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# **An overview of the discussions from IMO's 17<sup>th</sup> Intersessional Working Group on GHGs**

## Authors

Tristan Smith, Marie Fricaudet, Annika Frosch, James Stewart, Dola Oluteye, Nishatabbas Rehmatulla, Simon Chin-Yee

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## Contact details

If you require any further information on this report, please contact:  
Dr Nishatabbas Rehmatulla, [n.rehmatulla@ucl.ac.uk](mailto:n.rehmatulla@ucl.ac.uk)

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## Executive summary

The IMO's ISWG-GHG 17 meeting has concluded with a number of important developments, that can be used to guide expectations on the nature of measures the IMO is expected to adopt in 2025. The meeting progressed the drafting of a new Chapter 5 in MARPOL Annex VI, taking different detailed drafting proposals from a number of submissions from different member states and observer (NGO) organisations, and reaching an agreement of a common structure that retains most of the options for later finalisation. Good progress has therefore been made, which should enable the IMO to keep to the timeline in the revised strategy - which results in entry into force of the new policy measures in 2027. There is majority support for many of the policy design specifications that are presumed to be important for both a rapid and equitable energy transition for international shipping, including:

- There remains a clear and growing majority of member states that support a Well to Wake (WTW) framing over a Tank to Wake (TTW) framing of emissions – important for the business case and supporting investments of different future fuel/energy alternatives to fossil fuels.
- Support for a universal GHG price/levy has grown further, a clear majority of those who spoke (39 member states) of member states expressed the importance of the IMO adopting such a measure. New support and openness to consider further came from a number of African countries (including LDCs), as well as continued strong support from a number of SIDS and other LDCs and developed countries.
- The overlapping topics of impact on states (economic impacts on GDP arising as a consequence of the adopted measures), and a just and equitable transition remain key concerns/issues expressed as important for the finalisation of measures. Climate vulnerability and food security concerns were expressed by many. Addressing disproportionate negative impacts on states and supporting a just and equitable transition have broad and high support amongst member states (50 member states), equal to the broad and high support (also 50 member states) supporting revenue use in-sector (e.g. supporting shipping's energy transition).
- The large majority of member states who spoke on the matter support the GHG Fuel Standard being set by the IMO's more ambitious 'strive' targets, which correspond to a 30% absolute GHG reduction in 2030 and 80% absolute GHG reduction in 2040 (on 2008 baseline).
- There remains a clear consensus that shipping's energy transition should be incentivised through a combination of a fuel standard (GHG Fuel Intensity - GFI limit), and a GHG pricing mechanism. And that ships underperforming relative to a fuel standard should be financially penalised and ships overperforming relative to a fuel standard should be financially supported. However, there are three groups of member states positions on this issue, and a group (14 member states) intervening in the debate but not expressing a clear position:
  - 21 member states prefer a flexibility mechanism on its own
  - 21 member states prefer a feebate (fee/levy and rebate) mechanism on its own
  - 13 member states prefer a combination of a flexibility and feebate mechanism
- There is a clear preference for the IMO to have at a minimum oversight of funds and revenue distribution, which can include the fund management being executed by one or more third parties. Some member states prefer that the IMO manages the distribution.

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## 1 Introduction

Intersessional Working Group on Greenhouse Gases (ISWG-GHG) 17, held from 23<sup>rd</sup> to 27<sup>th</sup> September, is a key meeting leading up to the anticipated Marine Environment Protection Committee (MEPC) 83<sup>rd</sup> meeting, which is a decision point for the agreement/approval of IMO's mid-term measures – April 2025. The ISWG-GHG meeting is not in itself a decision point but presents an opportunity to examine the landscape of positions, similarities, and differences between member states as they approach the MEPC 83 meeting. ISWG-GHG 17 immediately precedes the MEPC 82 session, which is expected to undertake further negotiations, albeit with a busier agenda and covering broader environmental protection issues.

Since the last time the GHG Working Group (WG) met in April, the IMO's Comprehensive Impact Assessment (CIA) was also completed at the end of July 2024. The CIA makes up four reports examining impacts that arise from mid-term measures. As reported in the MEPC 80 readout<sup>1</sup>, the MEPC that launched the CIA process had not reached convergence on the design of the mid-term measures, and as a result, commissioned the CIA to study a range of candidate mid-term measure designs, broadly encompassing the different preferences being expressed by different proponent member states. The evidence from the CIA process is therefore an important input to member state considerations, given the need at ISWG-GHG 17 to make progress on narrowing down the options under further consideration.

The meeting lasted five days and focused its attention on the drafting of MARPOL Annex VI amendment text – a new chapter 5, which was agreed as a concept at MEPC 81 but only as a series of potential headings. Working off those potential headings, various member states and organisations drafted detailed content and submitted it as inputs to the meeting.

At ISWG-GHG 16 and MEPC 81 in April 2024, three distinct groups characterised the option space (see readouts from those sessions in the below link). Those three groups sustain, but in common, they all specify a technical measure and an economic measure. With more detailed MARPOL draft text, it is now possible to look at similarities and differences within the measure specifications.

Overall, the meeting needed to make progress given there is only a short period of time between now and the anticipated approval of detailed MARPOL text at MEPC 83. This was indeed the case, with the meeting advancing a consolidated draft of MARPOL amendment

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<sup>1</sup> <https://www.shippingandoceans.com/post/faqs-on-mid-term-measures-for-reducing-ghg-emissions-from-international-shipping>



text that is expected to be further discussed and refined in a Working Group at MEPC 82 next week.

One important consideration for those waiting on clarity from the IMO's process to inform commercial or other decision making, is that the point of approval (MEPC 83) should finalise the MARPOL text that lays out the key framework of the policy measures. However, based on the discussion at ISWG-GHG 17, it remains unclear what the level of specificity will be in the MARPOL text for some of the key parameters that are likely to be important to business cases. The alternative to specification in MARPOL Annex VI is for details to be put in Guidelines. While guidelines are typically not legally binding, they can become so if explicitly incorporated into MARPOL or adopted into national legislation. In addition, guidelines can be developed after the point of adoption, which may delay the point at which clarity can be obtained. A list of potential guidelines was compiled as part of the meeting, but there was no discussion of this list and little opportunity during ISWG-GHG 17 to discuss minimum content in MARPOL vs. guidelines.

## 1.1 Understanding the mid-term measures discussions

Common in all proposals is the fact that there are some specifications that exist on the interface between a technical and economic measure. The measure specifications particularly at this interface, are:

- A flexible compliance mechanism (pooling, banking and/or credit trading between ships that underperform and overperform relative to a GFI or 'cap')
- A feebate (a fee on GHG emissions and rebate/reward for overperformance)

Both mechanisms enable multiple business cases for operation with different fuels and, as the same time, different levels of GHG emission reduction. Both mechanisms allow the costs from an underperforming ship to be balanced with the higher costs of an overperforming ship by transferring payments from the underperforming ship to the overperforming one.

Proponents of both mechanisms discussed flexibility and feebate, referring to their systems as pricing mechanisms. Another terminology they used is 'passive revenue allocation'. Here, 'passive' indicates that a technical metric (the GHG emission or GHG intensity) determines how revenue is allocated to incentivise certain technologies (e.g. certain fuels, wind propulsion). As such, this context of passive revenue allocation contrasts that of 'active' revenue allocation, where a fund or board structure 'actively' considers which projects and/or beneficiaries should receive revenue.

Many consider this central feature of passive revenue allocation as critical, given the:

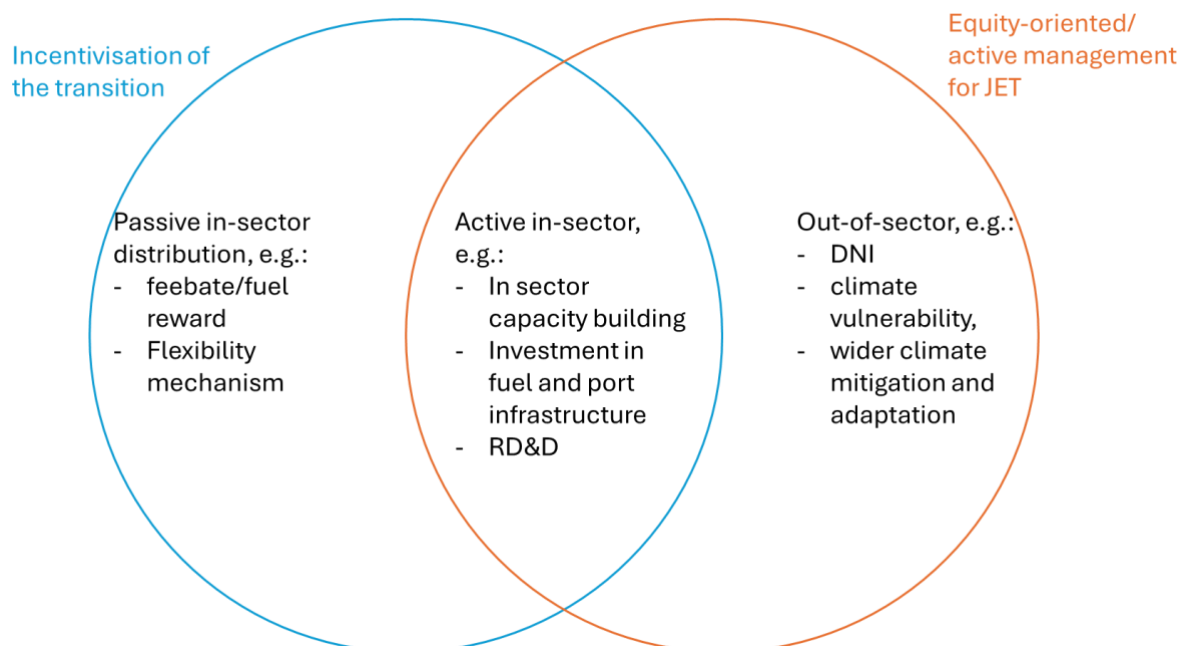
- need to incentivise first movers/early adopters,
- uncertainty of availability of fuels (including geographical uncertainty),
- need for new technologies to enter the fleet, and
- the need of supply chains for new energy sources.

However, no member state expects that new fuels or energy technologies could instantaneously fulfil the energy demands of international trade.

Beyond passive revenue allocation there are also other revenue uses and therefore competing pressures for revenue uses. Broadly the totality of potential revenue use concepts (note this is a UCL conceptualisation, drawing on submissions to the meeting and on Fricaudet et al. (forthcoming)<sup>2</sup> show overlaps, as shown in Figure 1.

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<sup>2</sup> Fricaudet, Marie and Baresic, Domagoj and Vallejo, Lola and Smith, Tristan and Administrator, Sneak Peek, Who Gains, Who Loses? Navigating the (In)Equity of the Shipping Low-Carbon Transition. Available at SSRN: <https://ssrn.com/abstract=4940789> or <http://dx.doi.org/10.2139/ssrn.4940789>



\*JET – Just & Equitable Transition, DNI – Disproportionately Negative Impacts, RD&D – Research, Development and Deployment.

Figure 1: Conceptualisation of different types of revenue use

Because of all these overlaps across technical/economic and revenue uses, we have organised the subsequent presentation of this week’s discussions under three headings:

- Rewarding overperforming ships (flexibility mechanisms and feebates), penalising underperforming ships
- Remaining detail on the GHG fuel standard
- Remaining detail on GHG pricing, fund and revenue use

The description of the discussion under each of these headings are illustrated by counts of the member states (NGOs/observer organisations positions are not included, since the IMO process is driven by member states). Some counts of member state positions are broken down according to country development status – this is done based on the income classification of the World Bank, middle- and low-income countries are considered as developing economies, and high-income countries as developed economies, which is consistent with the CIA task 3 report. SIDS, LDC and African countries are grouped together, for consistency with some of the framing used at UNFCCC and by GCF, however noting that IMO often focuses in particular on the needs of a grouping that is all SIDS and LDCs. Some counts are also presented using classifications of ‘impact on GDP in 2050’ from the UNCTAD CIA report, for this purpose scenario 22 is used<sup>3</sup>. The meeting is held in private, so it is impossible to report specifics of which country supports which proposal. The reporting on counts provides a sense of the level and nature of support for different policy choices. A significant number of the 176 member states were absent or did not participate in some or all of the discussions, which is common in IMO discussions. The counts differ between the breakdown by country group of change in GDP in UNCTAD CIA report, because some countries were not modelled in UNCTAD. The counts are made based on interventions rather than submissions as there are more countries speaking than co-sponsoring interventions, and to capture the potential for member states to evolve their position since their submission.

<sup>3</sup> Scenario 22 corresponds correspond of a GFI on WTW emissions, with no further policy measures implemented. This scenario was chosen because it includes fewest policy measures, but it is worth noting that the distribution of the worst/least impacted countries in 2050 is similar across scenarios in the absence of revenue distribution

## 2 Rewarding overperforming ships, penalising underperforming ships

The discussions on flexibility and feebate mechanisms took place separately. The first question asked of the member states was under the ‘technical measure’ discussion. Members states were supposed to indicate which ‘alternative compliance’ option they supported (alternative to complying with a GFI limit). The results are presented in Figure 2. In this discussion, most stated a clear position, with only five countries not taking a position or were ambiguous. While there was a majority of countries supporting a flexibility mechanism (29), there were also many countries preferring a surcharge or no compliance.

As an alternative compliance mechanism, a surcharge constitutes a fee/fine/penalty paid by any ship that underperforms relative to the GFI limit. For example, in one proposal (Bahamas et al.) the surcharge is an annual fee applied for GHG emitted above the GFI limit. Sometimes referred to as ‘pay to pollute’, whether this is a commercially competitive compliance option relative to GFI compliance depends on the fee/fine price relative to the cost of compliance with the GFI limit. Task 2 CIA modelling did not include modelling of the effects of a surcharge. The modeling assumed full compliance with the GFI limit, potentially including the use of flexibility mechanisms if such options are incorporated.

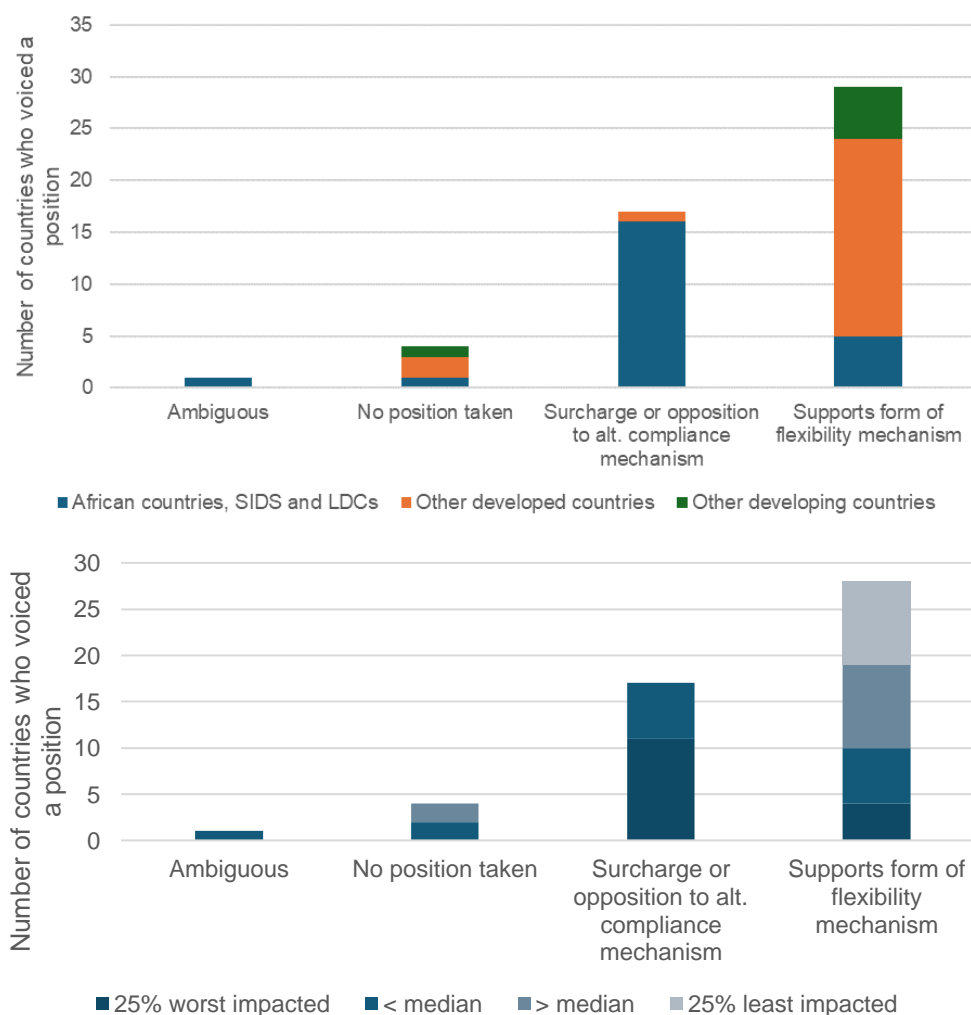


Figure 2: Counts of member states in the discussion on alternative compliance with GFI, presented according to country development status and UNCTAD CIA impact on GDP

The GFS alternative compliance discussion was followed later in the week by a discussion on the economic measure, albeit a discussion framed explicitly around proposals for a GHG price. The broader information in that discussion is presented in section 3, but the counts relating to support for the other passive revenue allocation mechanism option, a feebate mechanism, are extracted and presented in Figure 3. Most member states supporting a GHG price additional to/separate from the GFS alternative compliance mechanism options (surcharge and flexibility), supported some form of feebate/reward e.g. revenue use targeted at incentivising overcompliance. By combining GFS alternative compliance discussion data and economic measure discussion data, there are four clear groups of positions:

- One group of member states (21), comprising countries from all income levels, supported the use of a flexibility mechanism in isolation of a feebate mechanism
- An identically sized group of member states (21) supported only using a feebate/reward mechanism and was comprised of a mix of lowest income and higher income countries generally dominated by countries experiencing above average impacts in Scenario 22.
- A smaller (13) group of member states, predominantly developed countries, supported using a combination of both a reward/feebate mechanism and a flexibility mechanism
- There remain a number of countries (14) remaining open and undecided, or hard to classify as taking a clear position.

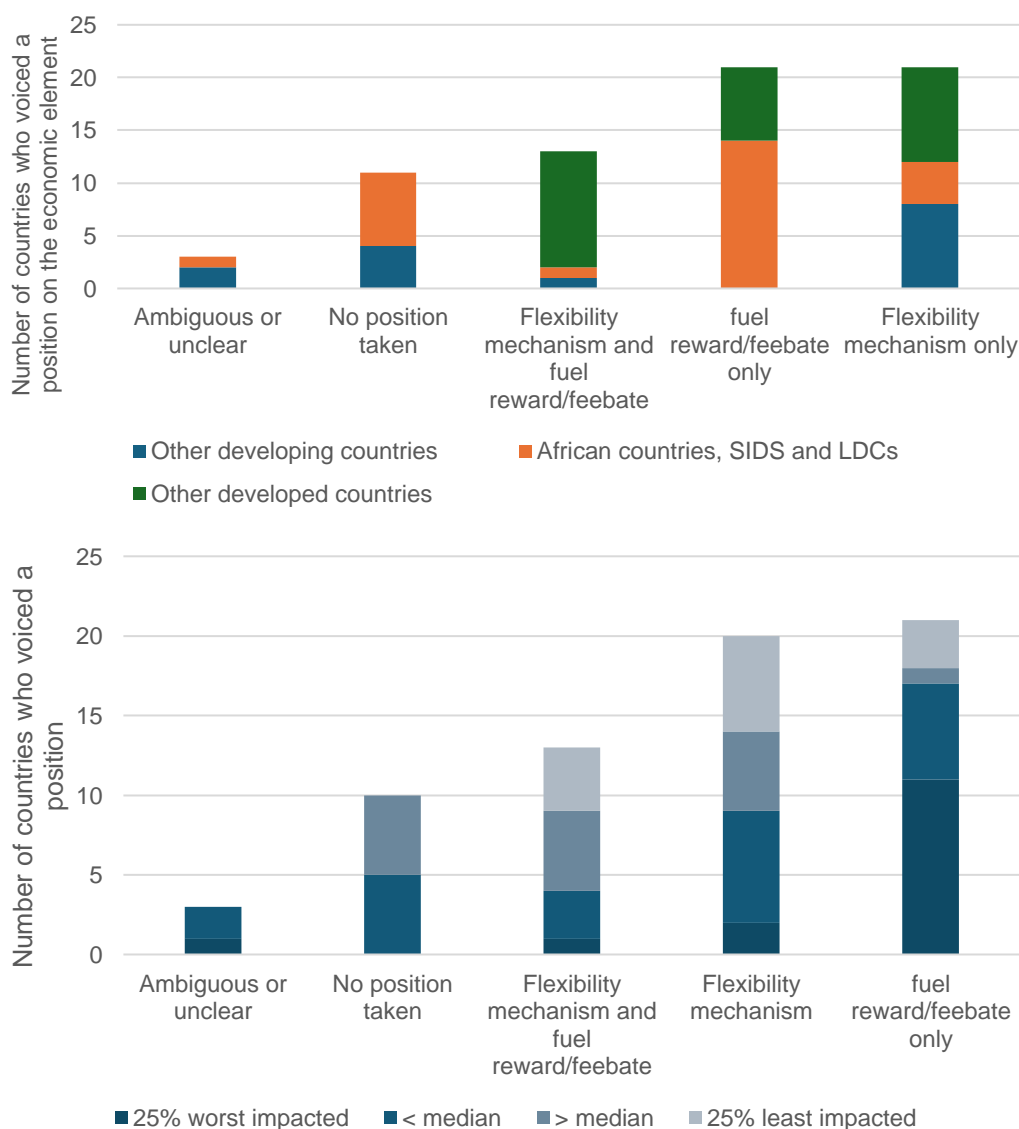


Figure 3: Passive/equity-blind in-sector revenue distribution



Taken in combination, the two discussions show that even if there are differences in the terminology and details, the concept of linking overperformance incentivisation and underperformance penalisation (e.g. financial flows moving from under-performing ships to overperforming ships, whether through credit trading or directly in a fee/rebate) is widely supported. Much of the discussion is centred on this fundamental architectural question, rather than on the specification of either of these options. This means that although there can be confidence there will be a policy to support investing not only in ships/energy that are in compliance with the GFI limit, but also ships/energy that are over compliant, it remains hard to detail the parameters on how this would actually be applied in practice.

The discussions also show that there are a number of member states that want to have two systems (both flexibility mechanisms and feebate mechanisms) performing similar functions. Besides the importance of over/underperformance incentivisation, arguments made to justify support for one, the other, or both of these, revolved around impacts on states, complexity of administration and compliance, predictability of incentives, and risks to technological inclusivity (e.g. member states fearing shipping servicing their countries could be 'left behind'). In other words, as with most of the discussions, the discussion is closely linked to the way other details of the measures are resolved, and it's hard to estimate how the options might finalise whilst those discussions also remain in flux.

It remains uncertain whether the final design of measures includes both a flexibility and a feebate mechanism or will feature one or the other. In the event the discussion on final design of measures requires member states to choose between the two options, this would leave those countries supporting both options the choice of which they preferred, which at least based on the discussion at ISWG-GHG 17, would have an important impact on whether or not there was a majority in favour or against the need for GHG pricing in addition to a flexibility mechanism.

### **3 Further details on GHG Fuel Intensity (GFI)**

The ISWG-GHG 17 discussions successfully separated discussion on architecture from discussion on detail. This enabled progress to be made on identifying convergence and assembling drafting of remaining options to frame them clearly for further discussions. Of the further details related to the design of a GHG Fuel Standard (GFS) and its limit trajectory (GFI), the discussions explored the following but did not resolve any, and options will be held for later decisions/finalisation:

- Which start year (when should a GFS enter into force, 2027 or 2028)
- Which methodology for trajectory (how should a GFI limit be calculated, form the base or strive checkpoints/levels of ambition)
- Which emissions scope should be used to define the GFI limit (WTW/TTW)
- Which form of alternative compliance: pooling, surcharge, trading, banking etc. (what different options should be included as alternatives to an attained GFI in compliance with the GFI limit)

Figure 4 presents the results of the discussion of the beginning of the year. The topic is complicated by the fact that there is a minimum period of time between an IMO adopting a measure, and when it can enter into force. With adoption currently scheduled for late 2025 (adoption has to be at least six months after approval, which is expected at MEPC 83 in April 2025), then the earliest entry into force can occur is part of the way through 2027. The architectures proposed for GFI all rely on annualised reporting of data into IMO's data collection system, which some perceive means the start year of the measure should be 2028. The counts show there is a clear majority with member states from a mixture of income levels,

supporting the earliest start year for GFS – 2027 – noting however that many countries in the room did not take a position on the topic.

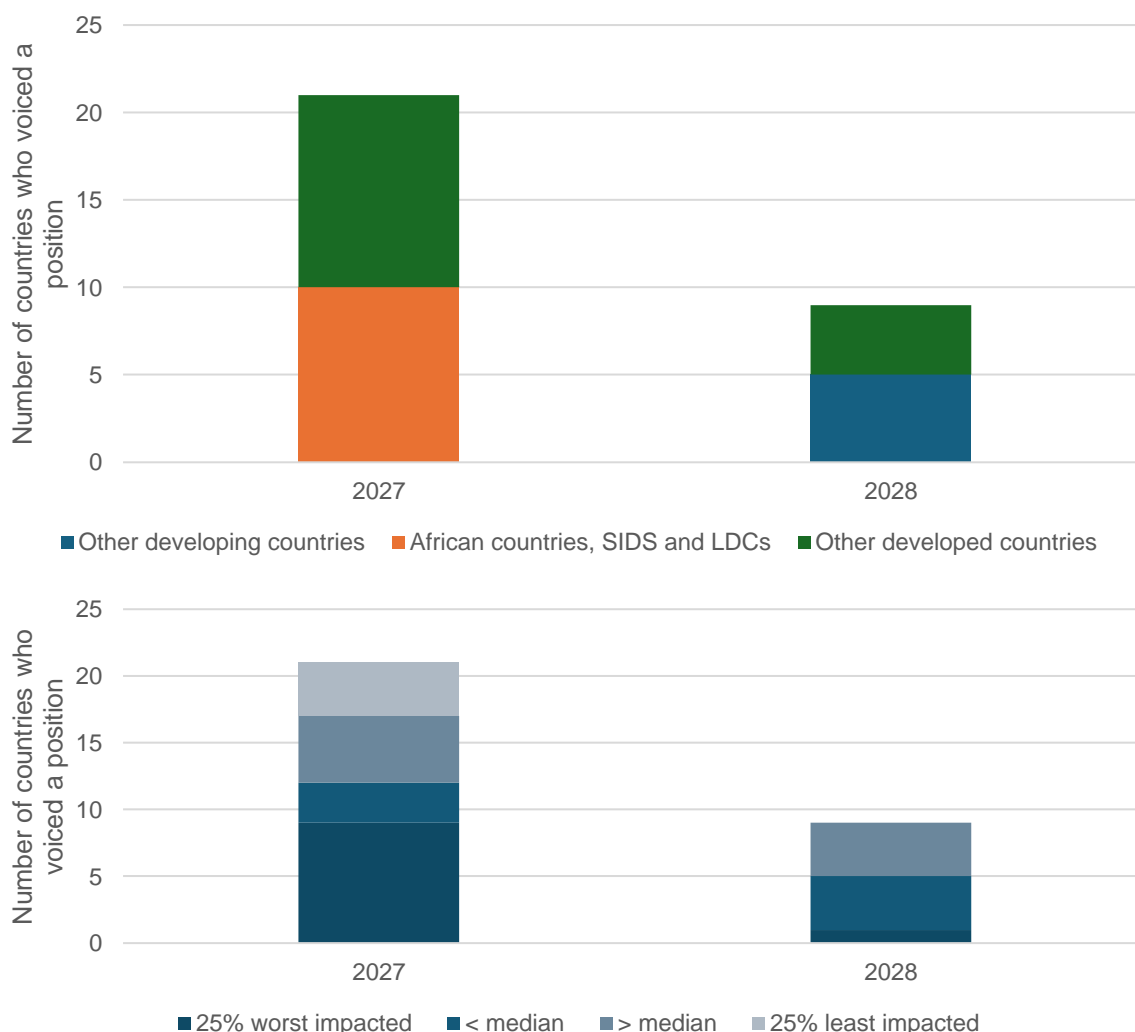


Figure 4: Start year of the GFI

Another parameter that was further discussed was whether the GFS and its GFI limit, should be set using a Well-to-Wake (WTW) or Tank-to-Wake (TTW) framing. This is important for both investment decision making clarity, and for environmental effectiveness of the measure, with WTW sending a clearer signal for both purposes. Evolutions of the definition of TTW mean that it is now referred to by its supporters as ‘adjusted TTW’, whereby it is adjusted to also include the Well-to-Tank (WTT), aka upstream, component of emissions as well at TTW. This means that in practice the difference between the two framings has significantly narrowed and both would have similar effects, as also evidenced in the Task 2 CIA report which analysed that both can be compatible with the IMO’s levels of ambition, and are both now associated with very similar costs.

This is also a question discussed at ISWG-GHG 16, and so it is possible to present the evolution of positions between the two discussions, shown in Figure 5. Broadly the member states retained similar positions, although in the ISWG-GHG 17 discussion there were fewer stating a clear position in total, particularly fewer supporting ‘adjusted TTW’. As a result, the % split is now different – at ISWG-GHG 16 the room was split 30-70 (TTW-WTW), at ISWG-GHG 17 the room was split 15-85 (TTW-WTW).

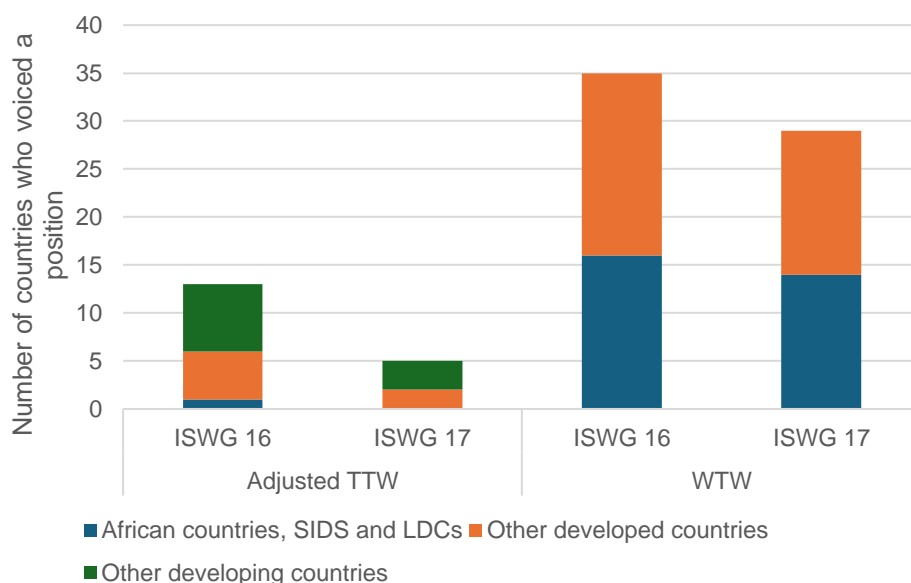


Figure 5: Scope of emissions considered

The IMO’s Revised Strategy contains two sets of levels of ambition for both the absolute WTW GHG emission reductions in 2030 and 2040 and the target for Zero and Near-Zero GHG emission fuel use: an ‘at least’ and a ‘strive’ level of ambition. This creates a question that needs resolving in the policy implementation of how two sets (levels) of ambition might be encompassed in the way a GFI target is defined. Figure 6 provides the counts of the member states that voiced a preference on this subject, with a large majority clearly favouring the use of the ‘strive’ targets, which are for a 30% absolute WTW GHG reduction in 2030 and an 80% absolute WTW GHG reduction in 2040 – noting however that many countries in the room did not voice a preference on the topic (in ISWG-GHG 16 readout, we estimated these to be equivalent to an 61% and 91% reduction in GHG intensity in 2030 and 2040 respectively, given expectations for growth in trade over the period from the 2008 baseline)<sup>4</sup>.

<sup>4</sup> <https://www.u-mas.co.uk/wp-content/uploads/2024/03/ISWG-16-UMAS-readout-final.pdf>

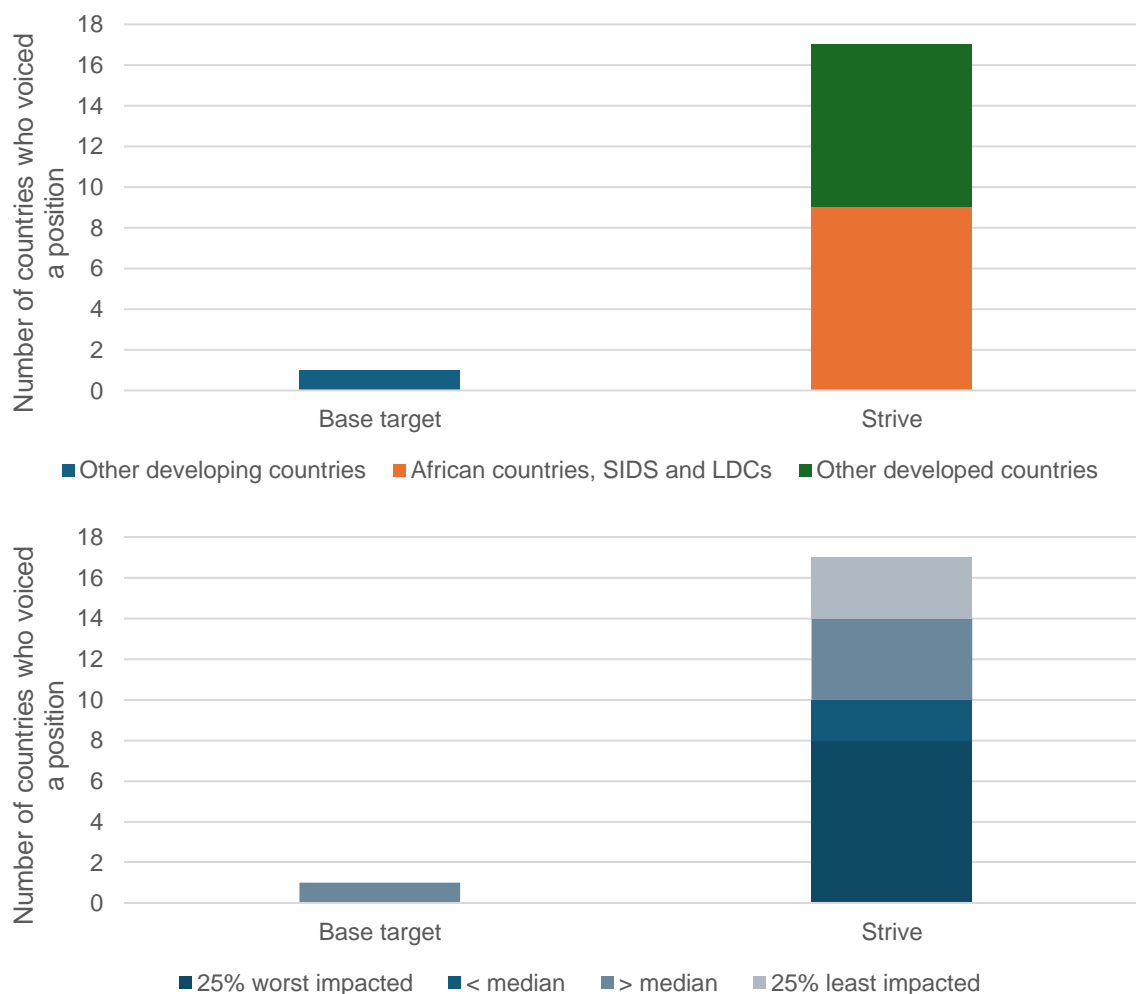


Figure 6: Target for GFI trajectory

In addition to these points, under the GFS discussion there was also some discussion about whether there was a need for exemptions in addition to other types of alternative compliance. Interventions from member states covered two types of exemption:

- The use of FONAR or equivalent (fuel oil non-availability), which is a certificate that indicates that an exemption is needed because there is no availability of fuels.
- The use of route-based or geographical exemptions (e.g. certain routes to/from certain developing countries, in order to help to manage the issue of impacts on states)

The need for the former was to ensure that ships were not penalised because of a lack of availability of compliant fuel/energy in a given port or region. There was no strong support expressed for this by member states, with some expressing concerns that it would undermine the business case for investment in energy transition, and that this was adequately addressed through the flexibility mechanism or surcharge. There is no MARPOL drafting that includes reference to a FONAR that has been taken further at this point.

On the topic of route-based exemptions, there were four 'other developing' countries (not SIDS, LDCs or African countries) that supported some form of route-based exemption. While four other countries (one SIDS/LDC/Africa and three developed countries) that opposed this concept. There is also no MARPOL drafting that includes a reference to route-based exemptions that has been taken further at this point.

## 4 Raising and distributing revenue

Following the discussion on GFS, there was one round of discussion on the economic measures. The discussion was framed around the question of the fundamental architecture of the economic measure (e.g. whether or not to include a universal GHG price referred to as a levy), as well as questions about the use of funds that are raised. The concept of raising and distributing funds is something there is already broad consensus on (all policy designs currently being considered would have fund raising, whether through a universal GHG price or a GHG price on emissions above a GFI limit), and so it was possible to separate these two aspects of the discussion and hear a broad range of positions on the question of fund use.

The topic of whether or not to have a levy has long been at the centre of the IMO's GHG discussions. The concept crystallises opinions, because whilst some perceive it as primarily adding cost to the transition for limited benefits and additional impact on states' risks, others see it as being central to the certainty of raising sufficient revenues that in combination with other policies can enable a just and equitable transition. This discussion and the subject of economic measures is therefore particularly relevant to the CIA analysis results, which can be found discussed in greater detail in the FAQs<sup>5</sup>. A general finding from those results is that a universal levy has a lower GDP impact at the global level, but in particular has the potential (if revenues are distributed to countries experiencing negative impact) to significantly reduce negative impacts on SIDS, LDCs and other developing countries. The overall results from two of the scenarios pertinent to the ISWG-GHG 17 discussions, illustrating difference in GDP impacts, can be found in Figure 7.

The number of member states that spoke in support of a universal GHG price/levy increased in this meeting (ISWG-GHG 17 - 39 supporting, ISWG-GHG 16 - 34 supporting, ISWG-GHG 15 - 33 supporting). Overall, the support for/against universal GHG price/levy at ISWG-GHG 17 is described in Figure 8. The concept of universal GHG pricing continues to be well supported by the most of the SIDS and LDC group of countries, and by the majority of developed countries. The majority of other developing countries oppose the concept. The large majority of the 25% most highly impacted countries (according to the IMO's CIA reports) support the concept of a universal GHG price/levy.

The higher support for a universal GHG price at this ISWG-GHG 17 meeting came in part from new support from Africa, and it was notable that of the African countries that spoke in the discussion, the majority were either explicitly supportive of the levy, or expressed openness to further considering the levy (e.g. not expressing a firm position either way, but interested to keep all options on the table). This development is important because previous discussions saw more general polarisation between a group of SIDS (predominantly from the Pacific and Caribbean) supporting a universal GHG price, and a group of higher income developing countries that were strongly opposed to a universal GHG price.

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<sup>5</sup> <https://www.shippingandoceans.com/post/faqs-on-mid-term-measures-for-reducing-ghg-emissions-from-international-shipping>



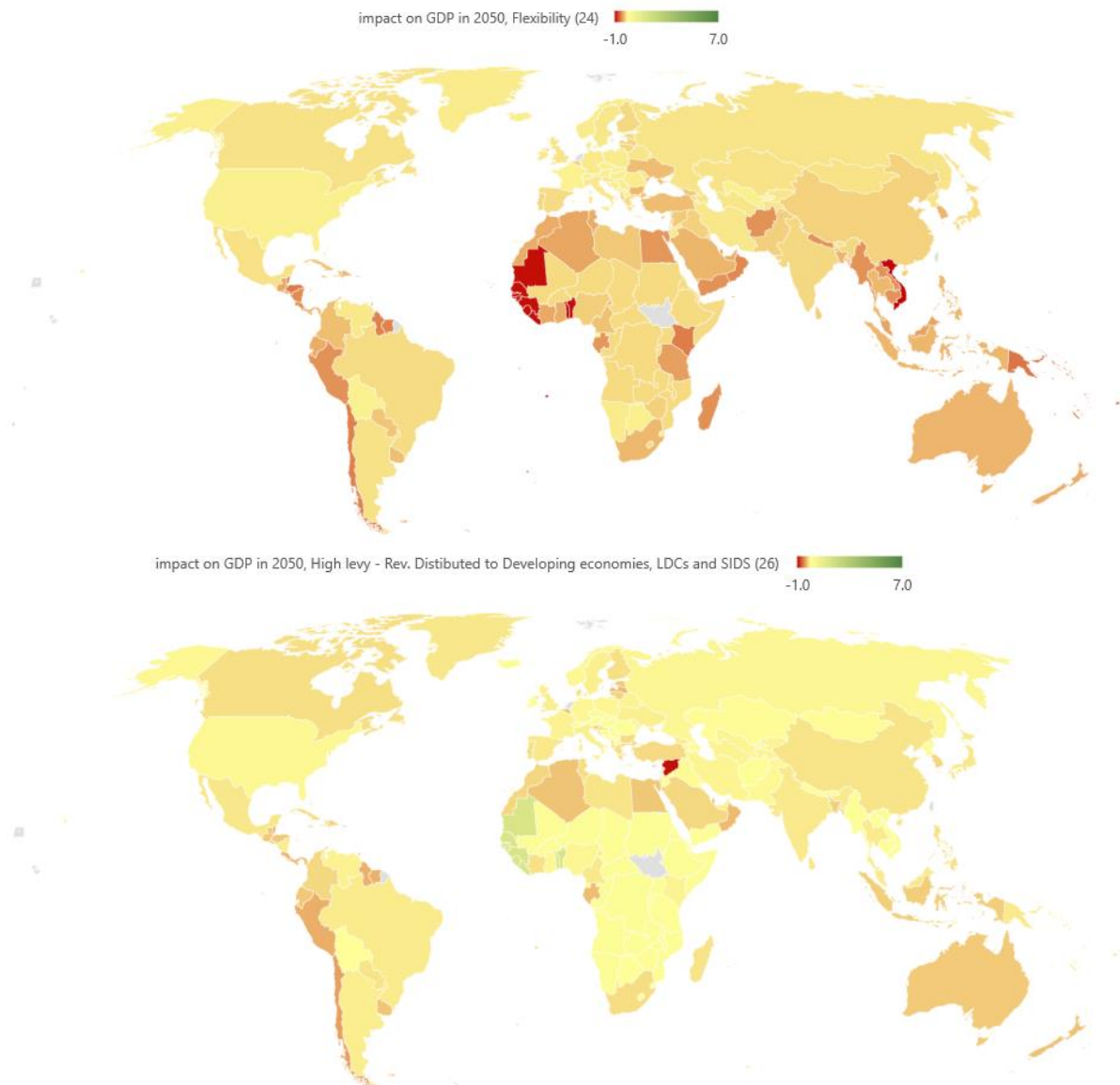


Figure 7: Change in GDP in two scenarios, from CIA Task 3 results, extracted from <sup>6</sup>. The upper plot is scenario 24 (GFS and flexibility, no levy), the lower plot is scenario 26 (\$150/t levy in combination with GFS, revenues distributed to developing economies including SIDS and LDCs).

<sup>6</sup> <https://www.shippingandoceans.com/post/new-tool-for-exploring-the-impacts-of-policy-measures-aimed-at-reducing-ghg-emissions-from-shipping>

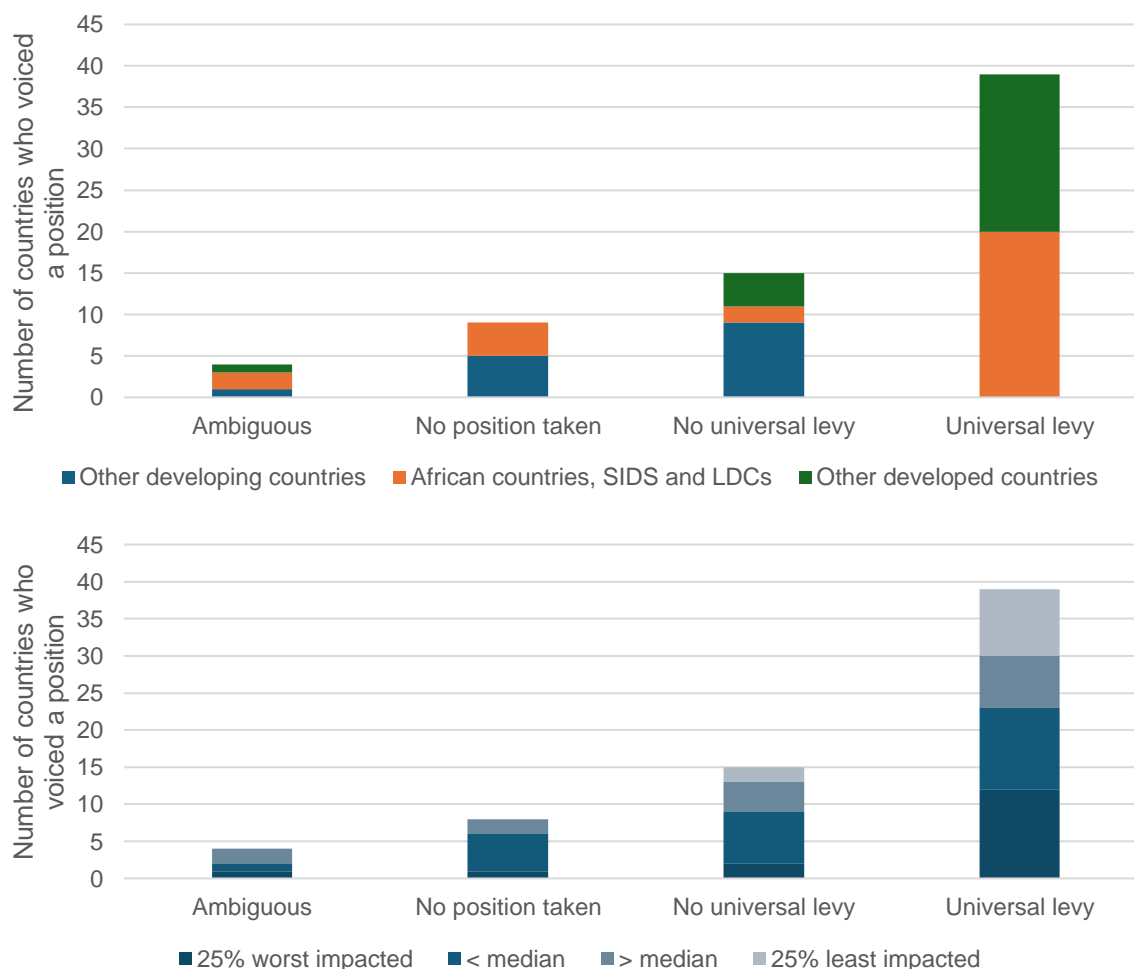


Figure 8: Position on the levy

The different uses of revenues (whether from a universal GHG price, or as a product of a flexibility mechanism), are summarized in Figure 9. The strongest and clearest support (nearly all who spoke) was expressed as for:

- Passive in-sector use (e.g. reward for overperformance, reward as part of a feebate mechanism, or rewards/surplus compliance units as part of a flexibility mechanism), supported by 50 member states who spoke
- General mention of use to address Disproportionate Negative Impacts (DNI)/Just and Equitable Transition (JET), also supported by 50 member states who spoke.

With passive revenue use, instead of being targeted at particular countries, revenue is allocated to ships according to a metric such as GHG emissions or GHG intensity. As a result, its effects on the overall impacts on states is uncertain, although evidence suggests that this type of revenue allocation will generally benefit developed economies and developing economies with existing large maritime industries/interests<sup>7</sup>.

The concepts of JET and DNI are used as terms in IMO's Revised Strategy, but are as yet undefined by consensus within the IMO, although some submissions by groups of member states have attempted to clarify them. The meaning for broad support for this area of revenue use is therefore hard to define. The breakdown of further revenue uses, however, may provide

<sup>7</sup> Fricaudet, Marie and Baresic, Domagoj and Vallejo, Lola and Smith, Tristan and Administrator, Sneak Peek, Who Gains, Who Loses? Navigating the (In)Equity of the Shipping Low-Carbon Transition. Available at SSRN: <https://ssrn.com/abstract=4940789> or <http://dx.doi.org/10.2139/ssrn.4940789>

some useful indications of how different member states conceive of JET and addressing DNI. For example, 29 member states supported ‘active in-sector’ revenue use in their interventions e.g. revenue use targeted at specific member states (such as by a fund/board) for the needs of international shipping (which may for some member states include uses on land, such as for ports, energy infrastructure etc., or in-sector capacity-building).

Some member states (15) made a clear statement of the need for revenue use ‘out of sector’ in addition to other uses. Many in this group justified this on the basis that they faced high negative economic impacts from the regulation, but that they lacked the maritime/shipping industry base that could benefit if revenue use is limited to ‘in-sector’ only. A particularly stark example of this was provided in a land-locked least developed country’s (LLDC) intervention, a country clearly without a maritime industry or potential for investment in ports or maritime infrastructure, but facing significant risks of negative impacts given their dependence on imports of agricultural products. Ten countries supported revenue use for seafarers (e.g. training and developing skills that will be needed as the shipping sector transition to new fuels/energy and technologies).

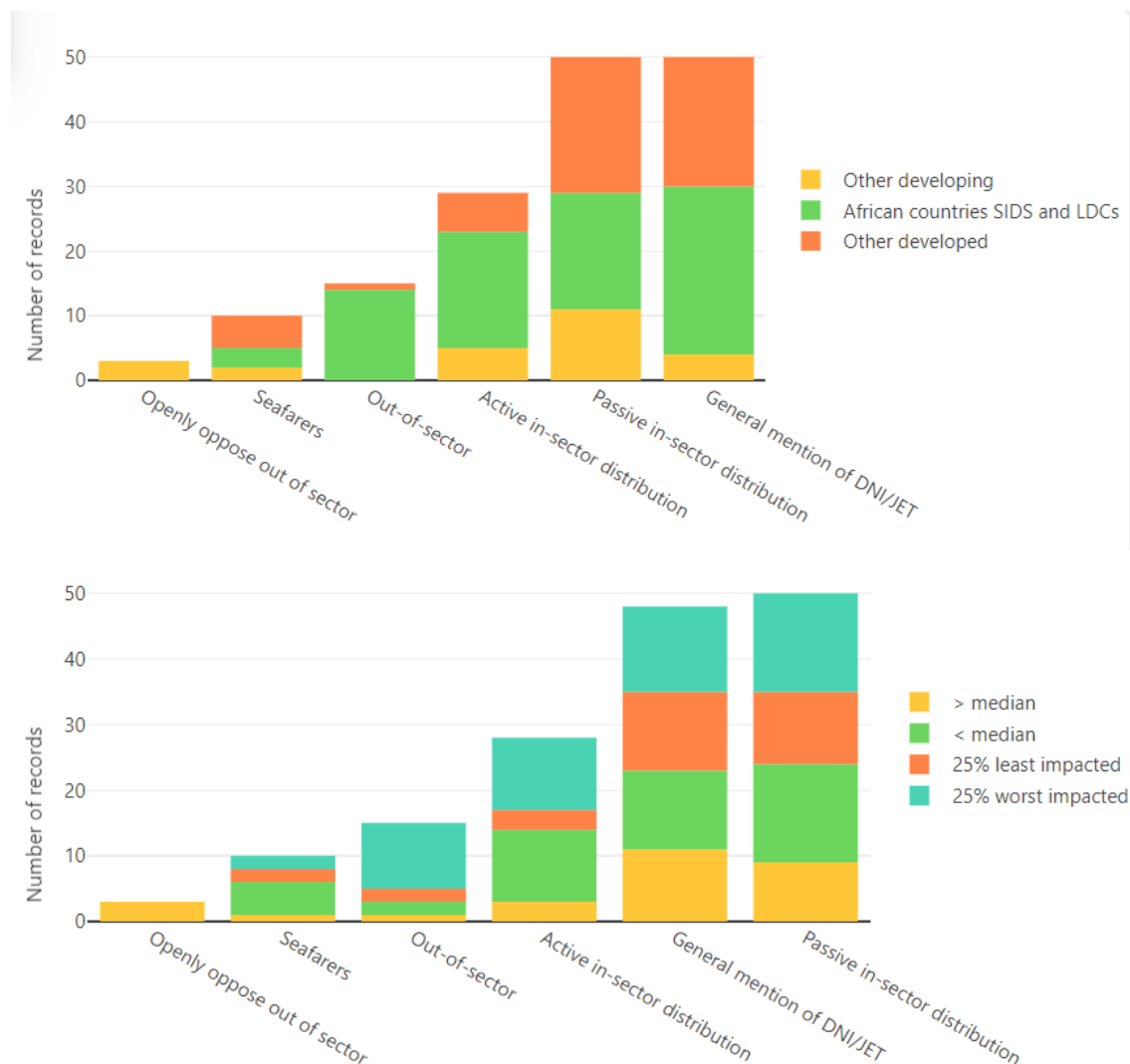


Figure 9: Use of revenues<sup>8</sup>

<sup>8</sup> As one country might have supported more than one type of revenue distribution, the total counts is larger than the number of countries who voiced an opinion

Food security found particular resonance in the discussion of economic measures. 11 countries raised concerns about the impact of an increase in transport cost on their food security, With a few calling for additional analysis on this topic.

Linked to the subject of what revenues should be spent on, there was also discussion of how the fund should be governed/managed and structured. 43 countries called for a fund under the IMO umbrella or an IMO entity, with 11 further calling to use external existing funds, and 3 suggested having an external trustee to the fund. The concept of a fund being under the IMO umbrella encompasses a broad range of potential architectures from the IMO hosting just a high-level decision making body, to the IMO undertaking fund management.

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