included two main traditions, that is to say the British one based on drawing from the discipline of sociology and the North American one, which derived from cultural and social studies within anthropology. Accordingly, I placed my approach by mainly identifying with the anthropology of education tradition, but also by drawing on aspects of educational ethnography to help me better conceptualize the lessons learnt from the findings of this study. Similarly, by acknowledging some gaps in the methodological literature, I explained my choice of demarcating the fieldwork site by including both the school and the community as a way to better highlight the broader learning processes relevant to ESD. Afterwards, I described in more details the strategies adopted for data generation, followed by insights into the process of analysis.

In the following chapter I present the thematic areas that emerged from the analysis of the findings. I organise these according to the main thematic areas identified and I substantiate them with extracts from original data.

Chapter 5.

Sustainable learning in Uphill school and community: perspectives and practices

5.1 Introduction

Following from the elucidation of the details of the ethnographic methodology undertaken in this study in chapter 4, in this chapter I present the findings from the ethnographic fieldwork I conducted in Uphill school and community from September 2016 to October 2017. The findings include data generated from participant observations, in-depth interviews, conversations with a purpose and focus groups with students, teachers, community members and various experts and stakeholders. Additionally, I substantiated these with students' reflections shared with me in the form of their personal notes on specific activities carried out in the school, as well as insights from the Jamaican national primary curriculum.

I present the relevant data according to the main themes emerged from the thematic analysis and coding of fieldwork notes, interview transcripts and additional materials. I explored and determined these also in relation to the main aspects of investigation that guided my study, specifically:

(i) how local knowledge, values and practices in Uphill school and community interact with dominant Western approaches to ESD;

(i.i) how various community members conceptualize the notion of environment;

(i.ii) the nature of local knowledge and values and what role they play in influencing sustainable learning practices;

(ii) how diverse local and Western perspectives challenge each other and inform academic and policy ESD discourses of the -yet unexplored- lessons that this experience reveals;

(ii.i) how and what type of sustainable learning occurs within (and between) Uphill school and community;

(ii.ii) what lessons can be learnt from this context and how they relate to broader ESD policies and practices.

With these questions in mind, the analysis of the data gathered unveiled a set of issues included within three main thematic areas: i) issues around learning, ii) issues around values; and iii) issues around leadership. Although treated as separate thematic areas, the issues contained within each of the three themes are strictly interrelated. For this reason, at times data related to different aspects of similar issues illuminated more than one thematic area. The analysis of findings, in fact, revealed that the elements of learning, values and leadership are key to comprehensively and effectively inform ESD policies and sustainable learning practices both in Jamaica and internationally. As I elucidate in detail in the following sections and further discuss in chapter 6, several aspects from the fieldwork data and analysis of documents are interrelated with broader policy and pedagogical issues at the national and global level.

I present these topics thoroughly in the following sections, where I tried to maintain a balance between being faithful to research participants' words and meanings and my own interpretations in relation to the research focus and the theoretical lens employed (see chapter 3). Moreover, I present text from particularly long data excerpts within boxes for better clarity and readability.

5.2 Issues around learning

I conducted the exploration of the various aspects of the learning processes taking place in Uphill school and community by keeping in mind the notions of transmissive and transformative, as well as social, learning outlined in chapter 3. Therefore, said theoretical notions helped me uncover how participants envisioned the environment and carried out environmental practices. The parts encompassed within issues around learning include six main sub-themes. Respectively, the first sub-theme is about the exploration of elements related to how research participants in Uphill school and community conceived the notion of the environment. Here, my observations and interactions with various participants uncovered an anthropocentric and materialistic view of the environment, where the latter was assigned instrumental rather than intrinsic value. As seen in chapter 3, these features are often associated with a transmissive approach to sustainable learning. A set of contradictions emerged as well, with regard to: disposal of garbage; government provision of adequate garbage collection and monitoring policies; differing envisioning of the

environment between Uphill school and community, as well as among the school, the government and the private sector.

The second sub-theme is related to Uphill school practices with regard to the perceived environment. The practices I present in this section highlight even more the contradictions that had started to emerge from the previous sub-theme. On the one hand, in fact, practices within the school display elements of a transformative approach to sustainable learning. On the other hand, though contradictions were present within the school too, due both to the influence of Uphill community practices and challenges faced by teachers in effectively carrying out sustainable learning.

Challenges faced by teachers are connected to the third sub-theme, which focuses on the lack of ESD as a discrete subject in the primary school curriculum. This lack, in fact, affected teachers' ability to effectively implement sustainable learning, due to the lack of a clear focus on it. The lack was partially compensated by the sustainable learning projects that occurred in collaboration with JET. What is more, the lack of ESD as a discrete subject in the curriculum shows links with systemic lacks in the government structure as well.

Further challenges and contradictions are brought to light by the fourth sub-theme: ESD practices in Uphill community. Here, attitudes towards sustainable learning display that the learning promoted in Uphill school did not seem to be transferred to the surrounding community, whose practices are in contrast to those carried out in the school. Furthermore, practices in the community reveal links with lack of government provision of access to resources.

The contradictions related to sustainable learning practices in Uphill school and community are further explored in sub-theme five: resistance to learning and change. This sub-theme uncovers how power relations and social learning influence sustainable learning practices within the school, between the school and the community as well as between the community and government agencies.

The sixth sub-theme, namely sustainable learning through a reward system, competitions and environment's commodification relates to the inherent nature of sustainable learning in Jamaica. This was observed in both the school and the community, and it also extends to the broader Jamaican ESD context, which is characterized by the commodification of the environment through

specific activities. In the sections that follow, thus, I provide a more detailed account of each sub-theme.

5.2.1 Envisioning of and attitudes towards the environment

In this section I present the research participants' understanding of the notion of environment and ESD, which was unveiled through the exploration of their perspectives and practices within Uphill school and its surrounding community. In particular, in this analysis I bring to light the aspects through which said understanding revealed an inherent anthropocentric and materialistic outlook at various levels, from local school and community members to private sector individuals, educational officers and government environmental policies. Similarly, this multi-layered investigation uncovered also some contradictions on numerous issues related to the view of the environment as an economic resource vis-à-vis its intrinsic value. Therefore, I later (see chapter 6) compare the elements that I consider below to related policies with a view to determining their implications for ESD in Jamaica.

The understanding that research participants attributed to the environment was revealed through my observation of learning activities and practices in Uphill school and in the village, together with the perspectives that students, teachers, community members and various experts and stakeholders shared during interviews and informal conversations. I organized perspectives on how the environment is conceived according to the integration of environmental themes within specific subjects in the curriculum (i.e. mainly integrated and social studies subjects) and as a result of the school's cooperation with local NGOs and government agencies, which included JET, the Ministry of Agriculture and Fisheries, the Forestry Department, and the National Environment and Planning Agency (Collins-Figueroa et al., 2007). As I describe in more details below, students' sustainable learning developed through a combination of classroom teaching, experiential learning and community outreach activities. Moreover, environmental aspects were also included as part of performing arts activities, where students engaged in writing poems, learning songs, dances and drama skits about specific issues (e.g. water conservation and bamboo protection), often to be performed at local events or competitions. As a result of participant observations and interviews with various members, I

explored the participants' understandings of the concepts of nature and the environment.

The way that the notion of environment was conceived by research participants in the context of this study was often referred to as 'one's surroundings', with reference to the physical surroundings within the school compound or one's 'yard', which participants intended as their homes. At times, especially when carrying out school activities, the concept of environment and sustainable practices was related to gardening, tree planting, nurturing and watering of flowers and vegetables, picking and adequate disposal of garbage on the school compound, cleaning of classrooms and activities related to protecting and restoring the bamboos surrounding the school, due to their value as a tourist attraction. This notion of considering the local environment as a tourism resource was mentioned also by a local educational officer, who explained that one of the functions of public education is to establish a sense of 'pride' in students, with regard to taking care of the local environment to provide tourists with a reason to visit and enjoy themselves.

Reference to the relevance of protecting the environment for the local context was frequently made by teachers during science classroom learning, weekly environmental club sessions and outdoor activities. Besides the value attributed to the environment for tourism purposes, teachers emphasized, for instance, the importance of planting trees for the preservation of the local fauna and for protection from the adverse consequences due to the regular occurrence of hurricanes in the region. In particular, during a weekly environmental club meeting (which was held every Thursday afternoon, after the lunch break), one of the Grade 6 teachers asked the students whether they were aware of the consequences for communities during hurricane season of, for instance, their parents cutting down trees on the hills to use as coal. Some of the students answered that "they [communities] will be flooded, buildings damaged, wash away soil…". As a response, the teacher explained the crucial role of trees and of their roots, which hold the soil together. As illustrated in chapter 2, section 2.3, the island is particularly prone to seasonal hurricanes that in the past caused extended damage. This can be observed in the memorial plaque of the Hurricane Ivan on the school walls, just outside the school staff room and the principal's office (see picture in Appendix 3). Emphasis on the "fragility" of nature and the environment as a consequence of human actions and natural disasters was, thus, both part of the themes

included in the school curriculum (Ferguson, 2008, pp. 565, 566) and reiterated during extra-curricular activities, such as the weekly environmental club.

Teachers and students often also highlighted the importance of maintaining a clean environment to avoid, for instance, attracting rats and facilitating the breeding of mosquitoes, as these would spread diseases in the community. My fieldwork observations too exposed that there was a widespread occurrence of respiratory diseases, such as asthma and sinus infections, in the area and in the country at large due to air pollution other than those caused by wrong disposal of garbage. Students and locals, in particular, explained that avoiding diseases was also essential because they could not afford to pay to visit the doctor or to purchase medicines. Therefore, although quite indirectly and in a different form from viewing the environment as an economic resource (e.g. for tourism), the relation between taking care of the environment and the monetary/materialistic value attached to it emerged once again. In this regard, the relationship with nature and the environment included aspects of what Ferguson (2008, p. 566) identified as "interdependent, cooperative and 'managerial'", where the environment and its resources are understood (anthropocentrically) with respect to the role they play to fulfill human needs, as well as humankind's need to govern nature and the latter's interdependence with other living beings and aspects of life, such as health issues.

In contrast to the sustainable learning practices observed within Uphill school, daily practices observed in the surrounding community appeared to be quite divergent. Locals, for instance, used to collect all garbage (apart from glass bottles that were collected separately) produced in the household in their backyard and arrange it in a pile that they would then burn once or twice a week (see, for instance, pictures in Appendix 3). Conversations with community members and students with regard to these practices revealed that this habit was rooted in the fact that there was a lack of provision of garbage bins to dispose of garbage appropriately. Moreover, there was also a lack of adequate collection of garbage from garbage trucks from the main garbage tank situated at the entrance of the village. Learning about these aspects highlighted a gap between government policies on paper and their implementation. On the one hand, in fact, the Government of Jamaica (GOJ) had issued a 'burning ban' policy, which prescribed fines for citizens caught in the practice of burning garbage. On the other hand, though, the lack of provision of adequate garbage bins and collection, together with the lack of monitoring did not allow or oblige people to comply with this policy. As noted by the Planning Institute of Jamaica

(2007), burning of garbage in Jamaica is a pressing issue, with 75 percent of households that practice burning being located in rural areas according to a Survey of Living Conditions conducted in 2006, which represents a worrisome potential for the dissemination of toxic materials.

Interestingly, possibly as a form of protest against the irregular garbage collection as inferred by some community members, one morning while walking to the school with some students from my neighbourhood, once we reached the entrance of the village where the main garbage tank was located, we had to cover our faces to protect ourselves from the smoke generated by the burning garbage. On that occasion, one of the students commented that the garbage truck had not come yet and that, perhaps, that was the reason why someone from the community had set the whole container on fire. Another student stated that he saw the garbage truck passing by without stopping the previous day. In response to that, I confirmed the same, as I recollected having seen a garbage truck drive by at high speed on the main road on that day while I was at the outdoor sink of the school canteen helping the kitchen staff wash lunch-break plates.

In this regard, the collection of garbage and the provision of garbage trucks was organised privately and, indeed, the perspectives shared in an interview with the local manager of the Solid Waste Management Authority uncovered several challenges. For instance, garbage trucks were imported from abroad and were not designed according to the features of the local territory and roads. This led to problems related to their frequent damages that affected regular garbage collection in more remote areas. Additionally, the lack of a functioning recycling site in the country was related to this not being perceived as a profitable business neither by the government nor by private companies. In his view, in fact, the only way to effectively establish a recycling site in the country was to create it as a lucrative business managed by a group coordinated by private companies, rather than relying on the government's initiative. In relation to this aspect, an educational officer suggested that introducing 'rewards' for local community members as a motivator for them to observe environmental practices such as recycling would help address local challenges. Improving, for instance, the monitoring system in more remote areas was in his view 'not cost-effective'. The insights revealed by these perspectives recall an outlook where responsibility for environmental care is placed on to individuals rather than at the systemic level (Kollmuss and Agyeman, 2002) and is based on a behaviourist approach to learning.

The lack of mandatory and monitoring policies as well as of adequate provisions for recycling affected community members' practices towards separation of garbage for recycling. These shortcomings stood in contrast to the sustainable learning practices advanced within the school, where garbage was separated in different bins for paper and plastic. At the end of the school day, though, the bins were collected by one of the students' parents hired by the school as a garbage collector, who disposed of the waste altogether in the main garbage tank situated at the entrance of the village, which was located just outside the school entrance gate. Further insights related to correct disposal of garbage were also shared by students during focus groups and informal conversations, both during school time and while spending time together in the village after school and over weekends. They, in fact, attributed local behaviour in relation to disposal of garbage to people's 'laziness', with regard to the fact that it took too much effort to appropriately collect and separate garbage without having proper bins where to dispose of it or having to walk to the entrance of the village to throw their household's waste in the collective tank. This aspect recalls the issue of responsibility for environmental care being placed on individuals. In particular, it reveals an internalisation of this perspective of (lack of) individual responsibility whereby people, by self-defining themselves as being too 'lazy' to do what they know is right, imply a subconscious outcry against their neglected situation. This seemingly careless attitude about the environment at the individual level reverberates, indeed, a more systemic lack of provision of access to resources (Freire, 1970; Kollmuss and Agyeman, 2002).

Another view that emerged from focus groups with students, informal conversations with community members and observations was specifically related to the female 'status', namely what was perceived as being acceptable behaviour of 'desirable' girls. The act of women collecting garbage from the ground in the village was, in fact, not contemplated as being a pertinent behaviour for a girl to be considered worthy of respect. Students' viewpoints – also confirmed by teachers' views and by my own observations- further indicated that, when children were seen collecting garbage on the streets in the village or reminded locals of the importance of keeping the environment clean, the latter often 'cussed' (cursed) them. This was due either to the fact that what students were suggesting contrasted with local practices or it was due to power-relations, in that it was not acceptable for a younger person to criticize and correct adults' behaviour. Similarly, within the school, when students who were appointed as environmental ambassadors pointed out inadequate

environmental behaviours in other students and requested them to correct their actions, often these would not comply with the requests, especially if they were made from younger students. Furthermore, according to the views shared by students and teachers, environmental value in the context of the school and surrounding community was often attached to the notions of cleanliness and beautification. Specifically, maintaining a clean school compound and a clean home and beautifying them with, for instance, plants and flowers were considered as main environmental activities. In this regard, an analysis of the Jamaican primary level curriculum conducted by Dr. Therese Ferguson (2002, p. 567) shows that this aspect promoted a view of students as "caretakers" and stewards of the environment. Further exploration of these perspectives unveiled that maintaining a welcoming environment for visitors and tourists and winning environmental competitions were main motivating factors that drove the learning outcomes and activities conducted within the school. In like manner, challenges related to lack of environmentally friendly behaviours were also associated to the environment being envisioned as an object or a market product. This was exemplified by the fact that the main reason for the lack of a recycling site in Jamaica was due to the lack of monetary value attached to it.

As such, the environment was largely understood as an external element in line with an anthropocentric view and as a not-so-profitable 'commodity' in a neo-liberal framework. Therefore, the understandings of the notion of environment gathered from students and teachers reflected a view of nature as a "resource" for economic development in line with the way it is presented in the primary level curriculum (Ferguson, 2008, p. 565). The potential adverse implications of this underlying view can be related to studies conducted on pre-service teachers' perceptions of nature and the environment in the Australian context, where "anthropocentrism was associated with negative attitudes to nature and environment, while non-anthropocentrism was associated with positive attitudes to nature and environment, particularly when combined with anthropomorphism" (Quinn et al., 2016, p. 903). Furthermore, as argued by Matulis (2014), framing the environment according to its economic worth raises concerns related to social and environmental justice. Market-based approaches have historically caused social inequality, where privileged elites benefitted from control of resources at the expenses of disadvantaged and indigenous communities. Similarly, if local communities' resource-management strategies collide with or are not as profitable as broader market-oriented approaches, they risk further marginalisation. What is more, Matulis also noted that this approach would entail "uneven distribution of benefits", whereby natural assets

that prove to be more monetarily profitable would be allocated more state funding than others (Matulis, 2014, p. 156). Issues related to displacement and dispossession could occur too, where vulnerable communities could be affected by the development of profitable environmental initiatives managed by powerful groups owning land and resources. In a marked-oriented framework, these issues are linked to questions of management of and benefit from (natural) resources, which inevitably further exclude and marginalise already vulnerable communities (Matulis, 2014).

In the light of these conceptions, research participants perceived the notion of environment within an anthropocentric paradigm, namely as their physical surroundings (including their homes and community), which required to be taken care of to serve specific purposes related to human needs, such as economic profit and preventing diseases and hazards from natural disasters. The pedagogies through which these perspectives were carried out within Uphill school consisted largely in a transmissive approach to learning, where teachers conveyed content knowledge to students, especially with regard to addressing context-related environmental issues. This approach, in fact, recalls a problem-solving method within a transmissive type of learning. Elements of co-construction of knowledge and a more transformative potential of sustainable learning were found when teachers created spaces for students to reflect on issues relevant to their community and requested them to actively participate to the lesson by sharing their personal knowledge and experience on specific topics. The views and learning occurring in school both matched and contrasted with the perspectives and learning within the community. On the one hand, in fact, the environment was viewed as an external element to be protected and cared for both within Uphill school and community. On the other hand, though, the views advanced by the school diverged from the beliefs and attitudes within the community. Here, lack of provision of suitable resources to address environmental issues and an economic disadvantaged status caused lack of engagement with environmentally-friendly behaviours.

Therefore, contrasting attitudes towards the environment emerged at the local level between Uphill school and community, with related connections at the systemic level too. I discuss these connections and their implications in chapter 6, while in the following section I bring the focus on how said views of and attitudes towards the environment translated into daily practices within Uphill school and community.

5.1.2 From envisioning to practicing ESD in Uphill school

In this part I describe the range of sustainable and environmental practices witnessed in Uphill school and community, by paying particular attention to selected anecdotes that are emblematic of the type of learning these activities entail, as well as the relationships between types of learning and approaches to ESD. Inevitably, though, the description includes episodes that display contradictory practices, which bear relevance to educational systemic challenges, conflicting community values influencing both students' social learning and school sustainable learning processes. These aspects -in connection with perspectives shared by the leaders of a nearby sustainable community- eventually exhibit what the challenges are that the broader ESD context is called to tackle in this context through both formal schooling and informal community learning.

As briefly mentioned in the previous section, sustainable learning activities were regularly carried out in the school. These were mainly part of their: SEP in collaboration with JET and included in the school's 'Environmental club' activities; and '4H' (Head, Heart, Hands and Health) club, supported by the Social Development Commission (SDC) and Ministry of Industry, Commerce, Agriculture and Fisheries, with funding provided by both public and private sector as well as international organisations. Moreover, there were additional extra-curricular activities, such as: 'tree planting'; 'bamboo restoration'; 'plastic bottles collection'; 'community outreach' services; community and school 'clean-up' days and various other sustainable learning related activities. There were also competitions in which the school took part in collaboration with local bodies, such as the Rural Agricultural Development Authority (RADA) and the Lasco Relief Environmental Awareness Programme (REAP).

With regard to the school's environmental club, despite this being constituted by a designated group of students across different grades and specifically allocated teachers, it was nevertheless considered to be extended to the whole school staff. This aspect coincided with the features promoted by whole-institution approaches that included also secondary schools, where sustainable learning was integrated within all aspects of school planning, which (in some pilot studies) resulted in having a positive impact on both schools and their surrounding communities in Jamaica (Collins-Figueroa et al., 2007) and internationally (UNESCO, 2014).

Students were often reminded by teachers and the school principal during their daily morning devotion time that everyone was meant to be involved in the activities of the environmental club, with a view to keeping the school compound clean. Furthermore, they were also encouraged to share their environmental learning about adequately disposing of garbage, planting trees, respecting the bamboos, saving electricity and water with their family and community members, as in the field notes excerpt below:

> "...the principal told the students to use the knowledge they gained in their science classes every day. Namely, that if they saw somebody cutting a tree outside they had to point out to them the importance of trees. She explained that these trees will be their legacies, so one day when they will go back to the school they will remember that they planted them." (Fieldnotes excerpt)

In this case, the message shared by the principal recalled an interdependent relationship with nature of a more transformative nature and it had the potential to instill in students a sense of stewardship and 'kinship' with the natural and community environment.

The SEP entailed a combination of hands-on activities, an environmental research project and an aspect of community outreach. As an example, practical activities included the school's bamboo nursery, used to prepare the bamboos that would later on be planted in the area surrounding the school as part of a heritage site restoration project. In caring for the bamboo nursery, students (under teachers' guidance and monitoring) practiced nurturing the bamboo seedlings according to local practices, by wrapping them up in newspaper that was meant to be kept moist for them to grow. At the same time, another aspect of the project included researching the history and importance of the bamboo. This included also interviewing (by using video recordings) local community members and bamboo workers. The interviews, conducted by the students with the support of teachers, were aimed at learning about: the relevance of the bamboo area for the community, the changes that it had undergone over time, the threats it was exposed to, how it was presently endangered, what recommendations locals had in order to preserve it and the reasons why the restoration project was needed. The last aspect was particularly relevant to the community, especially after incidents related to burning of bamboos by community members, often as a form of protest against local socio-political events. With the knowledge acquired, students were then required to write poems and songs to express their insights on the bamboo project (see Appendix 4). Finally, once the bamboo seedlings were ready,

teachers and students, supported by some parents and community members, proceeded with planting them in the area surrounding the school, as the final step of the restoration project undertaken by the school. Awareness amongst community members about the importance and value of protecting the bamboo area was also spread by inviting parents to contribute to the cleaning and planting activities. In this way, students were allowed to experience what Lorna Down (in Gentles and Scott, 2009, p. 4) defines as "examples of an education *for* sustainable development with its orientation towards actual transformation of one's environment".

Concerning this aspect, reflections from some Grade 5 and 6 students after a Red Cross club community outreach visit to two elderly women's house in Uphill village showed that this made them more sensitive both to the old ladies' circumstances and to their own emotions. Moreover, they expressed their understanding of others' feelings as well. The Red Cross club was not specifically part of the environmental projects of the school. However, as frequently pointed out by the school principal, outreach activities in Uphill village were considered as part of the sustainability that the school aimed at promoting within the community. The field notes excerpt below narrates this anecdote:

"In this instance, the outreach activity consisted in the preparation of a box with 'bullas' (a Jamaican cake made with ginger, molasses and nutmeg) and 'bag-juices' (a chilled drink contained in a plastic bag, usually very sweet and fruit flavoured) to deliver to the old ladies, together with two styrofoam boxes containing fried chicken, rice and peas, and a side salad to give to the women as a lunch meal.

Once the goods were ready, four students from the Red Cross club in their uniforms, other 6 additional students from various grades, two teachers and I made our way up the hill, through the fields and bushes to get to the old ladies' house.

As we approached the house from the backyard, one could notice that some parts of the walls that constituted the outdoor structure at the entrance of the house were missing. Some pieces of concrete were piled up in the space outside the entrance door, as if the construction of the outdoor hall had never been completed. Two wooden chairs were placed in the outdoor space, near the entrance door. One of them was missing a leg, which was replaced by a concrete brick. The chairback and seat were covered with two large squared pieces of sponge, part of which were covered with a red cloth.

When we arrived, we could not determine whether the women were in the house or not. After knocking on the door and asking for permission to enter, we found one of them inside and had to help her walk outside the house, as she her knee was injured and she cold hardly walk. She was a very skinny old woman probably in her 80s, her teeth missing, half deaf and blind, but with a powerful and bright smile nevertheless. [...]

Our visit included helping her eat the lunch we had brought for her, attempting some conversation and then praying together. Before we started praying together, the lady's smile widened even more and she told us -in a way that looked like she had gathered all her strength to communicate that message- something that I understood as that we have to praise the Lord every day, that he gives her strength and joy and that she gives thanks every day.

The lady's words and the overall energy were quite touching for all of us, as we were standing in a circle holding hands and we were ready to perform the group prayer, when I saw both teachers and students with teary eyes and I found myself trying to hold tears back too. The teachers then asked some students to perform the prayers, which included asking for protection and blessings for the lady and, once we placed all our gifts properly inside the house, we hugged her and then made our way back to the school." (Fieldnotes excerpt)

Three excerpts from students' reflections are also displayed below (I replaced specific names with 'Xxx' for anonymity):

"Today was a very interesting day. We went to someone's house and her name was Xxx and miss Xxx's house. And we, as Red Cross youth members should help her and give her something special, and we would have to give her something to eat as well, because she was very hungry. And so, she is very sick, also there was a pain inside her knee. So, we sang a song and pray[ed] for her, because this prayer was very powerful. [...] We stayed a little longer and wait[ed] until miss Romina's heart and miss Xxx's heart was fill[ed] with love and [I] acknowledge also I felt like I want[ed] to cry, because miss Xxx is very poor and she is a very precious woman [...]" (Excerpt from Grade 5 student's reflections)

"Today was a very interesting day. We went to help an elderly who really needed some help. We carried goods, food, and juice. The elderly's name is miss Xxx. She was really kind to us. She told us some things about her, like: she wanted to go to the nearby church and her knee was sick, so she couldn't walk to the church, so we all prayed for her that her knee gets better and may God bless her. She lives near to our school, Uphill school. She always talks about putting God first and so we had a little conversation for a while so we told her we will come back soon as we went away." (Excerpt from Grade 6 student's reflections)

"When I went to the house I was thinking 'what is going on here?' and when we went in, I was so nervous and happy at the same time. But when Xxx start[ed] to pray, I felt something moving inside of me. When the old lady pray[ed], I was saying in my mind 'we are good' [...] I was crying because of the joy in my heart and soul. I was not ready to go so fast, but I had a lot of fun and I love that lady. Romina was crying because she felt love in her soul." (Excerpt from Grade 6 student's reflections)

This type of activity, aimed primarily at increasing students' awareness of their surrounding community as well as learning to contribute to it through acts of service by providing aid to community members, shows the potential of being a trigger for critical thinking and transformative learning. As highlighted by the reflections in the excerpts, students' realisations, through first-hand experience, about the conditions of more disadvantaged members of the community generated self-reflection and awareness about their own thoughts and feelings (e.g. "I was so nervous and happy at the same time", "I felt something moving inside of me", "I was crying because of the joy in my heart and soul"). They became more sensitive to the reality within their own community (e.g. "we [...] should help her and give her something special, and we would have to give her something to eat as well, because she was very hungry", "also I felt like I want[ed] to cry, because miss Xxx is very poor and she is a very precious woman"). As exemplified by the student asking herself "I was thinking 'what is

going on here?'", when she witnessed the conditions of the lady's house and health, and her following reflections "I was saying in my mind 'we are good'", these activities could spur higher level thinking about connections with the broader (unsustainable) socio-economic paradigm and students' ability to actively engage in changing them.

The whole school also engaged as a team in greening activities, such as planting and nurturing different crops in the school vegetable garden, which at times were also used to prepare meals in the school canteen. Moreover, the school garden and part of its perimeter were fenced with living fences and the school compound was beautified with trees and flower gardens for each grade, so that students from each classroom were responsible for nurturing them (see pictures in Appendix 3). An interesting anecdote of students' involvement in said activities was observed when, one day:

"[...] a Grade 6 student called my name out and told me to join them. As I got closer, he informed me that they were going to plant again (as they had started planting flowers they had brought from their homes in the classroom flower gardens the previous day but, on that day, I found out about it only when they had almost finished the activity and, thus, I requested them to call me the following day). So, when called, I answered 'alright, me a cum with you!' ('alright, I'll come with you!'). I followed them to their classroom garden and they showed me the plants and flowers that they were planting. I asked them who took the plants to school, and they said that, today, it was a female student who carried them from home. [...] One student was digging a hole and the other one was placing the plant in it, by first carefully taking the 'dirt' (soil used to plant) out of the 'scandal' bag (black plastic bag) or plastic glass where the small plants were kept, and then covering it all up with soil.

Some of the plants looked like cactuses, so I asked what was the name of it and the student told me 'hibiscus'. He added that this plant doesn't need water, that it produces water for itself and that, in fact, it also lived in the desert. So, I asked him where he had learnt all these things and he said 'in the book'. Then, seeing how skillful and confident the students were in planting, I asked them where they had learnt to do that, and they said at their 'yard' (home).

While planting some other flowers, one of them told another student that there was 'fert'[ilizer] in it, that they (not clear whom he was referring to) put fertilizer. Therefore, I asked them how they knew that there was fertilizer in it and one of them took some of it from the 'dirt' in the plastic glass and showed it to me on his finger. It looked like some white colour parts of the size of a grain. I then asked them how they knew how to recognize the fertilizer and they told me that their parents used it in their garden at home to plant plants and to make them grow.

While we were planting, I noticed that there were snack papers and bag juices in the soil, so I asked the students why they were proceeding with planting without picking them up first, but they did not respond. Then I asked them if they knew what happens to those papers and bag juices if they did not pick them from the ground and they said they would go into the soil. I continued by asking them where the plants got their nutrition from and they said from the ground. So, I explained to them that they did not want the plants to eat those papers and bag juices, because, as with those in the school vegetable garden, we also ate the plants afterward. We thus all started picking the garbage from the soil before proceeding with the planting.

While we were planting, seeing that they were very precise and that they taught me how to break the soil before planting and not to put too much soil on the plants, I asked them whether they enjoyed doing this and they said "yes!" with a smile. After we planted the last plant, they told me that it was time to water the plants now and they asked me whether I would go with them. I said yes, that I would not leave until we finished. We then went to the pipe that was located behind the principal's office and we collected some empty plastic bottles from the ground on the way, which one student informed me we were going to fill with water to water the plants.

> While we were filling the bottles, I noticed that there was a lot of garbage on the grass nearby the pipe (e.g. bag juices, other plastic bottles, candy and snacks wraps, etc.) and I started picking them. One student joined me and then they both called me to go back to the classroom garden to water the plants. The same student handed me a bottle filled with water, so that I, too, could water the plants. I asked him to show me how to water them correctly and he started walking around the plants and sprinkling water over them with his fingers. Other students then joined us by carrying a garbage bin and collecting garbage in the area outside their classroom.
>
> However, soon their teacher came out of the classroom and asked why so many students were outside, said that he had sent only two of them to take care of the plants and that it was time for them to go back to class, because the lesson had started. Worth noting was also the fact that most of these students were the same ones who were usually disruptive in the classroom, did not score well in school tests and had also shared during interviews that they found the classroom environmental learning "boring", as opposite to the accuracy of knowledge and level of enthusiasm shown for practical environmental activities." (Fieldnotes excerpt)

The practices observed in this occasion pertain to what Collins-Figueroa (2010, p. 11) defines as "authentic, action-oriented learning", where "out-of-classroom experiences expose learners to real situations that serve as mental organizers. Such experiences enable students to create mental pictures, physical sensations and emotions associated with their experiences and provide opportunities for them to gain specific procedural knowledge". What is more, as stated by Ferguson (2002), these types of activities where students are freer to engage and interact with nature and the environment provide an opportunity for developing a recognition for nature's inherent worth, regardless of its instrumental function for humans. Particularly, the processes observed above could also be compared to what Garrison et al., (2015) consider as "educative moments", where students experience companion values and critically ponder together with teachers in the formation of new values. Furthermore, as advanced by George et al. (2002), this learning approach encourages students to employ their contextual background knowledge and competences in the formal school environment, thus allowing relevant links with their community and culture. Therefore, the combination of all the aspects related to these types of activities recalls a sustainable learning of a transformative nature.

With regard to waste management in the school, each day a different group of students aided by a teacher was in charge of picking garbage from the school compound during breaks or after school time, while students waited to be picked up by their school bus, taxis or parents. The garbage was then disposed of in separate bins for paper and plastic. Similarly, the school garden also had a specific section where organic waste was arranged in a compost that

was later used as a natural soil fertilizer in the school vegetable garden. In the past, as the principal explained to me, the school used to have a burning site where the garbage used to be collected and periodically burned. However, as I was told by the Grade 6 teacher in an interview and as the school principal showed me during a tour of the school compound on my arrival, this site was now shut, in compliance with the no-burning policy issued by the government. Therefore, she used to make periodical reference to this ban to remind students during devotion and encouraged them to spread the message with their families and other community members. Another ban that the school had undertaken, despite this not being required from government policies, had to do with the use of styrofoam boxes to serve and store food. The school, in fact, had replaced these with reusable plastic plates and cutlery and both the school principal and teachers requested that students and school staff interrupted using styrofoam boxes and refrained from buying food served in them from the restaurant located just outside the school gates. An exception was constituted by school special events, during which guests and attendees from other schools were invited. In these instances, the lunch offered to the guests was provided in styrofoam boxes for convenience, as the school did not have enough reusable plates to serve all guests.

Another practice that the school principal and teachers also reminded students about during devotion time was to close the water pipes located outside the school principal's office after washing their hands, before and after the morning and lunch breaks. Reminders about sustainable habits could be found also in signposts related to environmental care and protection that were spread all over the school compound and painted on the school's walls (see pictures in Appendix 3), containing messages such as:

> 'Protect the environment', 'Water is life', 'Recycle! Reduce! Reuse!', 'Do your share for cleaner air', 'It's cool to have a clean school', 'Please! Save the trees!', 'Do your share for cleaner air', 'Stop! Put it in the right bin', 'Lend a hand to save the land', 'Everyday is Earth day!', 'Don't litter! It makes the Earth bitter!', 'It's great to go green', 'Turn off the pipes', 'Jamaica's beauty is our duty'.

In view of this wide range of experiential learning activities, students were exposed to a variety of sustainable learning practices. Most of the activities, though, were purposely planned and carried out also according to different competitions that the school had entered. Some activities were not carried out on a regular basis and were intensified when the deadline for 'judgement' was approaching. Pressure from competition judgement deadlines combined with

the work overload faced by teachers on a daily basis, which limited the time and energy they could dedicate to all activities, required the intervention of gardeners, school staff and other professionals. Their help was employed to improve the condition of the school vegetable garden, or to prepare products for display at various competitions to ensure successful results. The importance of receiving a prize or a reward seemed to drive the motivation and engagement of the whole school in these activities. Although teachers and the school principal routinely reminded students of the meaning that such activities represented in their daily lives, the emphasis on the final products or results in competitions and its enactment through the employment of experts to produce said 'last-minute results' at times entailed lack of involvement of students in the final stages of the process. This influenced some aspects of the students' learning experience, in that the competitive system allocated an excessive emphasis on outcomes, compared to the focus on the importance of creating learning on the intrinsic value of the environment. On the other hand, though, the need for the school principal and staff to hasten environmental activities to meet the competition or judgement deadlines reflected the challenges inherent into trying to fit various 'extra-curricular' projects within a very filled curriculum, limited resources and a predominant 'didactic teaching' (Collins-Figueroa et al., 2007).

Similar concerns (together with issues connected to designating ESD as a discrete subject, which will be further discussed in section 5.2.3 below) were shared by the JET CEO as well, as she explained:

> "…this year we changed it [SEP] a little bit… we found that there has been increasing pressure on teachers to do a lot of administrative work... there's lots of competing activities that are happening within schools, lots of… things that are... be required by the Ministry of Education that are... means, the TIMING (!) for the environmental programmes are small... you know… so, unless you have a really passionate school about environment… you find that, these kinds... because there's no mandate [to implement ESD] by the Ministry of Education..."
> (JET CEO)

In this regard, difficulties in ensuring constant engagement of teachers and students in sustainable projects were experienced within a college located in the Jamaican capital as well, due precisely to the same reasons. Namely, their eagerness for participating in the projects was constrained by an overwhelmingly filled schedule, together with interruptions of activities during school breaks and lack of resources (Collins-Figueroa, 2010). Furthermore, the observed overall teachers' personal commitment to the implementation of

sustainable learning practices in the school (see sections 5.4 and 5.4.2) highlighted that their challenges differed from, for instance, those identified in studies on ESD in higher education in Jamaica (Down, 2006). Here, in fact, Down explains that the main constraints were constituted by "institutional awareness" and "support and resources" (Down, 2006, p. 393). While the latter applied to Uphill school too, institutional awareness –especially of teachers and principal- here seemed to constitute a strength of the school rather than a weakness.

Related to the difficulties encountered by teachers, in tackling the implementation of sustainable learning and their overwhelming schedule in a context where resources were limited, was also the fact that ESD was not a discrete subject in the school curriculum. This aspect emerged from interactions and interviews with various teachers, ESD experts and stakeholders and I present it in the following section.

5.2.3 Lack of ESD as a discrete subject and role of JET

The challenges faced by teachers mentioned above emphasize the importance of not having ESD as a discrete subject in the school curriculum. In this section, therefore, I illustrate a more in-depth investigation of the insights shared by various interviewees, as well as the role played by the Jamaica Environment Trust in complementing the curriculum for the provision of sustainable learning in schools. This analysis also presents links with related curriculum and broader policy issues, which are discussed at length in chapter 6.

The topic of the lack of ESD as a discrete subject was the first aspect that Uphill school principal mentioned, at the end of one of our interviews, when I asked her to share anything that concerned her and that we had not yet discussed about:

> "...one thing that I would do differently too is... we don't really have a SUBJECT about the environment... what the children learn about the environment is, is a... they learn through actions and things that we, you know, we talk about maybe in the devotion and it is not really, that purposeful in the curriculum! [...] It might be mentioned here and there, but that deep connection is not there, that's something that I would really want to see, right? [...] like weekly there's a mention... if you have a six-week unit, you might have a mention there, but not something that you say weekly, weekly, so you keep the children's minds on the environment and what to do and so forth..." (School principal)

Not having ESD as a discrete subject in the curriculum, as it can be inferred also from the Grade 6 teacher's frequent remarks (although without him directly stating this as being a reason underlying his remarks) aggravated the difficulty of planning already present in the school. In these regards, he referred to the improvements brought by the collaboration with JET and their requirement for the school to provide an Action Plan:

> "…because we have, we have a time period in which we fall, so if we're going to do greening we have to write what are we going to do, leading up to the final crop, so we know we have to have a structured period where we say 'ok, starting September we must have the clearing up the land, what are we going to do after the clearing of the land? If we plant the crops, how long they, this certain crop is going to take?... now that it reached maturity, what do we do with the crop? After we reap it, so all the things must be there, action plan..." (Grade 6 teacher)

Another consequence of not having ESD as a discrete subject within the curriculum, as expressed by the JET CEO, was the fact that teachers in various schools over the island shared a common feeling of insecurity related to how to exactly 'deliver' environmental topics imbued in the curriculum:

> "…not a subject, not a separate subject and also you will find that, you find that there are many schools that are teaching this subject without even taking the children outside, you're talking about the environment without taking the children into the environment to see the environment. So, a part of why SEP was initially established was because of the recognition of this fact, that there were all these environmental topics that teachers just didn't feel very comfortable delivering…" (JET CEO)

As her words revealed, JET had been playing a role within formal education where its programmes tended to compensate for ESD related shortcomings existing in the National Curriculum:

> "we're trying to evolve with the new, the new set up really […] how, how the curriculum is being delivered now…" (JET CEO)

Besides addressing ESD lacks in the curriculum through the SEP, JET had also been contributing to teachers' training:

> "...we even have worked with teachers' colleges over the years as well, and we worked with early childhood education centres as well... you know, trying to get teachers more comfortable with environmental topics…" (JET CEO)

Interestingly, the Grade 6 teacher, being the one in charge of the environmental club, benefitted from the JET annual workshops, which I had the chance to

attend with him during my field work. In this case, the workshop focused on 'Protected Areas in Jamaica' and allowed teachers to build arguments in favour and against development projects in such areas, followed by an enacted debate to expose such arguments. In this way, teachers experienced both growing awareness in relation to the topics covered and new skills to engage their students on related research and action projects in their schools and communities.

As a result of its long-lasting and effective contribution in the educational system, JET was acknowledged and supported by the government and its agencies. Nevertheless, despite the sound results achieved in schools across the country, its influence at the policy-making level seemed to be very limited and, indeed, the shift in the focus of educational policies at times adversely affected the Trust and its programmes:

> "… we were hoping to have, and we had, we had the Ministry of Education on board for a long period of time… somewhere in the middle there I want to say, it was between 2000 and... no, I don't... I know they were giving us funding up until 2009, like they funded us for maybe about 3 or 4 years... we were working very close with them during that period to integrate environmental, the schools' environmental programme in the schools, make it mandatory for each school to have an environment programme... and unfortunately that just, it just didn't… […] several reasons I think... there was a change in focus, you know, in the, the government changed hands in 2007 I think... and soon thereafter, within a year or two, the funding that the Ministry of Education was giving to support the programme was withdrawn, there was a change in focus and I think, you know... on early childhood education and just providing basic amenities in schools and, you know, environment was kind of seen as one of those kind of extra-curricular, you know, it's not a core… not a core part of the curriculum…" (JET CEO)

In view of the above considerations, not having ESD as a discrete subject in the school curriculum could be interpreted as a vicious cycle. Not considering it as a main aspect of education became both a cause and a consequence in itself. On the one hand, in fact, the government's lack of emphasis on and financial support for ESD reflected the fact that it was not deemed as a priority. On the other hand, though, the fact that it was not defined as being a discrete subject (at least at the primary level) and not prioritized caused it to be regarded as ancillary by teachers, students and community members too.

The JET CEO further illustrated the consequences of lack of financial support from the government, due to which the SEP had to be interrupted for a year:

> "…at its height, we could work in about a third of Jamaican schools, so that was I think over 300 schools, high-schools and pre-primary… and, and then, and then we actually, when we lost actually we had to close the programme, temporarily for a year, and then we got some funding in 2010 I believe, that was when I first started at JET… and, we started back the programme in 30 schools, we'd kind of been existing at that level for the past 5, 6 years…" (JET CEO)

Within the context of Uphill primary school where each year' sustainable activities and competitions were viewed as a step toward the achievement of long-term goals (e.g. organic gardening, self-sustaining production of food etc.), such interruptions due to cessation of government funding certainly impacted the overall process of learning for the students and the community of which the school is part.

The limited power of JET with regard to government policy-making processes was acknowledged by its CEO:

> "…we can educate, we can ad, advocate, we can, for example...we've, we've taken the government to court you know, over issues, you know... we... trial judicial review... […] yeah, so we...there've been judicial reviews filed by JET... against government agencies… so there are still things that we can do, but there are things that we cannot do.. because we are not the government…" (JET CEO)

In addition, she highlighted other aspects where government' shortcomings can be found other than in policy, namely implementation and monitoring, and where JET had no ability to practically intervene:

> "… a lot of the contention continues to lie between us...yes we educate, yes we advocate for x, y and z, but we cannot enforce the laws, you know, we cannot create the laws. We can review the laws, we can review the policy, but we cannot implement them […] there's a lot of structures in Jamaica, there's a lot of, you know, not saying they're perfect, they are by no means perfect... some of them are very far from perfect, but there are structures in Jamaica that exist, that may not exist elsewhere... the problem is enforcement and implementation and monitoring…" (JET CEO)

Similarly, the ambivalent relationship between the Trust and the government was reflected in both their positions. JET, in fact, both complemented and critiqued government's actions and, in a like manner the government financed,

but yet often took long time before acknowledging and supporting the Trust's work:

> "A lot of people see us as constantly butting heads, which is the case, it's often the case, you know, there is a very adversarial perception of JET, you know, that we are that, the government's adversary, but when you consider things like the fact that the National Environmental Planning Agency, which is the national regulator agency for the environment actually funds our programme, our Schools Environment Programme, I mean there are other funders, there are private sector funders, but not at that level of NRCA, we also have a programme funded by the Tourism Enhancement Fund, which is a government foundation fund, it's a government fund, so it's, you know, it's at the same time we're very, we're critical of the government, but at the same time there is this recognition of the good work that we do and we have a very good track record […] This has happened over time, I would say probably in the last 5 years that has happened... it, I would say if you ask Diana [JET Founder] that, you know, ten years ago, she... would be a completely different scenario, it would be a completely different answer she'd give you.." (JET CEO)

The fact that, although after a long period of time, the Jamaican government acknowledged the meaningful contributions made by JET to -among other initiatives- the education system and funded their environmental programmes in schools can also be seen as a recognition of the compensatory role played by JET. In a way, in fact, JET programmes in schools were essential for sustainable learning to be implemented, in the absence of ESD as a discrete subject and in consideration of the existing struggles faced by teachers in fulfilling all their tasks.

In the previous section I illustrated the main sustainable learning practices in Uphill school, with related difficulties, and here I expanded on the aspect of the lack of ESD as a discrete subject in the primary school curriculum. In the next section, I take into consideration the practices carried out in Uphill community, based on my fieldwork observations and informal interactions with community members. The presentation of these practices shows how they related to (i.e. challenged) the school' sustainable learning practices presented in the previous section.

5.2.4 ESD practices in Uphill community

The sustainable learning practices witnessed in the school were usually not reinforced within Uphill community surrounding the school. As already mentioned above, for instance, adequate disposal of garbage was neither practiced nor supported by community members. In like manner, large part of the households in the village did not receive regular provision of running water and this was instead collected in 'drums' that were kept in the backyard of the house, close to an outdoor water pipe. Usually, the water would start running from the pipe in the middle of the night, at around 2 or 3 am. At that time, my host and I used to get up and connect a hose to the pipe into the drum to fill it while the water was running. However, despite the lack of regular running water, some villagers had the habit of leaving all the water taps open in the house, so that the water would keep running throughout the night and, at times, even throughout the day on days when there was running water. This practice was in contrast with the learning that was conveyed in the school with regard to the importance of saving water. When asked whether there was a specific reason why the taps were left open when the water was finally running in the house, my host, my housemates, the school principal and the teachers could not provide any rationalized explanation for it. In the case of my host, being the school cook and having been exposed to the same type of information with regard to saving water as the students did, she did not to employ the lessons learnt within the school in her daily life. Similarly, when working in the school's canteen, she used to complain about not being allowed to use styrofoam boxes and, at times, she threatened teachers that she would stop cooking fried chicken unless they reintroduced the use of said boxes. In her view, this was an effective warning as fried chicken was everyone's favourite dish in the school and it could be viewed as a way for her to exercise power, as she might have felt that her voice was not being heard in relation to this matter.

Intimidation by community members in response to students' attempts to persuade them to adopt more sustainable behaviours was often reported by students during interviews, focus groups and informal conversations. They, in fact, expressed that when they tried to explain to community members that they should not pollute the environment, these often responded in a harsh manner by telling them that they 'chat too much' (i.e. when someone talks annoyingly and disproportionately). Additionally, if adults saw children collecting garbage from the road, they admonished them by calling them 'eeediats' (i.e. fools,

similar to the word 'idiot', but pronounced differently in patois) and by telling them that they should let the 'garbage man' do that.

Another way in which the learning that occurred in school was contrasted by community practices had to do with the behaviour that community members had during social events in the village, to which children participated too. In these cases, food was cooked outdoor and then shared with the neighbourhood. This involved the use of paper plates, napkins, styrofoam glasses to serve soup and foil paper to cook steamed fish. Similarly, juice paper boxes and soft drinks' plastic bottles were left on the grass after consumption. After the food and drinks were consumed, all these items were disposed of on the ground and later collected, put in a pile and burnt altogether. Once again, these practices were contrary to what children were taught in school and this type of social learning seemed to influence their behaviour (Kollmuss and Agyeman, 2002) in that, outside the school compound, students too had the habit of 'dashing' (i.e. throwing) these items on the ground while walking around in the community.

Differently, glass bottles from alcoholic drinks were instead collected separately by community members, due to the return policy employed by some beer and other alcoholic drinks companies. As learned from an interview with the director of the Lasco REAP, thanks to this initiative, in fact, when individuals returned used bottles to the wholesaler, they would get either cash or a discount on future purchases. Companies employed this policy both as an environmentally-friendly practice and as an economic strategy for production through reuse. Similarly, individuals who undertook this practice seemed to do so due to the economic gain deriving from it, rather than for environmental reasons. Therefore, this aspect further reinforced the perception of the environment as a commodity rather than as a common good.

The influence of the social learning that took place in the community affected not only students' behaviour, but also impacted the sustainable learning processes within the school. I illustrate instances of this phenomenon with examples in what follows. With regard to the school vegetable garden, for instance, during my first stage of fieldwork between September and December 2016, the school principal and teachers had planned to start planting specific crops before the Christmas break, in order for them to be ripe in time for the JET judges' visit during the Spring term, who would then appraise the status of the garden and rank the school accordingly. When I returned from my fieldwork

break during the first week of February, though, said crops had not been planted yet. I was, thus, told by one of the teachers that they had purposely decided to avoid planting new crops before the school break for two main reasons. On the one hand, in fact, he explained that community members often intruded in the school compound during school holidays, or when nobody was around, and stole both fruits and vegetables. On the other hand, there was also the risk for the vegetable garden to be damaged during the Christmas holiday due to the fact that community members living nearby the school often left their cattle free to graze on the school compound, despite the school principal having openly asked them to avoid doing so. However, the principal's requests often encountered denial from community members, who declared that they were not responsible for what had happened in the school, although the principal had personally seen them on the school compound on weekends while driving by on the main road with her car. Analogous challenges to sustainability projects were encountered by a college in the St. Ann's parish, where the school's shade house was damaged by animals (Collins-Figueroa, 2010). These similar experiences, possibly, highlights a shared need for more effective measures to ensure the protection of such projects across schools and communities in the country.

In other instances, community members also intruded in the school at night time and forced open the staff room and canteen's doors and stole different food items. Another mention related to this aspect was found towards the end of my fieldwork, during the first environmental club meeting of the new school term. At that time, the Grade 6 teacher requested students that the practice of 'thiefing' (i.e. stealing) the flowers for the beautification of the school compound needed to stop, as the previous school year's flowers had been stolen and he had personally paid for them. Thus, he told them to inform their parents to stop going to the school to 'thief', in case students heard them talking in their homes about them intending to do it, because otherwise they would destroy the school in the long-term. Similar instances were reported by Collins-Figueroa (2010) in her analysis of various biodiversity projects implemented in other schools in the island and were considered as part of the challenges faced with surrounding communities that hindered schools' sustainable learning processes. The way that these behaviours influenced students' attitudes could be noticed in the fact that they, too, regularly stole money from teachers' bags and, a few times, from mine as well. These incidents frequently also happened, for instance, after teachers had collected the 'lunch money' from students and kept them either on the teacher's desk or in its drawer. Teachers usually only realised that the

money was missing when they looked for it in order to bring it to the school canteen and pay for their students' lunch. When students were then caught because they were seen spending an unusual extra amount of money on treats at the small stalls outside the school, like the adult community members, they too denied any involvement in those incidents.

The data gathered with regard to the exploration of the sustainable learning practices within the school and its surrounding community, thus, revealed a lack of continuity in the processes of learning between these spaces, where school learning processes were also hindered by local customs and attitudes. In the words of a local educational officer, the differing cultural values between students' homes and their school brought them to "have two lives in terms of environmental awareness, one at school and one at home". In the former, in fact, students had to carry out the environmental behaviour taught to them by their teachers, while in the latter they –as children- had to practice what adults taught them. Analogously, the JET CEO offered a broader account of the disconnect between school and community environmental practices at the national level:

> "typically, in Jamaica […] the school environment is considered as a unit… ordered, specific rules at school, but what you find is that those rules are not necessarily, or those rules, or those ways of thinking are not necessarily enforced in the community. Especially when you're thinking about things like solid waste, you know, when you're talking about in the school environment, if you litter, you are punished right?!… you know, it is important to keep my school clean, it's important to pick up the paper at the end of the day and it's, you know, you will and separate and reuse and recycle and… but, the problem is that once you step outside of that school gate, a lot of that is not being reinforced at home, not being reinforced by their… community, their established community organisations and you tend to find that, that is where it breaks down... so, it's like one rule for school and a different rule for home or in the st... or even in the streets, cause you find that maybe at home, you know, grandma or mommy is, you know, telling you to keep your, your room clean, your environ... your, your yard clean, but once you step out into the streets, you find that 'oh there is no garbage bin, just dash it down!'" (JET CEO)

She also continued by briefly narrating that:

> "We have [laughing], we have gone to... SEP judging in schools, and... you know, had a child stand up in front of us and talk to us about the importance of recycling, re-using, reducing waste, handling your litter properly and watch the child go through the gate and throw down their bag-juice... [laughing] ... so... you know, there, there is this lack of, reinforcement, or there's a disconnect between, you know, the rules at school and the rules in society... and I think that a lot of that has to do with the fact that there is, there is perceivably no penalty outside of the school gate..." (JET CEO)

A different perspective on the link between learning in the school and its influence on the surrounding community was expressed by the school chairperson, who was a senior citizen from the surrounding community and had been involved with the school since her childhood, when she attended it as a student. In her view, over the long-term, she could observe that some changes had taken place in the community as a result of the sustainable learning practices promoted by the school. According to her view, an example was constituted by the aspect of "beautification" practices that community members had started in their homes. These included planting flowers in their backyards and, at least, making an effort to keep their households free from garbage:

> "[...] you pass and see people beautifying their place, and trying to keep it clean from garbage, I mean you have, you'll have a few that will say 'not be so clean', but you do see an impact…you see an impact, you see a change, in the way they go about doing things [...]" (School chairperson)

In her view, knowledge about the importance of environmental care and sustainable practices was absent in the previous generations and, thus, it was never an integral part of the current generation's upbringing:

> "I think... it is... about upbringing [...], coming back from childhood days, when some of them, grew up in situations where people, they did not care about the environment, so it has a trigger effect and although they're under a new learning situation, as I mentioned before, some of them …. [...] even some of those whom you'll see at school taking care, sometimes, they'll go on the street and eat something and then just drop the bag there [...]" (School chairperson)

The fact that sustainable learning had been introduced, through competitions, within the school learning practices in the last few years and that community members were gradually, although slowly, being involved represented a new learning for them and it would take time for new habits to develop. In her opinion, "indiscipline" was the root problem of the gap between the practices promoted by the school and the behaviour community members and students

too performed outside the school gates, combined with the belief that there were people specifically designated to, for instance, pick up garbage from the roads:

> "just indiscipline... and it's a lack of caring, that some of them I see that, I mean, they want people clean it up so, if I don't put it there, they won't have anything, any work to do!... which to me it's, it's crazy, but I've heard, I've heard those comments [...]" (School chairperson)

The only way to bring about improvement in the long term, in her opinion, was to continue to educate students and community members as well, through various approaches not limited to the learning that took place in the school. In her view, it was important to instill a sense of individual responsibility in community members, where they could teach each other. Thus, hopefully, the new generation of parents that were today's students would, one day, teach differently to their children. Similarly, continuous efforts by the school in engaging community members in its activities could, in the long term, help bring about a change in their perspectives and practices:

> "I think as I mentioned before, just continue, continue educating them, hopefully, hopefully they will change, they will see the nature... change and education can come in different forms, because if we, if both of us are walking along and eating and I'm going to have an empty container and just drop it there, then it's your responsibility to say to me 'Don't do that! Take it up' and to say, 'you know what, you can cause, this can cause the drains to be blocked and can end up in flooding and cause so many things, bring up diseases and things like that, so let us keep the place clean!' [...] and that is why I said earlier that, it goes back to how they grew up, what they saw around them, but then those who buy into it [...] they have that opportunity to teach their children and those who'll be younger than them... that, at that time they'll have more authority to say to them that 'No, this is wrong!', but I do, I do know that a lot of, lot of adults they say that 'pickney [i.e. children], feisty and out of order, don't talk to me, I'm a big woman and I'm a big man', but I mean, if an adult does something wrong the child needs to try and correct it!" (School chairperson)

The belief in the potential outcomes that continuing and long-term involvement in sustainable activities could spur was shared also by the JET CEO, when referring to schools that have been participating to their SEP for several years:

> "[…] it depends on which school, I mean, if you're talking about the SEP schools, there have been some schools that have been very effective in doing community outreach... especially schools that have been in the programme for a long time, they have well-established garbage management, well-established greening, so what they tend to do is now go outside in their community to do projects and that's something that we've always encouraged…" (JET CEO)

Accordingly, in her view, the ability of education to transform behaviours was still possible, although limited:

> "[…] there are some persons that you will capture with education, you will be able to reason to their logic and their intellect and say, you know, littering is wrong because x, y and z... and they will, they will be like 'oh this is true, this is why I should not litter and I will not litter because of that…"
> (JET CEO)

Thus, the limitations of the formal education system to spur sustainable learning of a transformative nature also highlighted the need for this to be supported by coordination with wider policies that included sustainable programmes with communities.

Promising perspectives on the potential of educational approaches to improve community attitudes toward sustainable behaviours were shared by Nick (fictitious name), the leader of a well-known successful sustainable community in a nearby parish. As he narrated, his and Gemma's (fictitious name for the female community leader) work within the community had started in the Nineties, concomitantly with the ongoing structural adjustments and neo-liberal reforms in the country. In his view, the example set by community leaders who grew up within the community –rather than external leaders that are not perceived as part of the community- was an effective way to prompt change. In his reasoning:

"Gemma and I grew up amongst them. We had nothing, NOTHING! Alright?! So, if we worked... what... build a house, you know... other business, all of that... then it's like you're showing people, you can do that!... It's a lie that you have to steal or you have to beg or you have to become a gigolo or you have to become a whore... no! you can do that! It's a lie. And it can be done right here. You know... so that is what we're doing… and, but in a sustainable manner, preserving... I don't want that we're gonna have to import water to have water. I don't want that we're gonna have to import some dead fish that is dead over like three years ago, you know?... to be able to have fish, you know... once a week, so we, we got our bay... WE asked the government to make sure that the bay becomes a fish sanctuary... WE are constantly saying... our water, we can't constantly put it, surge it into the ground and send it out in our water [Gemma, who is sitting next to me and recording the talk, also says 'And send it out in our water']... Yah man!.." (Nick, nearby sustainable community leader)

Therefore, key to this approach was the ability to show to other community members that by using individual initiative and a sense of individual responsibility, combined with demanding support from the government, change could be brought about for oneself and for the broader community. Moreover, Nick's outlook provided a practical and effective way to also address problems that were common to various communities across the country (i.e. illegal activities) and to deal with the lack of government provision for the needs of communities, namely by demanding resources for sustainable development. In Nick's view, in fact, it was possible to receive support from the government, if people changed their attitudes and took constructive initiatives:

> "[…] So, if you're going to talk to a politician, be clear and don't turn up, man, with constantly with a bowl, you know?! Nobody like a beggar! But if you turn up now with, with ideas and you know, your... you talk about your idea and... people will make it happen!" (Nick, nearby sustainable community leader)

In these regards, he exemplified his position by explaining what him and Gemma had achieved in their community by actively negotiating both with the government and with the private sector. Specifically, through negotiations with the government over a piece of land and with private builders, they had been able to establish a primary school run by his wife. Similar negotiations, or what he defined as 'partnerships' underlay the establishment of the community centre, which hosted the local community's Farmers and Fishers Societies. The centre was also a hub where local women could undertake sewing, computer and many other types of training and activities for local youth and community members of different age-groups.

Nick also explained that, historically, local people had inherited an attitude of dependency with consequent lack of individual initiative, which was precisely what precluded them from improving their situation:

> "weee... were trained to be paralysed... mentally paralysed… and we were trained to be dependent, and that culture is, is ingrained and so rigid within our system and only a few break through […] yeh, so, so that's what we are, we are a mission first to liberate our minds and then after that now we still create the living conditions that we want and to really create the wealth that we want and I keep on saying to everybody that" (Nick, nearby sustainable community leader)

Additionally, together with teaching community members by example, and also recalling the views expressed by the school chairperson on the role of education for long-term change, he supported a continuous process of education (although not strictly 'formal') as a means to percolate sustainable learning into people's consciousness:

> "...you just get up and constantly sharing, you know... the good, the good... the good message and, after a while, you know persons will buy [it]…" (Nick, nearby sustainable community leader)

The work conducted by Nick and Gemma in their community for decades confirmed Gentles and Scott's (2009, p. 7) results: "it is through connecting and reconnecting to communities, individuals, cultures and ecosystems that better understanding and improvements have followed".

The above anecdotes and perspectives also shed light upon another aspect that emerges from taking into consideration the gaps in the attitudes and behaviours towards sustainable learning between Uphill school and community, namely a form of 'resistance' to learning and change among research participants. Therefore, I present observed practices related to this element in more details in the following section.

5.2.5 Resistance to learning and change

Following from the previous section, in this one I look in more details into other aspects of the sustainable practices encountered in the school and community. In particular, this analysis brings to light the role of power relations among different community members and research participants, as well as the role of social learning in the context explored. Furthermore, the effects of power relations and social learning at times resulted in attitudes of resistance to sustainable learning and to behavioural change. Considerations about the links between said local practices and the broader ESD international approaches are also included.

The analysis of the sustainable learning practices (or lack of it) taking place in the school and community highlighted an attitude of 'resistance to learning' and 'resistance to change' among community members, which also influenced students' behaviour within and, especially, outside the school. The insights gathered from observations and interviews indicated that this resistance was performed in different ways and at different levels. The narratives expressed by students illustrated examples where, despite some students from different grades being assigned the roles of 'environmental ambassadors', including wearing a related badge on their uniform, their role was often disregarded by other students. At the beginning of the term, the school had an 'investment ceremony' attended by the whole school staff, during which selected students were assigned specific roles for the school year, received related badges that they had to wear daily on their school uniform and, after the ceremony, were provided specific training about carrying out their roles by the school's guidance teacher. In particular, the role of environmental ambassador entailed students ensuring that their classrooms were kept clean, that garbage was regularly picked up from the school compound and they were invested with the responsibility of monitoring other students' behaviour, to try to correct it when it did not conform with what they were being taught in school and to report it to the teachers if said students continued to display wrong behaviour. In many instances, though, when performing their role, environmental ambassadors refrained from telling other students what they should do (e.g. to pick up the garbage that they threw on the ground or to stop kicking and damaging flowers and plants on the school compound etc.) or if, they did, they often ended up in a fight with them. This was due to the fact that other students -especially from older grades- did not accept being told what to do by younger students. When the younger students, nevertheless, tried to tell them to correct their behaviour,

they were met with responses such as "you chat too much" or "me ago lik you" (i.e. "I'm going to beat you up") and so on. These were similar to the remarks that adults would often make towards children who tried to correct their behaviour in the community context. These hostile responses caused either the environmental ambassadors to react to the provocation by getting involved in a fight or by them refraining from saying anything at all, knowing that doing that would not help. In a like manner, at times, they even refrained from reporting the misbehaved students to the teachers for similar reasons. However, when the environmental ambassadors did report the other students' wrong behaviour to the teachers, the latter intervened by scolding such students and making them correct their behaviour, only to be found misbehaving again right after the teachers had turned their backs and walked away.

A different reaction, related to resistance to change, was observed when the teachers punished the students by repeatedly beating them with a belt until they cried and, at the same time, by reminding them of their wrongs and telling them how they should behave instead. I was, in fact, often told by different teachers and by students too that "they don't listen if you don't have a belt in your hands". In these cases, similarly to the government and school's 'banning policies' (e.g. the garbage and bamboo 'burning ban' and 'styrofoam boxes ban'), the use of "coercive motivational techniques" (De Young, 1993, pp. 489, 490) -through investing 'environmental ambassadors' with monitoring duties or using physical punishment- was employed to induce behavioural change. In line with this approach, the JET CEO too acknowledged that the element of punishment was seen as necessary within the local context in order to induce behavioural change:

> "there will always be a percentage of people who will know the right thing to do and still not do it, because of various reasons, but in Jamaica a lot of the times is because there is no perceived penalty!" (JET CEO)

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On some occasions, a teacher responsible for supporting the main teacher who led the environmental club was also observed displaying behaviours that could be considered as being resistant to change, as it can be found in the field notes excerpt below:

"While driving to a different parish to visit another primary school hosting the launch of an environmental project sponsored by the Lasco REAP, we made a stop to buy some food at a service station. We then ate the food in the car and, when he finished, he threw the food wrap on the road from the car window. I commented on his action with a joke about how, as part of his role as a co-leader of the environmental club, he should have ideally set an example with regard to environmentally conscious behaviour. He reacted by laughing and tapping his forehead with his hand and apologizing to me and saying that he forgot. [...] A few weeks later, while he was giving me and other teachers a lift to the nearest town after school, he was about to repeat the same action, when I stopped him by jokingly yelling at him and reminding him of the incident that happened during our trip to the other school. This time he laughed, put the paper down in the car door pocket and then narrated the past event to the other teachers as a fun anecdote, to which we all laughed in response." (Field notes excerpt)

In these regards, this teacher was well acquainted with environmental issues as he had also been invested to lead the environmental club in school and had contributed to some of the awards the school had received in the previous years. Nevertheless, it seemed that his resistance to changing his behaviour was due to the difficulty of breaking a habit or, as mentioned by some students when they explained their reasons for not disposing of garbage appropriately, perhaps it was due to an element of 'laziness' (which, as previously mentioned, is intended here as a type of laziness induced by the lack of provision of garbage bins on the roads, which leads people to throw garbage on the street, because waiting to find or looking for a bin causes too much effort). This behaviour could also be explained by the reference that the school chairperson made with regard to the lack of discipline as being the fundamental cause underneath the lack of correct environmental behaviours. Most likely, this type of resistance is due to a combination of all the factors above.

Along similar lines, community members displayed an attitude of resistance to change against the sustainable practices promoted by the school, as well as the directions prescribed by the government and its agencies. This could be observed within the school in the instance mentioned above regarding the school cook's complaints about the ban on styrofoam boxes. Similarly, towards

the end of my fieldwork, a few weeks before leaving, some teachers had a small dispute with the school cook in that she had started selling her own soft drinks to students. This was in contrast with the school's arrangements, according to which students would buy snacks and drinks from the staff room's provisions, whose profits would be then invested in extra-curricular activities for students. When the teacher in charge of this aspect reminded her of this arrangement and of the fact that she was not allowed to sell her own items in the school, she first argued with him and then continued selling, until the principal gave her a stricter order to stop. After she was forced to stop, she expressed her anger with other school staff and teachers by pronouncing malevolent comments about the teacher she had the dispute with. Other instances where community members' attitudes showed resistance to change could be observed in the fact that they would continue burning their garbage despite the government ban and the school's encouragement to stop the practice. Similar absence of transmission of environmental practices to the larger community was witnessed in other colleges and their surrounding communities with regard to biodiversity projects in other parts of the country (Collins-Figueroa, 2010), thus indicating a common gap in the continuity of sustainable learning processes into communities beyond the school/college spaces.

In other instances, when some parents were invited to the school to contribute to sustainable activities such as the 'clean-up day', only a few would take part. My observations and informal conversations with community members often revealed that their behaviour was rooted either in the belief that contributing to such activities was not meaningful to them, or that it was not worth it, unless the school provided them with some sort of material rewards (e.g. snacks and bag juices or lunch) for participating. In these regards, the chairperson's words stated that:

> "sometimes there's resistance to try to get to educate them [community members] and they feel that, it depends on who talks to them, if you have any authority to say anything to them." (School chairperson)

In these instances, resistance to learning and change was related to resistance to authority, but also to resistance to collaborate without any profitable motivation.

Perspectives shared in a non-recorded interview with a member of the NEPA added insights into this aspect. The challenges that she shared from her

perspective were related to the notion of people's "perception", because of this agency's association with the government. Moreover, she explained, for people this connection of "national" combined with "environment" translated into NEPA being seen as responsible, for instance, if the garbage was not picked up from the community, or if neighbours burned community members' garbage. The occurrence of these events was considered to be NEPA's fault, as well as responsibility to intervene. She also pondered over the fact that NEPA is an authority where people's applications for grants and funding have to be approved and, thus, there was a thin line on how they were perceived by community members. In her view, that is where community activities would become important, because they needed to consider when to conduct activities as, for instance, planning them at night when people were back from work and could attend them. Furthermore, she added that there were competing views on what people saw as being important for survival. She explained that people could be harsh and abusive towards government agencies, especially when it had to do with their livelihood. In these cases, resistance to learning and change was associated with resistance to authority. Substantiation of the NEPA officer's perspectives can be found in Wint's (2002) case studies of Jamaican ghetto communities in Kingston. Here successful and active community participation in sustainable development projects was ensured through longstanding formal and informal groundwork and interactions with an external body mediating between the community and various government and non-government agencies. In this way, continuous dialogical and negotiating processes regarding local needs and power-relations allowed to establish trust and non-hierarchical cooperation among different stakeholders. Such participatory approach differed substantially from a top-down one, where agencies perceived as being external to local communities attempted to enforce predesigned sustainable projects.

The episodes mentioned above display contradicting behaviours when compared with the sustainable learning knowledge and practices promoted within the school. They can also be looked at as a manifestation of what Wals (2009, p. 42) defines as "The Gap". In his analysis, in fact, individuals being aware of environmental issues and the appropriate course of action to take to address them does not ensure the occurrence of a linear relationship between the two.

Within a broader perspective, issues of resistance can also be related to deeper contradictions rooted in the national and international ESD discourses,

which are reflected in the shortcomings and gaps observed at different levels, including the government, educational, social and economic systems (González-Gaudiano, 2007). Perhaps, the 'resistant' attitudes displayed by various members could be a symptom of a flawed conception and practice of ESD, which does not encompass learning processes that allow to critically question and challenge the very fundamental issues that generate said 'gap' (Ferguson, 2007).

A deeper scrutiny of the perspectives and practices in Uphill school and community narrated above presents also a recurrence of elements related to sustainable learning being linked to material 'rewards', through 'competitions' and a general perception of the environment as a 'commodity'. In the following section I, thus, concentrate on presenting these aspects in more detail.

5.2.6 Sustainable learning through a reward system, competitions & environment's commodification

In addition to the attitudes of resistance to learning and change discussed above, in this section I instead illustrate factors that induced (at least short-term) changes in sustainable behaviour, such as the use of competitions, material rewards, the marketization of the environment and their implications for the learning process. Nevertheless, sustainable learning promoted through these factors was often challenged by various processes taking place within Uphill school, which I include in the descriptions below.

In contrast with the aspect of resistance to learning, in fact, perspectives gathered from observations and interviews brought to light that sustainable learning processes and practices could be furthered through the employment of various types of competitions and by commodifying the notion of environment. For instance, during the school announcements delivered at the end of devotion, the Grade 2 teacher complained about students stepping with their feet on toilet seats, bringing food in the bathrooms and throwing garbage in there too, as well as in the sinks of the water pipes located outside the principal's office, which were then blocked. She said that she was going to place garbage bins in every bathroom and next to the pipe and that students should dispose of their garbage properly. Moreover, she added that, from that moment onwards, there was going to be an award at the end of the month for the best kept bathrooms, with prizes for every student. This never translated

into actual practice during the period of my stay in the school. Additional bins were, in fact, never placed either in the bathrooms or near the water pipes and no 'cleanliness competition' was ever carried out. Perhaps, the teacher's announcement on that day was meant to be more of a warning and an incentive for students, rather than the actual communication of the introduction of a new 'reward' practice. This episode, thus, can be viewed as an illustration of how the elements of competitions and rewards were used as a stimulus to influence students' sustainable behaviour within Uphill school.

According to the insights shared by the school chairperson, competitions also contributed to creating a sense of 'camaraderie' within the school, as the whole school staff came together as a team with the purpose of succeeding and winning trophies and prizes. In her view, participating in competitions created a sense of 'excitement' among teachers and students, which facilitated achieving the outcomes of sustainable learning:

> "[...] We, altogether, when we get trophies and first and things like that, we get all excited... our guidance counsellor, she writes our poems and trains the children and they go to festivals and they do very well! We get all excited! Sometimes when we hear that we get a bronze or a merit, some of us like 'bronze or merit...' but because we don't know the level of competition that is out there [...]" (School chairperson)

This aspect related to sustainable learning being driven by competitions and focused on outcomes to obtain rewards was observed by Collins-Figueroa (2010) too in the action-oriented learning approaches used in teachers' colleges in Jamaica.

Similarly, being able to share the school's success with family and community members provided another driving motive for students and staff to work together, as it was demonstrated by the repeated times students, teachers, the principal and school staff commented about coming first in the competitions while carrying out activities together, as well as them showing me the prizes they've accumulated over the years. However, it was often observed that, despite the school being awarded a number of prizes over the course of this research field work, as well as in the past years, the processes to accomplish the outcomes that were then presented at competitions were often disorganized and carried out in a hurry. One such instance was when we had to present our 'agro-processed' products (for which the chairperson, some teachers, school staff, principal and I also worked on Sundays and late

evenings after school on week days), which I illustrate below from field notes descriptions:

> "On the same morning of the display and judgement of our products in a school located in a nearby community, the labels to be put on jars and food boxes were still to be printed and so were the research posters that explained the features of the fruits that we worked with. The ceremony in the other school had already started when the school principal was still printing papers in her office, I was helping her edit the word documents for the posters to put on display and, as the printing was completed, we packed everything and left the school in a rush in the hope of making it on time for the judgement. Once we reached there, we set up the whole display as quickly as possible and, eventually, we were awarded the first prize for 'School Garden at Parish Achievement Expo'." (Field notes excerpt)

In this case, the learning process that led to winning an award at the competition included very limited contribution by the students. In these regards, an anecdote narrated by an ESD educational and policy expert who also covered the role as a judge in a Science Fair competition is enlightening about the impacts that competitions can have on students' learning processes:

> "She disclosed that she was one of the judges for that Science Fair competition, where primary school students and their teachers were presenting some of the plants that they had grown in their schools. As part of the judgement process, the judges had to question students from each school about the processes they had employed for growing the plants they were presenting. Thus, she explained that, when she stopped at the stand of a specific school to talk with the respective students, one of them looked "so bothered, he was so bothered! He was frowning, he was... you know?". Therefore, after the students completed their presentation, she decided to ask him what the problem was and he replied that the plant they had just talked about had actually died and their teacher had just purchased a new one on the way to the competition on that same morning. The expert, then, later talked with the involved teacher in broad terms to indirectly make them understand that the judges could understand that the results their school had presented were not authentic. This, though, was done without revealing what the student had shared with the judges, in order to protect him from being beaten by his teachers." (Field note excerpt from conversation with ESD expert)

This episode reveals two main aspects. On the one hand, it shows that the learning processes behind the results of competitions may actually be adversely affected, in that not only the students may have not truly learnt about growing the plants presented at the fair, but their ethics and moral values had been impacted in broader terms (De Young, 1993). Through his teacher's behaviour, the young student had actually been introduced to the act of 'using tricks'

induced by competitions. On the other hand, the feeling of distress expressed by the frowning student was an expression of the fact that he felt that something was wrong in his teacher's behaviour. This could bear the implication that competitions, in the long-term, are more likely to generate an unintended, yet worrisome, transformation and perpetuation of unethical behaviour, loss of values and absence or lack of authentic sustainable learning, due to the excessive focus on outcomes for rewards, rather than on the intrinsic importance of the environment (De Young, 1993).

A similar happening could be observed when we went to the JET SEP award ceremony in Kingston, the Jamaican capital, with some students and teachers. Our students, in fact, had to present the results of our research and restoration project on the local endangered bamboo:

> "The presentation of the results included setting up the display of research papers conducted by students, bamboo products that had been manufactured by some of the students' parents, display of the video of the interviews with local bamboo workers and community members and a presentation of the whole project by our students. Our students, however, (despite having gained related knowledge by carrying out the research project and the interviews with community members, experts and bamboo workers) had not prepared or rehearsed a structured presentation beforehand and were instructed on the precise information to share with the judges only in the car during our drive to the capital. Similarly, the teacher who was in charge of editing the video to project at the ceremony had not met the deadline and we had to go and collect said video from his house very early in the morning, while on the way to the ceremony. When the teacher in charge of the project checked the video that the other teacher had edited, however, he commented on the fact that very important sections had been cut out, as that teacher was not aware of what were the most relevant parts to show to the judges. All this also caused us to reach late for the display and we barely had enough time to set up everything before the judges' arrival." (Fieldnotes excerpt)

Although our project display impressed the judges, students' presentation of the project was not considered very successful. We were, in fact, not awarded any prize in that occasion and, the following day the judges sent their feedback on our project via email. This included appreciation for the bamboo handicrafts and the skit the students had prepared with the guidance teacher (who was also in charge of the school performing art activities). However, the judges commented that the students' speech was not audible (perhaps due to the fact that they were not well prepared and lacked confidence in presenting), they were not

able to explain the results clearly and that they relied too much on the video to present the project. Moreover, the judges added that most of the artworks seemed to have been made by teachers and that the students' work had been reduced.

This was the first year that JET SEP project involved conducting research and presenting its results, in comparison to the previous years when the JET SEP required that schools simply displayed their results in aspects such as greening, waste management and community outreach. Perhaps, the changes introduced by JET this year (of which I had become aware of at the very beginning of my fieldwork during a JET teachers' workshop I had attended) were due to their realisation of the adverse effects and lack of effectiveness that competitions were having on the learning process, in combination with the broader community challenges faced also by schools. The JET CEO, in fact, explained that:

> "what we found... you find the same schools winning year after year after year after year […] which is great, which is you know kind of signals to us, well you know, they're doing a good job and so, but you know, we know that there are certain strengths in some aspects and weaknesses in others, so we changed the competition aspect to rather than, rather the in-school judging, which is what we've done before, before... we're just gonna have an assessment […] so rather than all sort of tricks you know around, which is actually...
> I'm not very, it's not a very efficient way, so you judge your constrain for time, your constrain with resources, you know, it's just a very time consuming process, you know... what we have instead is a research day, so the schools will come in, they will do a presentation on what they've been doing and we found that, that has been working really well with the high-schools, so we want to see how it works with the primary schools as well […], so they can, they can focus on their greening and/or solid waste during the year and the environmental clubs activities and then they deal, they can kind of do the research in the third term and do the presentation of the research then as well... and then there's less hinging on, for example, have the crops died in the middle of the year, you know, because that part of it is not, you know, or has the garbage truck not collected the garbage, you know, will... that was still a part of the assessment of course, but we're, you know, in terms of the competition aspect, we're, we're probably weigh those a little bit lower than the environmental research […]
> we found that a lot of the core schools that were participating, we, we could tell that, you know, especially the ones that have been with us a long, long time, some of them were getting a bit... how do I put it? […] you kinda need to keep things new and fresh and changing and you know…"
> (JET CEO)

As I could observe in the episode related to the JET SEP ceremony narrated above, through the research project, in fact, it was possible for the judges to

better establish whether the students had genuinely been engaged in the project or not.

In the same fashion, during the first environmental club meeting of the new school term in September 2017, teachers used a 'reward strategy' to motivate students to actively participate to the activities of the environmental club, as most students had chosen to join other clubs offered by the school. They, in fact, told students that, if the school succeeded in winning the environmental competitions they would get 'big money' and that, if they wanted to be selected to participate to the JET beach clean-up day the following Saturday, they needed to take part to the environmental club on that day. Furthermore, a teacher apologized for the fact that the students who participated in the JET SEP award ceremony at the end of the previous school term were not ready and reassured them that "it won't happen again" and added that, nevertheless, "we came fourth". He then commented that "if we came at least third we would have had at least a tablet, TV or something to show... next year we're going to do better…". The other teacher then said that "the first year that we took part to this competition we won". He informed the students that there would be a JET workshop in November, where they would be able to get more directions to make sure to win this year[1].

Further mention of monetary rewards was made by one of the teachers also when he introduced the continuation of the live fencing project (the fencing used in the school vegetable garden and in some parts of the school perimeter) to the students. He made a brief mention of live fencing being part of the importance of planting trees and then stressed on the fact that this was going to be part of the Lasco REAP competition and commented: "So we can win big money... 30,000 JD" (i.e. Jamaican Dollars). Once again, these examples illustrate the emphasis that was assigned to the material value of the outcomes of sustainable projects and how this and competitions are used as a motivating factor to succeed. Additionally, as I observed in Uphill school and community and as it was mentioned by various experts I interacted with, competitions seemed to have become an inherent feature of the Jamaican culture, as they were employed in many aspects of life and school activities (e.g. performing arts and sports competitions that students were trained for in the school).

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[1] Following up this information with the results from the rest of the school year, after having completed my fieldwork, they did, indeed, win the JET SEP competition at the national level, as I was informed by the school principal, with whom I am still in regular contact over the phone.

Another confirmation of the increasingly widespread lucrative value assigned to the environment was found in the views expressed by the director of the Lasco REAP. He, in fact, related the success of the 'reward system' of competitions and prizes to how the Jamaican society's mentality had changed at present times. Such mentality was, in fact, characterized by a 'get-rich-quick' attitude, as mentioned in chapter 2, section 2.8. Despite him belonging to the Rastafari movement, which usually tends to reject the capitalistic, materialistic and neo-liberal Western models labelled as Babylon (Chevannes, 1994), he instead supported the idea of considering the environment as a 'product' and to promote, marketize and sell it as a commodity to the Jamaican society. In particular, he considered the commodification of the environment as an effective means to an end:

> "you have to look at it, ca' I'm a business student, you know, I have a degree in International Marketing... and the way, the new way... is not necessarily to make it as profitable, but if you consider the environment to be a product, a commodity, and you follow the principles of business... promoting, marketing... and even selling this idea of the environment as a product, the you will find a different style of approaching and to employ... and then if you look at features such as profit and instead of measuring it by monetary or fiscal measures, profit now can become a civic measure... see?
>
> So, the idea is, by using the classical, business traditional perspectives, but then replacing those with intrinsic value and benefit instead of money for example... civic pride, like self-pride brings benefits, you know, well-being, food safety, instead of monetary, you know, instead of promoting a product like a bottle of water or a burger, a patty... we talk about deforestation... by using that methodology, right? The idea now is that you can shift either the marketing spending from a corporate to go this way, see that now with a monetary value, by for example, making a competition... alright, if you do [collect] this amount of bottles, you get hundred grants... because now, we made it that planting trees has a, there's a value in planting trees, we planted now over 1500 trees, amounting to 1500 dollars, 150 dollars per tree and plant it... you see the picture?" (Lasco REAP director)

These views, if looked at from a learning perspective, can be compared to the effectiveness of a transmissive approach to sustainable learning in order to achieve specific short-term goals (Ham, 1997), with the potential to trigger more transformative processes (Ham and Weiler, 2004).

Similarly, as the Grade 6 teacher explained while recalling how the school started participating to competitions a few years earlier: "getting the competition was one way of educating the school and the school can educate

the students and community". Therefore, despite the short-term outcomes implied within this strategy, the aimed goal was, indeed, to generate lasting results. With regard to the sustainable learning process, thus, this approach proved to be successful to achieve specific aims of related competitions (e.g. planting a large number of trees within a community and collecting the largest number of plastic bottles). However, the long-term effects of this approach on the whole sustainable learning experience of students and communities remain to be defined. Once more, the reflections of the Grade 6 teacher expressed concerns in this regard:

> "most times, if we educate them [older students], they can take it back in the community, they can educate their community and then from there they will know how to dispose of the garbage... so... teaching them from the textbook, I think that would be better than telling them that 'ok, you're going to have a competition'... that is just for now, so they win the competition and then what are they going to do next?" (Grade 6 teacher)

A related controversial instance was found during the visit to the Lasco REAP winning school in a different parish. While, on the one hand, the school was being awarded for having achieved the largest number of trees planted in the area, on the other hand, while the ceremony was taking place, I spotted a huge garbage container that was being burnt behind the school's bathrooms.

Inherent within a 'reward system' approach there seems to be what De Young (1993) analyses as part of 'positive (or coercive) motivational techniques', where external motivations are used to foster behavioural change by engaging people through the use of material benefits (or punishments), with or without involving intrinsic motivations. Therefore, this type of approach can imply a "transient" (De Young, 1993, p. 497) change of behaviour merely for the material gain (or sanction) attached to it, but it may not be linked neither to a deeper transformative shift in individuals' perspectives nor in their ability to use the knowledge and skills gained to another circumstance (De Young, 1993; Maiteny, 2002). Implications of this approach can include unlikely, slower, or even undesirable long-term transformations in individuals' attitudes towards sustainable practices, in the absence of additional factors –other than external motivations- that support change (Maiteny, 2002). For instance, De Young (1993, p. 491) considers that "moral" values (e.g. sense of 'guilt' or 'duty') can play a significant role in promoting environmentally responsible behaviours, although intrinsic motivations generally lead to more durable changes (De Angelis, 2018; Maiteny, 2002).

I observed an exemplary instance of the ineffectiveness of undertaking sustainable learning activities without them being linked to competitions in relation to the school's participation to the JET beach clean-up day in September 2017. As I observed in the unfolding of events that I narrate in an excerpt from field notes below, this instance also seemed to be related to the lack of involvement of the school principal in leading the school to participate in the activity. In this case, the event was not officially organised by the school principal, also because it took place during a weekend, a time when teachers were not asked to formally take part to activities:

> "The school principal had shared the details of the event with the teachers in an email, but she was not personally able to participate, because she had to attend a funeral. In that case, as explained by the school chairperson, the principal had left the teachers free to take the initiative to organise a group of students with whom they could have joined the activity.
> I, too, had initially been invited to take part, although I could not make it because the night before the activity I had returned very late from a trip with one of the teachers in charge of the environmental club to conduct research interviews in another school. Moreover, said teacher had informed me that participation to the activity had probably been cancelled, because nobody had yet organised the group of students to take to the beach.
> On the same morning of the beach clean-up day, the school chairperson called me to inform me that she was alone there with two students from her community, whom she had personally accompanied and that she was wondering whether anyone else from our school was going to take part in the event. I then communicated with the Grade 1 teacher, who explained to me that the previous year she had found herself attending that activity alone and, for that reason and because she was now pregnant, she had decided not to take part in it this year.
> When I asked the school principal what had happened in that instance, she explained to me over the phone that she could not compel teachers to participate as the activity was carried out on a weekend and that was the teachers' 'free time'." (Field notes excerpt)

It, thus, seemed to me that when activities were not led by the school principal or related to any competition or reward the school staff did not have the motivation to take the initiative to participate. These observations are not only symbolic of the impact that the use of a reward system and the commodification of the environment had on the learning process, but they also highlight another theme that I look at more thoroughly in section 5.4, namely that of 'leadership'.

In the next part, instead, I focus on separately on the elements underlying some aspects covered in this section, that is to say the dominant local cultural

values. Therefore, I describe them in more details, in consideration of the influence that they had on the learning processes and on community members' attitudes towards sustainable activities.

5.3 Issues around values

The aspect of the commodification of the environment illustrated above is also reflected in the second thematic area identified in the findings of this study, that is to say 'issues around values', which comprises also a portion on survival and 'get-rich-quick' mentality, local counter-culture and values and religious values. This set of values, as already noticed in the words of various interviewees above and in the excerpts from observational field notes, shaped both sustainable learning processes and participants' daily practices. Therefore, I present them comprehensively in the following sections.

5.3.1 Survival, 'get-rich-quick' mentality and environment as a commodity

I now here link the above-mentioned participants' sustainable learning practices and their underlying factors to broader cultural aspects that can be of help in better understanding them. These cultural elements include general tendencies to achieve results through competitions in several aspects of the Jamaican society, valuing instrumental vis-à-vis intrinsic values and the role of political and economic issues.

Perspectives from interviewees and interpretation of observational field notes indicated that the promotion of sustainable learning through the use of a reward system, competitions and the commodification of the environment can be linked to their affinity to some of the widespread local values within the Jamaican culture. An educational officer explained that, besides being a "great motivator" for students to achieve set goals of sustainable learning activities, competitions were also inherent within the national culture, perhaps due to economic factors. In his view, in fact, having limited resources led people to having to compete for survival and not being able to compete equals not being able to survive.

Similarly, he also connected the overall positive impacts of ESD with tourism. In his view, the achievement of greater environmental awareness nowadays helped not only ensure that also future generations will be able to enjoy local

resources, but most importantly environmental protection practices (e.g. protection of beaches) will also protect the "main" aspect of the Jamaican economy, namely tourism. This view suggests a divide in considering the environment for its instrumental rather than its intrinsic value. In like manner, a further divide could be identified by the JET CEO in relation to the understanding of land as community instead of as physical environment:

> "[...] you often hear people say 'Jamaica land we love', you know, it's, it's a part of our national anthem, we always say 'oh, we love Jamaica'... you know, that's why we're here... you know, some people have that option to not live in Jamaica, as Jamaicans and they still live here, because they love it despite of the hardships and trials... but there seems to be a disconnect between loving Jamaica as a community and loving Jamaica as actual place, actual land, you know, when you talk about Jamaica land we love... you know, land is actually the environment, it's trees, it's the plants, it's birds, and air and so... and it seems to be this, there has developed this disconnect between, you know, the actual place itself and the kind of idea of the place…" (JET CEO)

As a consequence, she explained that "we're destroying, you know, the very land on which we live" and that environmental problems within communities have become normalized, to the extent that people are not aware of the fact that this is not acceptable and that they have the right to advocate against it. However, as part of the factors that contributed to this scenario and to people's lack of initiative towards environmental issues, once again, features related to survival and political unscrupulousness seemed to be crucial. Respectively, with regard to survival, she expressed: "a lot of people feel very... overwhelmed with the day to day living, and the realities of, you know, day to day life…"; whereas in relation to political lack of transparency she expressed:

> "[...] and they also feel like, you know, dis, dis, disenchanted you know with the political leaders […] you can talk and talk and talk until you're blue in the face, but you know, if the community saying 'no, we do not want this X development in our community' and then, you know, the Parish Council comes in and gives a permit then… disheartens any kind of, I would say efforts that is being made on the part of communities…" (JET CEO)

Interestingly, during an interview, a local political leader who was also a Member of Parliament (MP), referred to other aspects related both to the element of survival and to what is valued within the local culture. In his view, widespread technological devices such as smartphones amongst both parents and youngsters influenced what people considered as being important in their life. In this regard, where there was lack of material wealth or social status,

these tended to be compensated by (parents first and then, through modelling, their children) attempting to imitate the models and lifestyle perpetuated by the U.S. and the U.K. and the developed Western world in general, through videos and pictures available on the internet. In particular, the representations conveyed through these means suggested a lifestyle based on branded material possessions, appearance, fame and glamour:

> "yeah, it is a, it is a challenge with the parents because... see? I don't know many of these are… [he picks up another call]... you see with the parents, well I think all of it is coming from England and the United States where the discipline… they, they see the pictures, they have, they have the technology and they now try to follow the bad ones, though they don't look at the good ones, because the good ones they don't see... just use bad pictures and then they see people... what they say and let us do it … lifestyle, they love dressing and, I mean, how you dress and so forth..." (Local MP)

Touching on the same topic while having an informal conversation, Nick, a nearby sustainable community leader stated:

> "[…] Because what happens is that… that's what I'm saying to you: America controls our minds!!... right now, that likkle (i.e. little) sign, that likkle tick on the shoe called Nike Air, you know, Adidas… control our minds!!… we are controlled, right now, if you notice people they drive down the road and a lot of things they have they've the American flag and people are wearing them… and they're feeling proud about it, and the Jamaican flag, things, are thrown down... I'm saying to you that, listen to me man, American's mission is to colonize the world! […] And the, one of the thing that they said they were going to use is to use Hollywood to control the world, and so said so done! Everybody want to live like a movie star!" (Nick, nearby sustainable community leader)

These aspects related to the Western influences on developing a get-rich-quick attitude, as the other side of the coin of a survival mentality, was also reflected in my observational field notes taken during participation to local social events in Uphill community. When attending local parties, in fact, community members -who, as described in the sections above and in chapter 2, lived in a rural area often without access to electricity or running water- spent hours getting ready by wearing branded clothes, shoes, jewellery, make-up, fancy wigs, accessories and perfumes (often imported from abroad) to ensure that their look would match with the image of a 'dancehall queen or king' (Hope, 2006 a). Similarly, when asked about useful gifts I could bring to them from abroad during my fieldwork break over Christmas, most of the community members in my neighbourhood requested branded shoes, perfumes and watches. Moreover, while attending such events, people often borrowed money from me (without

the implication of it being returned) or spent their own saved money to purchase large amounts of the most expensive brands of alcoholic drinks (e.g. rum and vodka) and displayed them at their table, took pictures of them and posted them on social media, in order to match the social image and status they were trying to portray.

In contrast to the image of success and glamorous lifestyle that locals attempted to display in social gatherings, during weekdays there seemed to be not enough money within the household to purchase basic food or other items (e.g. rice or a gas cylinder to cook). Often, in fact, only one meal per day was being cooked in the house and this consisted of canned food items such as mackerel, sausages and beans. These, when rice or flour to make dumplings were not available, were served with plain white bread slices. In some cases, some neighbours did not even have a gas cylinder and a stove to cook in their house and they relied on the food that was being shared with them from our household. This situation was frequently caused by the local custom of girls getting pregnant at a very young age and having multiple children from different men, without eventually forming a traditional family. In these cases, the lack of females' education, their consequent unemployment and the lack of financial support from a male partner all contributed to their inability to provide for their children. In these regards, during an informal conversation, the school principal shared her feelings of discouragement in relation to a local young female who was a former student in the school. She explained that she thought that the girl had great potential and contacted her to inform her about the opportunity to take part to locally offered vocational training programmes. However, when she contacted her, the school principal learnt that said girl was not interested in these opportunities as she was currently pregnant and busy with rearing her children. In her view, she was disheartened by the girl's lack of ambition in life. In relation to this aspect, my observational fieldnotes contain recurrent mentions of local community members talking about girls being "breeded" as a desired goal, or girls saying that they aimed at having children before they turned 25 or 26.

Similarly, I was also often asked by female members of the community when I was going to be "breeded" by a Jamaican man, I was told that I "needed a Jamaican man" and a "Jamaican baby", before getting too old. From the male perspective, young community members frequently mentioned that their aim was to "have at least 6 pickini by the age of 25" (pickini = children). When I asked them whether they would like said children from the same woman their

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response was "me nuh care same woman or not" (i.e. 'I don't care whether it is from the same woman or not'). When I asked them whether they would able to provide for all the children they were aspiring to have, they usually did not answer and laughed instead while sipping on their glass of rum. These instances demonstrated the value that locals attributed to having children as if, for women, it was one of the highest aims to achieve for survival and, for men, it was not only a survival aim, but also a matter of pride. In both cases, this was considered as a goal, irrespective of the ability to provide for the lives of the new-borns. Related to this topic, most likely due to religious reasons, the idea of abortion was neither contemplated nor received with favour locally, as women who underwent it were stigmatized as "dash-away belly" (i.e. 'throw-away stomach') and were not considered as desirable partners by men.

Although allegedly contradictory, the local customs and values mentioned above related to lack of resources going hand in hand with the depiction of a prestigious lifestyle, could be looked at as being two sides of the same coin. This coin being the element of 'survival' inherent to the Jamaican culture. In this regard, in the perspectives shared by the leader of a nearby community he explained how the notion of survival was rooted in the history of slavery of Jamaican people, where the slave master imposed such culture. In his view, in fact, centuries of slavery induced Jamaicans to survive the harsh life conditions they had to endure in the colonial plantations. With time, this culture was adopted by local politicians too, through international aid agreements and development policies and, for people, it translated into learning 'to adjust to any precarious way to survive', rather than having developed an attitude towards change. In his words: "you cannot move the development faster than the people". This powerful statement indicated that top-down imposed development programmes from the Global North aimed at increasing the country's GDP (Gross Domestic Product), which were not tailored to meeting neither the real needs of the Jamaican population nor sustainable practices. The consequences of this phenomenon at present times could be observed in the 'get-rich-quick' mentality, which manifested in the co-existence of contradictory attitudes, where daily local customs that were not conducive to socio-economic development (e.g. conceiving many children without the ability to provide neither for oneself nor for them) were combined with the pursuit of an imagined sophisticated lifestyle taking place in the 'dancehall'.

Connections to both the aspect of survival and the 'get-rich-quick' mentality could be found in the locals' outlook towards farming and leading a healthy

lifestyle. My observational fieldnotes based on daily life in Uphill village revealed that most community members were unemployed and were surrounded by fertile land, but did not engage in growing vegetables to include in their diet, although at the same time they often complained about being bored and hungry. Insights on these aspects arose from a combined interview with a Forestry Department officer and a local farmer. The latter, in fact, explained that locals were not concerned about healthy eating, but rather about having "them belly full and them alive and well and that's it!" (i.e. 'having a full stomach, being alive and in good health and that is it). Additionally, the officer also pointed out that, due to the state of the economy, healthy food was unaffordable for the majority of the people who lived "way below the [minimum] wage level... substandard" and that, despite having a good soil in the area, people were not into farming. As an explanation to this, the local farmer added that people were deterred from farming by the fact that this involved "waiting" a long time between the time of planting and the time of reaping and eating the vegetables. In his view, instead, people "just get a job, get fast money and buy stuff!... Lazy". These statements about people not being into farming, being unable to wait to reap the fruits of their efforts and preferring instead quick ways to obtain material gains, as well as the aspect of people perceiving themselves or their community members as lazy, also recall what had been shared by the Lasco REAP director and other community members in the sections above.

An interesting insight on the lack of people's willingness to be engaged in farming was shared by the Parents Representative of Uphill school, who explained that this survival mentality also derived from an 'estate' mentality, due to the fact that the community originated from the former sugar estate in the area. In the past, for instance, food and education were provided to the community by the local estate colony and, nowadays, this resulted in an attitude of expectation for things to be provided to people by the government in the same way, rather than taking individual initiative.

As further explained by the Forestry Department officer, this reluctance towards farming was -once again- related to the "get-rich-quick" mentality (which also translated into 'get-anything-quick'), where:

> "it's a lazy attitude and then there is another mentality that comes in that is a faaast! Fast going, so they just want to be, people to get something quick and that's it." (Forestry Department officer)

In response to the officer, the farmer also mentioned how this was not only related to farming, but also to cooking, where people preferred buying fast-food from big fast-food chains such as Burger King and KFC rather than cooking at home. In these regards, such local mentality appeared to be in contrast with essential features of sustainable behaviours. The latter, in fact, are normally devoid of any sense of instantaneous attainment, as their outcomes are more visible in the long-term (De Young, 1993; Maiteny, 2002).

Another way in which this mentality affected sustainable learning activities in the school was, for instance, in the fact that most of the vegetables that were grown in the school were rotting and not being used to prepare meals in the school canteen. Originally, as explained to me by the school principal, the idea was that –in order to generate profit to reinvest in the school- the excess vegetables could have been sold to locals or to the school canteen. However, as the Grade 6 teacher explained, students didn't eat vegetables and, therefore, selling them to the school canteen didn't make sense. While having that informal conversation in the school staff's room, as a response, other teachers present in the room intervened by saying that they would have welcomed the idea of buying, for instance, the school's lettuce as they used it to make salads in their homes.

Another facet of the survival paradox was evident in the attitudes that people had developed towards government agencies, as mentioned by the NEPA official when she explained the association of the notion of 'national' (i.e. 'government') with 'environment' and people's harsh reactions to this agency. Specifically, government's failure to provide for people' survival needs such as, for instance, garbage collection caused people's reluctance to cooperate in sustainable initiatives that were not perceived as catering to their primary needs.

In the light of the above considerations, within a culture characterized by a 'survival' mentality and aspiring to bolster an unsustainable 'celebrity lifestyle' inspired by developed Western nations, sustainable learning and practices appeared to be unmatching pieces of a complex puzzle.

A consequence of this 'survival mentality' in influencing local cultural values could be observed in the attitude of community members towards participation to the school's sustainable learning activities. Often, in fact, students' parents took part to the school activities they were invited to only when, according to both the school principal and some parents' words, they could "get something

out of it". This meant that material gains were at the basis of one's participation to activities such as the school 'clean-up day' or Labour Day, where parents and community members in general were invited to assist the school staff and students in collecting garbage from the school compound and its surroundings, or to contribute to the restoring of the local bamboo area. One such instance was observed when the school principal decided to plan these activities at the same time as when the school hosted an event involving a supermarket from the nearby town 'giving away' school materials and food to students as treats. She explained, in fact, that parents were more likely to accept the invitation if they knew that they were going to receive something, compared to when she invited them to participate to school projects without offering anything in exchange. Similarly, on a day when we carried out cleaning, plantation and restoration of the bamboo area the parents who participated openly expressed that their participation was linked to their expectation that they would be given free 'bag juices' from the school and that the school principal would have provided them with free lunch from the restaurant located nearby the school. These instances are also representative of the fact that Uphill community members' attitude of survival was due to their circumstances, characterized by a situation of deprivation. The opportunity for them to receive material goods through participation to school's activities was, perhaps, their only way to compensate to their lack of access to resources.

Perspectives related to this aspect of people looking for material gains were shared also by the leader of a nearby sustainable community, who explained that one of the key features that worked with their community members was the fact that they (the leaders) 'delivered' to the people in the form of scholarships for students to study abroad, aiding people in setting up their small local businesses or finding a job. In his view, an effective way to engage local people in projects and activities was to show that whoever was in a position of power or leadership was ready to "share a decent piece of the pie" with them in order for them to become engaged, rather than solely conveying to them the intrinsic value of sustainable and other activities. As proposed by Wint (2002), who analysed sustainable community economic development models in two 'garrison' communities in Kingston, the Jamaican capital, successful collaborations were based on the availability of tangible and largely accessible rewards. Similarly, research conducted on lower-income youth's perceptions in Jamaica uncovered that, in order for an environmental campaign to successfully involve communities, it would need to clearly demonstrate "the social benefits to be derived" (Hope Enterprises Ltd., 1999, p. 3).

At this point, I feel as if I have drawn a puzzling picture. Contradicting local values and realities (i.e. 'survival' and 'get-rich-quick' mentality), affected by the external influences of the developed world, co-exist and shape people's perceptions and attitudes towards sustainable learning and activities. With a view to adding depth to the perspective of this landscape, in the next two sections I look into other two sets of local values, which I detected as having an impact on sustainable learning in Uphill school and community. Namely, these sets of values include local counter-culture values represented by the Rastafarian movement and Christian religious values.

5.3.2 Local Rastafarian counter-culture and values

Almost in opposition to the two elements of survival and 'get-rich-quick' mentality analysed above, in this part I focus on different cultural values expressed by some research participants who identified themselves as belonging to the 'Rasta' movement. Brief mentions to these aspects were already made above, with reference to the views expressed by the Lasco REAP director with regard to having a vision in order to achieve prescribed goals. I take these into consideration in more detail in this section. Of interest among the perspectives shared by these participants is the fact that, despite an underlying common philosophical and values-background, differing strategies were envisioned for the achievement of sustainable learning goals.

Particularly compelling were the perspectives shared by the Parents Representative (who is a Rastafarian) about the environment, healthy eating, broader political, social and economic issues, which contrast with the views gathered by the majority of community members. His views were aligned with those of a Rasta reggae musician and director of the Lasco REAP. However, the way they envisioned possible methods for successful sustainable solutions differ quite drastically, despite stemming from the same outlook on life. The former believed in being self-reliant, growing vegetables and living in nature, on the hills, detached from Babylon (i.e. the capitalist Western world):

"I've always believed in growing plants, especially when I don't have anything productive to do I create my own production for myself [...] I believe that, if you're idle and not, there's no money coming in, you wanna do something that is productive, like creating an income, so it can be not earning, but producing, creating production and making something out of nothing.

[...] not everybody has this skill of having a vision, I think it's just because of my insight in, in having visions, seeing things way ahead of time [...]

People need to understand that this world is made of a lot of energies around us, if we need to bring together as one... the Moon, the Sun, the plants, the animals, the people, all, all of these things come together as one flow of energy, and if we could just get to understand... how to connect these energies, in making into a better person, a more productive person, yeah...

so, I would say a lot of education in that aspect, trying to understand how the world's set up, and how the world is a cycle and goes around and, yeah, we form a part of the cycle... plants, animals, nature, yeah... sometimes I, I just feel stronger in myself, just trying to reach out to, the energies around me, yeah... and if we could understand that, then the life would be less miserable [...]

I've been associated with the Rastafarian culture, when I was attending college [...] The culture of the Rastafarian is, is one that doctors accept as being the way of life... when I was young, the aristo[crats] criticised Rasta men, even parents will tell you that... they tried to scare you by saying 'Bobo man a cum' [i.e. the foolish man is coming]... but the thing's that, the bobo man they used to talk about eating greens and fruits and all of that, and less salt...

I grew up to see, now, that the doctors are now telling the same things, about eating natural, eating fruits, use less salt, less sugar, so... I grew to admire that culture, and adopted it [...]

But out of this culture, they taught us how to be self-reliant, they taught us how we a live in a world, Babylon, we should give to Babylon what is due to Babylon... but try to be, try to, to live in the hills and cultivate and be self-reliant [...] ...it's a good thing to learn, and I look forward to seeing it being taught in schools, to help people to understand each other better..." (Parents Representative)

The perspectives shared by the Parents Representative recall a type of sustainable education able to teach learners to acknowledge and act upon the connections that govern life-cycles, similar to the type of transformative type of sustainable learning envisioned by Bateson (1987). He also said that what he liked about his Rasta culture was the feeling of real love and sharing and compared it with Christians, who do not apply what they preach in church in their daily life. Additionally, in his view, the government's role in providing an agricultural subsidy should be central.

As seen in section 5.2.6, the Rasta director of the Lasco REAP emphasized on the success of the 'reward system' with competitions and prizes according to how society's mentality has changed. However, after providing details about how to use the commodification of the environment as a means, he keenly reminded me of the end of this strategy:

"Framing an idea, you know, is like climbing a mountain, or hiking... a distance... you have to start first... and get stamina, vision, fitness, you know, you start with one step, you don't start with a hundred steps simultaneously, right?... if you have a divine inspiration, you can start a million steps same way, you don't have to limit yourself to what everybody is doing... you know, it's like when people say 'why?... I better don't eat this type of food, ca' mi mother suffer from diabetes, diabetes run in my family... NO! Diabetes don't run in your family! You fall in a habit! [...] but if you know seh [i.e that] oh! Granny, mommy, sister, brether, all of them do these things and all of them end up in this way... diabetes, right? Then none of that will limit them...

therefore, you can use the same analogy for this work... people tell me [...] 'I like your project, but it won't last more than two years, funding will run out, students won't have enthusiasm' [...] I'm just blind, blind to that... I'm blind to that and deaf to that! Beca' our inspiration comes from the Most High, and there's no voice clearer than the Most High and no sight, no vision clearer than the voice of the Most High Jah... that's all, everything we do stems and is rooted in that, so... [...]

Rasta tell them long time, you know? Look at what's happening now, right? Look how long Rasta have been telling us, to plant and grow our own food, to take care of the environment, to not litter, not pollute the body, mind and soul... the same thing now, I commit, I'm a musician, I make music, so people cannot pollute their body, their minds and souls... and we do these projects so people will not pollute the environment also, which is... that pollutes your body and your mind and your soul [...]

this information we pass on, teaching children, media, teaching people, you know what I mean? To rush you and you don't need to do the right amount of work and it's changed a lot of things here... and that also leads to greed and dishonesty and all of the negative... it's that getting rich quick mentality... but follow me now, again, to teach you, to plant seed, to wait for sunshine, and the rain come and wash it out and start again... and the hurricane comes and blow it away, have to start...right? My father teach me that, you know? [...] there is a goodness make you, make you work out with it too..." (Lasco REAP director)

The Parents Representative's perspectives, who supported both a more isolated lifestyle away from society 'on the hills' (while at the same time contributing to society by being of service to people) and a system where the government provides subsidies to farmers, differ from those of the Lasco REAP director, despite them sharing the same Rasta values. The latter, in fact, believed in achieving the same sustainable results by employing a business strategy more aligned with the market model of the contemporary neo-liberal framework.

What is more, aspects from a Rasta perspective could also be crucial to trigger students' critical thinking about unequal socio-economic systemic issues within the sustainable learning process (Jaffe, 2008). In the case of both the Parents Representative and the Lasco REAP director, for instance, the views they expressed with regard to the contrast between a lifestyle rooted in nature and in producing one's own food vis-à-vis Babylon (i.e. the Western capitalistic world) could spur in learners considerations related to broader relationships between the Global North and South and their local impacts.

Another aspect mentioned by the Parents Representative, and very prominent within Uphill school and community cultural practices, was that of religion. The, more or less implicit, religious viewpoints characterizing the members of the Uphill context, in fact, played a role in framing their perspectives towards the environment and sustainable learning practices. Therefore, in the following section I describe local Christian religious values in depth.

5.3.3 'Devotion' time and Christian religious values in Uphill school and community

A very influent aspect of the Jamaican culture is constituted by Christian religious values. Within the school, these were made particularly explicit during the daily devotion time, whereas within the local community they were imbued within ordinary daily practices. The exploration of religious values is relevant to bring to light how this cultural aspect reinforced an anthropocentric and transmissive approach to sustainable learning and a positivistic view of the environment. Furthermore, anecdotes from the data also highlighted some tensions between the religious and the government outlook on broader issues, which had an impact on learning processes as well.

The school daily schedule was characterized by a morning 'devotion' time, before the start of regular classes. At this time, students and teachers from all grades gathered outside the school library and, every day, teachers took turns in guiding students through the morning prayers. This was also a time for various announcements and teaching of moral stories, which were usually related to local events and, at times, included environmental aspects. For instance, during the hurricane Matthew warning, the school principal gave instructions to students about the due precautions they and their families needed to take in order to keep safe in case the hurricane hit the area. Likewise, upon returning to school a few days after, when the school had been closed due to the heavy rains and for safety reasons, during the devotion time, the guidance teacher suggested to "give more thanks to God, because we didn't feel the effects of the hurricane". On another day, after reading the daily passage from the Bible, she stressed on it conveying the idea of us being "just lower than angels" and she told students that she hoped that they will "keep those words in mind". Implicit in this view is an underlying perception of nature where, as Ferguson (2008, p. 569) proposed, "students could emerge with a hierarchical view of relationships with God at the top, then humans, then the natural world". Thus, these perspectives seemed to emphasize how Christian religious mindset and values promoted an anthropocentric outlook, whereby humans either dominated and exploited nature or needed to protect themselves from its potential dangers (Piasentin & Roberts, 2018).

At the same time, though, the guidance teacher also explained that religious views could be used to understand the environment in a different way, more aligned with the perspectives shared by the Rasta participants:

> "our spirit is very… our spirit is affected by every single thing, every single thing. So, … sometimes we're not at peace and we don't know why we're not at peace... and it can be the very way how the environment is treated! You know the things we do in the environment? We just almost feel that level of peace in our soul, but we don't know that that's the reason..." (Guidance teacher)

Another recurrent theme of the morning devotion time was that of trust, as illustrated in the field notes excerpt below:

> "One morning in mid-November, the guidance teacher announced that the theme for this month was 'faith'. She then explained its definition: "faith is to have complete trust or confidence in someone or something". Afterwards, she asked students to name one person we can have faith in. In response, the Grade 1 teacher said "God", then the guidance teacher asked "who else?" and added "mother". She continued by asking students whether we can have faith in our teachers. One student said "no" and, with a surprised tone, she asked in response "we can't have faith in our teachers?" and then further commented that "we can have faith in our teachers". Additionally, she stated that "we also need to have faith in the ability that God has placed in us... be faithful in the ability that God has placed in me". Thus, she asked students to put a hand on their chest and repeat "in me!"" (Field notes excerpt)

This aspect, on the one hand, evokes the sense of trust characterizing the school shared by the school chairperson. On the other hand, it also suggests the inculcation of individual moral values in students through religion. In the context of sustainable learning, this relates to promoting a sense of individual responsibility towards the environment. As explained by the guidance teacher during an interview:

> "taking care of the environment has to do with your values, like what you value as a person… so, for example here at school, so they [students] know that we as teachers, we value them, students know that us as teachers value them taking care of the environment... as a person, so as one person YOU have a responsibility to do that, right?! So, once you value it, you will do it!... So, they do it here, but I don't know if they do it like at home... I'm hoping that they will… because if you as a person value it, it's not just about conforming here at school, but it's about doing it when you are away from school, it's about YOU, your self-valuing..." (Guidance teacher)

A sense of trust in God was also related to personal and common achievements and some prayers included associating elements of nature to feelings of 'peace' and 'joy', thus again reinforcing a hierarchical outlook and alluding to "emotional, spiritual and other 'romantic' dimensions of nature" (Ferguson, 2008, p. 569). An instance was observed when the guidance teacher made different grades sing a gospel song in turns and then explained to them that a gospel song is a different song, because it is for God:

> "Then she said that the lines 'I got peace like a river in my soul, I got joy like an ocean in my soul' are given by God, before they started singing the song altogether. Following, she announced that they were going to sing another song chosen by Grade 4 students and reminded them that when they sang a song for the Lord it was not a mockery and it was only for Him and that they should refrain from looking at others. Therefore, she told them that the title of the song was 'I have trust in the Lord' and that, if they acknowledged Him, He would direct their path (which were the same words contained in the lyrics of the song). After they sang, she then recited a prayer to protect the students for academic achievement and for their different competitions, namely: 4H, the entrepreneurial project of Grade 5 and the upcoming public speech performances. Additionally, she asked for Him to help the teachers teach the students and, after performing the routine prayers and the national anthem, she talked in more details about different competitions and asked the students to repeat: "Blessed are the peacemakers, for they shall be called the children of God", before sending them to their respective classes." (Field notes excerpt)

In a like manner, when I attended a local performing arts competition organized by the Jamaica Cultural Development Commission (JCDC) in a nearby town where some of our students were performing, as we arrived to the location, we all gathered in a circle to pray. The guidance teacher asked God to help us with the performance and the judges' favour. We all stood in a circle with eyes closed and they all recited the 'Our Father' prayer.

The role played by religious values, thus, can be defined as two-fold. In a way, and the most prevailing one in Uphill school and community, Christian values supported an anthropocentric, hierarchical view of the relationship between God and humankind and humankind and the environment. Within this view, a sense of individual responsibility and stewardship of the environment were promoted, but without including the possibility for a critical change in broader socio-economic arrangements. The power to change the latter, in fact, would instead reside with God, which is conceived as being above both nature

and humankind (Jaffe, 2008). On the other hand, though, a different outlook could be found in the views of the guidance teacher, which recalled the Rastafarian perspective. According to these viewpoints, learners' focus on understanding the spiritual or energetic interconnection between individuals and the environment could reveal new and more efficient ways of approaching sustainability issues. Such revised understanding would imply not abusing of humankind's rights over nature (Jaffe, 2008).

With regard to the elements that contributed to supporting sustainable learning in this study, that of leadership emerged at various points from both observations and interactions with several research participants. Therefore, I consider instances related to leadership in the section below.

5.4 Issues around leadership

The third thematic area that emerged from the analysis of the findings is associated with issues around leadership. The local cultural values examined in the previous section are crucial to this element, as they played a central role in shaping the leadership model adopted by the school principal in Uphill school, as well as in the strategies employed by the leaders of a nearby sustainable community. Differently, lack of a solid leadership model had adverse consequences in another neighbouring community. Therefore, below I describe the leadership model observed in Uphill school, whereas I consider the other two examples to connect the relevance of issues specific to Uphill community with broader features and trends at the national level.

5.4.1 Leadership in Uphill school

In this section I present aspects related to the element of leadership in Uphill school by drawing from the data generated during field work observations and interviews.

The leading role of the school principal in making the environment a priority showed to be fundamental in Uphill school and, thus, it affected teachers and students' behaviour accordingly. With regard to her role, on the one hand, she was the daughter-in-law of the previous school principal and a former teacher in the school. For these reasons, she had a long-standing connection with students' parents, Uphill community members, as well as other school staff and

educational experts and government stakeholders who collaborated with the school. On the other hand, though, she had completed her education at the University of the West Indies in the Jamaican capital, Kingston, at present she resided in a residential area in a nearby town and belonged to a higher social class compared to the rest of the community members. In view of these factors, she was also viewed as an outsider to the community at the same time. The combination of these differing features in her figure (besides the role of authority she covered in the school), thus, entailed an ambivalent power-relationship between her and members of Uphill community.

In Uphill school, the principal ensured to enrol the school into any environmental competition that was promoted by various local governmental and non-governmental agencies. She also personally often travelled to Kingston to purchase seedlings of plants meant to be used in the school garden and for the newly introduced living fence project. During the period of field work she also introduced a bamboo plant-nursery and a greenhouse in the school.

Together with teachers, students and other school staff members, she regularly took part to weeding, planting and picking garbage from the school garden and compound, as well as directing the school gardener on the work that was needed in the school garden (she also carried out these activities on her own or with the help of teachers and students daily before/after school time and on Sundays). In her words:

> "...I tell them [teachers] 'when person's coming to your school, they don't have to say oh you're the Principal', right? They should look and wonder 'who is the Principal? cause everybody is working, everybody is just looking busy and everybody should look like they're the boss! Right?" (School principal)

Another emblematic aspect of her personal dedication to the environment and sustainability issues could be found in the fact that, before the school was invited to take part to the SEP by JET first in 2014 (after they saw the products that the school had presented at a competition promoted by the Jamaica Environment Association), the school principal had already undertaken sustainable projects in the school:

> "we... we are already an active greening area where we had a farm going, because we were already in the environment... of course we won an environmental challenge in 2005, I forgot about that, we won a Parish Environmental challenge in 2005, where we concentrated on water management and we did a model of a water conservation plant, right and we took it to the national aw... it was the... it was a national programme and we won that right, so we've always been doing things with the environment, but of course you do these things, but you don't really put them up for competition and it's just something that you do and it becomes part of you, it's just when persons coming at you and say 'oh this is wonderful!' sometimes you do things that you don't even know how wonderful it is, right?" (School principal)

Her individual commitment to environmental activities was practiced not only by personally undertaking said activities, but it was also observed when:

> "she got really upset and vented out with school staff when, without her directions, nobody took the initiative to work in the school garden for several days. When she walked back to the school canteen from the garden, she commented that the efforts put in growing the vegetables were not a 'show' and that she wondered how the children were supposed to learn if they were not shown the right example by their teachers and school staff." (Field notes excerpt)

This episode revealed two important aspects. On the one hand, the principal's disappointment in witnessing a lack of cooperation and contribution not only towards succeeding in the garden-related competition, but also for the students' learning process, showed a genuine commitment towards sustainable learning on her behalf. Furthermore, her perspectives also revealed an understanding of the sustainable learning process intended for the community at large, beyond the mere achievement of school tests. When I asked the reason why she engages with sustainable learning activities in the first place, in fact, she explained:

> "Because... it is good for the children and, when you are in a school, our school is designed to be a change agent right? [...] And we want them to take the idea back into the community, because the idea is for them to, to spread the whole world the idea to be clean and to be environmentally conscious, so we teach the children here with the hope and the vision that they'll take whatever they learn back to their community..." (School principal)

On the other hand, teachers' lack of individual initiative was probably linked to the inadequate provision of third level learning (Morgan, 2007; Sterling, 2010) within teachers training programmes on ESD and an excessive work and

administrative overload as part of their daily tasks (Collins-Figueroa et al., 2007).

Although, as described above, annual competitions and rewards were a motivator in carrying out environmental projects, these seemed to be envisioned by the school principal as steps within a broader learning process. This process could be observed when, at the time of the judgement of our school garden:

> "[...] after seeing the pictures of another school's garden on the judges' phone, the principal called the Grade 3 teacher and explained to her why our garden was not going to win this year and what we could learn from the (probably) winning school, in order to improve the following year. The Grade 3 teacher then shared the same information with the Grade 6 teacher, after the school principal had left the conversation to check on the Grade 6 students who were doing the GSAT exams." (Field notes excerpt)

The importance of the school principal as a leader in relation to environmental activities was observed also in the fact that when she was not particularly involved in actively promoting certain projects and activities, these were not successful. In those cases, in fact, the school did not win the competitions or get any award for the same. The views expressed by the JET CEO, who oversees the SEP –amongst other programmes- further confirmed the significance of this aspect:

> "SEP works very well in the prep and primary schools… especially, you know... principals' involvement is very important and having a dedicated teacher in the school… who has an interest in the environment and a passion for the environment…" (JET CEO)

Corresponding conclusions were reached by Collins-Figueroa (2010) in her analysis of the implementation of several biodiversity initiatives in various Jamaican colleges. Achievement of set aims was, in these cases too, largely dependent on the strength of the leadership behind the projects.

In these regards, the views expressed by the school chairperson confirmed the centrality of the principal's role in advancing environmental activities. She explained, in fact, how (differently from the previous school principal) the current principal was 'technology savvy' and kept up-to-date with various environmental projects and competitions and enrolled the school for the same through online applications. An instance of this was observed when the school principal informed me about the upcoming visit of the staff from a local bank to

plant trees and deliver a workshop to students on the importance of planting trees**:**

> "She explained that she had seen the online advertisement of said bank carrying out this activity in other schools and that she wondered why our school had not been included and that she wanted to contact them. However, she said that they contacted her first, after a short while, to include the school in their tree planting programme." (Field notes excerpt)

Similarly, the school chairperson shared an anecdote related to how taking part to competitions and not being successful on a specific year was perceived as being part of the learning process to improve in the future. In that case in the past, in fact, the school was shortlisted in the competition, but was not awarded any prize eventually. The school staff expressed disappointment for the results and the principal, instead, explained that, if they learned the lesson from the failure and started the project earlier in the following year, then, they could get better results. In line with this reasoning, in fact, the following year the school came first in that competition and she commented on this by saying that there was a 'trust' underlying the school organisation.

A further exemplification of this rationale could be observed both during and after my fieldwork (in virtue of the fact that I continued communicating with the school principal and teachers after my return to London). At the time of my fieldwork, in fact, the school did not win the newly introduced form of SEP competition (see section 5.2.6). However, the following year after I left, the lessons learnt from the previous year allowed the school to win the JET SEP award at the national level. In this regard, the chairperson also explained that the role of leadership was essential in order for people (i.e. school staff) to "do what they should do". In her view, not only the school principal's role, but also her own presence and active participation in the school's environmental projects made a difference in the outcomes and various members' involvement. In a way, she saw herself as being part of the leadership of the school and she explained that it was not usual for the school chairperson to be so actively present in schools. Moreover, the combination of the school principal's enthusiasm for competitions and the chairperson's active involvement contributed to conveying the feeling to the whole school system and surrounding community that everyone benefitted from the school' successes. In her view this, as a consequence, increased people's participation to activities.

In like manner, school principals' leadership competences were strategic in achieving sustainable learning goals in Jamaican teachers colleges too (Collins-

Figueroa et al., 2007; Collins-Figueroa, 2010). Therefore, the leadership approach employed within the school, despite ongoing challenges, contributed to addressing the needs identified in the literature with regard to spurring change in attitudes and behaviours within learning communities through leaders' visions (Collins-Figueroa et al., 2007). Indeed, a study conducted in 1996 concluded that principals possessing a combination of high level of motivation, vision, standards, ability to creatively address problems, managerial skills and ability to engage teachers successfully influenced Jamaican schools. What is more, the study indicated that principals' leadership skills could help school staff as well as students and parents to overcome inherent shortcomings within the school system (Bailey et al., 1996, in Morris, 1997).

The central role of leaders (although not within the formal education system) for community sustainable development was observed also in another nearby community, as mentioned in section 5.2.4. As expressed in an interview by one of the local community leaders, an important element to effectively bring about change in a community was that of having a 'vision', which is also a crucial element shared by both Rasta men interviewed in this study. They considered themselves as being leaders. One with regard to leading successful environmental projects with schools across the island as part of the Lasco REAP project. The other, as a leader on a smaller scale in Uphill community, in terms of being a reference person for people to go to when they needed, for instance, medicinal plants. This notion of vision, thus, connects with the school principal's outlook on annual competitions as being part of what she had envisioned as a desired goal for, for instance, the school garden. Generally, having a vision allowed for having a sense of direction and an awareness of the concrete steps that needed to be taken in order to achieve the set goal. Accordingly, by having a vision and a set plan, the surrounding community members (including the school staff) would become more engaged in the implementation of a specific short-term step. This, as a consequence, would lead them to achieve a larger goal in the long-term, as well as gradually to acquire changed sustainable behaviours and practices.

Additionally, Nick, the nearby community leader, highlighted that for community members to be 'on board' (as also shown in the case of the school director's personal sense of initiative and participation to almost all school sustainable activities) a leader would have to display a genuine sense of commitment:

> "[…] and you know, everybody say to me 'how is it that you can be just all over the community and, and feel comfortable?' and I said 'I... I still look out of my device... but at the same time, you have to give the people a piece of the pie... and look out for the people, and let the people genuinely know that you care about them, they are ok, they just want to know that you genuinely care…" (Nick, nearby sustainable community leader)

This aspect also relates to people's attitudes toward government agencies. Perhaps, in fact, the broadly perceived lack of genuine care of the government for the people by most community members in Uphill community was at the basis of their adverse position towards its authorities and programmes.

A different instance could be observed, instead, in River village community (pseudonym), another local community in a nearby village, which I visited during Summer, after the school year in Uphill school had terminated. River village community was in the process of implementing a sustainable project of organic farming and entrepreneurship for local youth, initiated by a female Franciscan sister. In this case, though, the sister lived in Kingston and did not originally belong to the local community and only paid regular visits to it a couple of times a week. Local youth here were left in charge of carrying out the organic farming and construction activities, in order to develop their entrepreneurial skills and inherit the ownership of the project in the long-term. The sister, in fact, did not intend to make an individual profit out of the land that she had been allocated by the Church.

By combining observations, interviews and informal conversations with her and the local youth, the same cultural and behavioural traits outlined in the previous sections with regard to Uphill community emerged here too. In particular, during one of my visits to the River community:

> "while waiting for the sister's arrival, local youth members were engaged in cooking, drinking rum, smoking marijuana, listening to music and, in their words, just 'hanging out' while planning an upcoming party that they were organizing to earn quick money, by charging entrance fees and selling alcohol to attendants.
> In this regard, though, they were debating about the fact that local parties were not allowed by the sister, as they were against the Christian values and discipline that she was trying to enforce in the community. Therefore, they intended to hide this event from her, but were having a dispute with other community members who, too, were against it and wanted to inform the sister upon her arrival.
> However, as soon as they were informed by another community member (who kept bicycling up and down the road to check when her car was going to approach) that the sister's car was about to reach, they all promptly stoop up and rushed to wear farming clothes, grabbed some equipment and hurried to the backyard to pretend that they were working on the soil.
> When she finally arrived, though, she could notice that the work they were meant to have completed by that time was lagging behind and she complained, explaining to them that she would withdraw the monthly stipends and food supplies that she had been providing them with and that they would have to resort to their own efforts to keep the farm going and to make a living." (Field notes excerpt)

In a private interview I conducted a bit later on the same day, she then disclosed that her concerns were related to the fact that local youth were engaged in some illegal activities, did not get along with each other and ended up fighting and were generally 'lazy'. Further insights shared by the sister revealed that major issues had to do with:

> "lack of any farm managing […] they think that they are managers... but they are alone and do what they want to do and everybody, you know, do what they want […] so the Jamaican culture, with Jamaican workers, they need to have a boss over there, they're not working without a boss, it's a different… in Jamaica… that is my challenges. Then I don't live here… and come down once a week..." (River village community leader)

In this case, the crucial role of leadership in driving sustainable practices within communities was highlighted through its lack. In the absence of the constant presence of a committed leader who was able to inculcate sustainable behaviours through various (also non-formal) educational means, community members did not engage or commit to the project. Furthermore, although the sister displayed genuine care for the people by providing them with finances and food and by explaining to them that this project was for their future improvement, this did not seem to be enough to spur behavioural change in River community members. On the one hand, these considerations also relate to possible attitudes of resistance to the sister as being an 'outsider' to the River community, as well as a resistance stemming from larger questions of power-

relations, due to the perceived socio-economic difference between her and community members. On the other hand, these issues also recall the insights shared by Nick, the leader of the other community visited, with regard to the need for local leaders to show change by example in order to successfully engage community members in sustainable activities. Similarly, this notion of being a role model was also observed in the individual commitment of Uphill school principal, who was personally being involved in sustainable activities in the school to ensure the active participation of the whole school staff.

In relation to the aspects associated with leadership discussed in this section, I further expand on the impacts of the leadership model embodied by Uphill school principal on teachers in the next section. Here I also include considerations on the importance of teachers' individual engagement with sustainable learning and the collective sense of camaraderie.

5.4.2 Teachers' sense of ownership and camaraderie

In connection both with the above section on leadership and with Uphill school and community values and practices described in the previous ones, in this part I engage in explaining how all these elements also impacted the dynamics regulating teachers' approaches and perspectives. Moreover, I take into consideration also systemic issues related to teachers' duties. These too, in fact, impacted their sustainable learning practices, thus highlighting broader curriculum and policy related questions that I present separately below and discuss further in chapter 6.

The combination of effective leadership practices and the influence of the 'reward system' also determined teachers' attitudes in promoting sustainable learning in Uphill school. In the words of the school chairperson, when talking about the sense of camaraderie amongst school staff members:

> "there is this... strong camaraderie amongst us [...] and the stakeholders, you go into some institutions and you find that teachers are not good with each other [...] I don't find it here... I mean... not... I'm not saying that we're perfect here, but people do not carry grudges or even... if, if somebody say something or do something that hurt you, I don't really see people playing it out and whenever things have to be done... I must admit that, if not everybody is going to put their full weight in assisting, but you have very dedicated people here, who will ensure that things are done, as they're there to be done that... we'll all success [succeed] here you know?!" (School chairperson)

Personal interest and relationships among teachers too affected their level of involvement and cooperation. In particular, I observed that teachers who had been working within the school for a longer time –and, thus, were also more confident and independent in carrying out activities- showed more dedication and commitment towards ensuring the school' success in environmental competitions. As an exemplification, the Grade 1 and the Grade 6 teachers frequently worked together, after school time, to brainstorm and plan activities such as: classroom flower gardens, environmental research project for the SEP competition and production of artifacts using local materials (see picture in Appendix 4 related to a sample of brainstorming and planning activity of Grade 1 and 6 teachers). The Grade 6 teacher also covered the head-teacher role and was the one in charge of the environmental club. The level of cooperation between the Grade 1 and Grade 6 teacher was evident also, for instance, when:

> "during a teachers' gathering in the staff room the Grade 6 teacher informed everyone that the following week a JET judge would visit the school to assess the school's activities based on the action plan they had submitted. He added that the classroom gardens looked 'messy' and needed to be improved, while the school vegetable garden was looking fine. The main active contribution during this informal meeting was made by the Grade 1 teacher, who responded that "we have need [of] plants…and it will be done in time"" (Field notes excerpt)

Similarly, the Grade 1, 2 and 3 teachers regularly reached the school compound way earlier than the school start time to water plants and harvest crops in the school garden. As an illustration:

"One morning after devotion, when I walked to the staff room, two teachers welcomed me by showing me two big lettuces and the Grade 3 teacher handed one lettuce over to me, telling me to "look at how big and pretty it is!" and stressing on the fact that "we grew it ourselves!". I reacted in a very excited way and I commented on how its smell was so natural compared to the ones one buys in supermarkets, which look like made of plastic. They agreed with me and then invited me to put them in the fridge.

Later in the day, I met the Grade 3 teacher in the school garden again and she expressed that she was excited about the speed at which the crops were growing. She even called some of them "my watermelon", "my beetroots" and told me: "see Romina? This is what I like to do!", to which I replied that this was what I loved to do too, to be immersed in and work with nature.

Then, while we were plucking weeds together with some students, some of them by mistake plucked some grass that was used to protect the carrots. Thus, the Grade 3 teacher tried to stop them from doing that and looked very concerned about the fact that the plants could be spoiled. Some other students were instead sitting on the side and taking notes about the plants that had been planted so far.

After a while, while the Grade 3 teacher was still working in the garden, some students got distracted and left to go and get some plums from the tree up the hill in the area of the fruit trees (meanwhile, Parents Representative had joined us and was chatting with the Grade 3 teacher and giving her some advice on how to take care of some plants).

When the school time was over, she called out to those students who all started running down the hill. So, she shouted in order to warn them not to run on the peanut plants recently planted and told them to be careful not to step on any other plant either." (Fieldnotes excerpt)

In like manner, as soon as I returned to the school at the beginning of February 2017 after my Christmas fieldwork break, the Grade 3 teacher eagerly took me to the school vegetable garden to show me how it had been re-organized after the Christmas break. Furthermore, I also noticed how the Grade 3 classroom flower garden was the best kept one amongst all grades' flower gardens.

By virtue of the above examples, these specific teachers demonstrated a sense of ownership and personal commitment to environmental activities in the school, which related to the fact that they engaged in growing vegetables in their homes as well. Likewise, they often also complained about the lack of effort and engagement of other teachers, who did not share the same level of interest in sustainable activities as they did. The importance of members' dedication in their involvement in sustainable activities and the beneficial

impacts this has on the students' learning process and development of "a positive environmental ethic" was observed also in the implementation of biodiversity projects analysed by Collins-Figueroa (2010, p. 94) in teachers' colleges across Jamaica. The relationship between a sense of ownership and increased involvement in environmental activities was reported by Down in Diamond et al. (2011) with regard to students who took part to particular sustainable development activities in other locations in Jamaica.

Teachers' dedication –despite being a remarkable aspect- is far from what can be considered satisfactory for the implementation of sustainable learning. As expressed by the Grade 6 teacher, the teachers require more training, which is mostly provided by the JET:

> "[...] we as teachers here [at] the school and in the community has, has a... a job to do and we are supposed to, as environmental person, as environmental persons we need to go out in the communities or in the community educate them [...] so we need to invite them here and educate them as well, we cannot just depend on the students to do it [...] and that is why, that is why JET used... uses... the workshop like, every year... to educate also us teachers on some things that we could employ, in going out in the community..." (Grade 6 teacher)

Moreover, recalling both the lack of support and resources and of ESD as a discrete subject in the curriculum mentioned in section 5.2.4, Down (2006) considers their accompanying limitations. Teachers' individual drive necessitates educational policy reform to ensure an effective sustainability-based education (Down, 2006).

In the next section I focus on how sustainable learning is integrated in the primary school curriculum, in the absence of ESD as a discrete subject. This analysis contains reference also to the transmissive and transformative nature of sustainable learning in relation to the curriculum.

5.5 Sustainable learning in the Jamaican Primary Curriculum

In this part I present specific subjects of the primary school curriculum with a view to identifying how sustainable learning is conceived and through which activities its teaching is prescribed. As mentioned in chapter 4, section 4.8.2, I conducted the analysis of the Jamaican primary curriculum through the use of content analysis. I retrieved the documents related to the curriculum content for each subject from a public google drive folder from the Jamaican Ministry of Education website[2]. The internet link to this folder was shared with me by one of the educational officers I had met and interviewed in Uphill school. When I asked him where I could consult the national primary curriculum because I had not been able to find it through an online search, in fact, he explained that this was the specific source where I could access it. As shown in the sample in the Appendix 5, the majority of these documents were classified as a 'draft' version and do not contain any page number. Therefore, some of the quoted material that I report below does not contain specific page numbers.

In virtue of ESD not being a discrete subject, I explored materials related to other specific subject areas containing environmental and sustainability themes and activities for each grade. After a thorough review of the content of all primary curriculum subjects, the process of content analysis to identify various ESD aspects focused on some specific subjects. As I had already learnt from my fieldwork in Uphill school, in fact, sustainable learning in the primary curriculum is integrated in particular subjects for different grades. Specifically, I investigated the subject of 'Integrated Studies' for Grades 1-3, while I analysed 'Social Studies' and 'Science' for Grades 4-6. I found a few mentions related to sustainable learning also in the Grades 4-6 Civics curriculum.

Integrated Studies is a miscellaneous subject across Grades 1-3, which covers content and activities ranging from language and literacy, numeracy, elements of mathematics, science, geography, art and music. I gathered this information through the content analysis of the subject across the three lower grades. For the subjects of Social Studies and Science, philosophical statements for the subjects across grades were available. The philosophical statement for the Social Studies, covered across Grades 4-6, states:

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[2] https://drive.google.com/drive/folders/0BxAFnTxq615HT0t6VXFnaVNqR2M [Last Accessed, July, 22nd 2019].

"Social Studies is primarily concerned with the study of the interaction of individuals and groups within societies and their relationship with their environment. The study of the relationships within societies and their interaction with the environment requires an interdisciplinary approach. Ergo, the essential knowledge, concepts and skills taught in Social Studies are drawn from a coordinated and systematic study of the social sciences; geography, history, sociology, political science, and economics and where appropriate content, concepts and skills from mathematics and the natural sciences.

The primary purpose of Social Studies is to create active participatory citizens who are able to make informed and reasoned decisions that are beneficial to a culturally diverse and democratic society in a changing and interdependent world. In addition, this curriculum seeks to develop in citizens the 21st century skills of critical thinking and problem solving, collaboration, communication and creativity and innovation." (NSC, 2017, p. 1)

In a similar manner, the 'Philosophy behind the New Science Curriculum' states:

"The curriculum has been redesigned to have a greater emphasis on the integration and application of scientific concepts, principles and innovation. Fundamental to this new curriculum is the acquisition of the science process skills that will enable students to engage in scientific enquiry which forms a foundation for scientific programmes at advanced levels. The curriculum has also taken into consideration the national strategic objectives in education as well as the twenty first century desired outcomes which include the ability to communicate ideas, to collaborate on issues thereby building interpersonal skills, to create meaningful solutions to problems with real world applications and to exercise critical thinking skills which has implications for personal growth and development. As a result, students will become flexible and adaptable, information and technology literate, aware of health and wellness issues and globally competent.

The assessment of the science curriculum is also predicated on constructivism, and incorporates real life and performance-based experiences that are student-centred and formative in nature. Learner-centred assessment relies heavily on formative assessment and requires the use of varied, multiple non-traditional assessment strategies and tools to measure students' achievement and progress throughout the school year. These assessment strategies actively engage students and promote the involvement of students through performance tasks and student self and peer assessments." (NSC, 2017, p. 2)

Although I present the in-depth analysis of the specific subject content below, at this point it is interesting to note how the language of the philosophical

statement for these two subjects includes features of a transformative approach to sustainable learning.

The aspects of the specific subjects that I describe here were organised in the curriculum according to 'attainment targets', which related to 'what pupils of different abilities and maturity levels should know and understand, and show by their behaviour what they value at the end of each level' and 'suggested activities', which included 'present the actual experiences in which the pupils will engage in order to achieve the stated objectives'.[3]

The analysis of the primary curricular content across Grades 1-6 brought to the fore some recurrent themes within the subjects, which relate to aspects of both transmissive and transformative approaches to sustainable learning and those identified in the field work findings. Namely, said elements include (i) an anthropocentric and instrumental view of the environment, with a problem-solving and outcome-oriented approach; (ii) the equation of the notion of environment with those of one's 'surroundings' and 'home', and (iii) the promotion of an attitude of stewardship of the environment in learners. Therefore, in the following sections I describe the aspects mentioned above, while I discuss their implications in more detail in chapter 6.

5.5.1 View of the environment in the Primary Curriculum

In this section I illustrate the notion of the environment that is promoted within the primary curriculum. The investigation of this aspect is important for two reasons. Firstly, this was one of the aspects explored with the research participants in Uphill school and community and comparing the views emerged from the findings and those contained in the curriculum will be helpful in order to add more insights to the former. Secondly, by relating the envisioning of the environment in the curriculum with the notions of transmissive and transformative learning will enable me to better understand the pedagogical approach embedded in the curriculum and the nature of sustainable learning at the primary school level in Jamaica.

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[3] I retrieved this information from the older curriculum, dated 1999, as it was not included in the materials related to the new curriculum on the Ministry of Education google drive folder, https://moey.gov.jm/sites/default/files/GuideGrade1-3.pdf [Last Accessed, July, 22nd 2019]

The centrality of humankind and the instrumental value attributed to the environment were consistent throughout the 'Integrated Studies' and 'Social Studies' curriculum across Grades 1-6. These positions were expressed in the 'attainment targets' and in the 'suggested activities' through which the curriculum is organized (NSC, 2016; 2017). Expressions contained in the attainment targets and suggested activities of Grades 1-3 Integrated studies show the central place attributed to humans and the ancillary one to the environment within this view:

> "'development of an understanding of the interdependent relationship between man and *his* environment' [emphasis added], '[…] the dependence of humans on plants and animals for the satisfaction of basic needs…', 'Explain how humans depend on plants for survival', 'examining the various uses of plants - shelter, medicinal purposes, employment, food, clothing', 'Take a tour of the school yard, identify things in the environment that students consider useful in satisfying basic and other needs', 'Create a flier about how the environment satisfies our needs', 'students will be introduced to plants and their many uses. They will examine how man utilizes plants to meet basic needs for food, clothing and shelter.'" (NSC, 2016)

In like manner, elements of the Grade 5 Civics curriculum include: 'Rights of future generation to enjoy and benefit from the environment' and 'Relationship between the right to benefit from the environment and the responsibility to take care of it'. These, on the one hand, undoubtedly promote a sense of stewardship for the environment (as expressly indicated by the name of the unit 'Environmental Stewardship') (MoE, 2017). However, on the other hand, they reinforce an anthropocentric view, where the environment serves the instrumental purpose of satisfying man's needs and of allowing humankind to benefit from it. Akin to this view were the considerations related to the old curriculum as per the *National Environmental Education Action Plan for Sustainable Development in Jamaica (1998 – 2010)*, where reference to the environment as a resource for the satisfaction of human needs is explicit:

> "The primary level curriculum, especially in social studies, seeks to lead children on a journey outward to national and global perspectives, after first establishing a relationship with home, school and community. A recurrent theme – how human beings satisfy the need for food, shelter and clothing – introduces the idea of resources, and the effect of culture and climate." (NEEC, 1997, p. 40).

Often, natural elements were also associated with the idea of national identity and pride. Instances of this can be found in the Grade 2 Integrated Studies attainment targets for students to 'demonstrate awareness of the ways in which

the Jamaican identity is shown through interactions with, and responses to, the environment and natural hazards', through activities such as to 'share with e-pals in another country […] about the national plant and the national bird' aimed at enabling students to 'demonstrate an awareness of plants and animals used as national symbols/emblems' (NSC, 2016). In the Jamaican context, as described in section 5.2.1 of the findings, an emphasis on students' awareness of the value of keeping a clean and beautified environment (e.g. home, school, community) and of national symbols was often related to the instrumental role that these play in the tourism sector. Accordingly, students in Uphill school often referred to the importance of keeping the environment clean for the purpose of pleasing (foreign) visitors, especially because that specific location is recognized among the national heritage sites often visited by tourists, although not being a dense tourist area per se. In like manner, the Grade 5 syllabus also contained explicit reference to the economic value of plants: 'students will know that plants are important to the survival of humans and the environment and that plants contribute significantly to the economy' (NSC, 2017).

After acknowledging the view of the environment as a general approach in the primary curriculum, I now consider how the concept of environment was defined within it in more details. The definition of the concept of environment that can be extrapolated from the primary curriculum often corresponds to the views expressed by students and teachers in data generated from interviews and observations (see section 5.2.1). In particular, the Grade 1 syllabus comprises targets and activities such as: 'ways students can take care of things in their homes' and 'identify hazards and risks to their safety at home and demonstrate the willingness to care for things in their home', or:

> "[…] understanding the term 'environment' and what is meant by this in relation to their school; identifying the important features of their school and understanding what makes them important; beginning to learn about the history of their school and the location of their school; recognizing how rules and regulations are used to best effect in school; preserving the environment and appreciating the main ways in which they need to care for it; telling ways in which they can take care of the school and the things in it; developing basic locational skills in their environment (such as home and school)…" (NSC, 2016)

Here, explicit reference is made to the association of environment with 'home' and 'school' and the notion of taking care of the environment was linked to taking care of these. Further elements that support this understanding are found in activities like: 'going on a tour of the school to observe its environment […]

They will then discuss how they can care for the things in the school' (NSC, 2016). In the Grade 2 syllabus, besides encompassing the elements of 'home' and 'school', the definition of environment extended to include the notion of community: 'understanding the processes and forces that have formed the physical and built environment' through activities focused on explaining the 'concept of community and investigating the key actions of a community; discussing the origin of their community's name; developing basic locational skills related to places (such as home and school) in the environment', 'discussing how key features man-made and natural co-exist and are represented in the community'. Accordingly, taking care of the environment included actions associated with keeping a clean environment (e.g. 'home', 'school', 'community'): 'the practice of proper disposal of garbage; practice of proper care of classroom facilities […] developing and implementing ways of keeping the community clean' (NSC, 2016). Furthermore, some mentions were made with regard to plants and animals as being part of the community and, by extension, of the environment, such as in the activity that prescribed: 'observing plants and animals in a number of habitats in their community'.

Part of the activities of the Grade 4 Social Studies syllabus referred to 'How can I help to keep my community clean?' and similar understandings could be found in the activities suggested for Grade 5 too: 'Observe the school compound/community in small groups to see what people do with waste and: (a) Discuss the types of waste seen and the methods of disposal used. (b) Tabulate findings of various areas of the school compound/community in relation to methods of waste disposal and appearance (cleanliness, smell, beauty)' (NSC, 2017).

The primary curriculum construed the understanding of the notion of environment by referring to the concepts of 'home', 'school' and 'community'. These also included natural elements such as plants and animals, where all are conceived as instrumental to human survival and, thus, require to be taken care of. Therefore, in the following section, I look at further elements related to promoting stewardship of the environment within the primary curriculum.

5.5.2 Attitudes towards the environment in the Primary Curriculum

In this part I explore the attitudes towards the environment in the primary school curriculum, as this is another aspect that emerged in the findings in relation to the sustainable attitudes and practices in Uphill school and community.

I found the encouragement of the development of an attitude of stewardship for the environment in students to be prominent in the syllabus across grades. In Grade 1, for instance, the suggested activities included:

> "'discussing the care of plants and why and how they need to be cared for', 'discuss and compare the different resources that are needed for plants and animals to survive […] make posters/presentation (electronic/non-electronic) about the effective care of plants and animals.'" (NSC, 2016)

Similarly, in Grade 2, the attainment targets encompassed: 'Demonstrating an awareness of individual and collective rights, their application and attendant responsibilities', through activities that focussed on 'demonstrating ways of taking care of places of interest', 'explaining why and how we need to care for plants and animals. Learn that re-cycling protects and preserves our environment', 'identifying jobs related to the care and protection of living things in the environment' and 'Discuss ways in which we can care for plants and animals in our community, why we need to do so, and how we can protect them from natural disasters' (NSC, 2016). Among the suggested teaching and learning activities, I could observe the role of teachers in stressing the importance of building a sense of stewardship in students: '[the] teacher will stress the importance of trying not to disturb too many natural habitats in their exploration and to be very careful not to kill the plants and insects that they [students] are observing' (NSC, 2016). A moral aspect to foster stewardship was also encompassed in the Grade 2 syllabus, which introduced a link between religion and stewardship of the environment: 'Discuss religious stories e.g. God's creation of plants and animals and Adam's responsibility to care for them as recorded in the Creation Story in Genesis 2 or other religious writings'. As explained in section 5.3.3, this aspect of the curriculum was carried out in Uphill school during the daily 'devotion' time, before the start of the school day, when the school principal and various teachers would read and discuss religious stories and their moral value to stimulate students to take care of their environment in the school compound and at home.

The Grade 5 and 6 Civics syllabuses contained more specific reference to the aspect of stewardship of the environment. Respectively, Grade 5 unit 1 was named 'Environmental Stewardship' and it included a 'focus question' stating: 'How can I preserve my heritage through protection of the environment?', where one of the objectives was: 'Rights and responsibilities as part of the process of preserving their [students] heritage'. Following, the concept of stewardship was explained as both 'personal' and 'collective' and it encompassed aspects such as:

> '"impact of personal activity, institutions that protect the environment, advocacy for the protection of the environment, responses to natural hazards: hurricanes, droughts."' (MoE, 2017)

With regard to the Grade 6 Civics syllabus, the emphasis on environmental stewardship was expressed through topics such as: 'Environmental hazards - the Global context, Jamaica's contributions to global actions to protect the environment, Jamaica's contribution to recovery efforts in the Caribbean and other parts of the world', which also comprised a global dimension with links to the impacts of local actions to the global environment. Unit 2 in the Grade 6 Civics syllabus also covered the aspect of environmental stewardship, but with a focus on collective 'rights and responsibilities'. The unit was introduced with a question: 'What is the impact of individual good stewardship on the environment?', followed by a list of points that included 'Good environmental practices in Jamaica', such as 'Personal involvement in environmental cause' and invite to explore 'Environmental hazards/consequences linked to specific national economic activities' (MoE, 2017). Two interesting aspects can be highlighted in this portion of the curriculum. Firstly, the emphasis on individual responsibility corresponded with Uphill school and community members' attitudes towards the environment pointed out mainly in section 5.2.1, as well as in other parts of chapter 5. Secondly, links to reflecting on broader global interconnections and the effects of national economic activities on the environment constitute an opportunity for a more transformative approach to sustainable learning. In the light of this last aspect being connected with elements of transformative learning, in the following section I explore what other components of the primary curriculum displayed a relation with this approach to learning.

5.5.3 Aspects towards a transformative turn in the Primary Curriculum

The above analysis of the recurrent themes within the primary curriculum highlighted a predominant anthropocentric view of the environment and a related transmissive approach to sustainable learning. Nevertheless, through a close investigation of the syllabuses of the Integrated Studies and Social Studies subjects I uncovered elements that represent a potential towards a more 'transformative' turn in the teaching/learning approach. As thoroughly elucidated in chapter 3, a transformative pedagogy is intended as a way of teaching and learning where students develop critical thinking abilities through co-constructive and reflective activities that enable them to envision new meanings for the environment and sustainable behaviours. I found one of these elements in the environmental activities promoted through performing arts, which contained a creative approach to environmental themes. In Grade 1, these included 'performing varied repertoire of music for an audience' through activities based on composing 'lyrics to poems or songs about how people dispose of garbage in the community with rhythmic accompaniments' and:

> "Make up a poem about caring for plants and animals in their community, put a familiar tune to this poem. Add movements, beat and rhythm to the tune. Sing the tune using classroom instruments to accompany the singing. Perform song in school assembly. Do short dramatic presentation to the school showing why and how we all need to care for the plants and animals in our community" (NSC, 2016).

As noted in section 5.2.2, the Bamboo restoration project carried out as part of the JET SEP included students conducting research, composing a poem and a dramatic sketch related to the topic. Below is a representative example of a poem written by a Grade 6 student, which also contains other elements mentioned in the previous sections, such as: taking care of the environment to maintain its beauty, which is related to the instrumental value of the environment for the tourist sector; students throwing their 'bag juices' on the ground outside the school; community members damaging the bamboo area; reference to the government ban against damaging the bamboo; and the need to protect it as part of maintaining the local beauty:

"Look how the Bamboo green
And pretty
A one a wi best tourist attraction you know.
Dem love tek picture in a it you see!!!
That's why mi no throw no garbage
In a it. Watch the pickney a throw de bag juice
Paper a the Bamboo root. Go tek it up.

Eheeh look pon de man a cut de Bamboo tree.
Sir u nuh see u a destroy the bamboo. Nuh!!!
Out one more! It is against de law yu will get
Charge.
Nuh do it again. A wi natural beauty
Mek wi protect it."
(Poem by Grade 6 student)

This type of activity can be considered part of a transformative learning process in that the writing of the poem can allow students to relate their surrounding reality and critically reflect upon it (e.g. the bamboo constituting a tourist attraction). Thus, students can better realise the interconnections between humankind and nature and the latter's intrinsic value (e.g. the bamboo is valued for its beauty and should not be polluted). The student who composed this poem also reflected on problematic actions from other students and community members (e.g. students throwing 'bag juices' and a man cutting the bamboo). She was also able to acknowledge connections with national policies (e.g. the government ban on damaging the bamboo area) and eventually promote the need of protecting the bamboo.

Similarly, in Grade 2 the suggested activities in relation to the topic of 'garbage' included singing 'songs about people in their community using various class instruments to accompany song' and composing a 'song/poem/jingle about the proper disposal of garbage' together with creating 'a movement pattern to perform the song/poem/jingle composed' and using 'a recording device to capture the performance for class critique' (NSC, 2016). In these regards, in fact, data from field work observations revealed that students had the habit to spontaneously sing songs learnt in their performing arts classes while carrying out environmental activities both in the school compound and at home. Therefore, not only environmental notions learnt through poems and songs would be more easily retained by students, but they would also be more instinctively enacted in their daily life.

Another element contained in the curriculum that could facilitate a more transformative approach to sustainable learning was related to outdoor experiential activities on themes that were contextually relevant, both for Uphill

community and for other areas in Jamaica. For instance, the Grade 2 extended learning activities proposed: 'In groups work on different projects involving: (a) planting a tree (b) making a flower garden (c) planting grass in a dusty area (d) making a compost heap' (NSC, 2016). In like manner, the Grade 4 syllabus included:

> "Participate in a class project which focuses on a particular use of plants. (Food, beautification, shade etc.). Students will decide on the type of plants they want to grow and why. Identify an area on the school compound or with the assistance of the teacher collect containers for growing their plants. Along with the help of the teacher collect or purchase items needed for the garden. Students will care for the garden according to a schedule" (NSC, 2017).

As observed during field work and described in the sections above, these activities were often carried out in Uphill school and students were able to bring plants from their home and to plant them in the school. This allowed them to feel more engaged and to apply their local knowledge, which contributed to making the curriculum content more relevant to their own direct experience. An explanatory instance of this aspect found in Uphill school is described in section 5.2.2, where students carried plants from their homes and then they planted them in their own classroom flower gardens, by employing the knowledge and techniques learnt from their parents and grandparents.

Another instance could be found in the activities of the Grade 5 Social Studies as well as in the Grade 4 Civics syllabus. These stated, respectively:

> "Identify the types of rainfall. Explain how each type of rainfall occurs. Use a variety of sources to identify natural hazards associated with weather, then compare and analyse the effects of natural hazards on human activities (drought, flood, storms, hurricanes) in different areas. Describe how human actions contribute to the effects of these hazards. Propose ways to prepare for and cope with the effects of these hazards. Listen to and critique suggestions put forward by classmates [...] 'using an example of a natural disaster, students will learn about the effect of natural and other disasters on the Jamaican sense of community. They will also explore the relationships between Jamaicans and the natural environment.'" (MoE, 2017; NSC, 2017)

The topic in these activities was particularly relevant both for Uphill community and for Jamaica in general, as the island is subjected to periodical rain and hurricane seasons. As delineated above, discussions between teachers and students related to rain and hurricanes often took place both inside and outside the classroom on aspects such as how to prepare for and keep safe during a

hurricane, how to undertake environmentally sustainable behaviours that would limit its damage and what measures to adopt during the rainy season.

I found an analogous instance in the Grade 6 syllabus: 'Know what is pollution and understand the causes and consequences of air pollution. Identify a problem at national/international level, find out the cause(s) and develop strategies to solve the problem' (NSC, 2017), as both Jamaica and Uphill community were affected by air pollution. In the local context, in particular, students could often notice and consider with teachers the effects of the smoke due to the burning of sugar cane coming from the estate located just opposite the school.

I could find other aspects of the curriculum that displayed the potential to spur sustainable learning of a transformative type in the emphasis allocated to the notion of 'interdependence' between man and the environment. Although, as I pointed out above, this was mostly understood in anthropocentric terms, there were instances where it seemed to encourage critical thinking. This was observed, for instance, in the Grade 4 Social Studies syllabus where, by learning about the lifestyle and sustainable practices of a local indigenous population, students were encouraged to critically evaluate their own daily practices:

> "Work in collaborative groups to find out how the Tainos met their basic needs. Groups can investigate the following areas; fishing, farming, hunting, housing clothing. Students will suggest how these activities affected the environment [...] The methods used by Tainos in farming, fishing and hunting did little harm to the environment [...] Students could determine the sustainability of the practices that they engage in" (NSC, 2017).

Likewise, in the Grade 5 and 6 Social Studies syllabus the theme on 'Diversity, sustainability and inter-dependence in nature and society' prescribed that:

> "Students should appreciate and respect the diversity in nature and society and the need to protect and encourage this diversity. They should realize that people depend on each other and on the environment. They should be aware of and be engaged in activities to promote sustainable development [...] Know the dependence of humans on plants and understand the interdependence between plants and the rest of the natural environment." (NSC, 2017)

This showed a(n) -although minor- move away from a mere anthropocentric conception by taking into consideration the connections among the individual, social and natural dimensions as well as the introduction of the term

'interdependence' at least in the relationship between plants and 'the rest of the environment', despite still defining the relationship between humans and plants (and, by extension, between humans and the environment) as one of 'dependency' of the former on the latter.

Finally, another element that I considered promising with regard to going beyond a transmissive type of sustainable learning was in the Grade 6 Social Studies syllabus, which introduced the importance of civil society organisations related to environmental issues and encouraged students to join them: 'Conduct research on the work of environmental groups in Jamaica and find out they can become a member of the groups or assist in the work being done by the group' (NSC, 2017).

In this section, I have taken into consideration the transformative learning aspects that can be found in the primary school curriculum, by also drawing on relevant aspects of the field work findings. This revealed the occurrence of some aspects of sustainable learning of a transformative nature, although such instances were confined to a few parts across the whole primary school curriculum. I discuss further implications of these findings in chapter 6 below.

5.6 Conclusion

In this chapter, I presented the main themes emerged from the analysis of findings from data generated through the employment of observational fieldwork notes, memos, recorded interviews and focus groups, informal conversations and other sources of data, such as students' written reflections on sustainable activities. From this analysis, the main thematic areas were identified, respectively: i) issues around learning; ii) issues around values; and iii) issues around leadership. Furthermore, I also presented the results of the analysis of the Jamaican primary curriculum, where I looked for parallels with the other findings.

With regard to issues around learning, these comprehended the investigation of Uphill school and community members' conception of the idea of environment, as well as their sustainable practices within the school and community. Said practices, thus, unveiled the participants' attitudes towards sustainable learning, which were also related to the lack of ESD as a discrete subject in the primary school curriculum. All these elements related to issues around learning, then, also highlighted the dominance of an anthropocentric

framing of the environment and its instrumentalization through commodification and sustainable learning activities largely based on competitions.

In relation to the dominant aspect of environment's commodification, the sections on issues around values explored in more details aspects of the local cultural and value systems that are directly connected with it. The prevailing values identified included elements of 'survival' and 'get-rich-quick' mentality, of local counter-culture found in Rastafarian perspectives, and the prevailing Christian religious values. This system of values, thus, was acknowledged as being central in influencing and molding Uphill school and community sustainable learning processes and practices.

Of equal importance in affecting participants' sustainable learning processes and practices were the third thematic issues determined, that is to say issues around leadership. Still connected with the broader value system previously outlined, the aspect of leadership (and its lack) was able to drastically determine the success or failure of sustainable learning and projects in both the school and the community environment.

Additionally, the analysis of the primary curriculum highlighted some recurrent themes, including: (i) an anthropocentric and instrumental view of the environment; (ii) the equation of the notion of environment with those of one's 'surroundings' and 'home', and (iii) the promotion of an attitude of stewardship of the environment in learners. In the analysis, I also observed a predominance of transmissive approaches to sustainable learning, as well as some minor aspects towards a transformative turn. I consider their and other implications in the chapter below.

Finally, at various points, all thematic areas presented links with broader ESD pedagogical and policy frameworks. Therefore, in the following chapter, I unpack those connections, by providing a discussion of the findings of this study. Like the findings, the discussion is informed by the theoretical framework on social, transformative and sustainable learning. However, in the next chapter, I focus on the implications of the relation between the findings and the theoretical framework in reference to broader policies. This exercise has also the scope of locating the findings and implications of my research within ESD both in Jamaica and internationally.

Chapter 6.
Discussion of findings

6.1 Introduction

In this chapter I draw on the lessons learnt from this research and, by adding a more critical and reflective layer to the analysis, I outline the ESD scenario in Uphill school and community, including considerations that apply to the broader national level. Therefore, in what follows, I connect the dots among the issues identified at various levels. Namely, I consider the implications of the themes emerged from the analysis of ESD policies in Jamaica and their connection with findings from the field and the primary curriculum. Moreover, I present this further level of analysis and interpretation including critical insights in relation to theoretical notions on social, transformative and sustainable learning. In particular, using the notions outlined in chapter 3 allows me to determine the nature of the sustainable learning taking place both at the policy and school/community levels, by critically evaluating policy documents and by drawing on the findings presented in chapter 5. In this way, I can appraise the nature of sustainable learning resulting from this study, which offers relevant insights for ESD approaches in Jamaica and internationally.

As a result, the insights from this discussion allow me to contribute to debates within the ESD literature by relating local incongruities to broader systemic issues that need addressing at the national and international level (e.g. sustainable learning in the curriculum versus local reality and values). What is more, by better understanding the nature of sustainable learning in the Uphill context and its relationship with local perspectives, values and the role of various stakeholders, I can draw parallels with existing ESD research to determine how these elements can inform ESD policies and practices (see recommendations in section 7.2 for details).

In particular, the conceptual notions against which I compare issues from policies and findings relate to their correspondence to elements of transmissive and transformative learning, in combination with aspects of social learning, to convey the meaning and role of the relationships among various research

participants and stakeholders. On the one hand, with regard to transmissive learning, the elements that help me identify this type of approach relate to:

1. Anthropocentric views and hierarchical relationships between humankind and nature, where nature is assigned instrumental value;
2. Freire's banking concept of education, where teachers merely transfer knowledge on to learners;
3. Teacher-centred and behaviourist pedagogical methods (e.g. use of positive/negative reinforcement);
4. Problem-solving approach to environmental issues, which is science-focused and unrelated to other disciplines;
5. Focus on learning outcomes.

On the other hand, the aspects that I consider in order to assess the occurrence of transformative learning include:

1. Interdependent views, where humankind and nature are assigned equal and intrinsic value and mutually influence each other;
2. Mezirow, Sterling, Bateson and Freire's higher order of learning, where teachers co-construct knowledge with students and elicit critical and systems thinking;
3. Student-centred and constructivist pedagogical methods (e.g. use of interactive learning activities);
4. Problem-posing approach to environmental issues, where the focus is multi-disciplinary and connects social, political, economic and cultural aspects to environmental issues;
5. Focus on learning processes.

I illustrate the features of these two approaches in the table below, where I also include the dimensions considered in Table 1 (e.g. view of humans and value of nature; knowledge production; role of teachers; role of learners; learning process; pedagogical approach; focus and outcomes):

Table 3 Features of transmissive and transformative learning

	Transmissive learning	Transformative learning
View of humans and value of nature	1. Anthropocentric views and hierarchical relationships between humankind and nature, where nature is assigned instrumental value	1. Interdependent views, where humankind and nature are assigned equal and intrinsic value and mutually influence each other
Knowledge production and Role of teachers and learners	2. Freire's banking concept of education, where teachers merely transfer knowledge on to learners	2. Mezirow, Sterling, Bateson & Freire's higher order of learning, where teachers co-construct knowledge with students and elicit critical and systems thinking
Learning process	3. Teacher-centred and behaviourist pedagogical methods (e.g. use of positive/negative reinforcement)	3. Student-centred and constructivist pedagogical methods (e.g. use of interactive learning activities)
Pedagogical approach	4. Problem-solving approach to environmental issues, which is science-focused and unrelated to other disciplines	4. Problem-posing approach to environmental issues, where the focus is multi-disciplinary and connects social, political, economic and cultural aspects to environmental issues
Focus and outcomes	5. Focus on learning outcomes	5. Focus on learning processes

In presenting the critical discussion, I thus refer to the points in the table by including them in brackets within the text.

In the light of the theoretical literature, I explore the relationship, as well as the tensions, between theory and evidence from practice in Jamaican ESD policies, primary school curriculum and sustainable learning in Uphill school and community. In particular, consideration of incongruencies among these different levels extends the discussion toward the implications for sustainable learning and policies and practices at the national and international levels.

6.2 ESD in Jamaican policies

In this section I look at the Jamaican ESD policy context through the lens of the dimensions and notions of transmissive and transformative learning illustrated in Table 3 above. Through this investigation, I bring to light how sustainable learning is envisioned at the policy level in the country and related to institutional arrangements to put it into practice. Furthermore, by looking at national policies, broader links with and influences of international organisations and policies surface too. Consideration of these aspects is then useful to bridge connections with sustainable learning in the Jamaican primary school curriculum and the learning processes and practices in Uphill school and community.

The origins of Jamaican sustainable development policies, as I described in the second chapter of this thesis, stem from the late 1970s, when these were concomitant with the commencement of economic financial aid to the country from the Global North. Later in the 1990s, ESD started being officially introduced in the Jamaican formal education system, with a top-down approach. This initial element shows a connection with aspect 1 mentioned above -namely a hierarchical relationship within a transmissive approach- in two ways. Firstly, in fact, the top-down approach in introducing sustainable learning initiatives reflects the unequal power-relations between the Global North, where ESD programmes are devised, and Jamaica, considered as a developing country in the Global South where such initiatives are enforced. Secondly, the purpose of these initial programmes was to achieve specific outcomes (thus relating to point 5 within a transmissive framework). This type of approach, in fact, can be effective in addressing isolated environmental problems, but it is not conducive to reflecting on and challenging broader systemic factors at the root of sustainability issues. In this way, this approach to sustainable learning flags a trend that is recurrent, and problematic, in the context of small-island states, where there tends to be more of a mere environmental, science-based approach (Eppinga and Mijts, 2019) to sustainability questions which, instead, require consideration of the interrelations of the environment with broader socio-economic and political spheres.

A slight change could be observed in the late 1990s, after the introduction of the Agenda 21, when social and economic spheres were related to environmental issues in the vision of the Jamaican National Environmental Education Action Plan (JNEEAP) for Sustainable Development. The intention to

overcome anthropocentric approaches was also explicitly mentioned in the document, thus exhibiting an indication of a move towards a transformative tendency:

> "The term, Environmental Education for Sustainable Development, is unwieldly, but reflects current thinking, which has moved beyond education on protecting and conserving the environment for its own sake, virtually as a laboratory exercise; to embrace the context of sustainable development – society, economy and environment inextricably interwoven." (NEEC, 1997, p. 13)

This acknowledgement of the interconnection between the environment and socio-economic contexts, therefore, represented timid steps toward points 1 and 4 (i.e. interdependent views and a multi-disciplinary focus) within a transformative approach. As I noted in chapter 2, though, the outcomes of this initiative did not result into transformative changes at the systemic level, due to incongruencies between what was stated on paper and its implementation. Moreover, as mentioned by the GOJ in the *National Report to the World Summit on Sustainable Development* (2002, p. 40):

> "Too often standards are promulgated and policies are drafted by international consultants. The end result is that these policies are somewhat generic, often modelled after another country, and not sufficiently specific to Jamaica's reality. The government needs to invest in skills development so that local consultants and responsible government officials can become experts in their field and be hired by the government."

Specifically, the JNEEAP was not able to reach out to and instil changes in the lifestyles of the wider population, due to a lack of adequate support in practical terms in relation to access to training and skill-building resources, as well as in terms of relevance of the vision of the Plan to local realities. In this context, since the early stages of ESD, a different role was played by civil society organisations (CSOs), whose approach included all aspects of transformative learning (see points 1-5 of transformative learning in Table 3). These organisations, although operating outside the formal education system or, simply, as supplementary agents, employed learning approaches focused on advocating for environmental awareness and sustainability, and interactive pedagogical approaches aimed at engendering systemic changes. The positive effect of CSOs in contributing to positive sustainable development experiences in Jamaica was also acknowledged by Bass & Dalal-Clayton (1995). The fact that their sphere of influence is not institutionalized within the formal education system, though, contributes to the effects of their activities to being limited (Briggs et al., 2018).

More recently, in the early years of 2000s, the Vision 2030 Jamaica National Development Plan -in alignment with the guidance provided by Agenda 2030- expanded the view of former plans to include more extensive aspects of sustainable development, including: promotion of sustainable lifestyle, sustainable management and use of natural resources and climate change adaptation. Nevertheless, these elements were included within a vision primarily directed at advancing the economic development of Jamaica, rather than at fostering the development of new views on the relationship between humankind and the environment and of transformed systemic arrangements. Therefore, the Vision still displayed a predominant transmissive approach, which is anthropocentric, with nature being instrumental (point 1), focused on problem-solving (point 4) and on learning outcomes (point 5) rather than processes.

In view of these considerations, Jamaican national sustainable development policies can be considered as being predominantly anthropocentric and characterized by a transmissive character, despite their recent language showing minor tendencies towards more transformative features -and with the exception of CSOs, which demonstrated more comprehensive transformative elements.

Therefore, in order to determine how this broader ESD policy framework influenced the implementation of sustainable learning at the primary school level, in the following section I take into consideration how the elements of transmissive and transformative learning relate to the analysis of the Jamaican national primary curriculum presented in chapter 5.

6.3 Nature of sustainable learning in the primary curriculum

In this section I relate the analysis of the primary curriculum presented in section 5.5 to the features of Table 3 above to determine the nature of sustainable learning within the curriculum. As I already noted in the previous chapter, despite the overall approach to sustainable learning within the curriculum being characterized by a predominant transmissive and anthropocentric nature, I could also observe some meaningful instances of a more transformative approach.

In the analysis of the national primary curriculum above, the philosophical statements of the Social Studies and New Science Curriculum subjects included terms such as: 'interdisciplinary approach', 'interdependent world', 'critical thinking [...] creativity and innovation', 'predicated on constructivism' and 'learner-centred'. Therefore, these statements present elements that recall some of the features of transformative learning, as listed in Table 3 above (i.e. points 1, 2, 3 and 4).

The first of the recurrent themes within the subjects across Grades 1-6, which I identified in section 5.5, namely (i) an anthropocentric and instrumental view of the environment, with a problem-solving and outcome-oriented approach, presents clear links with elements of a transmissive approach to sustainable learning (i.e. points 1, 4 and 5). Furthermore, this instrumental perception of the environment advanced a teacher-centred and transmissive approach to teaching and learning, where teachers conveyed to students the knowledge and skills they need to attain in order to fulfill prescribed learning (points 2, 3 and 5). Analogous remarks were made in studies conducted by educators Marceline Collins-Figueroa and Joyce Glasgow on the old curriculum, which show that there have been no fundamental changes over more than two decades: "*Teacher-centered, didactic strategies, which are the antithesis of what is needed to promote environmental awareness in teachers themselves, as well as in their students, are still the dominant mode of instruction*" [emphasis in original] (NEEC, 1997, p. 41).

In section 5.5, I also noted how the Grade 6 Civics syllabus presented aspects related to stimulating students to pose questions related to broader global interconnections and the effects of national economic activities on the environment (see point 4 of transformative learning in Table 3). Similarly, in section 5.5.3, the syllabus of the Integrated Studies and Social Studies included activities of performing arts related to environmental themes that presented all 5 points of a transformative learning approach. What is more, these activities related to a more constructivist way of learning, with an emphasis on students' contributions in creating knowledge and, potentially, also spur more critical thinking (see points 2 and 3 of transformative learning in Table 3). One such example of a more transformative approach to sustainable learning was constituted by the 'bamboo poem', a student-centred activity that allowed the student to actively participate in the creation of knowledge and questioning of the local context, with the focus being on the learning process rather than outcomes (points 2, 3, 4 and 5).

In like manner, in section 5.5.3 I also observed how outdoor experiential activities within the curriculum seemed more student-focused and allowed them to co-construct knowledge with their teachers (see points 2 and 3 of transformative learning). Another instance was constituted by the Grade 5 Social Studies and Grade 4 Civic syllabus in relation to activities where students were invited to critically discuss aspects of natural hazards and pollution in Jamaica. In this way, students and teachers could construct knowledge together based on their lived experiences and go beyond the teacher-centred transmissive model (see points 2, 3 and 4 of transformative learning).

Additionally, in section 5.5.3 I pointed out how the Grade 4 Social Studies syllabus contained an activity focused on stimulating students to critically evaluate the environmental effects of their own practices in comparison to traditional indigenous ones (see points 1 and 2 of transformative learning). Finally, I also noted that the Grade 5 and 6 Social Studies syllabus contained an aspect focused on the inter-dependence of individual, social and natural dimensions that could spur transformative perspectives in sustainable learning (see points 1, 2 of transformative learning).

In the next section, I consider inconsistencies between aspects of the primary curriculum and the reality of the context in Uphill school and community, as they recall matters of concern related to issues that emerged from the findings in chapter 5, as well as broader ESD policy discourses at the national and international level.

6.4 Inconsistencies between sustainable learning in the Primary Curriculum and Uphill school and community

In this part, I outline the contradictions that emerged between the sustainable learning prescribed in the primary school curriculum and the learning processes and practices that I witnessed in Uphill school and community.

Themes and activities within the primary curriculum presented some inconsistencies with regard to various aspects of Uphill context and realities. These were related to aspects such as the unfeasibility of some activities due to lack of technological resources, high student-teacher ratios and contradictions between curriculum content and local context. Therefore, I illustrate them in what follows.

The Grade 1 Integrated Studies syllabus, for instance, included activities such as:

> "going on a tour of the school to observe its environment. The teacher will provide students with a checklist for them to record as they observe and discuss the location, size, number and shape of important buildings, places and objects in and around the school community […] They will then discuss how they can care for the things in the school and create a photo/digital story or use any picture making techniques to create works of art of their school, uniform etc." (NSC, 2016)

These activities resulted as practically unfeasible in Uphill school due to the high student-teacher ratio in the class, which would not allow the teacher to safely carry them out, especially because no support teachers were assigned for students with special needs. Considerations on this aspect were made more than two decades ago in the *National Environmental Education Action Plan for Sustainable Development in Jamaica (1998 – 2010),* in relation to the factors affecting the disconnect between the syllabus and the teaching/learning reality. Here, these were identified as "crowded schools, many of which lack necessary physical facilities, where large classes may hamper the attainment of outcomes expected from professional development initiatives; as well as pressure from students and parents to adhere to content loaded curricula; and current low esteem of the teaching profession" (NEEC, 1997, pp. 44, 45). Recent studies on the barriers that teachers encountered in teaching environmental education in both developed and developing countries, too, revealed that in developing countries' rural areas lack of: government support, adequate number of teachers, adequate teachers training and understanding of local contexts in the

curriculum -among others- negatively impacted learning processes (Anderson and Jacobson, 2018).

Moreover, lack of resources such as digital cameras and an adequate number of computers in the school did not allow students to create photo/digital stories. Due to the same reasons, activities in the Grade 2 syllabus like:

> "'Use image capturing device to take pictures of the different ways garbage is disposed of in the community', 'Conduct electronic research and draw conclusion on what parts of the animals and plants (teacher-selected) are used to make musical instruments and accessories' [...] 'Share ideas generated from class discussion online about how they care for the plants and animals in their community'" (NSC, 2016)

as well as those in the Grade 5 syllabus "Do online interactive activities on water pollution to enhance and expand learning" (NSC, 2017) could not be carried out. In like manner, within the Grade 2 syllabus, activities such as:

> "View display of recycled items. Discuss what materials are used to make them. Discuss why we need to recycle – how this connects with caring for our planet and then in turn helps to protect our future plants and then in turn animals in our community. Make journal entry on the importance of recycling" (NSC, 2016)

seemed to be in contrast with the local and national context. Uphill community, in fact, suffered from the lack of provision of recycling bins and of regular collection of garbage. At the national level, Jamaica did not have a functioning recycling site and system in place. Therefore, although -on paper- this type of content was relevant for sustainable learning, it was nevertheless contradictory to the reality experienced by students on a daily basis. For the same reasons, content within the Grade 4 Integrated Studies curriculum resulted contradictory:

> "students will examine land pollution in their local environment. They will find out the causes of land pollution and the effects it has on humans and the environment. Students will conduct their own observations and investigations on the types of pollutants in their communities and develop strategies to solve these problems. They should begin to advocate for proper waste management at school, at home and in the community" (NSC, 2017)

and:

> "Gather information from a variety of sources on the effects of poor waste management on humans and the environment and propose ways in which land pollution can be minimized in the school and community. Use different methods to inform members of the school and community about the importance of protecting their environment. Practice environmentally friendly habits in the school and community" (NSC, 2017).

Although Uphill school regularly promoted adequate disposal of garbage and recycling, these activities were in contrast both with the lack of government provision of resources for proper waste management in the community and with local cultural practices. With regard to inadequate government provision of resources, in fact, a study conducted two decades ago in UK communities already underlined that stressing on individuals and communities' environmental responsibilities, without empowering them by removing the barriers that constrain their ability to act environmentally, proved to be ineffective. What is more, this approach also generated people's lack of trust in institutions, which worsened the likelihood for them to act environmentally (Blake, 1999). The communities in Blake' study were located in the Global North. Thus, when comparing their set of practical, socio-economic and individual barriers with the barriers faced by Uphill community in the Global South, the magnitude of the effects of such obstacles on people's actions becomes even greater here. Secondly, despite advocating for proper waste management being a commendable attitude to promote in students' sustainable behaviour, it did not take into account the fact that, according to the dynamics of local social relations, community members would not welcome being told how to handle garbage by children. In this view, another activity suggested in the Grade 4 syllabus too was to be considered unfeasible:

> "'Parents/guardians can help children to create plans/rules to minimize/prevent pollution and enforce these. Sort garbage at home or in the community. Start a compost heap at home or in the community.'" (NSC, 2017)

This unfeasibility was due not just to the existing hierarchical power-relations among older and younger community members, but also to the fact that adults did not have adequate options that allowed them to correctly dispose of garbage. Similarly, activities within the Grade 5 Social Studies syllabus such as:

> "'Parents/Guardian can assist students to explore the habitat/s of plants at home or in the community. Students should be encouraged to set up or care for a green area at home or in the community.'" (NSC, 2017)

did not correspond with local practices. As I illustrated in chapter 5, the majority of community members (e.g. students' parents) were not inclined to undertake gardening and farming activities within their households and community.

I could find further contradictions in the Grade 6 Social Studies syllabus:

> "'Analyse the purpose and enforcement of local laws and international agreements that are in place to protect the atmosphere and propose amendments to these or suggest new laws/agreements. Assess the role of citizens, the government and non-governmental organisations in protecting the atmosphere.'" (NSC, 2017)

On the one hand, these activities held the potential to encourage students to develop critical thinking and alternative solutions. However, the fact that students repeatedly witnessed the lack of enforcement of local laws and the inefficiency of local environmental policies (see issues related to burning of garbage, of sugar cane, damaging of bamboo etc. in chapter 5) would make the scope of this exercise quite vain. This activity, in fact, requested students to suggest improvements to laws that, anyway, were not going to be efficiently enforced or monitored by the government. Similarly, in relation to the topic of air pollution in the Grade 6 syllabus, some activities suggested: "Each group will then make suggestions about changes they can make to lifestyle and consumption patterns to reduce their contribution to air pollution" (NSC, 2017). These activities were inconsiderate of the fact that most of the students belonged to a socio-economic background that did not allow them to choose among different lifestyles and consumption patterns. This type of activities could, instead, contribute to the further marginalization of disadvantaged students from the environmental discourse, rather than critically engaging them (Courtenay-Hall and Rogers, 2002). To provide an example, even if students advocated for stopping the burning of garbage within their households, they would still witness the burning of sugar cane at a larger level in the estate located opposite Uphill community.

Implicit in these contradictions there were two main factors. Firstly, the mismatch between suggested activities and local realities echoed a wider issue related to the fact that the conception of sustainable learning in Jamaica was a result of an attempt to align with an ESD paradigm that was originally defined in the context of the 'Global North' (Down and Nurse, 2007). Specifically, the national/local level mismatch mirrored the Global North/South mismatch. As indicated in chapters 1 and 2 and as noted by Bass and Dalal-Clayton (1995), most environmental programmes and plans in the island were supported by and adopted from international organisations such as the UNEP (United Nations Environment Programme) and the World Bank. More precisely, it is worth bearing in mind that, as outlined in section 2.2, Jamaica's commitment to international ESD agreements had been associated to international funding for

the country's development (Terry and Hill, 2006). As a consequence, following structural adjustment programmes, the country experienced high unemployment levels, increased levels of poverty and inequality, as well as several social problems which all contributed to making its population vulnerable (Mishra, 2013). Therefore, as advanced by Jickling in Terry and Hill (2006), part of sustainable learning, especially in a country located in the Global South, should include teaching students also about the various interests that underlie ESD discourses and provide them with the opportunity to explore and develop criticism to said discourses. As covered in the introductory chapter to this thesis, indeed, sustainable learning approaches rooted in eco-pedagogical and post-colonial theories would serve this purpose by supporting learners in deconstructing underlying ideas of economic growth, progress and development and promoting social change towards socio-environmental justice (Andreotti et al., 2018; Misiaszek, 2018). In particular, in the Jamaican context this would entail –as pointed out by Mishra (2013, p. 43)- taking into consideration issues of "poverty and inequality, debt, ill-health, poor nutrition and environmental degradation" and developing a sustainable learning approach that supports people in overcoming common attitudes of distrust. Secondly, the disconnect between the curriculum and the feasibility of its activities reinforced the previously mentioned tendency towards assigning individual responsibility to people for environmental care, even when this was not supported by adequate government provision of assets and resources. As showed by Kollmuss and Agyeman (2002), in order to effectively and positively influence people towards environmental and sustainable behaviours, there is need for synergism between internal and external factors. Notably, internal components such as individuals' knowledge, values and attitudes need to be supported by external elements that include socio-economic, infrastructural and political conditions.

I further develop remarks on the relationship between internal and external factors affecting sustainable practices in section 6.6 on further considerations, where I link the inconsistencies examined here with broader issues at the national level. Meanwhile, in the following section, I present an interpretation of the thematic areas identified in the field work findings in relation to the notions of transmissive and transformative learning, with reflections on the role played by social learning and in connection with national and international ESD policies.

6.5 Sustainable learning in Uphill school and community

In the sections below I examine the themes identified in the fieldwork findings (i.e. issues around learning, issues around local values and issues around leadership) in light of the notions of transmissive and transformative learning, together with aspects of social learning. Determining the nature of learning processes, values and leadership in Uphill school and community can throw light on the meaning of the learning experience represented by this context. Furthermore, it can offer food for thought to connect the aspects emerging from this discussion with the elements outlined above in terms of national and international ESD policies.

6.5.1 Issues around learning

With regard to the issues around learning, one of the topics that I explored in chapter 5 was the conceptualization of the notion of environment. This notion, in line with the above considerations on the primary curriculum, was mostly related to physical spaces, such as the notion of one' surroundings, home and school compound, which needed to be kept clean, protected and beautified for specific purposes. That is to say, taking care of the environment was often related to humans' needs, such as prevention from consequences of natural disasters and economic motives. In this sense, the conception of environment that unfolded in Uphill school and community revealed a dominant transmissive type of learning, characterized by an anthropocentric and instrumental view of nature (see point 1 of transmissive learning in Table 3) and actions taken to address specific issues, isolated from wider systems thinking (see point 4 of transmissive learning in Table 3).

Interestingly, community members' practices, such as burning of garbage as a coping mechanism in response to the lack of government provision of garbage bins and adequate garbage collection, can be viewed as an extreme (and exogenously induced) form of anthropocentric and instrumental view of nature and problem-solving (see points 1 and 4 of transmissive learning in Table 3). The burning of household garbage in the house's backyard, in fact, stemmed from survival needs where, in order to keep one's surroundings clean, an environmentally unfriendly practice such as garbage burning was a desperate expedient to avoid the spread of diseases. Similarly, this practice

was intended as a quick solution to the problem of lack of adequate garbage collection.

Additionally, in the same way as suggested above, recycling activities in the primary curriculum were inconsistent with the local reality in Uphill village, as sustainable learning in school promoted recycling techniques which did not translate into practices that extended to the surrounding community. On the one hand, in fact, the lack of a recycling site in Jamaica made the exercise futile for community members, whose practice of garbage burning -again- can be related to points 1 and 4 within a transmissive approach, which seemed to display the practical impossibility to consider the interdependent relationships between humankind and nature and their intrinsic value. Likewise, community members' lack of recycling practices (including differentiated collection of garbage) can be seen as a problem-solving approach. This was triggered by survival needs and lack of opportunities to engage with problem-posing approaches that would allow them to question and actively engage in changing wider systemic arrangements. This could have been done by, for instance, self-organising at the community level and demanding government support, as in the case of Nick and Gemma's sustainable community, where he claimed:

> "WE asked the government to make sure that the bay becomes a fish sanctuary..." (Nick, nearby sustainable community leader)

What is more, at the national level, the lack of a recycling site due to lack of economic incentives (as explained by the solid waste manager) reinforced the perceived instrumental value attributed to nature within a transmissive approach (see point 1 in Table 3). Studies (Seyfang and Smith, 2007) have, in fact, demonstrated the crucial importance of government policies and support for the long-term success of community-based sustainable initiatives.

Another aspect investigated in the issues around learning was related to environmental practices that derived from the envisioning of the environment mentioned earlier. These practices, extensively covered in chapter 5, included tree planting, school compound clean-ups, adequate garbage disposal using recycling bins in the school compound, organic farming and composting, environmental research and restoration projects and community outreach. Many of these activities were initiated thanks to and carried out with the support of external agencies such as JET. In these regards, observations and interviews revealed that the impacts of such activities fostered more elements belonging to the transformative learning approach, such as learners' realisation

of the intrinsic value of the environment through experiential learning, where students expressed the importance of planting and nurturing plants because 'it is good' and 'it feels good'. Thus, the fostering of self-reflection and critical thinking spurred a sense of interconnectedness between humans and nature (see point 1 of transformative learning in Table 3) and a sense of engagement with the surrounding community at large, as a result of a more multi-disciplinary approach involved in these activities. Furthermore, in undertaking these activities students were able to employ their own knowledge and to participate to the co-construction of knowledge with their teachers (see points 1, 3 and 4 of transformative learning in Table 3).

Despite the activities promoted by JET often being part of broader school competitions (see details in section below), in comparison to other sustainable learning practices undertaken by Uphill school, those related to JET shifted from an outcome-oriented focus to a more transformative learning process-oriented, when they were considered as steps in a long-term sustainable learning process (see point 5 of transformative learning in Table 3). As often reiterated by teachers, in fact, the aim of these practices was for students to learn their importance through experience and, thus, to transmit them to other community members and further generations, irrespective of whether they were successful in the competition results in the short-term. This view of sustainable learning as a transformative process rather than set of outcomes recalls Jickling's words (in Jickling and Sterling, 2017, p. 27):

> "Given that transformative moments exist beyond the capacity of language to fully describe, it is doubtful that they can be measured or evaluated in a schooling context. Any analysis is possible only in hindsight. Even though this understanding cannot be measured, it still exists. Inclusion will require more than market-driven and outcomes-oriented visions of education."

It is important to note here that, as mentioned in section 6.2, the occurrence of more transformative learning approaches in Uphill school was linked to the external influence of CSOs in juxtaposition to the inherently transmissive mode characterizing the formal education system. Curiously, perspectives expressed by a member of CSOs echo the transmissive modes observed earlier. She expressed, in fact, that a system of punishment/reward (see point 3 of transmissive learning in Table 3) was at the basis of traditional learning in school. This is why sustainable learning in Uphill school drastically differed from the behaviour observed in the community, where the same system of incentives/punishments was not enforced.

Recalling from chapter 5:

> "typically, in Jamaica […] the school environment is considered as a unit… ordered, specific rules at school, but what you find is that those rules are not necessarily, or those rules, or those ways of thinking are not necessarily enforced in the community. Especially when you're thinking about things like solid waste, you know, when you're talking about in the school environment, if you litter, you are punished right?!…" (JET CEO)

Notwithstanding the above remarks about the transformative tendency of activities introduced by JET, having to meet competition deadlines resulted in the initial transformative learning method of these activities to change towards the end. When the 'judgement' time was about to approach, in fact, often a more transmissive attitude to sustainable learning was employed, where teachers would adopt a banking education approach to prepare students to perform well for the judges (point 2). In like manner, there would be a shift toward short-term learning outcomes (point 5) in order to score more points and be awarded in the competitions. This shift also entailed lack of time for a student-centred and problem-posing approach and the need to resort to problem-solving (point 4) and teacher-centred learning processes (point 3).

Another obstacle to the potential of the transformative learning elements highlighted above can be noted through the lens of social learning theories. The local customs and practices to which students were exposed in the community surrounding the school, in fact, were often contrary to the environmental behaviour promoted in school. Firstly, in fact, local social power-relationships did not easily welcome the idea of younger community members instructing older ones about how to change their behaviour and these were often received with reluctance and even contempt. As a consequence, these curbed the transformative process that was initiated within the school environment. Secondly, certain environmentally-friendly behaviours undertaken in school (e.g. garbage-collection from the school compound) were perceived as degrading from local community members and were, thus, treated with disdain. Differently, environmentally-friendly practices that were associated with monetary returns (thus exhibiting a behaviourist approach (3) within a transmissive mode) were eagerly undertaken within the community, such as in the case of separate collection of glass bottles. In these regards, considerations advanced by Kollmuss and Agyeman (2002, pp. 242, 250) are relevant and insightful, as they explain that, on the one hand, "normative influences" that include unsustainable social, cultural and family customs beliefs and practices

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are likely to hinder environmental actions, even in individuals with pro-environmental attitudes. On the other hand, they also suggest caution in proclaiming the success of incentive-based strategies such as economic rewards that generate sustainable behaviours which are not rooted in pro-environmental values. They propose, in fact, that the quick results achieved through these strategies incur the risk of not being long-lasting, as they could equally quickly be overturned by incentives that promote unsustainable models.

An analogous instance of disconnect between sustainable learning and practices in school vis-à-vis communities was observed by Sutherland and Ham (1992) in an ethnographic study conducted in Costa Rica. Here, the authors found a general lack of transfer of environmental knowledge between schools and communities through the 'child-to-parent' transfer. They concluded that more emphasis was needed on devising non-formal adult programmes in connection with creating opportunities for adults to directly receive the same environmental knowledge conveyed to children.

The importance of social learning aspects emerged also when extreme events took place in Uphill school, such as damaging of the school organic garden and stealing of school materials by community members, as well as students 'thiefing' (i.e. stealing) money from teachers. These were representative of the perception of power-relations between the school as emblematic of a government agent on the one hand, and local community members on the other. The occurrence of these incidents can be seen not only as hindering the transformative learning process extending from the school to the community, but also as an alarming manifestation of the consequences of the failure of the government in supporting local people's needs. An analogy can here be drawn with Prentice's (2015) study with factory workers in Trinidad. What she labelled as 'thiefing a chance' in her work refers to factory workers of a fashion firm who would illicitly steal garment items from the factory or use new machines to produce surplus clothes to sell independently for their own (although small) personal gain. 'Thiefing a chance', hence, is viewed here as a response to the effects of capitalistic and neo-liberal principles that have historically been imposed on Caribbean people, whose identities have been shaped accordingly by developing the same individualistic materialistic traits promoted by neo-liberal trends. These traits lead to seeing 'thiefing' as a legitimate way to grab a chance for one-self and to enact agency, in a system where people perceive this as being the model represented by the government, whose lack of support deprives them of agency.

Another consequence of the tensions observed in relation to power-relationships in Uphill settings, and hence highlighting the crucial role of using a social learning lens to interpret them, characterized another aspect identified within the theme of issues around learning. This, in fact, is related to attitudes of resistance to learning and/or change, which took place both within and outside the school. Details of these events can be found in section 5.2.5, however instances of resistance were often both the result and further reinforced the use of transmissive modes of learning. Several times, in fact, resistance to learning and/or change from both students and community members resulted from a lack of material incentives to perform sustainable behaviours. Lack of display of prescribed sustainable behaviours were usually met with punishments of various type, thus increasing a transmissive and behaviourist approach and creating a vicious cycle within the same.

An interesting perspective on resistance to learning, which relates to Uphill school and community, is offered by Illeris (2007). He explains that learners can develop an attitude of resistance due to various reasons. Of relevance here are reasons related to "something one, for one reason or another, regards as so unacceptable that one either cannot, or will not, put up with it" (Illeris, 2007, pp. 171, 172). At the same time, though, the author recognizes the potential that resistance constitutes within a societal and a learning perspective. In the former, resistance is viewed as a way to rectify the practices of those in power. In the latter, resistance offers the opportunity to formulate alternative learning approaches. In the case of various attitudes of resistance displayed within Uphill school and community, thus, these can be viewed as an opportunity and need to improve structural issues that induce community members to resist the sustainable learning promoted through the school and government agencies. Similarly, students and school staff's resistance to sustainable learning (or to changed behaviour) could be considered as a chance to adopt different learning approaches to sustainability, as an alternative to the dominant transmissive one.

An inherently transmissive approach to learning could be acknowledged in another topic within the theme of issues around learning, namely that of a system based on competitions and rewards, which implied the environment's commodification. This topic, by default, showed connections with an anthropocentric and instrumental conception of the environment (point 1); a banking system of education (point 2), where teachers prepared students to perform well in competitions (points 3, 5), often having to hasten at the last minute, despite an initial intention to focus on co-constructing knowledge and

on the learning process; and a problem-solving approach (point 4), where specific tasks had to be carried out according to the outcomes required by the competitions. In contrast, activities that were not related to competitions and material rewards, such as school and beach clean-up days, did not encounter widespread participation neither from students nor from school staff, thus further confirming the predominance of a transmissive mode.

In this section, I discussed the connections between issues around learning emerged from the findings, the primary school curriculum and broader ESD policies. A common thread could be observed among these, where (with the exception of CSOs' sustainable learning activities) the predominance of an anthropocentric, transmissive and market-oriented model was accompanied by the presence of transformative elements. These occurred mostly in the language of both ESD policies and of the curriculum, while a gap between paper and sustainable learning practices was observed. I identified the actual lack of sustainable practices beyond Uphill school settings and attitudes of resistance as implications of these gaps, especially when sustainable behaviours were not encouraged through material rewards. I also considered these implications at the local level as a reflection of the effects of the broader neo-liberal scenario within which sustainable learning and larger ESD policies are framed.

In the next section, I look at the second thematic area determined in chapter 5, namely issues around values, and I relate it to larger policy issues.

6.5.2 Issues around values

The elements of competitions and commodification of the environment, which revealed an anthropocentric, instrumental and material approach, were (as presented in chapter 5) reflected in the local cultural values observed within Uphill community. Local culture was, in fact, characterized by the tendency to consider natural resources as an economic asset for tourist attraction. This, notably, was an effect of external economic policies undertaken by the country, but it was nevertheless assimilated by local community members. Furthermore, these views were also reinforced by the fact that the local population often had to prioritize survival issues such as earning money to afford to purchase food, lack of access to running water and electricity (Briggs et al., 2018). The need to cope with these circumstances often prevented local community members from

being in the position to consider environmental issues as intrinsically valuable, as engaging in transformative practices in these regards did not allow them to gain any short-term result. Uphill community members' orientation to favour short-term material gains needs to be considered in combination with the external influences brought into the picture by globalisation and capitalism, where the model perpetuated by the Global North fuelled the development of fashion, modernity and a 'get-rich-quick' mentality. This mentality translated into the attempt to obtain and display material items that could portray a better social status for individuals than the one of deprivation they currently lived in. It follows from this that activities such as farming and adopting sustainable lifestyles were in contrast with the dominant mentality and, as such, resulted as unappealing to people.

Transformative approaches such as problem-posing and critically questioning of the current circumstances, where envisioned solutions would entail engaging in practices that would bring about long-term results, were in opposition to the local reality and values based on the assimilation of consumeristic attitudes. This is all the more the case if one considers the lack of support that local community members received from the government in order to engage in transformative practices.

Of interest were also the topics identified as local counter-culture and values, where two members of the Rastafarian movement had opposite ways to react to present circumstances, although sharing a similar view on environmental and sustainability issues. The perspectives shared by one of them were more aligned with the elements of a transformative approach, where the interdependence between humankind and the environment and their intrinsic values were acknowledged. He also strongly advocated for the need to actively question current systemic arrangements to bring about change. The position of the second Rasta research participant, instead, displayed mixed elements of both a transmissive and a transformative approach. On the one hand, in fact, he agreed with the interdependence of humans and nature and their intrinsic values. On the other hand, though, he expressed agreement with embracing a business and market approach to environmental questions, through the use of the environment's commodification and a reward system to solve specific problems and obtain short-term results. On the whole, Rastafarian perspectives and values can represent a transformative potential in supporting the implementation of sustainable learning, redefining the humankind/environment

relationship, as well as challenging larger systemic paradigms (Clarke and Agyeman, 2011; David, 1998; Sibanda, 2012).

In accordance with prevailing anthropocentric and instrumental values, religious values too reinforced these perspectives. In the local religious views, in fact, hierarchy characterized both spiritual approaches between God and humankind and between humankind and nature.

Finally, the recurrence of dominant anthropocentric and transmissive approaches combined with limited transformative elements (e.g. CSOs sustainable initiatives in the context of learning and Rastafarian values in relation to issues around values) both within issues around learning and around values, displays a common thread. This thread is interwoven through international and national ESD policies, community and school learning processes and practices. Therefore, in order to further refine the details of this overall picture, in the following section I delve into the connections between issues around leadership identified in the findings and their relationship with ESD policies and sustainable learning approaches.

6.5.3 Issues around leadership

Together with the influential role played by CSOs in advancing more transformative learning practices, leadership was another theme which emerged as having an important role in these regards. Similarly to the approach adopted by the second research participant of a Rastafarian background, Uphill school principal embraced the features of the current system based on competitions and rewards, which derived from a neo-liberal imprint. Although (as seen in chapter 5) she had introduced sustainable learning in Uphill school even before starting to take part in competitions, she then resorted to aspects of transmissive learning when she had to ensure that the school performed well in these occasions.

According to the perspectives that she shared and the sustainable practices that she enacted and promoted in Uphill school, her broader outlook was aligned with the elements of the transformative mode as well, as expressed in her words in chapter 5:

> "[...] it [sustainable learning] is good for the children and, when you are in a school, our school is designed to be a change agent right? [...] And we want them to take the idea back into the community, because the idea is for them to, to spread [to] the whole world the idea to be clean and to be environmentally conscious, so we teach the children here with the hope and the vision that they'll take whatever they learn back to their community..." (School principal)

This could also be noticed in other occasions mentioned in chapter 5. For instance, when she expressed her concerns about the consequence for students' learning caused by teachers' lack of continuity in practices related to organic farming; when she saw failure in competitions in constructive terms, as part of a broader and long-term learning process; or when she actively engaged in trying to involve community members with school sustainable projects to spur change in community practices and also through her daily active involvement in such activities (see section 5.4). The importance of her influence as a leader could be observed with regard to the fact that, when she experimented with not being the primary guiding force in some projects, the rest of the school staff did not invest the same amount of energies in those activities either.

Similar remarks about the crucial role of leadership in promoting transformative learning processes, while at the same time embracing aspects of transmissive ones to achieve short-term results, could be found in the perspectives shared by leaders of nearby communities. They had, in fact, been

able to involve local community members in sustainable practices by being the primary examples of the feasibility of engaging in practices aimed at achieving long-term results, while at the same time satisfying short-term needs related to survival. By contrast, an example of a community where leadership was not thoroughly implemented showed the inability to manifest transformative processes (see section 5.4). Here, the continuation of transmissive practices was led by dominant local cultural values (based on quickly achieving short-term material gains). These values were antithetical to transformed perspectives and practices, based on a long-term vision achievable through gradual steps in the transformative journey to sustainability.

Connected with the aspect of leadership was also the sense of camaraderie developed by most of the teachers in Uphill school. When this sense manifested, in fact, more transformative processes occurred as well. These were displayed by teachers who connected their engagement to school sustainable projects with their own individual experiences and practices at home. Thus, them engaging in these activities with a sense of personal sentiment and involvement constituted an example for students to take part in environmental practices for their intrinsic value and in combination with enacted sustainable lifestyles (e.g. when teachers explained the connections between growing one's own vegetables and healthier eating patterns in comparison to the more popular ones related to fast-food chains).

The fundamental role played by the element of leadership in supporting transformative approaches to sustainable learning can be further emphasized in consideration of the lack of having ESD as a discrete subject within the curriculum. This lack was, in fact, another topic identified in the findings of this study. School leadership was necessary when teachers had to effectively plan sustainable environmental projects within the already overwhelming syllabus they had to cover on a daily basis.

As emerged from section 6.4, the infusion of sustainable learning within already existing subjects was not conducive for transformative learning processes to take place. If one considers that the overarching approach to learning was strongly transmissive in nature, then the ideally transformative ethos of ESD tends to vanish when this becomes interspersed across various subjects. One of the purposes of a transformative approach is, in fact, to approach sustainable learning from a multi-disciplinary viewpoint. That is to say, not merely infusing environmental topics across subjects, but rather approaching sustainable learning issues through the variety of conceptualisations and practical skills

offered by different subjects. This approach also needs to have a clear overarching aim towards sustainable learning. This aspect also entails concerns related to teachers and teaching, as a curriculum containing distinct sustainable learning aims and objectives (supported by related revisioned teachers training) would facilitate clarity about its implementation (Ketlhoilwe, 2007; Paredes-Chi and Viga-de Alva, 2017). Specifically, the potential contributions of each subject need to be understood in terms of their role in enabling learners to re-envision and engage in re-shaping interdisciplinary relationships within the larger ESD framework (Stables and Scott, 2002). As observed, for instance, in the remarks contained in a recent study of the 'transversal'[4] implementation of ESD in the Mexican curriculum, mathematical competencies could be used for the analysis of "the production of waste in the community" (Paredes-Chi and Viga-de Alva, 2017, p. 571). Similarly, history could include the study of the evolution of environmental issues for learners to historically contextualize present challenges. This would allow them to understand the interrelation of wider socio-economic and political paradigms influencing the environment (Paredes-Chi and Viga-de Alva, 2017). As a consequence, learners could understand the need to act on those interrelated paradigms, instead of their thinking and acting being limited to the solution of isolated environmental issues (Fien, 1993).

In order for this to occur within a problem-posing teaching approach that challenges the current transmissive mode of learning and, as a consequence, that fosters higher order of learning for learners to envision alternative paradigms, sustainable learning certainly needs to be determined as a discrete subject. Having it infused in different subjects rather than as a discrete one continues to perpetuate the broader transmissive approach and contributes to denying the intrinsic value of the environment. It could reasonably be argued that introducing sustainable learning as a discrete subject within an education system highly dominated by a transmissive imprint could undermine its transformative potential. However, if planning, implementation and assessment of sustainable learning are carried out through activities other than test-oriented learning and guided by, for instance, the cultivation of the five points of transformative learning identified in Table 3, there is hope for a shift in sustainable learning experiences within schools (and between schools and communities).

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[4] In the cited study, the meaning of the term 'transversal' in the Mexican curriculum is similar to the 'integrated' approach of ESD in the Jamaican curriculum, where ESD 'topics' are infused across subjects.

As noted by Bonnett (in Jickling and Sterling, 2017), traditional educational structures formulated prior to the introduction of sustainability elements into the school curriculum are often not born of the same inclinations imbued within sustainable learning. Including sustainable learning within the curriculum, thus, necessarily requires re-thinking of the very underlying motives of the educational structures of which it becomes part. In this study, as already remarked in the sections above, the framing and implementation of ESD in Jamaica occurred in an educational context that mirrored broader sustainable development national policies and institutional arrangements, which in turn were shaped by the influence of external neo-liberal values and trends led by profit-making and consumerism. This framing suggests the need to prioritize ESD at the systemic level and sustainable learning in the curriculum for its effective implementation, by taking into consideration the perspectives of educational leaders in the policy-making process (Cutter-Mackenzie and Smith, 2003; Stevenson, 2006).

The picture that emerged at the end of the previous section, based on the analyses of issues around learning and values, was characterized by a thread interwoven through ESD policies and school and community practices. Here, anthropocentric and transmissive approaches were recurrent, with limited instances of transformative elements in the case of CSOs and Rastafarian values. Therefore, a multi-layered thread can be drawn, by adding another layer to the one determined in the previous section. In this multi-layered thread, leadership can be seen as an element that, together with CSOs' initiatives and Rastafarian values, contributed to supporting transformative processes within sustainable learning. Akin to the role of CSOs, leadership also contributed to compensating to the lack of having ESD as a discrete subject, by fostering initiative and activities of a more transformative nature. Like in the case of CSOs -which adopted a set of competitions, rewards and transmissive approaches, despite being led by transformative aims- the fact that leadership was embedded in a system dominated by a profit-making and materialistic outlook affected the way it was implemented. Its implementation included transmissive approaches to achieve short-term results, which were envisioned as steps within a longer-term transformative process for Uphill students and community.

Finally, I visually portray the analysis discussed above in Table 4 below, where the complexity of ESD in the Jamaican context can be observed. As explained in the above discussion and as described in chapters 2 and 5, the

predominant transmissive approach is evident in both ESD policies and national primary curriculum, in opposition to the approach undertaken by CSOs, which are significantly more conducive to advancing a transformative approach. The case of Uphill school and community is, though, of particular interest as it clearly shows the co-existence of both transmissive and transformative forces. This co-existence, perhaps, can be symbolic of the fact that schools and communities are the spaces where the implementation of strongly transmissive government ESD (national and international) policies and more transformative CSOs initiatives merge with local cultural values. As a consequence, Uphill school and community displayed all the aspects of both approaches, although in varying degrees, where the transmissive approach still dominated and the transformative one could be viewed as a potential to further develop and manifest in the future. This situation can also be viewed as a reflection of what Sterling (2003) and Morgan (2007) stated with regard to the functioning of different orders or levels of learning within a spectrum. Both authors, indeed, underlined the fact that, in order to achieve higher order/levels of learning of a more transformative nature, it is necessary to first develop learning of the first level/order, which is inherently more transmissive (Morgan, 2007; Sterling, 2003).

In this contradictory scenario where transmissive and transformative learning modes co-existed, the perspectives shared by the school chairperson can be viewed as having a reconciliatory effect. In her view, indeed, a shift toward a more transformative attitude would gradually take place over the long-term and over generations, when local values and customs will slowly align with the sustainable learning conveyed through education. What can be looked at as being long-term beneficial practices of Uphill school are the fact that students and community members were told about the beneficial outcomes that some activities can have for all (although at present they were still met with some resistance). As showed in a study by Piasentin and Roberts (2018), in fact, awareness of future positive effects -among others- contributed to encouraging a paradigm shift and engagement in action in university participants of a sustainability course in New Zealand. A Jamaican example of effective transformation is constituted by the 'Change from Within' (2005) programme for disadvantaged schools in urban areas. Within an ESD framework, through participatory intervention, this programme successfully addressed aspects related to students' achievement, reduction of school violence and children and parents' connection to the school. Its multi-level approach was key to its success, where participatory interventions included individual students, schools,

parents and households, and whole communities (Change from Within, 2005; Ferguson and Chevannes, 2018). Advancing programmes that strengthen the links between schools and communities would certainly be advantageous with regard to sustainable learning too.

However, if this shift is to be manifested in its full potential, it also needs to be supported by broader changes in national and international government policies and practices to ensure adequate access to and provision of resources for local community members.

Table 4 ESD in the Jamaican context

	Transmissive learning					Transformative learning				
	1	2	3	4	5	1	2	3	4	5
ESD in Jamaican policies	x			x	x	x			x	
ESD in Jamaican Primary Curriculum	x	x	x	x	x		x	x	x	
ESD in Uphill school and community	x	x	x	x	x	x	x	x	x	x
Jamaican CSOs						x	x	x	x	x

After having connected themes from the findings to how sustainable learning is formulated within the primary curriculum and with broader ESD policies at the national and international level, in the section below I reflect on the issues emerged from this discussion. This exercise will be useful to determine the lessons and concerns arising from this research study, together with providing food for thought for ESD policy recommendations and for directions of further research.

6.6 Final remarks on sustainable learning in Uphill community, Jamaica and the broader ESD framework

In this section, I synthesize the insights outlined in the discussion above, where ESD in Jamaican policies, primary school curriculum and Uphill school and community were looked at through the lens of social, transformative (vis-à-vis transmissive) and sustainable learning. I then determine the remarks from this synthesis, in order to define the recommendations of this study and to highlight areas for future research in the next chapter.

The inconsistencies between specific aspects of the primary curriculum and local realities of learners reflected broader incongruencies occurring at the national level between policies and their implementation. At the institutional level, the structure of the ministries resembled the structure in the curriculum at the primary level. As remarked in section 2.2, there was, in fact, not a discrete ministry for the environment in the same way as the curriculum did not contemplate a discrete sustainable learning subject. This was, instead, integrated throughout the curriculum, akin to how environmental questions were expected to be integrated across all ministries. Additionally, the way sustainable learning was integrated in the curriculum by, for instance, framing the importance of environmental protection in relation to boosting the tourism sector in Jamaica, could be seen as a reflection of how the current MEGJC has replaced the former Ministry of Water, Land, Environment and Climate Change. The newly named ministry, in fact, has placed a stronger emphasis on economic growth than on environmental protection and sustainability. This fact, perhaps, is symptomatic of a systemic lack in the approach to ESD in Jamaica, as noted by Prof. Lorna Down: "What has been achieved so far is a general framework that includes ESD – objectives and topics that are related to ESD. The challenge of a comprehensive, systematic approach to learning for sustainability, however, remains. How this is to be achieved requires further research" (Down, 2006, p. 397). Furthermore, this top-down effect recalls both the lack of focus on socio-environmental justice as a result of market-driven neo-liberal policies (Misiaszek, 2018) and Bristol's (2012) discussion on the effects of a 'plantation pedagogy' model on education systems in Caribbean and post-colonial countries, where both the structure and ideological values propagated by the Global North are perpetuated in the Global South (see Chapters 1 and 3).

Similarly, continuing systemic issues for ESD in general were recently identified by David Orr in his contribution to the foreword of Jickling and Sterling's (2017) book, where he stated: "There can be no serious discussion about any environmental topic without understanding the larger system in which it is a part" (Jickling and Sterling, 2017, p. vii). Furthermore, the connection between the structure of sustainable learning in the primary curriculum and the structure of the ministries at the national level recalls links with the shift in the national policy focus, as a reflection of broader international neo-liberal tendencies influencing international donor agencies in Jamaica. Linked to this last aspect is also the consequent commodification of the environment within a neo-liberal framework, where responsibility for acting sustainably is placed on individuals rather than on structural and systemic issues (Coffey and Marston, 2013).

Another aspect inherent in the notion of environment being conceived as a resource/commodity (hence instrumental) vis-à-vis its intrinsic value is a hierarchical relationship between humans and nature. In this relationship the rights of humans are above the rights of nature, thus establishing the latter's subjection to the former (Terry and Hill, 2006). As noted by Ferguson (2008), this paradigm is problematic also because the environment is taken care of only in virtue of its usefulness for humankind and, in case this usefulness ceases, then there would be no longer a reason for humans to protect nature. This conception reinforces an anthropocentric paradigm and a transmissive mode of learning that is not conducive to learners' transformed perspectives. This aspect was already recognized more than two decades ago in the *National Environmental Education Action Plan for Sustainable Development in Jamaica (1998 - 2010)* in relation to the old curriculum, but is still relevant to the new one too. A study conducted by Pam Morris, in fact, highlighted that, despite the Social Studies curriculum including an emphasis on traditional practices, both this and the Integrated Studies curriculum mainly focused on the effects of human action on the environment. In this way, "issues of sustainability, citizenship and social justice are largely ignored" and there is a lack of stress on "action-oriented" and "critical thinking skills", besides the fact that rather than environmental issues being integrated in all subjects, these are concentrated in the Social and Integrated Studies subjects (NEEC, 1997, pp. 49, 50).

These considerations that acknowledge the unaddressed absence of a critical and multi-disciplinary approach in the primary school curriculum stand in

contrast also with the *National Standards Curriculum, Philosophical Statement, Social Studies, Grades 4-9*:

> "In a rapidly evolving technological age, with new and emerging problems such as those associated with climate change, citizens must be able to evaluate situations, solve problems, create and innovate solutions" (NSC, 2017, p. 2)

and with the stated Aims of Social Studies:

> "[…] acquire skills and competencies, which will enable them [students], to examine and analyze concepts related to culture and the physical environment as well as to appreciate the symbiotic nature of the relationship between man and his environment…" (NSC, 2017, p. 12)

Furthermore, the current structure and content of the curriculum do not sufficiently reflect the *Science Curriculum Framework for Grades 1-9* either, which states:

> "The Grades 1-9 Science Curriculum is predicated upon the constructivist approach to learning in that it creates, through a variety of learner-centred instructional methodologies, 'hands-on,' 'minds-on,' and 'real world' experiential opportunities for exploring, catering to multiple intelligences and, in the early years (Grades 1-3), makes the most of the pedagogy of play […]" (NSC, 2017)

Among the attainment targets for Grades 4-6 stated in the *Framework* it is mentioned: "[to] Recognise the variety of living things, their interdependence and their inter-relationship with the environment", which gives the impression of having moved away from an anthropocentric conception and transmissive approach towards a more equitable view in the relationship between humankind and the environment as well as a more transformative pedagogical approach.

The analysis also reveals that the language at the national policy level (following ESD international policy trends) seems to have shifted in terms of overcoming an anthropocentric view and a transmissive type of teaching and learning. However, when looking at the primary curriculum and at the practices of teachers, students and community members, these are still rooted within a transmissive and anthropocentric pedagogy. This aspect bears implications related to the importance for teachers to experience the shift from first level to third (or fourth) level of learning, with a view to enabling them to implement this more transformative approach in their teaching practice (Morgan, 2007). In fact, a study by Jennings in Gentles and Scott (2009) conducted on the challenges for teachers in Jamaica's primary schools in relation to the implementation of

constructivist (hence a more transformative approach to knowledge production) pedagogies pointed out that, while these learning approaches were taught in teacher training, the pedagogies used to train future teachers were still based on transmissive and behavioural approaches. These concerns are not unique to Jamaica. Analogous questions related to the policy and practice gap within ESD approaches emerged, for instance, in rural Zimbabwe longer than a decade ago. Here, in fact, limitations represented by transmissive teaching approaches (adopted to comply with a heavy curriculum content and an exam-oriented school system) and lack of connection with local community's culture and practices revealed a disconnect in sustainable learning between schools and communities (Chikunda, 2007).

Other elements identified above that recall the gap between the curriculum and the reality in schools and communities, in relation to the unfeasibility of certain activities suggested in the curriculum, were already mentioned in the NEEAPSD as well. This document, by referring to a study by Bailey et al. in 1996, identified lack of regularity in pupil attendance and lack of instructional materials, as well as teacher competence and disruption of classes due to special events preparation or teachers' attendance at seminars/workshops and "shortfall in equipment, inadequate classrooms, and overcrowding" (NEEC, 1997, p. 51). Additionally, as remarked in Terry and Hill (2006) and as part of the incongruencies surfaced in section 6.4, often the teaching of sustainable learning occurs in a context where its very core values are in stark contrast with the realities within schools and communities, as when schools are characterized by issues of "inequity, illiteracy and a lack of mutual respect" (Terry and Hill, 2006, p. 108). In these cases, efficient teaching of sustainable learning cannot take place unless such issues are first, or concomitantly, addressed.

In these regards, the themes emerged from this study recall issues that Bass and Dalal-Clayton (1995) had already pointed out with regard to sustainable development in small island states more than twenty years ago. In their study, in fact, some of the features that they identified referred to the fact that, often, external sustainable development initiatives were met with attitudes of resistance, due to a lack of internalisation of strategic planning and limited resources. Furthermore, they noted the importance of the involvement of local CSOs with government agencies in planning and implementing sustainable development initiatives, in order for these to be effective. Similarly, a more accurate consideration of the relevance of externally devised programmes to

local cultural values was recommended, together with due consideration to be paid to the needs of local contexts. Adopting these measures was considered as imperative to ensure a more meaningful and participatory approach at all levels of implementation of sustainable programmes.

These perspectives were confirmed by a recent study by Down and Down (2008, p. 178) on how to devise efficient ESD projects, where they concluded that:

> "the core belief of the implementers studied is that "change must come from within"; it must not be imposed, and that has led to their insistence that for change projects to be successful, there needs to be shared leadership and collaborative work among all the participants involved. In addition to this they believe that the project should evolve organically as change is a process. Most important, implementers need to have passion, drive and commitment and believe that positive change is possible."

The findings from this study also recall the successful aspects of the leadership methods observed in Uphill school and in the nearby sustainable community visited, where positive outcomes were related to initiatives at the community level characterized by cooperation among members and based on a vision for change.

Nevertheless, as observed in the context of Uphill school and community, many of the old challenges are still currently present and remain unaddressed, as global and national approaches to ESD have not been yet entirely revised.

In this part, I have considered the relationship between curriculum/local reality gaps and corresponding national/international policy gaps, which will provide the basis for the policy recommendations and suggestions for further research that I suggest in the next chapter.

6.7 Conclusion

In this chapter, first I analysed the Jamaican national sustainable development and ESD policies through the lens of the notions of social, (transmissive) transformative and sustainable learning. From this examination it emerged that policies can be defined as mainly anthropocentric and transmissive in nature, despite the more recent policy language displaying more transformative features. In this context I considered CSOs to be an exception, where I could observe more transformative features.

Afterwards, I took into consideration sustainable learning in the primary curriculum with reference to the research findings. I dedicated another part of the discussion to the inconsistencies that emerged by juxtaposing the primary curriculum with the realities of Uphill school and community. Such inconsistencies were found in the unfeasibility of some activities and contradictions between the content of the curriculum and local context. Contradictory aspects were found in relation to the lack of government provision of resources as well as in relation to local cultural practices.

Inconsistencies between the curriculum and local realities reflected also broader contradicting tendencies between national and international levels. These brought to light that the tendency towards assigning individual responsibility to people without adequate provision of resources percolated through the framing of ESD policies from the Global North.

I then scrutinized the conception of environment in Uphill school and community, which revealed a dominant transmissive type of learning, characterized by an anthropocentric and instrumental view of nature. These perspectives and practices were linked to local survival needs and lack of opportunities to act sustainably. An issue that emerged by linking local and national contexts was that the national focus on profit-making and economic growth reinforced local attribution of instrumental value and transmissive approaches.

Transformative aspects were found in the activities initiated by external agencies such as JET, often through rewards and competitions. However, I also acknowledged that the initial transformative learning method of these activities tended to change towards a more transmissive one at the time of judging of competitions.

In the broader discussion, the use of social learning theories helped me bring to light the discrepancies between the local practices to which students were exposed in Uphill community and the sustainable behaviour promoted in school. This resulted in the curbing of the transformative process initiated in the school. Issues of attitudes of resistance were also observed, which stemmed from a lack of incentives to act sustainably, which were met with punishments, creating a transmissive/behaviourist vicious cycle.

A common thread could be observed among learning issues in Uphill school and community, where (CSOs sustainable learning activities excluded) an

anthropocentric, transmissive and market-oriented model dominated, with the presence of transformative elements. In particular, transformative aspects could be observed in ESD policy and curriculum language, but they were not reflected in actual practices.

In the discussion on local values I highlighted that the search for short-term material gains needs to be interpreted in combination with the external forces of globalisation and capitalism, where in an attempt to model the Global North, a 'get-rich-quick' mentality was widespread and affected sustainable learning and practices. Elements of counter-culture revealed that two members of the Rastafarian movement shared a similar view on sustainability, but adopted different approaches to address them. Among values, dominant anthropocentric and transmissive approaches combined with transformative elements in limited cases (e.g. CSOs' sustainable initiatives) were observed here too.

The aspect of leadership was of particular interest, where the Uphill school principal embraced the features of the current system based on competitions and rewards, through transmissive learning, although her fundamental perspectives were aligned with the elements of the transformative mode. A sense of camaraderie among teachers was observed as an aspect related to effective leadership and supportive of transformative practices.

In consideration of the lack of having ESD as a discrete subject for sustainable learning within the curriculum, leadership and CSOs contributed to compensating for this lack, by fostering initiatives and activities of a more transformative nature.

Finally, I provided remarks where the issues identified were connected with national and international policy scenarios and their impacts defined, which bear relevance for the formulation of future policy and research recommendations. The critical concerns determined were: the lack of ESD as a discrete subject; the lack of priority of ESD at the national level; gaps between ESD policy language and sustainable learning practices observed at the local level, which reflect international donor agencies' influences not concerned with local people's values and needs; people's disempowerment and lack of government support fuelled attitudes of resistance, although the government promoted more individual responsibility for environmental protection and sustainable actions.

In view of these considerations, in the next chapter I outline policy recommendations for sustainable learning in the ESD context, in order to address the above gaps and I suggest directions for future research.

Chapter 7.

Conclusions

"I think also to a degree yes, it is bottom-up approach, but I think that also that there needs to be more priority placed on it [ESD] at a national level, and you find that that will trickle down through the political system, through the local representatives and so on... so, kind of build nationally, so you can have, it needs to kind of meet in the middle...you have the bottom-up approach of course, you have to have community groups, community-based organisations, NGOs working on the ground, but there also has to be some priority placed from some other, on the national agenda..." (JET CEO)

7.1 Introduction

The quote above is from an interview I conducted with the JET CEO, who has been working in the organisation for the last nine years. It is quite a symbolic quote in many aspects. Firstly, it comes from the perspective of an expert who has been collaborating with members of all ESD stakeholders included in this study, namely schools, communities, CSOs, government agencies and the private sector. Therefore, her direct experience with each of them allows her to provide comprehensive insights into the status of ESD in Jamaica at both the institutional and grassroots levels. Secondly, this quote concisely conveys some of the main issues identified in this thesis. That is to say, the lack of emphasis on ESD at the national level, where the political structure (e.g. the lack of a distinct Ministry of the Environment) is reflected in policy-making (e.g. the lack of ESD as a discrete subject for sustainable learning in the primary curriculum) and implementation (e.g. lack of government support, which is compensated by CSOs and leaders in schools and communities). Thirdly, the JET CEO's words "it needs to kind of meet in the middle" recall the need to bridge, through coordinated bottom-up and top-down action, the various sustainable learning gaps that have been encountered in this exploration. Namely the: school vs community transformative gap in sustainable learning; government prescription of individual responsibility vs provisions for individual empowerment gap; policy transformative language vs contextual transmissive practices gap in sustainable learning; unequal international ESD paradigm vs relevance of externally designed ESD programmes for sustainable learning in local national contexts.

Fourthly, the quote suggests a way forward similar to what was observed to be effective in this study. Akin to how -in school and communities- leaders' display of care and creation of opportunities generated people's engagement in sustainable projects, so -nationally- government's prioritization of ESD in policy-making and resources' provision would engender improved societal participation. Lastly, the final words in the quote "there also has to be some priority placed from some other, on the national agenda" also connect with broader international agreements between the Jamaican government and multi-lateral organisations, such as the World Bank and the IMF, whose structural adjustments affect the list of national priorities in Jamaican sustainable development related policies.

In chapter 2, in fact, I critically described the introduction and evolution of sustainable development and ESD policies in Jamaica since, respectively, the late 1970s and 1980s. This description revealed that, especially from the late 1980s, the initiation of IMF structural adjustments drastically shifted the focus and role of the Jamaican government, whereby incentives were provided to the private sector at the expenses of provision of welfare and policies were oriented towards maximization of productivity. This shift led to a variety of unsustainable practices, with adverse consequences for the environment in the country. At the same time, Jamaica was required to comply with sustainability and environmental protection policies and to introduce environmental education in its education system. In the late 1990s, following international developments, environmental and sustainability education were included in the national curriculum, with an anthropocentric perspective and problem-solving, transmissive pedagogical approaches. At present, the forces of globalisation and international neo-liberal reforms still impact sustainable development and ESD policies in the country. An instance of these effects was exemplified, in chapter 2, by the replacement of the Ministry of Water, Land, Environment and Climate Change with the MEGJC. With regard to sustainable learning, not being ESD a discrete subject in the primary curriculum, its implementation was shown to rely mainly on the initiatives that the JET carried out in collaboration with schools and communities. JET's sustainable learning programmes also displayed a potential for transformative learning to occur, although these activities were carried out within an education system characterized by a largely transmissive nature.

The repercussions of global influences were noticed also in the local context, culture and values of Uphill school and community. Living conditions typified by

lack of access to running water and electricity, irregular collection of garbage and inadequate provision of bins, low educational levels and unemployment co-existed with a 'get-rich-quick' mentality and dancehall culture. The latter controversially denounced poverty and inequality by promoting the emulation of a fashionable and consumeristic lifestyle modelled on the example of societies in the Global North.

I then linked the critical picture of the local context that I delineated in chapter 2 to larger issues within ESD globally (already introduced in chapter 1), where I highlighted gaps in the literature in relation to approaches to learning within ESD (Earth Charter Commission, 2004; Jickling and Sterling, 2017, Kumar, 2008; Reid and Scott, 2007; Scott and Gough, 2003; Sterling, 2001, 2010; UNESCO, 2012, 2014, 2017). These gaps included the urgency to shape sustainable learning in a holistic, dialogical and transformative manner. The way to achieve this type of sustainable learning is through a multi-disciplinary approach, which holistically includes all aspects of life. Within this sustainable learning model, political, economic, social and environmental processes become inherently and dialogically interrelated. Furthermore, the aim of sustainable learning was determined as being a learning process that enables an intrinsic and instrumentally transformative change to occur in learners, in a way that leads them to have a sustainable interplay with their environment. In order to achieve this aim, attention needs to be placed on (i) exploring the contributions that local sustainable learning models can offer to the global ESD policy framework, and (ii) linking local contributions to national and international contexts. Moreover, ESD criticism (Bowers, 2011; Kahn, 2008; González-Gaudiano, 2005; Jickling, 2005; Lumis, 1998) maintains that prevailing discourses in this field -strongly based on Western scholarly traditions, research methodologies and policies- need to consider sustainable learning perspectives and practices from the Global South, in order for ESD pedagogies and practices to become more inclusive.

To address these gaps, in this study I focused on:
(i) how local knowledge, values and practices interact with dominant Western approaches to ESD;
(ii) how these diverse perspectives (e.g. local vs Western) challenge each other and, thus, inform academic and policy ESD discourses of the -yet unexplored- lessons that this experience reveals.

By expanding on the background of the local context, in chapter 3 I outlined a theoretical framework to guide my data collection and analysis. With relevance to the reality of Uphill school and community and of national sustainable development and ESD in Jamaica, I intertwined notions of social, transformative and sustainable learning. This combination, imbued by a Freirean flavour, defined the elements of a sustainable learning that is transformative locally for school and communities, and systemically for national and international ESD approaches. The transformative process formulated allows learners to re-define the humankind/nature relationship, as well as to take into consideration broader socio-economic and political issues that enable them to re-envision Global North/South relationships in more sustainable terms. In this way, the conceptual framework I delineated was in line with the purpose of my study to contribute to addressing some gaps in the ESD literature through the inclusion of local perspectives and lived experiences of research participants in the context studied.

Accordingly, in this research I employed an ethnographic methodological approach to fulfill the purpose of the study and to explore the aspects mentioned in points (i) and (ii) above. Ethnography, through a participant observer immersion in research participants' context and lives, informal interactions, recorded interviews and focus groups, together with the analysis of the Jamaican primary school curriculum and policy documents, allowed me to gain insights into participants' perspectives and practices.

To do so, and expanding on the research focus mentioned above, I explored the following aspects:

1) how various members conceptualize the notion of environment;
2) how and what type of sustainable learning occurs within Uphill school and community;
3) what the local knowledge and values are and what role they play in influencing sustainable learning practices;
4) what lessons can be learnt from this context and how they relate to broader ESD policies and practices.

This methodological approach also helped me address some of the ESD criticism related to the need of perspectives from the Global South to be included in larger ESD scholarship. Using ethnographic techniques, indeed, helped ensure the relevance of the study for the participants, by reflecting their experiences and challenges with sustainable learning processes.

With regard to the literature on ethnography, I located my study within the anthropology of education tradition, with links to aspects of educational ethnography that allowed me to conceptually connect lessons from the field to national and international structural aspects related to ESD policies and practices (Anderson-Levitt, 2012; Brewer, 2000; Clifford and Marcus, 1986; Delamont and Atkinson, 1980; Denzin et al., 2008; Froerer, 2011; Giddens, 1996; Gordon et al., 2001; Hammersley, 1990; Hammersley and Atkinson, 2010; Spindler and Spindler, 1974, 1987; van Maneen, 1988; Wax et al., 1971). Furthermore, to bridge methodological gaps in the ESD literature –which tends to focus on traditional case-study approaches and to confine itself to exploring education and learning within the school environment, I demarcated the fieldwork site to include both Uphill school and community. This choice also responded to the need I identified within the Jamaican literature to explore the relationship between sustainable learning in school and local community values and practices (Down in Diamond et al., 2011). This methodological decision helped me shed light on broader learning processes, which are relevant to sustainable learning in this context and where the notion of learning goes beyond that of schooling.

Through the use of thematic analysis to interpret field work data, the four aspects of exploration listed above brought me to identify three main thematic areas in the findings. Specifically, these major themes included:

i)   issues around learning
ii)   issues around values
iii) issues around leadership

In the first theme, issues around learning, I detected an anthropocentric perspective of the environment and an instrumental value attributed to it, which was established through its commodification and competition-based sustainable learning activities. Here, I also connected challenges emerged from sustainable learning processes with not having ESD as a discrete subject. The instrumental conception of the environment and related practices in Uphill school and community presented clear links with the participants' value system, which entailed notions of 'survival' and 'get-rich-quick' mentality, a local counter-culture rooted in Rastafarian perspectives, and overarching Christian religious values. Aspects related to local values displayed relevance also with the third thematic area identified in the findings, namely issues around leadership. Leadership in schools and communities, in fact, emerged as being crucial in determining the occurrence of sustainable learning and practices. Finally, the

content analysis of the Jamaican primary curriculum revealed that sustainable learning in the primary curriculum was based on the conception of the environment as instrumental to human needs, with consequent promotion of individual responsibility for environmental stewardship. Transformative aspects for sustainable learning were limited in the primary curriculum.

To deepen the interpretation of the findings, in chapter 6, I considered the broader implications of the above-mentioned themes, by triangulating fieldwork data with the content analysis of relevant documents, such as Jamaican ESD policies. Moreover, in order to use this further level of analysis to address the focal points of this research, I employed the theoretical framework described in chapter 3 to unveil the lessons that the experience in Uphill school and community teaches us about ESD in Jamaica and globally. From this examination, it emerged that Jamaican national sustainable development and ESD policies have an anthropocentric and transmissive pedagogical nature, in contrast with some of the policy language containing transformative elements. CSOs stood out as embodying more transformative learning features in their sustainable practices and initiatives.

I also identified various inconsistencies between prescribed activities in the primary curriculum and their practical unfeasibility. Specifically, Uphill school challenges included: lack of technological resources, high student-teacher ratios and inconsistencies between topics and activities in the curriculum and local realities. Such inconsistencies between prescriptions on paper and practical reality were symptomatic of wider contradictions at the national and international levels. An exemplification was found in the ascription of individual responsibility to people not equalled by adequate provision of resources, which echoed tendencies in the relationships between the Global North and South where ESD policies are devised by the former for the latter without adequate assistance for their implementation.

The lens provided by social learning theories helped identify attitudes of resistance originating from Uphill school and community members' lack of incentives and access to resources for them to embrace sustainable lifestyle changes, which were instead tried to be enforced through transmissive and behaviourist approaches. In this context, Rastafarian values displayed by some participants presented the potential to effectively contribute to promoting a transformative approach to ESD. In like manner, the aspect of leadership, despite undertaking transmissive approaches to learning, held a more

transformative vision of ESD and, together with CSOs' initiatives, spurred sustainable learning activities.

Gaps between concepts on paper and their (lack of) enactment in daily life brought to the fore underlying issues of lack of relevance of policies for local contexts. Here, Nick's –the male leader of a sustainable community located near Uphill village- bold words (already mentioned in section 5.3.1) could not be more apt: "you cannot move the development faster than the people". In other words, the wished and envisioned change in people's behaviour towards sustainable lifestyles needs to be accompanied by adequate systemic provision of resources to empower them. Or else there is the risk for what Sandilands (quoted in Courtenay-Hall and Rogers, 2002, p. 290) defines as a situation that "shifts the burden of responsibility onto individuals and households, and away from states, corporations, and global political arrangements".

Rather than placing unrealistic responsibilities on individuals, which is a method that eventually uncovers gaps between policies and practices, individual and local knowledge could be used constructively to contribute to changing pedagogical and policy approaches (Terry and Hill, 2006). Indeed, the aim of ESD should be precisely to spur a sustainable learning process which calls into question the causes of environmental issues within the socio-economic and political systems that generated them. Consequently, this would entail questioning broader national and international issues related to the adverse and contradictory effects of sustainable development practices within a neo-liberal framework, with critical questions that help de-construct hegemonic, oppressive and dependency patterns, as well as throwing light on who benefits and who suffers from environmental ills. As noted in chapters 1 and 3, employing aspects from eco-pedagogical, post-colonial and plantation pedagogy perspectives can be advantageous for a type of sustainable learning that is committed to socio-environmental justice (Andreotti et al., 2018; Bristol, 2012; Misiaszek, 2018). The promotion of this type of learning inevitably promotes a transformative view of learners, who are "seen as agents of change, with the capacity and ability to bring about change" (Down, 2008, p. 161).

With regard to the socio-economic and political gaps at the systemic level, as observed by Courtenay-Hall and Rogers (2002), these are to be viewed as the framework that influences behaviour at the individual level, and which causes such behaviour to appear as "irrational" when looked at from the larger ecosystem level perspective (Courtenay-Hall and Rogers, 2002, p. 294).

Moreover, as pondered by Scott (2002), sustainable learning processes within ESD should be aimed at leading students to explore the concept and its implications, rather than inducing its acceptance and related (desired) behavioural changes. As mentioned above, it is crucial for this exploration to be developed through critical questioning of the underlying post-colonial influences on the unequal relationships between the more and the less powerful, which find their expression in current neo-liberal economic, social and political issues. Furthermore, this investigation should be based on ethical considerations for socio-environmental justice (Andreotti et al., 2018; Bristol, 2012; Misiaszek, 2018; Van Poeck et al., 2019). In this way, curricula would have the role of stimulating rather than prescribing and would be supportive of students' creative learning process (Scott, 2002 a).

In consideration of these last remarks and the various challenges that emerged from this study, in the following section I outline the main lessons and recommendations offered by this research.

7.2 Research lessons and recommendations

Below I propose some recommendations in view of the challenges emerged from the experiences of Uphill school and community. These are connected with addressing the gaps in the literature to achieve a sustainable learning that is transformative for learners' conception of and relationship with the environment:

1. strengthening the sustainable learning links between schools and communities, by making ESD a discrete subject in the primary curriculum and revisiting its contextual relevance with the challenges faced by community members. This recommendation was often highlighted in the interactions I had with various participants. Having ESD as a discrete subject would allow to create a specific 'space' and focus for sustainable learning. Accordingly, having a designated space would enable schools to dedicate more time and energy to it (Anyolo et al., 2018). At the same time, it would allow learners to have a 'space' for critical reflection and dialogue on sustainable learning issues (Simms and Shanahan, 2018). Moreover, formally recognizing ESD as a distinct subject would involve provision of specific training for teachers to enable them to effectively deal with the challenges of sustainable learning processes. Based on what I discussed in chapters 5 and 6 above and on existing debates in the ESD literature

(Dimenäs & Alexandersson, 2012) the implementation of this recommendation would also include addressing challenges related to the rigidity of the existing education system. Nevertheless, the environmental threats faced by the Jamaican island (see chapter 2) reveal the urgency for new generations to engage differently with sustainable learning and practices. In these regards, further ethnographic, qualitative and longitudinal studies in Jamaican and other communities internationally could help identify additional challenges and long-term lessons that local experiences can offer to reshape sustainable learning in a more contextually relevant manner.

2. At the Jamaican national level, there is need to match the policy language and the reality of practice. A step towards achieving this lies in framing ESD policies in such a way where the sense of individual responsibility for stewardship of the environment is balanced by the acknowledgement of the factors and resources that individuals need to have access to in order for them to act sustainably. Moreover, examples and voices from representatives of local counter-culture values (e.g. Rastafarian perspectives), school and community leaders should be taken into consideration in this process, as they can represent local models to learn from at the systemic level.

3. Internationally, the ESD paradigm needs to acknowledge that its perpetuation of neo-liberal values and practices based on market-oriented thinking and consumeristic action no longer fits the urgent needs of neither the Global North nor South. Learning to re-direct current unsustainable patterns towards more sustainable ones locally cannot be isolated from the need to re-envision the nature of the unsustainable relationships between developed and developing countries. This is a point that would need to be considered by practitioners, researchers and policy-makers alike.

Failing to take these considerations into account would imply continuing to fail to address the needs that Jamaican ESD experts already pointed out more than a decade ago: "[...] it cannot end with simply enhancing our understanding of individuals' conceptions of nature, the environment, and sustainable development. It must go further to actually incorporate these perspectives into formal and non-formal environmental education planning" (Ferguson, 2007, p. 145). Similar remarks were offered by Jaffe (2008, pp. 65, 66) too, who, in an anthropological study conducted in two Caribbean cities, concluded:

"Ideas about nature and the environment held at the grassroots level [...] can be used to create more effective environmental education policies, which currently tend to incorporate exogenous environmental discourses. In particular, the intertwining religious and environmental beliefs [...] are generally absent from Western academic and policy discourses on environmentalism [...] to make a more persuasive case for the message of "limits to growth"".

Furthermore, already in 2014, the UNESCO (2014, p.3) final report on the DESD acknowledged that: "one of the most significant lessons learned during the Decade is that strong political leadership is instrumental to advancing ESD. [...] Leadership is essential for moving from policy commitments and demonstration projects to full implementation across the curriculum, teaching and operations...". This point was further re-iterated in the UNESCO (2017) reflections on the progress of ESD. As shown in the discussion of findings of this study, strong political leadership is still needed nationally in Jamaica and in shaping international relations within ESD. It is a lesson that leaders among this study's research participants taught us about implementing sustainable learning both at the school level and in communities.

7.3 Study limitations

Limitations of this research include the fact that this is an ethnographic study which is representative of a specific context. While this allowed me to highlight aspects that are relevant at the Jamaican national level as well, it may not include all the issues faced by Jamaican schools and communities in general, which may be characterized by different historical, geographical and socio-economic conditions.

Further limitations are related to the information gathered from government officials who refused to have recorded interviews. Therefore, minutes from these interactions might not include all that was shared in the most accurate way, although I combined my personal notes with those of the school principal who was often present at these meetings. Similarly, some parents did not sign consent forms and explicitly expressed that they did not wish for their children to be included in the study. As a consequence, although some of these children provided very relevant insights for the study through information generated through daily interactions in the school, I did not have the chance to explore their perspectives in more depth through interviews and focus groups. In like manner, some community members who played a key role in the shaping of my

understandings refused to have interviews (probably due to the fear of negative repercussions that expressing their views could potentially have for them). In these cases, too, (despite being unable to discard from my brain the information generated by living with them, which still contributed to informing the development of my insights on perspectives of local meanings and practices), I was not able to report their views in a systematic manner in my findings.

Another limiting aspect of this research can be identified in the duration of the fieldwork and the time-related constraints with regard to the ability to determine the actual long-term type of learning occurring in Uphill school and community. One year was a period of time long enough for me to become significantly knowledgeable about local perspectives, values and customs. Nevertheless, it was not long enough for me to accurately establish whether in the long-term (according to the views expressed by some research participants) the sustainable learning that students acquired in school would eventually result into transformed perspectives and practices. Perhaps, given the role that social learning from adult members played in adversely influencing students' change in sustainable behaviours, when they will become the next generation of parents in the community, the trends could differ. In particular, when students will be in a more authoritative position as adults, the sustainable learning acquired in the school could manifest and, in turn, they could transfer it to the next generation. However, for these not to remain speculative considerations, more research would need to be conducted.

In view of the last reflections and the set of limitations mentioned above, in the following final section I provide some ideas for future research and action.

7.4 Looking ahead

The lessons and recommendations that I provided in section 7.2 already highlighted the need to conduct more community-based research both in Jamaica and abroad with a view to strengthening the links between sustainable learning within and outside schools. In particular, the use of ethnographic and qualitative studies could be effective in exploring the perspectives of community members and to bring the variety of needs and challenges of Jamaican communities (and communities abroad) to the fore of ESD and sustainable development policies.

Longitudinal studies could be useful in evaluating the long-term outcomes of the learning taking place in schools and communities and, thus further enrich planning of ESD policy and sustainable learning. In this way, in fact, studies could investigate whether or not transformed attitudes and behaviours in individuals and communities take place in the long term and what factors contribute to it in a specific context. This type of research should be ongoing and not restricted to the academic sphere. Collaborations and synergies among government, CSOs and the academic community in long-term assessment projects would also show genuine care and commitment to community members who take part to these studies. As a consequence, these studies could also contribute to improving the connections and cooperation between local and national levels towards defining and enacting sustainable learning approaches.

At a personal level, it is my desire to disseminate the findings from this research through publications and continue conducting research with communities and schools. Indeed, I was invited to submit a research paper for publication based on this PhD study to *The International Journal of Environmental, Cultural, Economic, and Social Sustainability*. Additionally, I would like to follow-up on my previous publication based on Transformative, Buddhist and Indigenous-Community Learning by including perspectives learnt in this study from the Rastafarian philosophy. In the future, through a type of engagement more based on practice, I would like to explore the possibility to apply the lessons learnt from my study by cooperating with ESD experts and grassroots stakeholders in Jamaica and elsewhere. In this way, I intend to contribute to ESD scholarship and policies, as well as by being actively involved in school- and community-based sustainable learning projects.

Finally, I would like to conclude by looking ahead with the lyrics of a song by a young Jamaican female singer, Sevana. She has been actively involved in the promotion of environmental awareness and has collaborated with the JET's projects in Jamaica. The song below was released in the early stages of writing this thesis and it has provided me with motivation and inspiration throughout the writing process. It relates to and synthesizes many of the issues covered in this study, which should be at the heart of sustainable learning within ESD. It is both a warning and a plead, which is thought-provoking for the situation in the island and the rest of the planet alike:

"*Justice*"

[...]

They're putting up borders
Splitting the earth into worlds
So if I belong to the third world
That means that the first pays more fruit

So selfish with what we have
And not really mindful of who
Will suffer and so we
Continue to tear down our brood

Never ever thinking long term
Always thinking of what we can earn now
If you're asking what your life is worth
What will you answer as you litter the ground

The earth will serve us justice
Will outlive you and me
With every storm you know there's justice
The sea washes the street

Why do you curse the place that serves you
What makes you think that we're supreme
No amount of money will protect you
From all the energy we steal

The earth will serve us justice
Don't have to choose to believe
We all think that we're so mighty
Well if we cannot see we feel

[...]

Polluting our waters
And putting the poison in food
Everything made to
Sell so we don't hear the truth

Never ever thinking long term
Always thinking of what we can earn now
If I ask you what your life is worth
What will you answer as you litter the ground

The earth will serve us justice
Will outlive you and me
With every storm you know there's justice
The sea washes the street

Why do you curse the place that serves you
What makes you think that we're supreme
No amount of money will protect you
From all the energy we steal

The earth will serve us justice
Don't have to choose to believe

We all think that we're so mighty
Well if we cannot see we feel

Ooh it will rain down fire and storm
That is when what we do will catch up
Will catch up, will catch up
Not until the end has come
And all life is running out
Will we believe because then we'll see

The earth will serve us justice
Will outlive you and me
With every storm that pours there's justice
The sea washes the street

Why do you curse the place that serves you
What makes you think that we're supreme
No amount of money will protect you
From all the energy we steal

The earth will serve us justice
Will outlive you and me
With every storm that pours there's justice
The sea washes the street
No amount of money will protect you
From all the energy we steal
No amount of money will protect you

The earth will serve us justice
Will outlive you and me
With every storm you know there's justice
The sea washes the street

Why do you curse the place that serves you
What makes you think that we're supreme
No amount of money will protect you
From all the energy we steal

The earth will serve us justice
Don't have to choose to believe
We all think that we're so mighty
Well if we cannot see we feel

The earth will serve us justice
Will outlive you and me (Sevana, 2018)

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Appendix 1

Coding and memos from interviews

Me: ok, so how did it come by?

Chairperson: recently, I noticed recently since Mrs ▮▮▮▮▮▮▮ –the current principal- under her regime, she is a person who is technology savvy and because of that she, she goes on the internet, she can pick up things and she hears about things and she just jumps at it.. ROLE OF LEADERSHIP?

Me: hmm..

P: so because of that now she, she started encouraging the school to participate in different activities. I remember one, one Friday some years ago, it could have been about four years ago, the first time the school entered an environmental competition it was with JET, Jamaica Environmental Trust and...well we were supposed to enter some things in the profile and we, we were here, because the then guidance counsellor ▮▮▮▮▮▮... (? Unclear), she was at the computer, Mrs ▮▮▮▮ was there, they called me 'come and help us edit this!', time was going, because the deadline at 1 o'clock and the information went in after one, actually they emailed the information to them...and we entered...it was (? Unclear) four or five categories, but I know we were shortlisted for I think all the categories we entered, we did not win a prize then, but at least we were shortlisted...like, I still remember Mrs xxx (? Unclear) being so upset 'I mean they called us, so how come did we not get a prize?', so I said I heard that the fact that we've been shortlisted doesn't mean that we're among the best and remember that everybody cannot come first, second or third, but the very fact, just think that you were shortlisted, so all you have to do is just to start earlier next year and to work at what we know we have to do and that was done and, I don't remember the year in which ahm I we came first, I think we came first...I have been...so there's a trust...IMPORTANCE OF SCHOOL LEADERSHIP

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Me: hmm...

Chairperson: that there, there's this ==excitement== of going out and pick up, pick up ahm garbage from all the compound and when they're asked to take in anything, like I noticed the other day they were collecting ahm plastic bottles..[==SAME EXCITEMENT THAT STUDENTS SHOWED IN THE INTERVIEWS AND FOUND IN MY FIELDNOTES==]

Me: mm hmm…

Chairperson: and I noticed that they were taking the plastic bottles and washing them, putting them away...so I think ahm there is ahm...there is some sort of ==excitement== generated from the school environmental club. They see themselves as part of keeping the place clean, beautiful, planting flowers to beautify the place, they see themselves as actually a part of all of this.. [THIS MATCHES WITH WHAT STUDENTS HAVE EXPRESSED IN THEIR INTERVIEWS AND MY NOTES, PERHAPS SUGGESTING THAT THE SCHOOL IS ABLE TO ACHIEVE SUSTAINABLE LEARNING AIMS TO AN EXTENT AND IT SHOWS THE POTENTIAL TO ACHIEVE MORE THROUGH CONSISTENT ACTION???] + [IT ALSO TELLS ME ABOUT THE UNDERSTANDING OF ENVIRONMENT THAT THE SCHOOL PROMOTES AND THAT STUDENTS LEARN, RELATED TO 'APPEARANCE', E.G. MAKING THE PLACE LOOK CLEAN AND BEAUTIFUL, BUT LACKING DEEPER INSIGHTS INTO ITS IMPORTANCE?]

Conceptualising and mapping

Vision (Principal) → Ownership (Teachers)

Issues around Leadership

Camaraderie in Teachers

+
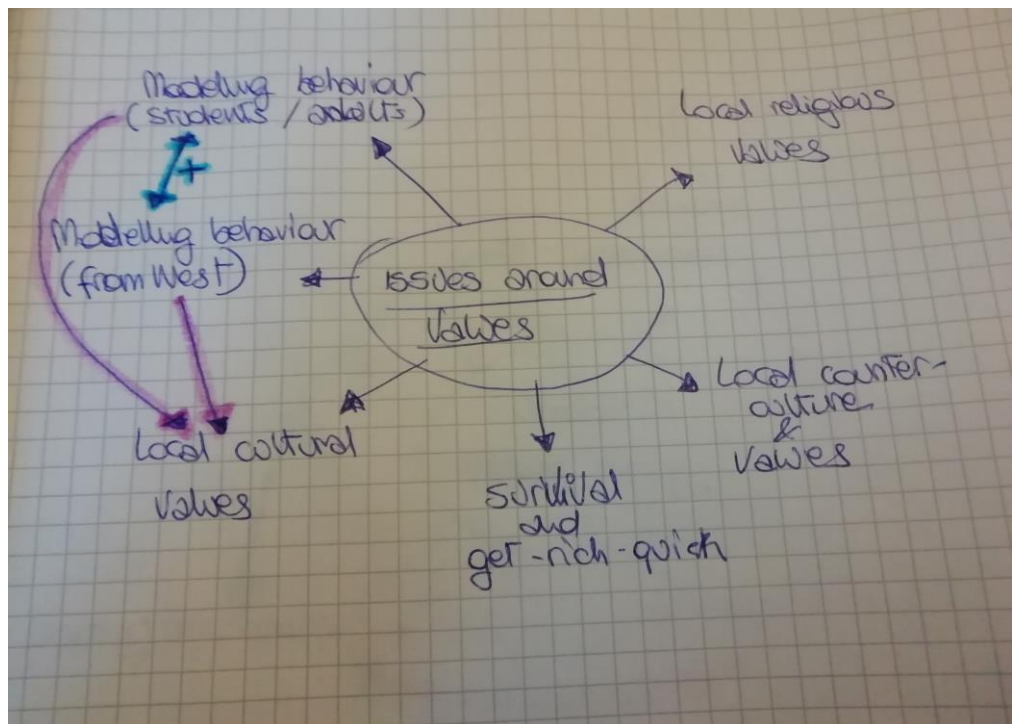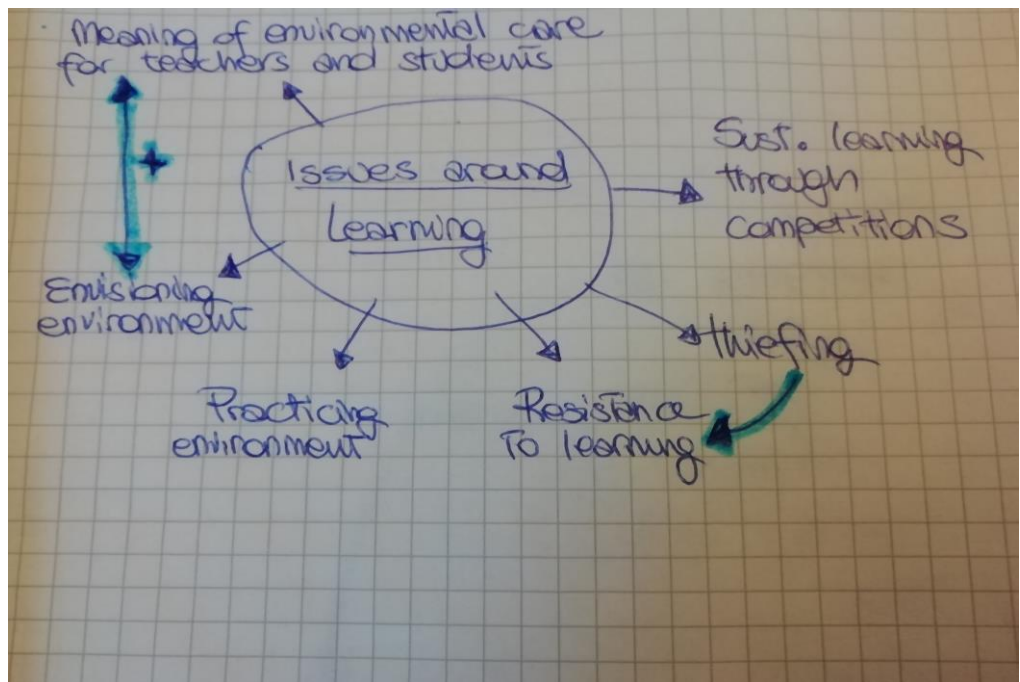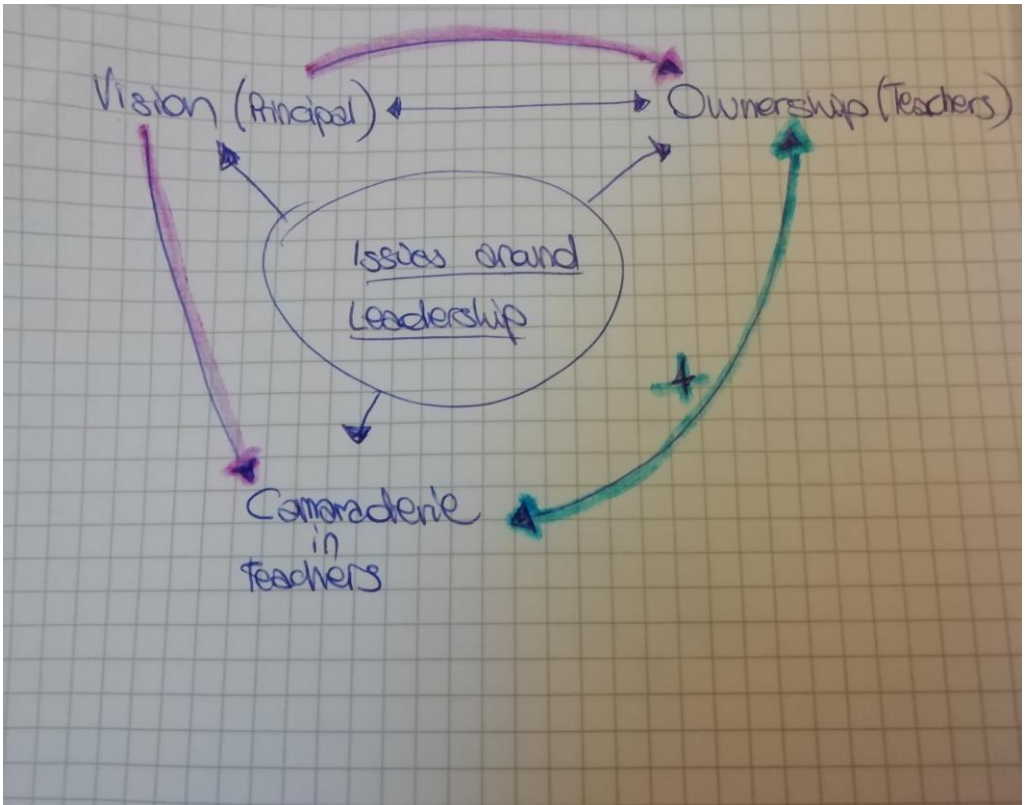
Appendix 2

Opt-in Informed and Consent Form for Teachers (sample)

Date: _____

Dear _____,

My name is Romina and I am conducting an ESRC funded PhD research study at the UCL Institute of Education, on "Social, Transformative and Sustainable Learning in a Jamaican Community". Accordingly, this research project will include a period of fieldwork of one year in your school. The focus of my thesis is on the exploration of innovative perspectives from the Global South –i.e. from a Jamaican school and community- on Education for Sustainable Development (ESD). This study aims at linking local contributions to national and international contexts on sustainable learning, so that practices existing within the Jamaican context can inform educational policies in this field in inclusive and participatory terms.

Furthermore, this research project intends to undertake a participatory and constructive approach. On the one hand, it hopes and aspires to benefit the research participants and the researcher at any stage of the research process. On the other hand, it aims at sharing and applying the learning experience unfolding from this study to the Jamaican as well as international contexts, by informing current academic research and policy-making in the field of Education for Sustainable Development. Therefore, I would very much like the perspectives of the teachers and students of your school to be included in this research study.

In order to gain meaningful insights on the above mentioned issues, I would like to conduct participant observation during environmental learning classroom teaching and some interviews outside the classroom with teachers and students from mid-September to mid-December 2016 and from January to September

2017. Specifically, this will involve taking field-notes, as a way for me to record meaningful impressions on which I could reflect and elaborate afterwards. The scope of conducting observations and interviews is to gain precious insights into local teaching and learning practices, as well as individual perceptions in the context of sustainable learning. I am aware that as a teacher you might feel hesitant to be observed. However, please be reassured that my only focus will be to better comprehend how local understanding and practices of education for sustainable development can enrich broader policies in this field and all interactions will be conducted in a friendly manner. If you agree, I would like to orally explain to the students the purpose of this research and their voluntary participation in this study, as well as their right to withdraw from it at any time. Additionally, I would like to ensure my availability to provide clarifications and answer questions and doubts of any participant at any time over the period of my stay.

Moreover, I would like to conduct conversations and semi-structured, in-depth interviews with you and the students, with the intent of including your understandings of and perspectives on the sustainable learning that takes place. In particular, at a later stage of my fieldwork, I would like to conduct focus groups with some of the students, to gain a better understanding of how the learning practices employed in the school translate into action and how they are perceived by the students. These will consist of gathering with a group of students in an environment where they feel comfortable (e.g. in the classrooms or in the school playground) and discussing together their perspectives on sustainable learning and related activities carried out.

Planning and duration of the interviews will be decided according to the requirements and scheduled activities of the school. Similarly, interviews with the students will be conducted after seeking for permission from and in agreement with you and their parents, and the duration will depend according to the time at your and their disposal.

If you and students agree, interviews will be digitally recorded and stored in my personal computer. Conversations, instead, will be recorded through the use of field notes, as they will include gaining information on sustainable educational practices through informal daily conversations. According to your and the students' preference, personal details of the research participants will be kept strictly confidential. Findings from observations, interviews, focus groups and conversations will be used purely for the scope of this PhD research study. In

case the findings of this study will be required for other purposes in the future, permission will be sought from you and all participants in due course. Furthermore, if you would like so, I will share with you and the students the interview transcripts and the findings that I will include in the PhD thesis.

I am therefore seeking your permission –as well as the students' parents permission- for conducting observations in your school and digitally recording interviews with you and the students. Could you please complete the attached consent form confirming whether or not you and your students would like to take part to this PhD research study and whether I may interview you and the students? This can also be returned electronically (with electronic signature) to my UCL Institute of Education email address:

Romina De Angelis: ████████████

If you wish to discuss this PhD research study further prior to giving consent, please do not hesitate to contact me, via email. Many thanks in anticipation for your help.

Romina De Angelis

I give permission for Romina De Angelis to conduct observations, focus groups with students, conversations and digitally record semi-structured, in-depth interviews with me and students, for the purpose of her PhD research study on Social, Transformative and Sustainable Learning in a Jamaican community.

I understand that no personal data will be shared beyond my supervisors, Dr. Nicole Blum and Prof. Shirley Simon.

I understand that you and any of the students have the right to withdraw from this research study at any time, by expressing the wish to do so either verbally or in written form, according to your and your students' preference.

Print Name: _____

Designation: _____

Date: _____

Signature: _____

I agree for Romina to conduct observations and interviews in this school in conjunction with this PhD study.

Opt-in Informed and Consent Form for Parents (sample)

Date: _____

Dear Parent,

My name is Romina De Angelis and I am a PhD student at University College London, Institute of Education in London. The focus of my thesis is on the exploration of innovative perspectives from a Jamaican school and community on Education for Sustainable Development (ESD). This study aims at linking local contributions to national and international contexts on sustainable learning, so that practices existing within the Jamaican context can inform educational policies in this field in inclusive and participatory terms.

The methods of gathering data for this research include conducting observations during environmental learning classroom teaching and some interviews outside the classroom with the students from mid-September to mid-December 2016 and from January to September 2017. Taking part in this study is totally voluntary and it will be carried out according to the Ethical Guidelines of the British Educational Research Association (BERA). The interviews are expected to last for nearly half an hour each and will focus mainly on the students' perspectives and values on sustainable learning practices and their relationship with the environment.

Please be reassured that my only focus will be to better comprehend how local understanding and practices of education for sustainable development can enrich broader policies in this field and all interactions will be conducted in a friendly manner.

All information which is collected during the research will be kept strictly confidential and any information relating to your child will be anonymised in the final write up of the thesis.

If you agree for your child to participate in the study, I will be delighted to discuss it further and answer any questions you may have. I will also inform you about the results of the study once data collection and analysis will be completed.

Yours faithfully,
Romina De Angelis

PARENTAL CONSENT FORM

To be completed by a parent or guardian who **AGREES** to their child taking part in the PhD research study on 'Social, Transformative and Sustainable Learning: a study of a Jamaican Community'.

Name of Researcher: Romina De Angelis

Please tick the boxes if you agree

1. I confirm that I have read and understand the information sheet dated........................... for the above study and have had the opportunity to ask questions.

2. I **WISH** my child to take part in the above study.

Please use BLOCK CAPITALS

Your Name……………………………………………………………………

Child's full name…………………………………………………………

Child's school………………………………………………………………

…………………………………………………………………   ……………………..
Signature of Parent/Guardian   Date of signature

Appendix 3

My accommodation in Uphill community

**House backyard and hen house in my accommodation in Uphill
Community**

Garbage pile in the backyard of my accommodation in Uphill Community and football field in the background

Social gathering in Uphill community and alcohol shop

Pond in Uphill community, used for fishing

Hurricane Ivan plaque in Uphill school

Uphill school playground

Entrance road to Uphill school
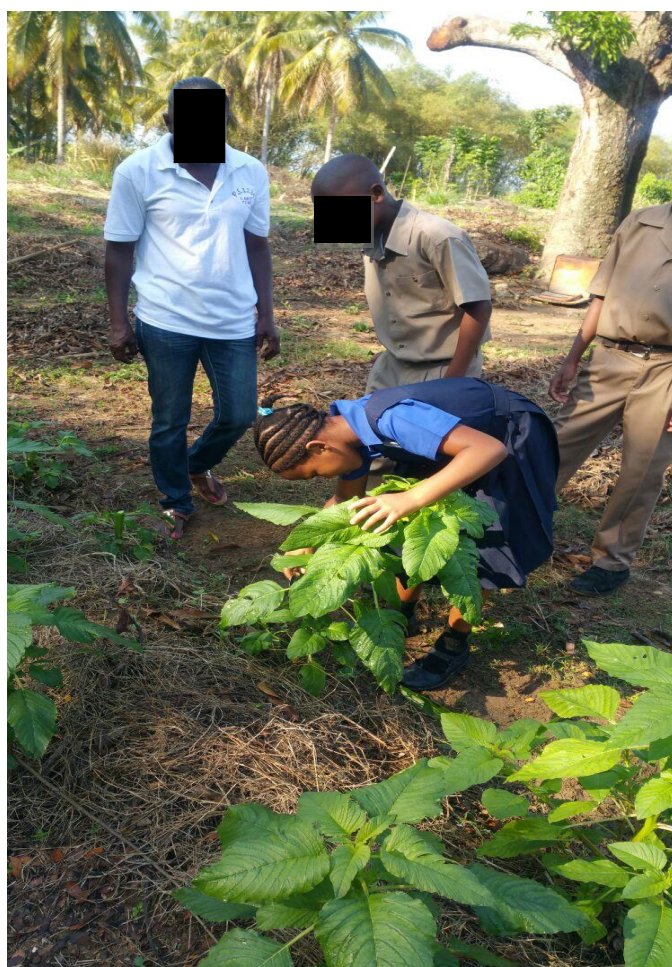

Uphill school overview

Uphill school organic garden

Weeding in Uphill school garden

Environmental signpost in Uphill school

Environmental signpost in Uphill school

Grade 4 classroom flower garden: planting

Grade 5 classroom flower garden: preparation

Grade 6 classroom flower garden: planting

Grade 6 classroom flower garden: preparation

Grade 1 classroom flower garden: maintenance

Uphill school principal watering seedlings purchased in Kingston for the school

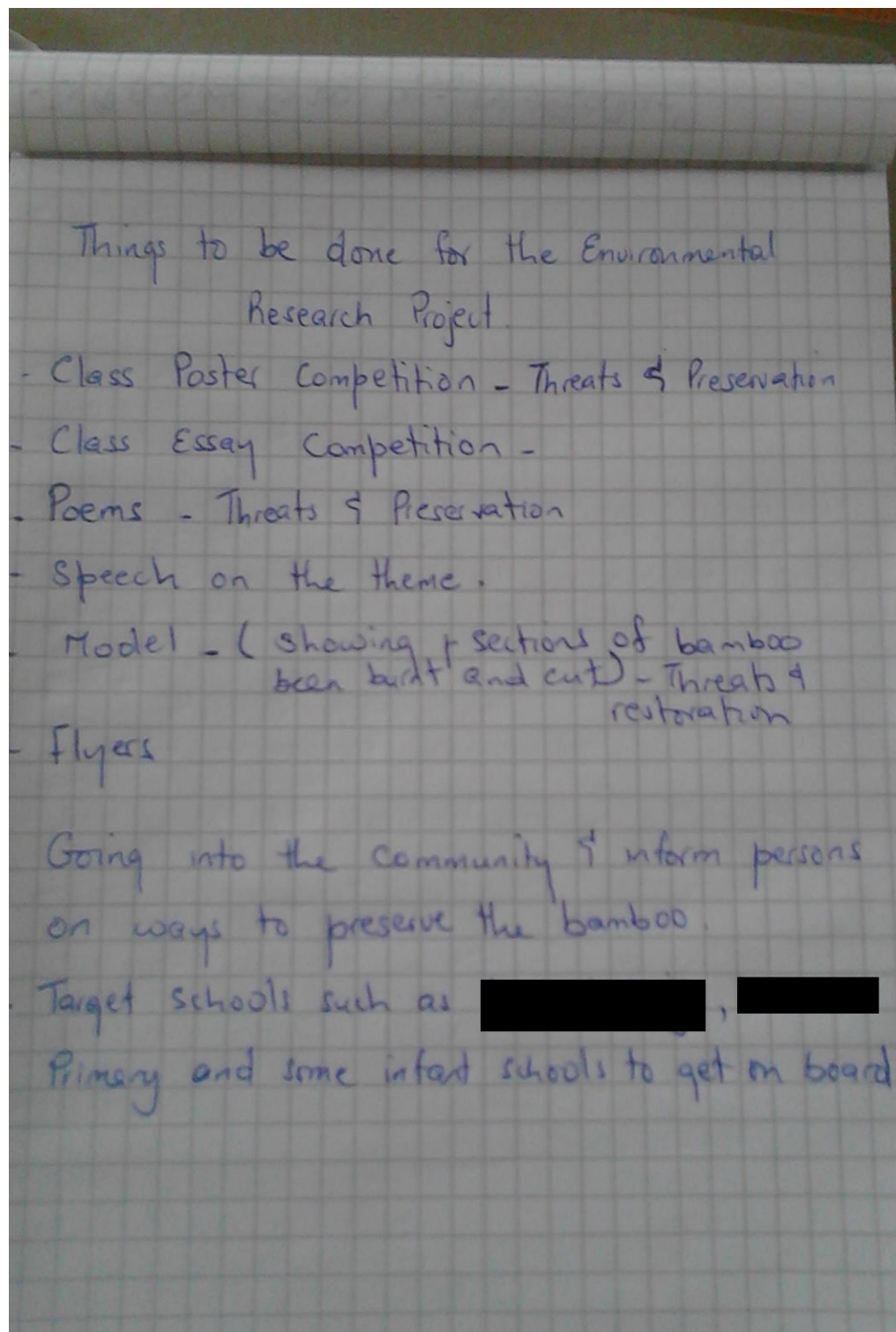**Uphill school: planting the live fencing**

Uphill school organic garden: students teaching me about local plants

Bamboo restoration project: planting bamboos from Uphill school nursery in local area with students, school staff, community members, 'bamboo workers' and RADA officials

Appendix 4

Things to be done for the Environmental
Research Project.
- Class Poster Competition - Threats & Preservation
- Class Essay Competition -
- Poems - Threats & Preservation
- Speech on the theme.
- Model - (showing + sections of bamboo
been burnt and cut) - Threats &
restoration
- Flyers

Going into the community & inform persons
on ways to preserve the bamboo.
Target schools such as ███████ , ████
Primary and some infant schools to get on board

Brainstorming between Grade 1 and 6 teachers

The [REDACTED] ty to preserve it.

Look how de bamboo green
And pretty is one a wi best
tourist attraction you know.
Com low take picture in a
it u see!! Thats Why
Mi no throw no garbage
in a it. Watch de pichney
a throw de bag juice paper
a the bamboo root goteck
it up.

ehech look pon de man a cut
de bamboo tree. Sir u nuh see
u a destroy the bamboo. Nuh!!
Cut one more! It is against de
law. u know yu will get charge
mih do it a again. A wi natural
beauty mek wi protect it.

Hurricane destroy it, people burn
the bamboo. But mek wi come together
and replant the Bamboo. keep the clean
bamboo. and preserve it.

Grade 6 student's Poem about bamboo restoration project

Appendix 5

Sample from national primary curriculum

Prior Learning
Check that students can:
- State the parish and community in which they live
- State the names of some of the plants and animals within their community

UNITS OF WORK GRADE 2 TERM 3 Unit3

Focus Question 1: What are the plants and animals in my community?	
Attainment Target(s):	**Objective(s):**
Explore the environment in order to relate everyday experiences to simple scientific concepts and processes.	• Observe plants and animals in a number of habitats in their community • Classify plants and animals according to observable features • Observe the movements of animals
Appreciate and respond critically to art	• Create two and three dimensional artwork of animals in the community
Create musical compositions exploring varied elements of music	• Use sound makers and voice to create sounds made by animals in the community • Apply musical elements in creating and performing songs about plants and animals in the environment
Use appropriate digital tools and resources to plan and conduct research, aid critical thinking, manage projects, solve problems and make informed decisions. Recognise the human, ethical, social, cultural and legal issues and implications surrounding the use of technology and practice online safety and ethical behaviour.	• Use ICT tools to conduct electronic searches about plants and animals in the community • Practice safe online behaviour
Explore paths, geometric shapes and space and make	• Estimate and measure, using non-standard units of measurement

NSC INTEGRATED STUDIES GRADE 2 TERM 3 UNIT 3. VERSION 5 AUGUST 21, 2016