

Sustainable Water Network (SWAN)

Ireland's Marine Strategy Framework Directive

Article 19 Report

Initial Assessment, GES and Targets & Indicators

- Response to Public Consultation -



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1. Introduction to SWAN

The Sustainable Water Network (SWAN) is an umbrella network of 25 of Ireland's leading environmental NGOs, national and regional, working together to protect and enhance Ireland's aquatic resources through coordinated participation in the implementation of the Water Framework Directive (WFD) and other water-related policy and legislation. SWAN member groups are listed in Appendix I. SWAN has been actively engaged in Water Framework Directive (WFD) and other water policy implementation at both national and River Basin District (RBD) level since 2004, responding to water-related public consultations and representing the environmental sector on WFD River Basin District (RBD) Advisory Councils, the South Eastern RBD Management Group and other water policy-related fora. In 2013 SWAN published the report (Brady et al., 2013) *'The Marine Strategy Framework Directive in Ireland: Requirements, Implications & Opportunities for Environmentally Sustainable Management of Our Marine Waters.'*

2. Introductory comment

SWAN welcomes the publication of *'Ireland's Marine Strategy Framework Directive Article 19 Report - Initial Assessment, GES and Targets & Indicators'* and also the opportunity to comment on it. This is a much more accessible document than the previous Article 19 consultation material issued in May 2013 and it provides an interesting and very useful overview of Ireland's marine environment.

We also appreciate that the requirements of this stage of the Marine Strategy Framework Directive (MSFD) in terms of assessing the health of Ireland's marine waters; analysing the impacts on it; defining good environmental status (GES) and setting targets for a range of descriptors is extremely challenging and beyond the knowledge and data currently available in government agencies in Ireland – and many other Member States - and that substantial resources and research time are needed to fill the gaps.

However, we believe that the resulting, understandably, interim nature of this assessment is not made clear to the reader, nor the resulting limitations, and the Executive Summary in particular gives the impression that this stage of MSFD implementation has been completed, when in fact the targets and indicators for a number of key descriptors are still 'under development'.

It is clear that a number of the points raised in this submission regarding data gaps and public participation are linked to the next stage of implementation, namely the monitoring. Therefore, some consideration of the linkages between SWAN recommendations on public participation on the current phase and similar provisions for the monitoring programme should be explored.

Due to limited capacity and opportunity for full engagement, SWAN is not in a position to conduct a full technical critique for all descriptors. Rather we have focused on key elements of the report e.g. initial assessment and target-setting in addition to other vital horizontal issues e.g. public participation and knowledge gaps and have made reference to issues arising on a number of the descriptors under these headings. We refer the reader to submissions from SWAN members e.g. Coastwatch and the Irish Wildlife Trust for more detailed comment on specific descriptors.

3. Public consultation process, public awareness & public participation

It is SWAN's position that the current consultation process is fundamentally flawed since the public are being invited to comment on a document which has already been finalised. The network's misgivings in this regard

were reinforced by the November 11th 2013 stakeholder workshop at which stakeholders were informed that the document on which comment was invited was the final document and no changes would be made to it, based either on the current consultation process or the outputs from that workshop. SWAN believes that this is wholly unsatisfactory and that it is not sufficient to simply publish stakeholder comments with responses. This must be accompanied by a willingness to amend the Initial Assessment based on input from stakeholders before the next stage of implementation (not in the next cycle in 6 years' time.) Without this commitment, the consultation is rendered almost meaningless.

The participation of interested parties in the implementation of the Marine Strategy Framework Directive (MSFD) is one of its key requirements¹ and the Directive places substantial emphasis on the need for the wider public to be informed and consulted as action is taken under it. Article 19(1) of the Directive provides,

'... Member States shall ensure that all interested parties are given early and effective opportunities to participate in the implementation of this Directive, ...'

SWAN would strongly contend that this consultation does not offer an opportunity for 'early and effective' participation. It is not early, in that this phase of implementation is already complete and submitted to the Commission and nor is not effective for a number of reasons. Firstly, only a small number of stakeholders are aware of this process, or indeed of the MSFD itself. In addition, one of the core principles of effective public participation is that the public must be allowed *"to influence the outcome of plans and working processes"* (EC, 2003) and for this process to be 'effective', there are a number of key required features which consistently emerge from the literature (Rowe & Frewer, 2000; Cuff, 2001; Mostert et al. 2007; Acland, 2008; Irvine & O'Brien, 2009). Whilst a comprehensive discussion of this is beyond the scope of this submission, in synthesis 'effective' public participation must involve:

- a firm commitment from relevant decision-makers to allow stakeholders involved to meaningfully influence outcomes;
- the identification and inclusion of all stakeholders;
- the use of appropriate means and techniques, of involving all interested parties, including specially trained professionals, which will consider and respond to the characteristics and circumstances of the stakeholders involved;
- the initiation of public involvement as early as possible, including planning ahead to ensure that stakeholders have the capacity to participate when the opportunity is provided.

It is clear that all of these elements are missing from the current consultation.

For the same reason, SWAN believes that this consultation runs counter to both the letter and spirit of the Aarhus Convention which requires that *'Each Party shall make appropriate practical and/or other provisions for the public to participate during the preparation of plans and programmes relating to the environment, within a transparent and fair framework, having provided the necessary information to the public'*.

The initial assessment and in particular the establishment of GES and setting of environmental targets is fundamental to the Directive, as it sets the level of ambition for the Directive's implementation in Ireland. It is imperative that the public are given the opportunity for meaningful input to this, both because it is required by the Directive and because there is a risk that vital information will be missed if it is not carried out.

¹ Article 19(1) of MSFD.

The consultation page of the Departments website states that *'Comments and submissions received will inform the next phases of implementation of the Marine Strategy Framework Directive in relation to the development of a Monitoring Programme under Article 11 due mid-year 2014 and a Programme of Measures under Article 13, to be developed by 2015..'* SWAN would ask that any feedback from the current consultation should inform not just future stages of MSFD implementation but that the Initial Assessment, current targets and GES as set out in this report should be assigned interim status until a full public participation exercise is carried out. We would further request that outputs from this exercise should be reflected in final GES definitions and Environmental Targets.

Recommendations

- The Initial Assessment, GES and targets should be amended where necessary based on outputs from the current consultation which should involve follow-up dialogue with stakeholders on points raised.
- This assessment must be viewed as an interim assessment only until an effective, Aarhus-compliant public participation exercise is carried out. This should comprise at least a further 2/3 workshops with professional facilitators to tease out the details of each descriptor and their knowledge gaps more thoroughly, to mine potential sources of additional information to fill gaps and to explore opportunities for collaboration in particular in terms of monitoring and awareness-raising.
- The opportunity for public participation in citizen monitoring should also be explored in preparation for the next phase of the Directive.

4. Knowledge/information gaps

It is clear from the report and from the workshop that we are starting from a low base with regard to the MSFD, especially in light of its requirement for an 'ecosystem-based approach'. There are substantial data gaps and a low level of baseline information on many aspects of the marine environment, especially in relation to ecosystem functioning and cumulative impacts. This is coupled with very limited resources and low capacity in both government agencies and non-government organisations, which makes the implementation of this directive challenging for all sectors.

Transparency in identifying knowledge gaps & resultant uncertainty

The first step in addressing this is acknowledging this challenge, its implications and transparently identifying where insufficient information exists on which to base an assessment. SWAN welcomes the identifications of some of the data gaps for a number of the descriptors. However, there is a lack of specifics as to what the data gaps are, the level of resultant uncertainty, and how these will be filled. This is especially the case for biodiversity, foodwebs and seabed integrity where very little specific information is given.

Filling knowledge gaps

It is vital that this status assessment, GES and environmental targets are based on all current data. Therefore, all existing relevant research should be sourced, collated and included in the assessment. It is not clear from the summary report whether this is the case but it appears that the report is primarily restricted to data held by state agencies and published in peer reviewed journals.

SWAN believes that there is a wealth of unpublished information held in private consultancies, academic institutions and NGOs which must also be sourced and incorporated into a final, more comprehensive report. In particular, data from *'Strategic and Environmental Impact Assessments (e.g. renewable energy developments)'* is

specifically recommended as a source of information by the CIS Common Understanding Document (EC, 2011); SWAN would endorse this. In addition, SWAN members such as Coastwatch, Birdwatch Ireland and the Irish Whale and Dolphin Group have conducted marine monitoring and research that could very well be useful in supplementing the report in relation to, in particular, biodiversity, marine litter and underwater noise. However, it is our understanding that they were not approached in the preparation of this assessment.

It has further come to SWAN's attention that some important data held by a semi state agency may not have been release on grounds of commercial sensitivity. SWAN is not in a position to comment in detail on this, since we are not conversant with the detail. However, SWAN believes that any agency holding key information should be impelled to either make it available or make an extremely strong, transparent case for withholding such data, citing the relevant supporting legislation.

Recommendations

- A full gap analysis for each descriptor should be published with an action plan for addressing the gaps. This should be done with the participation of stakeholders and should include a review of unpublished information. For environmental targets, this gap analysis should take into account the '*Indicative list of characteristics to be taken into account for setting environmental targets*' set out in Annex IV of the Directive.
- In the interests of transparency, the '*limitations of the assessment*', due to data gaps should be clearly defined, as recommended by the Common Understanding document (EC, 2011) and an indication of the level of confidence/certainty be set out for the initial assessment; pressures & impacts analysis; GES and setting of environmental targets for each descriptor, relating this to the level of data deficit for each.
- The precautionary principle should be applied when drawing conclusions from limited data and general statements presenting an excessively positive picture of Ireland's marine environment should not be made, in the context of such considerable knowledge gaps (See 5. below).
- Where there are gaps, these should be detailed and a strategy set out to fill them, including stakeholder participation
- Since, it is presumed that many of these gaps will be addressed with a new and much more comprehensive monitoring programme, due this June. SWAN proposes that a further consultation on the monitoring programme is vital. The basis of this consultation should be a transparent list of data gaps, what will be addressed by the monitoring programme and what will be addressed by specific funded research.
- Until these gaps have been filled the associated status, GES and targets should be assigned interim status only.

5. Excessively & inaccurately positive interpretation of data

It is important to emphasise that the identification of knowledge gaps is not just a practical exercise to inform future work, although of course an action plan to fill identified gaps is vital. In addition, as set out in the CIS Common Understanding document (EC, 2011) '*Member States should make it clear where gaps exist in order that the limitations of the assessment are defined*' (SWAN italics). Whilst information gaps are acknowledged in the individual chapters, such an assessment of the limitations of this report is not included. In particular, it is not reflected in the Executive Summary which presents an excessively positive picture of the Irish marine

environment, without any caveat regarding the inadequate information on which this conclusion is based. It states that “the results of the Initial Assessment indicate that the overall quality of Ireland’s marine environment is good”. This is at odds with the lack of information acknowledged later in the report, especially in relation to the ecosystem-related descriptors, and the later statements in the report regarding, for example, seabed integrity:

‘Benthic communities in shallow and shelf subtidal areas are spatially and temporally variable. To date, the extent of biological variability associated with these communities has not been determined and it is therefore not possible to make an assessment of the current status or condition of shallow and shelf PHTs.’

And:

‘Because of their depth, remoteness and considerable extent, deepwater habitats of the Irish Assessment Area are not well characterised and it is therefore not possible to make an assessment of the current status or condition of these habitats.’

SWAN believes that it is premature to claim that the results of the assessment indicate that ‘the overall quality of Ireland’s marine environment is good’ and that a more circumspect approach to presenting the findings of the report would be more prudent and truer to the current level of knowledge.

Recommendations

- References to knowledge gaps alone are insufficient. They should be accompanied clearly at the beginning of the document by a statement regarding the resultant limitations of the assessment, GES and target-setting should be made.
- General statements, in particular the one cited from the Executive Summary should be removed from the report, or at a minimum, reworded and issued with a strong caveat, with a much clearer link made to the knowledge gaps and the resulting uncertain status of such claims, in the context of the significant knowledge deficit.

6. Initial Assessment

Assessment of current environmental status

Whilst some chapters have a subsection setting out an assessment of current status, this is not the case for all descriptors. Nor is it clear for many of the descriptors how far we are from achieving GES.

Ecosystem-based descriptors biodiversity, food-webs and seabed integrity have not been assessed. This is a conspicuous and very regrettable gap in the report since obviously knowledge of the current status of the marine environment is key to assessing how far we are from the objective of the directive (GES) and, in turn, to putting in place a programme of measures to achieve this. Whilst it is acknowledged that it may not be possible to conduct a full assessment if the data does not exist, please refer to Sections 4 and 5 above which recommend additional sources of unpublished data and makes recommendations regarding data gaps and their implications for the status of the initial assessment, in the interests of transparency.

In relation to Marine Litter, it is reported that current status cannot be assessed due to knowledge gaps and that coastal litter surveys are currently conducted on only four stretches, four times a year. This is wholly inadequate in terms of providing a complete and representative picture of marine litter nationally. SWAN member organisation Coastwatch has many years’ experience of national coastal surveys including for litter and SWAN

believes data from these comprehensive national surveys should be included. Whilst it is not suggested that data from this would completely fill the gap, it would contribute towards a fuller picture of the status of this descriptor.

In relation to commercially exploited shellfish species, SWAN believes that the omission of the native mussel (*Mytilus edulis*) from this assessment of commercial stocks is a significant weakness which must be addressed. Information on the status of mussel stocks are vital given that it is a commercially highly significant shellfish species for Ireland and must be recognised as such.

Analysis of predominant pressures and impacts

The MSFD requires that the analysis of predominant pressures and impacts must include ‘*the main cumulative and synergetic effects*’.² However a significant shortcoming of the report is that such an assessment of cumulative impacts is missing. It is crucially important that the cumulative impacts of identified pressures are included in the assessment, as required by the Directive and, where the ‘*cumulative and synergetic effects*’ of groups of pressures are unknown, that this is identified as a knowledge gap, a research programme put in place to address it and the precautionary principle applied. An initial research task, especially in the case of limited resources, should be a desk review of applicable international research on cumulative impacts and pressures, especially in the coastal zone.

Whilst such an analysis is complex and state agencies may not yet have the capacity to conduct this, it is important that this key requirement of the pressures and impacts analysis be referred to, accompanied by a plan of action, including a timeline, to address this gap. It is not acceptable that this requirement simply be omitted.

Recommendations

- All assessments should be deemed to be initial assessments until an effective public participation exercise has been carried out and all sources of data have been mined.
- Where the ‘*cumulative and synergetic effects*’ of groups of pressures are unknown, this must be identified as a knowledge gap and an action plan put in place to address it, including an initial desk review of applicable international research on cumulative impacts, especially in the coastal zone.
- Engage with stakeholders in relation to assessing the status of descriptors, especially with those stakeholders likely to hold relevant data and for those descriptors for which data gaps mean there is no assessment of current environmental status.
- Shortcomings with regard to marine litter and commercially exploited shellfish species should be addressed as set out above.

7. Defining Good Environmental Status

SWAN is not in a position to critique the GES definitions for all descriptors and so no comment should not be interpreted as agreement. GES for biodiversity, commercially exploited fish, eutrophication, sea-floor integrity and contaminants seem sensible and in line with definitions from Annex I of the Directive. The inclusion of micro-

² Article 8 (a) (ii)

plastics is to also be welcomed in the definition of GES for marine litter. Below are comments regarding GES for a number of the other descriptors.

Non-indigenous species

This Directive's Annex I definition of GES for non-indigenous species (NIS) is as follows: '*Non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystems*'. However, the definition of GES for this descriptor in the Irish summary report is as follows:

'Good status is achieved when the risks and pathways from vectors which facilitate the introduction and spread of NIS as a result of human activities is significantly reduced by way of appropriate measures ; and should they arrive, by applying, where feasible, practical and cost-effective means ,to control or reduce their further spread.' (SWAN's underlining)

This is not in keeping with the Directive's definition and includes too many 'qualifiers' and subjective language. It is not clear what degree of reduction is significant, nor what 'appropriate' measures means. In addition the inclusion of 'where feasible' introduces an element of uncertainty as to the circumstances in which it would be deemed feasible to control the spread of NIS.

8. Setting environmental targets

The most glaring omission in the report is the lack of environmental targets for biodiversity, food-webs and seafloor integrity (in addition to underwater noise). Given the central importance of these ecosystem-based descriptors of the marine environment, SWAN believes that it is impossible for this report to be presented as the final assessment without them.

The setting of robust environmental targets to guide the achievement of Good Environmental Status (GES) is one of the most crucial implementation exercises required to be undertaken by Directive, because this is the stage at which the 'bar is set' in terms of what must be achieved during the implementation of the Directive. Weak targets will result in weak measures, and accordingly will result in a failure to achieve real improvements in environmental quality standards for Ireland's marine waters. Due to its importance, it is vital that the target-setting process is subject to the effective public participation requirement provided by Article 19 of the Directive.

The Directive defines an environmental target as '*a qualitative or quantitative statement on the desired condition of the different components of, and pressures and impacts on, marine waters in respect of each marine region or subregion*'. Annex IV of the Directive provides an indicative list of characteristics to be taken into account for setting targets and includes the requirement to set '*targets establishing desired conditions based on the definition of good environmental status*'. The CIS Common Understanding paper (EC, 2011) clarifies both the differences and the link between the process of defining GES and that of setting targets: Environmental targets are '*a means of articulating in a quantitative or qualitative manner either the desired levels of, or necessary changes to, environmental pressures and impacts which would ultimately result in the achievement of GES*'. They may also reflect either '*GES itself*' or '*the actual changes necessary to the current state in order to achieve or maintain GES*'.

As this is clearly one of the most complex and technical aspects of the directive, it is one that would significantly benefit from more inclusive stakeholder participation. Given the complex nature of the exercise, it is important that stakeholders understand the rationale for selecting various targets, the degree of certainty on which they are based and whether they are trend-based; state-based or pressure/impact-based. Due to capacity and time, SWAN

very much regrets that it is not possible to comment in detail on environmental targets for each descriptor. However, SWAN members are extremely keen to engage on this and we would welcome and recommend that workshops with experts and stakeholders should be held to facilitate explanation and consideration of the targets set in the report.

It is important that targets are set using the strictest interpretation of, in the first instance the Directive, and, in addition, the CIS Common Understanding document, taking into account the indicative list of characteristics for setting targets set out in Annex IV of the Directive. In particular, the targets must not reflect the already impacted marine environment but must establish *'desired conditions based on the definition of good environmental status'* This means that they must *'reflect the changes in state, pressure and impact necessary to achieve or maintain GES'* (EC, 2011). A significant number of targets in the report do not fulfil this requirement. Nor is it clear to what extent the target setting exercise took account of Annex IV characteristics.

Vague qualitative targets should be avoided and trend based targets should be viewed as interim and also avoided in the long term. Whilst trend-based targets may provide an ostensibly easy solution to a lack of scientific information or understanding of a particular descriptor, they are insufficient to adequately guide significant improvements in environmental quality. SWAN acknowledges that trend-based targets may be necessary for some descriptors, for which there is insufficient data. However, at most, these should be used only as an interim measure where absolutely necessary, while knowledge gaps are filled, and should be phased out as soon as possible once sufficient scientific data has been generated.

SWAN welcomes the state-based targets, with deadlines for some descriptors e.g. Eutrophication. In addition we welcome the integration with the WFD in terms of Environmental Quality Standards for this descriptor. However, we are concerned to see that some environmental targets do not provide either absolute figures or % trend reductions but rather use vague language referencing reduced risk and compliance with current regulations. Furthermore some targets are limited to very marginal elements of the descriptor, without a statement of the limitations of this or how it will be addressed:

Non-indigenous species

For example the Environmental Target for this descriptor is: *'Reduction in the risk of introduction and spread of non-native species through the prioritisation of species and improved management of high risk pathways and vectors.'* Given the lack of baseline knowledge acknowledged in the report, this provides no clear target for the further stages of action required by the Directive.

The additional operational target of developing action plans for key high-risk NIS species is to be welcomed. However, again it is vague, with details such as how many action plans and for which species not set out. SWAN recommends public participation in the identification of these species, before this target can be deemed definitive.

Hydrographic conditions

The operational target for this descriptor is inadequate and vague, especially given that it is not accompanied by any state-based or quantitative target:

'All developments that may give rise to significant permanent changes in the hydrological regime of currents, waves, or sediments must comply with existing regulatory regimes and guidance should be followed to ensure that regulatory assessments are undertaken in a way that ensures the full consideration of any potential impacts, including cumulative effects at the most appropriate spatial scales to ensure that GES is not compromised.'

A target which references compliance with current regulations is not acceptable, since targets must in the first instance be science-based and thus must not presume the current regulatory framework sets adequate levels of protection, without a full and robust analysis to support this. It is not made clear what 'guidance should be followed' and how this will be ensured. Past and current ECJ cases indicate clearly that Ireland does not have a very good record of compliance with environmental legislation; therefore, without additional operational targets to secure increased compliance, this target is almost meaningless.

Contaminants

Given that the GES for this descriptor is that:

'Concentrations of contaminants in the marine environment (i.e. in water, sediment and biota) are within agreed levels and adverse effects on organisms, populations, communities and biological processes do not occur.'

the targets set in relation to these adverse impacts on biology are limited in the extreme. Whilst there is value in monitoring TBT in gastropods, to track expected decline, the EU ban on the use of TBT-based antifouling chemicals which came into effect in 2008, makes this one of the less relevant persistent contaminants.

Secondly, the target regarding acute pollution events states that 'impacts on biota affected by the pollution is minimised through appropriate risk-based approaches'. Again this is excessively vague and does not provide a trend-based or quantitative target against which progress towards GES can be measured.

Marine litter

The targets set for marine litter are inadequate and impractical, respectively. The first target, 'A reduction in the number of visible litter items with specific categories/types of coastlines' is not specific enough and whilst trend based targets are acceptable in the interim, this should at least set a target for a % reduction over a defined amount of time. In addition, it should give an indication of the distance of coastline that should be surveyed to assess progress towards GES.

The second target is impractical, not cost-effective and of limited use as an indicator. Examining the contents of fulmars' stomachs is time consuming and such surveys would yield extremely small sample sizes from which to extrapolate findings regarding national levels of marine litter.

Recommendations

- The omission of targets for biodiversity, food-webs, sea-floor integrity and underwater noise must be addressed. If insufficient data exists, at the very least interim targets based on the precautionary principle should be set which also involve operational targets for filling data gaps, with a timeline and action plan for doing this.
- The environmental targets outlined in the report should be deemed to be interim only, until sufficient information is available on which to base them, until gaps have been filled, targets have been established for biodiversity, food-webs, sea-floor integrity and underwater noise and until stakeholders have actively participated in the target-setting exercise.
- Qualitative, vague targets must be amended so as to set measurable specific targets and trend-based targets should as a minimum include % increases or decreases to be achieved and should ultimately be phased out as soon as possible, once sufficient data is available to support empirical state-based targets.

- A stakeholder workshop on target-setting should be held for stakeholders to facilitate public understanding of this exercise (or alternatively a number of workshops should be held on groups of descriptors, at which target-setting would be addressed).
- The targets for NIS, hydrographic conditions and contaminants should be refined to reflect the comments set out in this section

9. Integration with the WFD & Natura 2000 legislation

The MSFD requires that the current assessment of marine waters must also consider relevant elements of other Community legislation and this is reiterated in the Common Understanding document (EC, 2011). In particular, it is vital that current and successive stages of the MSFD are integrated with WFD implementation in the coastal waters and coastal zone covered by the WFD and with Natura 2000 legislation for all marine waters. The reference to WFD EQS in selected target setting (e.g. eutrophication) is to be welcomed. It is unclear from the report, the degree to which the WFD classification for overlapping coastal waters informed the MSFD assessment, as is recommended in the Common Understanding document (EC, 2011). SWAN would like to see more detail on the process by which the current assessment was informed by the WFD.

Further integration and increased knowledge could also be obtained through consultation with staff involved in WFD implementation, especially in relation to the initial assessment and pressures and impacts assessments for the coastal area. Extensive expertise has been built up during the 13 years of WFD implementation in Ireland and all leading personnel involved in WFD implementation should be consulted on the initial assessment, including RBD leaders, relevant staff in coastal local authorities and other appropriate public authorities.

Integration with the Birds and Habitats Directives and its use in augmenting the biodiversity descriptor assessment appears to be poor in the report. It is vital that this assessment considers information from Natura 2000 implementation in addition to other relevant biodiversity deliverables such as the National Biodiversity Plan. In fact, these could assist in filling some of the gaps.

The summary report states that *'Ireland's assessment of both seabird and marine mammal status is due in 2013 under the reporting requirements of the Habitats Directive (HD) and Birds Directive. The intention is that subsequent reporting will be coordinated across all three Directives'*. Given that both reports were being completed in the same year, it is regrettable that the conservation statuses for relevant marine species could not have been included to further inform the biodiversity descriptor assessment in this report. If this was logistically not possible, then the assessment should be updated to do this as soon as this data is available from NPWS and not finalised until this is done. The Common Understanding document (EC, 2011) provides guidance on this recommending that 'GES' under the MSFD should equivocate to 'favourable conservation status' under the HD.

In the absence of sufficient data, relevant objectives from the National Biodiversity Plan could be utilised to assist with formulating interim working / operational targets for biodiversity. For example Target 15: *'Natura 2000 network established, safeguarded, designated by 2012 (2014 for marine SPAs) and under effective conservation management by 2016'* and its associated action 15.1 *'Complete designation process for SACs and SPAs, in particular for marine coastal and offshore SACs by 2012 and marine SPAs by 2014'*.

Recommendations

- More detail on the process by which the current assessment was informed by the WFD and Natura 2000 legislation should be included.

- Conservation status reports from the HD Article 17 report should be used to inform an updated interim assessment of biodiversity and targets from the National Biodiversity Plan should be considered in developing working biodiversity targets.

10. Economic and social analysis, including the cost of degradation of the marine environment

The MSFD requires that this stage of implementation include an *'economic and social analysis of the use of [marine] waters and of the cost of degradation of the marine environment.'* SWAN welcomes the fact that an initial step has been taken in doing this analysis. However, it appears superficial and incomplete, probably understandably due to inadequate resources and lack of data. Serious knowledge gaps in relation to the monetary benefits of the goods and services provided by marine waters have been identified (COWI, 2010) and it is crucial that a comprehensive and accurate socio-economic assessment of the costs of environmental degradation and the benefits of eco-system goods and services is conducted as part of the Initial Assessment. Unfortunately, this analysis falls far short of such a comprehensive treatment. Given that the non-market ecosystem service value for a single bay alone (Galway Bay) has been estimated at €634 million annually and that the total value of Ireland's marine ecosystem services could be greater than the value of the total of the marketed marine goods (Morrissey et al., 2010) then the importance of properly valuing ecosystem goods and services becomes apparent.

The economic and social analysis is also quite inaccessible as it is not well presented or explained. Whilst some data and results are presented, there is no discussion or summary of the implications or significance of these. This serves to emphasise the necessity of a workshop approach to explain this complex element of the assessment, and to garner meaningful stakeholder input. In the context of these misgivings, SWAN offers the following comments, based on our best understanding of this analysis, as presented.

- There is no value for the ecosystem services provided by the marine environment calculated or presented.
- The analysis should fully incorporate the indirect use values of a healthy marine environment (e.g. sustaining of food chains and nutrient cycling) in addition to direct use values. The analysis as presented does not do this.
- The water accounts method:
 - Whilst the economic benefits and potential benefits of a number of sectors are well aired in this chapter, their impacts receive only brief mention. This does not present a balanced picture as the emphasis is on the economic value of each sector's activity.
 - Whilst this is presented as an analytical method, little analysis is presented. It is rather a presentation of facts and economic statistics.
- The methodology used to calculate the cost of degradation is not well explained. It appears that a willingness-to-pay to prevent degradation has been used as a 'proxy' for the cost of degradation. Surely a more accurate assessment would be to firstly conduct an analysis of the ecosystem services value of a healthy marine environment and to then extrapolate the cost of losing this, for varying levels of degradation. It is SWAN's understanding that the figure, e.g. €521m for high level

degradation, represents a public willingness to pay to prevent degradation, which is a subjective assessment, influenced heavily by levels of awareness of the marine environment and the levels of public education and awareness initiatives in this regard.

- The well recognised deficit of data in this area for Ireland's marine waters should be acknowledged, the data gaps identified and an action plan set out to fill them.

11. Conclusion

It is to be welcomed that in the 'Concluding remarks' it is stated that '*..as new information becomes available GES characteristics, targets and indicators may be subject to change*'. Due to the low level of knowledge and data, the missing targets for biodiversity, foodwebs, sea-floor integrity, the low level of provision for public participation and the resulting significant limitations of this assessment, SWAN believes that it is vital that the MSFD initial assessment, setting of GES, target setting and socio-economic analysis is seen as interim only and that there is a willingness on the part of the competent authority to amend it on foot of input from stakeholders during this consultation and further workshops.

The reference in the same section to '*working collaboratively with all interested parties*' to facilitate the filling of gaps is also welcome, although it is regrettable that this is '*over the next and subsequent cycles*'. Given the inadequacies identified by SWAN, and the commitment and goodwill demonstrated in making a submission, despite Network misgivings regarding the fact that this stage of implementation was already finalised, we believe it is unacceptable to be expected to wait 6 years for our concerns to be addressed.

References

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Appendix I

SWAN Member Organisations

SWAN National Groups		SWAN Regional & Local Groups	
1.	An Taisce	16.	Carra Mask Corrib Water Protection Group
2.	Bat Conservation Ireland		
3.	Birdwatch Ireland	17.	Cavan Leitrim Environmental Awareness Network
4.	Coastwatch Europe Network		
5.	Coomhola Salmon Trust Ltd.	18.	Cork Environmental Forum
6.	Eco-UNESCO	19.	Longford Environmental Alliance
7.	Friends of the Earth	20.	Macroom District Environmental Group
8.	Friends of the Irish Environment		
9.	Irish Doctor's Environmental Association	21.	Save Our Lough Derg
10.	Irish Peatland Conservation Council	22.	Save Our Lough Ree
11.	Irish Seal Sanctuary	23.	Save The Swilly
12.	Irish Water and Fish Preservation Society	24.	Shannon Whale & Dolphin Foundation
13.	Irish Whale and Dolphin Group		
14.	Irish Wildlife Trust	25.	Slaney River Trust
15.	Voice Of Irish Concern for the Environment (VOICE)		

Appendix II

SWAN Board of Directors

Board of Directors:	
Mark Boyden, Chair	Coomhola Salmon Trust
Eamonn Moore, Vice Chair	An Taisce
David Healy, Director	Friends of the Irish Environment
David Lee, Director	Cork Environmental Forum
Elaine Nevin, Director	ECO-UNESCO
Joachim Schaefer, Director	Cavan Leitrim Environmental Awareness Network
Karin Dubsy, Director	Coastwatch Europe
Mindy O'Brien, Director	Voice of Irish Concern for the Environment