Agenda Item 8.4
For Decision

# CNL(13)14

## *Report of the Socio-Economic Sub Group*

# CNL(13)14

## *Report of the Socio-Economic Sub-Group*

### Background

1. Under the Strategic Approach for NASCO's 'Next Steps', CNL(05)49, the key issues identified in relation to the social and economic aspects of the wild Atlantic salmon are to:
    - ensure that appropriate emphasis is given to the social and economic aspects of the wild Atlantic salmon;
    - strengthen the socio-economic data as a basis for managing salmon;
    - integrate socio-economic aspects in decision-making processes; and
    - disseminate socio-economic information to ensure due weight is given to the salmon compared to other important commercial and public interests.

2. In 2007, the Council established a Working Group on Socio-Economics which had met in 2008 and had presented its interim report to the Council at its Twenty-Fifth Annual Meeting, CNL(08)17. The Working Group had commenced work in developing an international collation of social and economic values to inform management and which would support NASCO's public relations work. In order to continue this and other work, as effectively and efficiently as possible, a Sub-Group had been established comprising Dr Guy Mawle (EU) and Dr Oystein Aas (Norway), as Co-Chairs, Dr Ciaran Byrne (EU), Ms Kim Blankenbeker (USA) and Mr Paul Knight (NGOs).

3. The Sub-Group had been assigned two main tasks relating to the social and economic values of wild Atlantic salmon: to develop web pages and to plan for a Special Session of the Council. Progress reports on the Sub-Group's work were made in 2010 (CNL(10)17) and in 2011 (CNL(11)15). Last year, the Council had asked the Sub-Group to continue its work and had suggested that the Sub-Group might wish to consult the European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC) with a view to its involvement in the Special Session. Accordingly, the Chairman of EIFAAC, Dr Cathal Gallagher, has participated in the work of the Sub-Group.

### Progress since last year

4. Since last year, the Sub-Group has worked by correspondence to further develop web pages on the social and economic aspects of the wild salmon and a proposal for a Special Session which the Council now intends to hold in 2014. The continuing involvement of one of the Co-Chairs (Dr Guy Mawle) was facilitated by generous financial support from Defra in the UK.

*Web pages*

5. The Sub-Group has updated the existing web pages that had been agreed by the Council in 2011; www.nasco.int/value_thevalues.html. These covered the following topics: 'The Value of Salmon', 'Who Values the Salmon and Why?', and 'Changes in Value'. A new page entitled 'Measuring Value' has also been included on the website. The pages now include references to: the ecosystem approach for evaluating changes in habitat; the recently published evaluation of Canadian salmon stocks and fisheries; and the EIFAAC publication on methods for evaluating recreational fisheries. The Sub-Group considers that this aspect of its work is now completed although there will be a need for updating in future as new information becomes available.

6. Under the Strategic Approach one of the key issues is to disseminate socio-economic information. In 2007, the Working Group had started this process by collating socio-economic information but the tables developed had been difficult to interpret, especially by non-economists. The Sub-Group had, therefore, developed new tables of socio-economic information relating to rod and line and net and trap fisheries in a format that was more suitable for inclusion on the NASCO website (see Annex 1). These tables were not complete, but were considered to be work in progress, and gaps in the information presented had been highlighted. The tables were based on the information available to the Sub-Group in 2008. In 2011, the Council had asked that the Parties provide, to the extent possible, updated information for inclusion in these tables so that they could be made available on the website. In the absence of any feedback from the Parties, the Sub-Group has not yet included these tables on the website. The Sub-Group believes that inclusion of these tables on the website would be a good way to disseminate basic socio-economic data about the fisheries, consistent with the Strategic Approach, and recommends that the Council requests that the Parties/jurisdictions provide:

   - information to update and complete the tables; and
   - details of any socio-economic studies relating to salmon stocks and fisheries in their jurisdiction, completed since 2009, or in progress.

*Special Session*

7. There are many references to including socio-economic factors in management decisions in NASCO's agreements and other documents and the Sub-Group has developed a compilation of this information (Annex 2). The one agreement that has very little reference to socio-economic considerations is the 'Williamsburg Resolution' which deals with aquaculture, introductions and transfers and transgenics. However, the Council has specifically adopted Guidelines for Incorporating Social and Economic Factors in Decisions under the Precautionary Approach, CNL(04)57, ('Socio-economic Guidelines'), that provide a framework for decisions which may affect the wild Atlantic salmon and the environments in which it lives. These Socio-economic Guidelines were developed on the basis that all decisions in relation to: the management of salmon fisheries; habitat protection and restoration; aquaculture, introductions and transfers and transgenics; stock rebuilding programmes; and by-

catch will be taken in the context of the Precautionary Approach as adopted by NASCO and its Parties. It was the Council's intention that the Parties and jurisdictions would initially report annually on the application of the guidelines to one of the focus areas detailed above.

8. Under the Strategic Approach, the Council agreed a new approach to reporting with Focus Area Reports (FARs) being prepared on management of fisheries (2008/2009); habitat protection, restoration and enhancement (2009/2010); and aquaculture, introductions and transfers and transgenics (2010/2011). The Sub-Group notes that the reviews of the FARs highlighted the fact that most reports failed to provide a clear indication of how socio-economic factors are incorporated into management decisions.

9. The Implementation Plan (IP) template, CNL(12)42, being used as a basis for the 2013 - 2018 IPs contains two questions relating to socio-economic issues as follows:

- How are socio-economic factors taken into account in making decisions on fisheries management? (Question 2.5);
- How are socio-economic factors taken into account in making decisions on salmon habitat management? (Question 3.2).

The Sub-Group notes that the Implementation Plan template, does not include a question relating to how socio-economic factors are taken into account in decisions relating to aquaculture, introductions and transfers and transgenics. Neither does the guidance on completing the template refer to the Socio-economic Guidelines, though other guidelines are cited.

10. The Sub-Group has collated the information contained in the new IPs as submitted for review and as included on the NASCO website (Annex 3). The Sub-Group is aware that the IP Review Group has again highlighted that, in general, the new IPs contained limited information on how socio-economic factors are integrated into decision-making and the Sub-Group agrees with that assessment. While some IPs do refer to stakeholder consultations in the decision-making process, few provided a description of that process and how socio-economic factors are weighted. In particular, none of the IPs makes any reference to the Socio-economic Guidelines and it is not clear if these Guidelines are being used or if Parties are just failing to report on their use. Also, it would appear that different approaches are being used to integrating socio-economic factors in decision-making. At one extreme, fishing is not permitted on any stock that is below its conservation limit whereas in other jurisdictions fishing continues, albeit at a reduced level, on stocks below their conservation limits presumably because of the influence of socio-economic considerations, such as economic impacts, on management decisions. Overall, there has been very limited exchange of information to date through FAR and IP reporting The External Performance Review Panel (see CNL(12)11) recommended that consideration could be given to making progress on the social and economic aspects of Atlantic salmon and noted that a Special Session is planned. This Special Session has been postponed several times and the Sub-Group encourages the Council to proceed with it in 2014.

11. In its 2011 report, the Sub-Group had suggested that the Special Session could allow for a more detailed consideration of the following:

- the approaches used, and challenges faced, by jurisdictions in incorporating socio-economic factors in managing wild Atlantic salmon, the fisheries, its habitats and aquaculture and related activities, under a Precautionary Approach. It had been suggested that there might be a small number of case studies on these aspects, highlighting examples of best practice;
- the usefulness to the jurisdictions of the NASCO Guidelines and any modifications that may be needed to them to assist jurisdictions with their application;
- the future role for NASCO in relation to the social and economic aspects of salmon management.

12. The Sub-Group notes that at the inter-sessional meeting of the Parties in February (see CNL(13)11) it was recommended that the focus of the first of the new theme-based Special Sessions should be on mixed-stock fisheries. It is not known if the Council's intention is to hold two Special Sessions in 2014 or whether the session on mixed-stock fisheries would be scheduled for 2015. It is, therefore, not clear how much time could be devoted to a Special Session on socio-economics in 2014. The Sub-Group notes that, at the inter-sessional meeting of the Parties there was agreement that the challenges identified in the Strategic Approach remain the main priority areas for NASCO's work. One of these priority areas was social and economic aspects and the Sub-Group assumes that NASCO will, therefore, wish to seek ways to improve information exchange and dissemination of information on this topic in future. One Special Session on this topic that attempts to cover all of the priority areas identified in the Strategic Approach does not appear to be an effective approach to facilitate a meaningful exchange of information. The Sub-Group, therefore, believes that it would be more valuable to focus the socio-economic Special Session on one specific area. The inter-sessional meeting of the Parties recommended that the management of salmon fisheries should be the priority area where additional action was necessary and appropriate for strengthening efforts. The Sub-Group therefore, considers that it might be more useful to NASCO if the 2014 socio-economic Special Session focused only on how socio-economic considerations are incorporated in decisions concerning the management of salmon fisheries, including the use of the Socio-economic Guidelines in the decision-making process. This should include decisions relating to both single and mixed-stock fisheries and particularly situations where fisheries are permitted on stocks that are below their conservation limits. The Special Session on mixed-stock fisheries could allow for further consideration of socio-economic factors.

13. The Sub-Group proposes that two options for the socio-economics Special Session be considered by the Council as follows:

**Option 1**: Proceed with a Special Session on socio-economics as proposed in 2011 with case studies dealing with integration of socio-economic factors in decisions relating to: management of fisheries, habitat protection and restoration, and aquaculture and related activities. The case studies could include an indication of how the Socio-economic Guidelines are used and consideration of their utility. There

might also be discussion of NASCO's future role on socio-economics although, to an extent, this was resolved at the inter-sessional meeting of the Parties.

**Option 2**: Focus the Special Session in 2014 only on how socio-economic factors are integrated into decisions relating to the management of salmon fisheries, both single and mixed-stock fisheries, and particularly in situations where fisheries are permitted on stocks below their conservation limits. This would be consistent with the Council's desire to move to more focused, theme-based Special Sessions. The Sub-Group recommends that further Special Sessions on integrating socio-economic factors in decisions relating to habitat protection, restoration and enhancement and to aquaculture and related activities be planned in future.

14. The Sub-Group recommends that a more narrowly focused Special Session on socio-economics i.e. Option 2, would be more valuable to the Parties but would seek guidance from the Council. Development of a more detailed programme will only be possible once the Council has confirmed how it wishes to proceed and how much time will be available for the Special Session. The Sub-Group notes that the Council has agreed a process for planning future Special Sessions. At the Annual Meeting, a year prior to the planned Special Session, the Council will agree the theme of the Special Session and appoint a Steering Committee comprising two representatives from the Parties and one representative from the NGOs, with expertise relating to the theme. The Steering Committee will work with the Secretariat to plan for the Special Session and define its objectives and will invite experts from within the Parties and, where appropriate, from outside the NASCO community to participate in the Special Session. Invited contributors will be asked to provide papers for the Special Session which will be distributed with the mailing of Council papers prior to the Annual Meeting. The Sub-Group fits this model and could serve as the Steering Committee for the 2014 Special Session on socio-economics and, as appropriate, future Special Sessions related to this topic.

**Next Steps**

15. The Sub-Group considers that the tables of socio-economic information relating to rod and line and net and trap fisheries provide valuable information and a useful way of disseminating information consistent with the Strategic Approach. It recommends that the Council encourages the Parties and jurisdictions to update these tables and provide information on socio-economic studies on salmon since 2009 as soon as possible so that they can be made publicly available on the NASCO website. The Sub-Group believes that given the lack of reporting to date, a well-planned Special Session focusing on integrating socio-economic factors in decisions relating to management of salmon fisheries is timely and consistent with NASCO's priorities. Further Special Sessions on integrating socio-economic factors in decisions relating to habitat protection, restoration and enhancement and to aquaculture and related activities could be planned in future. Given the previous decision by the Council concerning a process for planning Special Sessions, which includes the appointment of a Steering Committee, the Sub-Group notes that, should the Council so decide, it is willing to serve in that role in preparation for the 2014 Special Session on socio-economics as well as any future Special Sessions related to this topic.

16. The Council is asked to consider the proposals made by the Sub-Group and decide on appropriate action.

Interim Secretary
Edinburgh
13 May 2013

| Net and trap fisheries | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Numbers caught** | **Weight caught (kgs)** | **Number of licences** | **Number of fishers** | **Gross value (Euros)** | **Year of data** | **Source** | **Most important type of gear** |
| **Canada** | | 48000 | | | NR | 2007 | ICES WGNAS | |
| **St Pierre & Miquelon** | | 3450 | 64 | 64 | | 2008 | CNL (09)32 | |
| **Greenland** | | 24646 | 261 | 105 | NR | 2007 | CNL31.847 | |
| **Iceland** | | 16544 | ID | | 110000 | | | |
| **Faroe Islands** | 0 | 0 | | | | | | |
| **Russia** | | 35000 | 330 | | 255000 | 2007 | CNL31.847 | Trap nets, gill nets |
| **Norway** | | 426000 | 1971 | | 2663000 | 2007 | | Bend and bag nets |
| **Sweden** | | 200 | > 4 | 4 | | 2008 | FAR 2009 | Trap nets |
| **Finland** | | | 780 | | | | | Nets and local rods in Teno |
| **Denmark** | ID | ID | ID | ID | ID | 2007 | FAR | Recreational Gillnets are likely taking salmon as by-catch |
| **England & Wales** | 10922 | 37900 | 362 | 971 | 437000 | 2007 | see comment | Biggest catches are made by drift nets |
| **Scotland** | 19897 | 57033 | 945 | 503 | 983250 | Mostly 2007 | | Should be checked by "Scots" |
| **Ireland** | | 30000 | 158 | | 675000?? | | | |
| **Northern Ireland** | | 18000 | 30 | | ? | 2007 | FAR | |
| **France** | | 5100 | 32 | | | | CNL (09)31 | Drift nets |
| **Other** | | | | | | | | |
| | Delete this column? | 701873 | 4608 | | 5,123,250 | | | |
| | | | | | | | | |
| | Euro - USD conversion = 0.75 | | | | | | | |
| | Euro - GBP conversion = 1.15 | | | | | | | |
| | Euro - CaD conversion = 0.70 | | | | | | | |

Annex 1

| Rod fisheries | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **No. Caught (incl. C&R)** | **Number of fishers** | **Fishing days** | **Total Expenditure (Million Euros)** | **Jobs supported** | **Year of data** | **Source** | **Comments** |
| **USA** | 3 | 90 | 250 | 0 | | 2007 | FAR | No broodstock fishery incl |
| **Canada** | 80000 | 40340 | 364890 | 53 | | 2005 | CNL (08)17 | Need to check if right estimate is used |
| **Iceland** | 45454 | 35000 | 175000 | check or calculate | 1200 | | FAR | Iceland withdrew from NASCO in 2009 |
| **Russia** | 51000 | 15500 | 110000 | check or calculate | 250 | | FAR | |
| **Finland** | 16000 | 9479 | 36000 | check or calculate | | | ICES WGNAS | |
| **Norway** | 112000 | 90000 | 900000 | 175 | ID | 2008 | Various | |
| **England and Wales** | 19984 | 27,000 | 135000 | 43 | 1200 | 2007 | Various | |
| **Scotland** | 35581 | 40000 | 467000 | 85 | 2200 | Various | Various | Should be checked |
| **Ireland** | 30826 | 20000 | 200000 | check or calculate | 1200 | | | |
| **Northern Ireland** | 10010 | 6000 | 60000 | check or calculate | 300 | | | Need update? |
| **Sweden (west coast)** | 3850 | 7500 | 33000 | check or calculate | | 2008 | | C&R not included |
| **Denmark** | 1680 | | | check or calculate | | 2007 | FAR | |
| **Germany** | 0 | 0 | 0 | | | | | Delete? |
| **France** | 1900 | 2401 | 29000 | check or calculate | | 2008 | CNL(09)31 | |
| **Spain** | Checking | Checking | Checking | check or calculate | | | | |
| | 408288 | 293,385 | 2,510,080 | 356 | 6350 | | | |
| | | | | | | | | |
| | | | | | | | | |
| | Euro - USD conversion = 0.75 | | | | | | | |
| | Euro - GBP conversion = 1.15 | | | | | | | |
| | Euro - CaD conversion = 0.70 | | | | | | | |

Note: NR = not relevant; ID = insufficient dat

**Annex 2**

CNL31.968

**Excerpts from NASCO's Resolutions, Agreements, Guidelines and other documents that refer to socio-economics**

***Convention for the Conservation of Salmon in the North Atlantic Ocean***
www.nasco.int/convention.html

Article 9 of the Convention states that in exercising the functions set out in articles 7 and 8, a Commission shall take into account:

(a) the best available information, including advice from the International Council for the Exploration of the Sea and other appropriate scientific organizations;

(b) measures taken and other factors, both inside and outside the Commission area, that affect the salmon stocks concerned;

(c) the efforts of States of origin to implement and enforce measures for the conservation, restoration, enhancement and rational management of salmon stocks in their rivers and areas of fisheries jurisdiction, including measures referred to in article 15, paragraph 5 (b);

(d) the extent to which the salmon stocks concerned feed in the areas of fisheries jurisdiction of the respective Parties;

(e) the relative effects of harvesting salmon at different stages of their migration routes;

(f) the contribution of Parties other than States of origin to the conservation of salmon stocks which migrate into their areas of fisheries jurisdiction by limiting their catches of such stocks or by other measures; and

(g) the interests of communities which are particularly dependent on salmon fisheries

***Agreement on Adoption of a Precautionary Approach, CNL(98)46***
www.nasco.int/pa_agreement.html

2. The Precautionary Approach requires, *inter alia*:
a) consideration of the needs of future generations and avoidance of changes that are not potentially reversible;
b) prior identification of undesirable outcomes and of measures that will avoid them or correct them;
c) initiation of corrective measures without delay, and these should achieve their purpose promptly;
d) priority to be given to conserving the productive capacity of the resource where the likely impact of resource use is uncertain;
e) appropriate placement of the burden of proof by adhering to the above requirements.

3. The application of a Precautionary Approach should involve all parties concerned with salmon conservation, management and exploitation.

6. An objective for the management of salmon fisheries for NASCO and its Contracting Parties is to promote the diversity and abundance of salmon stocks. For this purpose, management measures, taking account of uncertainty, should be aimed at maintaining all salmon stocks in the NASCO Convention area above their conservation limit (currently defined by NASCO as the spawning stock level that produces maximum sustainable yield), taking into account the best available information, and socio-economic factors including the interests of communities which are particularly dependent on salmon fisheries and the other factors identified in Article 9 of the Convention. In order to achieve this, a Precautionary Approach will be applied to the management both of fisheries regulated by NASCO and those in homewaters.

7. The application of the Precautionary Approach to salmon fishery management is an integrated process which requires at least the following:
a) that stocks be maintained above the conservation limits by the use of management targets;
b) that conservation limits and management targets be set for each river and combined as appropriate for the management of different stock groupings defined by managers;
c) the prior identification of undesirable outcomes including the failure to achieve conservation limits (biological factors) and instability in the catches (socio-economic factors);
d) that account be taken at each stage of the risks of not achieving the fisheries management objectives by considering uncertainty in the current state of the stocks, in biological reference points and fishery management capabilities;
e) the formulation of pre-agreed management actions in the form of procedures to be applied over a range of stock conditions;
f) assessment of the effectiveness of management actions in all salmon fisheries;
g) stock rebuilding programmes (including, as appropriate, habitat improvement, stock enhancement and fishery management actions) be developed for stocks that are below their conservation limits.

8. The management procedures for all salmon fisheries could include the following elements:
a) definition of target spawning stock levels in the relevant rivers;
b) definition of pre-fishery abundance of individual salmon stocks or groups of stocks occurring in the relevant fishery;
c) utilisation only of the surplus according to a) and b) above;
d) socio-economic factors.

***Decision Structure For Management of North Atlantic Salmon Fisheries, CNL31.332***
www.nasco.int/pdf/agreements/decisionstructure.pdf

B6. Describe management actions that will be employed to control harvest, including measures that will be used to address any failure or trend in abundance or diversity, taking account of pre-agreed procedures.
- Decisions should take account of: uncertainty in the assessments; abundance of the stock (q. B2); diversity of the stock (q. B3); selectivity of the fishery (q. B4); any non-fishery factors affecting the stock (q. B5); and socio-economic factors; and other fisheries exploiting the stock;
- Describe the expected extent and timescale of effects.

C6. Describe management actions that will be employed to control harvest, including measures that will be used to address any failure or trend in abundance or diversity, taking account of pre-agreed procedures.
- Decisions should take account of: uncertainty in the assessments; abundance of the stock (q. C2); diversity of the stock (q. C3); selectivity of the fishery (q. C4); any non-fishery factors affecting the stock (q. C5); and socio-economic factors; and other fisheries exploiting the stock;
- Describe the expected extent and timescale of effects.

***NASCO Guidelines for the Management of Salmon Fisheries, CNL(09)43.***
www.nasco.int/pdf/far_fisheries/Fisheries%20Guidelines%20Brochure.pdf

2.9 Socio-economic factors
a. In evaluating management options conservation of the salmon resource should take precedence; and
b. Transparent policies and processes should be in place to take account of socio-economic factors in making management decisions and for consulting stakeholders.

***NASCO Plan of Action for the Application of the Precautionary Approach to the Protection and Restoration of Atlantic Salmon Habitat, CNL(01)51***
www.nasco.int/pdf/agreements/habitatplan.pdf

Contracting Parties to NASCO and their relevant jurisdictions should establish comprehensive salmon habitat protection and restoration plans that aim to:
- identify potential risks to the productive capacity and develop procedures forimplementation, in a timely fashion, of corrective measures;
- place the burden of proof on proponents of an activity which may have an impact on habitat;
- balance the risks and the benefits to the Atlantic salmon stocks with the socio-economic implications of any given project;
- maintain biodiversity;
- take into account other biological factors affecting the productive capacity of Atlantic salmon populations, including predator-prey interactions.

***NASCO Guidelines for the Protection, Restoration and Enhancement of Atlantic Salmon Habitat, CNL(10)51.***
www.nasco.int/pdf/far_habitat/Habitat%20Guidelines%20Brochure.pdf

3.9 Socio-economic factors
a. Transparent policies and processes should be in place to take account of socio-economic factors in making habitat management decisions and for consulting stakeholders (see paragraph 3.4 above).

3.4 Decision-making process
a. Consistent with the Precautionary Approach, there should be clear and transparent descriptions available to all stakeholders of the process by which management decisions will be taken in relation to habitat protection, restoration and enhancement; these could take the form of a flow diagram or decision structure;
b. Proponents of any activity that could adversely impact salmon habitat should be required to provide all the information needed to allow the risks to the productive capacity of the

resource to be assessed, including a range of options for achieving the objectives of the proposed activity;
c. In evaluating options for activities that could adversely impact salmon habitat, conservation of the productive capacity of the resource should take precedence (see section 3.5 below);
d. Where activities are approved that could result in the loss of productive capacity of the resource, on the basis of overriding socio-economic factors, the losses should be minimised and compensation or mitigation measures should be agreed prior to approval of the activity so that there will be no net loss of productive capacity. The costs of these compensation or mitigation measures should be borne by the proponent;
e. Where salmon stocks have been designated for special protection, there should be a strong presumption against any loss of productive capacity, even where measures to compensate or mitigate for the losses are proposed;
f. In assessing risks to productive capacity of the resource, consistent with the Precautionary Approach, managers should demonstrate that they are being more cautious when information is uncertain, unreliable or inadequate, and the absence of adequate scientific information should not be used as a reason for postponing or failing to take appropriate conservation and management measures;
g. Monitoring should be conducted to ensure compliance with all conditions specified in authorising an activity. In the event that monitoring identifies a need for corrective measures, these should be implemented without delay and should achieve their purpose promptly. It should be a requirement of an authorisation that the costs associated with any corrective measures should be borne by those conducting the activity.

***NASCO Guidelines on the Use of Stock Rebuilding Programmes in the Context of the Precautionary Management of Salmon Stocks, CNL(04)55***
www.nasco.int/pdf/agreements/stockrebuilding.pdf

8. Assess social and economic factors
Managers will need to consider the social and economic consequences of different management options including the possible impacts on other users and other activities that may constrain success. NASCO guidelines are being developed to provide a framework for incorporating social and economic factors into decisions which may affect wild salmon and the environments in which it lives. Fisheries managers may have to consider whether:

- there is a need to permit a residual fishery to continue (e.g. subsistence fishing);
- the fishery itself has an intrinsic value (e.g. heritage values of specific methods); or
- certain fishing activities (e.g. catch and release angling) may be allowed to continue because it will have a minimal effect on the stock.

***Strategic Approach for NASCO's 'Next Steps', CNL(05)49***
www.nasco.int/strategic_approach.html

The challenges facing NASCO in the management and conservation of wild Atlantic salmon and ways to address these challenges have been identified, specifically highlighting areas which would benefit from international cooperation and collaboration. The primary challenges are:

- Managing salmon fisheries;
- Social and economic aspects of Atlantic salmon;

- Research on salmon at sea (including studies of by-catch of salmon);
- Habitat protection and restoration;
- Aquaculture, introductions and transfers and transgenics (highlighting *Gyrodactylus salaris*);
- Initiatives for endangered populations.

Social and economic aspects of the Atlantic salmon

The goal for NASCO and its Parties on the social and economic aspects of the Atlantic salmon is to ensure that the salmon stocks provide the greatest possible benefits to society and individuals.

The key issues in relation to the social and economic aspects of the Atlantic salmon are to:

- ensure that appropriate emphasis is given to the social and economic aspects of the Atlantic salmon;
- strengthen the socio-economic data as a basis for managing Atlantic salmon;
- integrate social and economic aspects and considerations in an open and transparent way into the decision-making processes within NASCO;
- disseminate information on the social and economic aspects of the wild Atlantic salmon in order to ensure that they are given due weight compared to other important commercial and public interests.

***Resolution by the Parties to the Convention for the Conservation of Salmon in the North Atlantic Ocean To Minimise Impacts from Aquaculture, Introductions and Transfers, and Transgenics on the Wild Salmon Stocks - 'The Williamsburg Resolution', CNL(06)48***
www.nasco.int/pdf/agreements/williamsburg.pdf

RECOGNISING the benefits, including the socio-economic benefits, which have resulted from the development of salmon aquaculture;

{No mention of socio-economics of wild salmon stocks.}

***Final Report of the Fisheries Management Focus Area Review Group, CNL(09)11***
www.nasco.int/pdf/far_fisheries/FisheriesFAR_review2008.pdf

The Agreement on Adoption of a Precautionary Approach requires that management measures, taking account of uncertainty, should be aimed at maintaining all salmon stocks above their conservation limit, taking into account the best available information, and socio-economic factors. The NASCO Guidelines and Agreements do not make it clear how fishery management decisions are to be taken when there are conflicts between socio-economic and conservation issues. Most FARs failed to provide a clear indication of how socio-economic factors are incorporated into decisions, and in particular how decisions are taken to permit fishing on stocks when they are below their reference point. For future reporting, it would be useful if this aspect could be addressed

***Final Report of the Habitat Protection, Restoration and Enhancement Focus Area Review Group, CNL(10)11***
www.nasco.int/pdf/far_habitat/cnl(10)11.pdf

The NASCO Plan of Action states that the habitat plans should balance the risks and the benefits to the Atlantic salmon stocks with the socio-economic implications of any given project. The Agreement on Adoption of a Precautionary Approach states that priority should be given to conserving the productive capacity of the resource where the likely impact of resource use is uncertain. Thus, the NASCO Guidelines and Agreements do not make it clear how habitat management decisions are to be taken when there are conflicts between socio-economic and conservation issues. Most FARs also failed to provide a clear indication of how socio-economic factors are incorporated into decisions concerning the management of salmon habitat. For future reporting, it would be useful if this aspect could be addressed.

***Final Report of the Aquaculture, Introductions and Transfers and Transgenics Focus Area Review Group, CNL(11)11***
www.nasco.int/pdf/2011%20papers/CNL(11)11.pdf

NASCO's Guidelines for Incorporating Social and Economic Factors in Decisions under the Precautionary Approach, CNL(04)57, provide a framework for incorporating social and economic factors into decisions which may affect the wild Atlantic salmon and the environments in which it lives. Previous Review Groups have noted that most FARs did not provide a clear indication of how socio-economic factors are incorporated into management decisions. This was also the case for the aquaculture and related activities reports. While some FARs did refer to the social and economic values associated with the salmon farming industry, they did not refer to the economic values associated with the wild stocks which also need to be taken into account in management decisions. There are also instances where the value of the wild stocks has been adversely affected by impacts from aquaculture and related activities. For future reporting, it would be essential that this aspect is addressed. In the interim, the Review Group notes the Council's intention to hold a Special Session in either 2011 or 2012 on how socio-economic factors are incorporated into management decisions and believes that it would be valuable to have examples relating to aquaculture, introductions and transfers and transgenics.

***NASCO Implementation Plan for the period 2013-18, CNL(12)42***
www.nasco.int/pdf/2012%20papers/CNL_12_42.pdf

The main purpose of this Implementation Plan is to demonstrate what actions are being taken by the jurisdiction to implement NASCO Resolutions, Agreements and Guidelines.

2.5 How are socio-economic factors taken into account in making decisions on fisheries management? *(Max. 200 words) (Reference: Section 2.9 of the Fisheries Guidelines)*

3.2 How are socio-economic factors taken into account in making decisions on salmon habitat management? *(Max. 200 words) (Reference: Section 3.9 of the Habitats Guidelines)*

***External Performance Review Panel's Report, CNL(12)11***
**www.nasco.int/pdf/2012%20papers/cnl_12_11.pdf**

P2: The next cycle should focus on assessing the effectiveness of the measures taken by the Parties. Reporting on progress on the social and economic aspects of Atlantic salmon fisheries and on initiatives for endangered populations are also encouraged.

P4: In future reporting, information should be provided by the Parties on the interplay between stock conservation needs and incorporation of social and economic factors in decision-making, for both single and mixed-stock fisheries. All Parties should report on issues relating to the management of salmon fisheries in a prompt and timely fashion. Further progress is needed in management, including in the protection and preservation of salmon habitat.

P6: The Strategic Approach set out a vision for NASCO to "*pursue the restoration of abundant Atlantic salmon stocks throughout the species' range with the aim of providing the greatest possible benefits to society and individuals*"…..

…The Strategic Approach also identified seven key challenges in the management and conservation of wild Atlantic salmon, as well as goals and key issues in relation to these challenges: (i) management of salmon fisheries, (ii) social and economic aspects of Atlantic salmon, (iii) research on salmon at sea (including studies of by-catch of salmon), (iv) protection and restoration of Atlantic salmon habitat, (v) aquaculture, introductions and transfers and transgenics, (vi) *Gyrodactylus salaris*, and (vii) initiatives for endangered salmon populations.

P22: Despite progress, however, the 'Next Steps' Review Group recognized that: (i) many of the key issues identified in the Strategic Approach related to process and not to outcomes, which it agreed should be the ultimate objective; (ii) the focus of reporting by the Parties had been on the measures taken and not on the effectiveness of those measures; and (iii) in some areas, such as socio-economics, further work was needed. It was agreed that the next cycle should focus on changes since the last reporting, measurable progress towards agreed objectives and furthering information exchange. The 'Next Steps' Review Group stressed the need for greater emphasis on monitoring and evaluation of activities in the IPs, with clearly described identifiable, measurable outcomes and timescales.

P23: While it will be important for the 'Next Steps' process to continue to focus on the three main theme areas of the Organization, consideration could also be given to making progress on the social and economic aspects of Atlantic salmon and on initiatives for endangered populations. It is noted that a special session is planned on how socio-economic factors are being incorporated in management decisions and to consider the utility of the NASCO guidelines and the future approach to be taken by NASCO.

**Annex 3**

# Information provided by Parties/jurisdictions relating to socio-economic factors in the 2013 – 2018 Implementation Plans (as submitted for review)

***Question 2.5: How are socio-economic factors taken into account in making decisions on fisheries management?***

**Canada**

Management of wild Atlantic salmon fisheries in Canada is the responsibility of Fisheries and Oceans Canada (DFO), except in Quebec where the Province has responsibility for salmon fisheries management.

As per Canada's *Policy for the Conservation of Wild Atlantic Salmon*:

- DFO has a responsibility to provide sustainable fishing opportunities that will best meet its obligations to Aboriginal people, contribute to social well-being, and provide economic benefits to individuals and communities; and
- Sustainable use and benefits are important to the provinces who have a significant economic interest in many aspects of sustainable development and licence sales.

In Quebec, salmon fisheries are dedicated in priority to aboriginal subsistence. The Quebec government also works in close collaboration with the two main federations representing the interests of harvesters and of the delegated fisheries managers who operate almost every salmon river allowing for a recreational fishery. A socio-economic study aiming to portray Quebec's salmon harvester's habits, preferences and level of openness regarding possible future management tools is currently in preparation in collaboration with the above-mentioned partners.

The SARA process takes socio-economic factors into account. Before a final decision is made about whether or not to list a species as threatened or endangered, the socio-economic impacts of listing the species are studied and documented. Consultations on the listing proposal are conducted with stakeholders and the socio-economic impacts are part of those discussions, and are taken into account in the final decision.

**Denmark (in respect of the Faroe Islands and Greenland)**

***Faroe Islands***

During the 1980´ies the commercial fishery for Atlantic salmon in the Faroese FFZ was an important source of income for the Faroese economy. Since the commercial fishery was stopped in 1991, the companies have gradually developed alternative income opportunities. Since the Faroese economy is completely dependent on fisheries a possible future reopening of the salmon fishery, in case of a recovery of the salmon stocks, would be welcomed by the industry.

***Greenland***

Public access to salmon as a native food resource. Article 9 of the Convention states that in exercising its functions, a Commission shall take into account - *inter alia* – the interests of communities which are particularly dependent on salmon fisheries. Given the lack of agriculture and farming, Greenland is very dependent on fishery, including salmon fishery, as a necessary food supply. Especially for the people living in small settlements along the coast. The economic impact of salmon fishery is reduced to subsistence fishery only. The salmon fishery is important for upholding a varied food supply and is considered an essential supplement for the low-income groups in Greenland. Self-sufficiency from natural resources is an integrated part of Greenlandic culture and has through generations been necessary for sustaining life.

**European Union**

***Denmark***

A salmon management plan in all the eight rivers going to the North Sea has been implemented and is evaluated in close contact between fishery authorities and the local anglers associations and through several annual meetings between with angler associations and land owners (they have the fishing rights which is rented out to the anglers).

It is the perception, that allowing local access to sports fishing salmon increases local awareness and as effect results in improved protection of habitats, illegal fishing etc.

***Finland***

Both rivers Teno and Näätämöjoki are in the area inhabited by indigenous Sámi people. Fishing for salmon is an important part of Sami culture. Traditional salmon fishing methods may be used in the fisheries, but the use of stationary gears is restricted to fishing right owners who live in the area. In addition, rod fishing for tourists is more restricted than local rod fishery. For example, only the use of locally-owned boats is allowed in salmon fishing.

Salmon based tourism is important livelihood especially in river Teno area. Restrictions, like the rules for boat ownership, are applied to help the local businesses in supporting the local economy and the Sámi culture.

***Germany***

Currently socio-economic factors play a minor role in making decisions on salmon management. The salmon stocks are still too low as to be seen as usable resource. Hence there is no commercial and recreational salmon fisheries in Germany. Angling associations and activists are important supporters, mostly on a voluntary basis, of reintroduction and restocking.

***Ireland***

In evaluating management options, conservation of the salmon resource does take precedence over socio-economic factors and only fisheries meeting CLs and with a harvestable surplus are allowed retain salmon.

The allocation of any surplus to stakeholders (i.e. anglers and commercial net fishermen) is based on consultation between IFI and the stakeholders concerned. These proportions are usually based on historical catch information.

***Sweden***

The decision-making process includes all stakeholders in the form of a 6/17 written remittance of suggested fisheries management, which gives a transparent process and is common in Sweden. Biannually or annually a conference, where all stakeholders are invited, is held presenting stock status, suggestions on future fishery management and where the advice of ICES and NASO is presented.

***UK - England and Wales***

The primary management objective is to ensure the conservation or restoration of the stock(s). When new management measures are considered, socio-economic factors may be taken into account to influence the nature and balance of controls affecting different stakeholder groups and the rate of stock recovery that is planned (See Decision Structure (Annex 2)).

Consideration is also given, *inter alia*, to:

• whether a proposed measure will have an unreasonable effect on someone's livelihood (e.g. net fishing) or the value of their property (e.g. fishing rights); this may mean that it is necessary to reduce the impact of a conservation measure, for example by planning the recovery of the stock over a longer period;

• whether one group of stakeholders will be unreasonably affected relative to another; where reductions in exploitation are required, the effects on netsmen and anglers should be equitable;

• the effect of controls on the viability of commercial and recreational fisheries; for example, catch and release controls will generally have a greater economic effect on commercial than recreational fisheries;

• the heritage value of the fishery; where fishing methods are unique to a very small number of locations, consideration is given to retaining a residual fishery and/or permitting a low level of catch. *[See also: Method for Assessing Heritage Value of Fisheries https://publications.environment-agency.gov.uk/ms/EOuNev ]*

***UK - Northern Ireland***

In evaluating management options conservation of the salmon resource takes precedence. Mechanisms exist for consultation with stakeholders, some earlier fishery closures have been accompanied by financial measures.

**Norway**

A number of organisations representing fishing right holders, public interests and conservation interests are involved in different aspects of salmon management. In order to facilitate stakeholder participation and influence in salmon management, e.g. fishing regulations, a number of local and regional councils have been established. On a national level salmon advisory and consultation meetings are normally held once or twice a year. National organizations of fishing right holders, recreational and commercial fishing interests, nature conservation, aquaculture and hydropower industries, and relevant authorities are represented. Over the last decade, local management bodies in salmon rivers have been given greater responsibility, especially local river-by-river organizations of landowners and fishing right holders.

The national government has consultation obligations with the Sami Parliament. This is governed by an agreement between the Government and the Sami Parliament.

**Russian Federation**

In overall quotas for commercial fisheries have been gradually reduced with the aim to enhance recreational fisheries. However, socio-economic factors are taken into account in making decisions on the management of remaining coastal mixed-stock fisheries in the White sea. The quotas for these fisheries are set annually by the Regional Commissions on Regulation of Harvesting the Anadromous Fish to ensure economic returns to local communities of Murmansk and Archangelsk regions through salmon fishing.

After a long period the quotas have been set recently for salmon fisheries to support traditional way of living of indigenous small nations of the North.

**United States of America**

Endangered populations: Legally, socio-economic factors can not be taken into account when decisions are made regarding listing species as endangered or threatened under the U.S. Endangered Species Act. The law requires that these decisions be based solely on the best scientific and commercial data available. This law (specifically the “take” prohibitions of Section 9 of the ESA) currently prevents a directed fishery from being executed anywhere within the freshwater range of endangered salmon populations in Maine.

Restoration populations: Socio-economic factors are considered when deciding whether or not to execute a fishery involving restoration populations. However, the severely depressed status of these populations has prevented managers from executing fisheries for sea-run salmon in these rivers in recent years. There is, however, a small recreational fishery on post-spawned domestic broodstock in the Merrimack River, an area south of the GOM DPS. In recent years, roughly 1,500 broodstock have been released to the river to support the fishery with approximately 1,200 permits sold each year.

***Question 3.2: How are socio-economic factors taken into account in making decisions on salmon habitat management?***

**Canada**

Fisheries and Oceans Canada's role is to manage Canada's fisheries. At the same time, Fisheries and Oceans Canada has a responsibility to advance economic development around recreational, commercial or Aboriginal fisheries while ensuring sustainability and ongoing productivity.

Under the amendments to the *Fisheries Act*, any activity that causes serious harm to fish (killing of fish, permanent alteration or destruction of fish habitat) that are part of, or support, a commercial, recreational or Aboriginal fishery will be prohibited unless authorized.

Decisions on the authorization of serious harm will be guided by a set of key factors including: the contribution to the fishery; whether there are measures to avoid, mitigate or offset serious harm; and socio-economic factors such as the consideration of any relevant fisheries management objectives, and the public interest.

A detailed decision-making process that takes into account these key factors is currently under development.

**Denmark (in respect of the Faroe Islands and Greenland)**

***Faroe Islands***

Because of the small size of the Faroese rivers, there is no historic record of any natural wild salmon population in Faroese rivers or fjords. Due to the fact that there are no self-supporting wild salmon stocks in Faroese rivers, implementing NASCO´s guidelines is in many cases not relevant.

***Greenland***

No information provided

**European Union**

***Denmark***

The fishery and environmental authorities are in close contact with local stakeholders and educate local water authorities and anglers in restoration methods. Due to the involvement in the negotiation of quotas and management as such the local anglers and land owners participate feel responsible for the national salmon management plan.

***Finland***

No information provided

***Germany***

Currently socio-economic factors play a role in relation to environmental aspects e.g. as indicator of a sound environment. The reintroduction of salmon is seen as a complement to

the ecological rehabilitation of riverine environments which is mandatory under the EC water framework directive. Additionally Atlantic salmon is listed under the EU habitats directive. Under the Habitats Directive member states are called upon to establish the necessary conservation measures and, if need be, appropriate management plans with the goal to achieve a favourable conservation status for the protected species and habitat types.

There are a number of hatcheries used for artificial propagation of Atlantic salmon for restoration purposes. Substantial funds are expended annually by German federal states and fishing associations for reintroduction of Atlantic salmon and habitat restoration.

***Ireland***

Regardless of the socio-economic implications of any given project, there is a clear policy in place to protect salmon and its habitat in Ireland. The function of IFI are to conserve, protect, manage and develop the inland fisheries resource (including salmon) and general Government policy is to conserve the inland fisheries resource in its own right and to facilitate exploitation of the resource on an equitable and sustainable basis. These objectives mean that the salmon resource must be given adequate protection when the socio-economic implications of any project are being considered.

Any development requires an environmental impact statement, and an Appropriate Assessment (Natura Impact Statement) when proposed development is within or adjacent to a Special Area of Conservation (SAC), planning for development is given based on minimal interference and the no net loss principle. Experience over recent years has shown that where socio-economic factors have necessitated interference with salmon habitat, there is an acceptance that any loss will be compensated for in other parts of the catchment. Recent examples are road works on two salmon rivers (Feale & Dee) and bridge works on the Corrib catchment where the National Roads Authority and County Council worked with IFI to undertake and pay for habitat rehabilitation works in other areas of these catchments. These works resulted in an overall gain in productive salmon habitat.

***Sweden***

As a general rule, stakeholders participation/approval is always required when 11/17 habitat restoration is carried out. Fresh waters are privately owned, and the fishing is privately managed within the framework set by the Swedish Agency for Marine and Water management. This means that stakeholders are an important part of the restoration work.

***UK - England and Wales***

*See also: Protection, Restoration and Enhancement of Salmon Habitat Focus Area Report for EU-UK (England & Wales) (IP(09)05)*
*http://www.nasco.int/pdf/far_habitat/HabitatFAR_EnglandWales.pdf*

The default objectives for surface waters under the WFD are Good Ecological Status or Good Ecological Potential. However, it may not be possible or affordable to achieve these objectives in the short term for a variety of reasons, and so 'alternative objectives' can be set which may result in an extended deadline or a less stringent objective. 'Alternative objectives' describe the mechanism which the WFD provides for considering other environmental, social and economic priorities alongside water management issues, and for

prioritising action over successive river basin planning cycles. The alternative objectives and their conditions are the only relevant considerations when justifying the prioritisation of actions under the WFD.

The second round of RBMPs will include packages of measures and water body objectives that are cost beneficial and affordable. Local stakeholders are to be involved in the identification of local benefits to be gained by improving the water environment. Under the England and Wales programme of Water Company investment (in domestic water supply and waste water treatment), the Environment Agency proposes what improvements are needed and when for the environment (incorporating the needs of fisheries, including salmon). The Water Company regulator, OFWAT, balances the ambition to achieve these improvements with the impact on Water Company investment and on customers.

***UK - Northern Ireland***

Management of fisheries does not always have primacy over factors affecting salmon habitat including economic development. By statutory consultation DCAL and Loughs Agency seek to ensure that losses are minimised and appropriate mitigation measures implemented on any impact to salmonid habitat.

**Norway**

The socio-economic factors are taken into account in the process of judging whether a project including withdrawal of fresh water or a project affecting the freshwater habitat should be granted. In the licensing process pros and cons of the project are evaluated, and socio-economic factors are included in this evaluation.

**Russian Federation**

Salmon habitat management is conducted on the basis of assessment of proposals for economic activities that could have impacts on habitat. Approval of economic activities takes place only provided that all requirements of environmental legislation are met, potential damages to aquatic biota compensated.

**United States of America**

Endangered populations – When considering whether or not to list populations as threatened or endangered, by law, socio-economic factors cannot be considered. When federal agencies are considering effects of their actions on listed species, they must avoid jeopardizing the species and also avoid adversely modifying critical habitat. For actions that may cause some impact to the species or the habitats, when identifying alternative actions to avoid or minimize impacts, comparative economic impact of those alternatives are sometimes considered.

Restoration populations – A variety of cost-benefit analyses may be conducted through a number of state and federal environmental reviews for projects that may affect salmon. Similarly, NGOs and government agencies often consider restoration options with the highest biological benefit and lowest economic costs. Methods used by agencies, organizations and entities are different, however, making consideration of these factors less transparent.