

CNL(99)48

Action Plan for Application of the Precautionary Approach

1. Organisation of Activities

1.1 *Finalise Draft Action Plan for consideration by the Council*

At its 1998 meeting the Council agreed a Preliminary Action Plan for Application of a Precautionary Approach to Salmon Management. It was agreed that the Contracting Parties would be given the opportunity to make written submissions to the Secretariat concerning this Preliminary Draft Action Plan and that a Working Group should refine it.

1.2 *Agreement and adoption of Action Plan*

Following the further development of the Draft Action Plan, the Council will be asked to consider it at its 1999 meeting with a view to its adoption.

1.3 *Establish a Standing Committee/Working Group on the Precautionary Approach*

The adoption of a Precautionary Approach to salmon conservation, management and exploitation is a major undertaking which places obligations on NASCO and on its Contracting Parties. The implementation of a Precautionary Approach is likely to be an evolving process over a number of years and the Council will wish to consider progress in implementing the Action Plan and the need for further actions.

Actions relating to Section 1

Action to date:

- The Preliminary Draft Action Plan was circulated to Heads of Delegations on 12 August 1998. No written submissions were received.

Future action:

- Finalise the Draft Action Plan, either by correspondence or, if necessary, by a meeting of the Working Group. **Timescale: June 1999**
- Consideration of the Draft Action Plan with a view to its adoption by the Council at its Sixteenth Annual Meeting. **Timescale: June 1999**

- The Council should form a Standing Committee on the Precautionary Approach (SCPA) which will comprise the Heads of Delegations plus additional experts as appropriate. The Standing Committee on the Precautionary Approach will meet as directed by the Council and will have the following objectives:
 - to co-ordinate the implementation of the Action Plan;
 - to ensure co-ordination and consistency in implementing the Precautionary Approach in each regional Commission;
 - to report to the Council on:
 - progress in implementing the Action Plan;
 - the need for additional actions in relation to the application of a Precautionary Approach;
 - the activities relating to the Precautionary Approach of other organizations.

Timescale: June 1999
- The Standing Committee on the Precautionary Approach should meet as required and annually in conjunction with the Annual Meetings of NASCO and report to the Council.

Timescale: 2000 onwards

2. Management of North Atlantic Salmon Fisheries

2.1 *Clarify interpretation of NASCO's fisheries management objectives and concepts*

Article 3 of the NASCO Convention states that the objective of the Organization shall be to contribute through consultation and co-operation to the conservation, restoration, enhancement and rational management of salmon stocks subject to the Convention, taking into account the best scientific evidence. The Agreement on Adoption of a Precautionary Approach states that an objective for the management of salmon fisheries for NASCO and its Contracting Parties is to promote the diversity and abundance of salmon stocks and that for this purpose management measures should be aimed at maintaining all stocks above their conservation limits. ICES has noted that it is not clear that these objectives are fully compatible. ICES expressed concern about the lack of a clear definition of the word "conservation" in NASCO's objectives and was uncertain whether it has the same meaning as in the term "conservation limit".

2.2 *Conservation limits and management targets*

2.2.1 *Develop age-specific conservation limits for all stocks taking due regard of biological diversity*

The Agreement on Adoption of a Precautionary Approach states that management measures should be aimed at maintaining all stocks above their conservation limits (currently defined by NASCO as the spawning stock level that produces maximum sustainable yield). Where stocks are below their conservation limits, stock rebuilding programmes should be developed. Conservation limits have been established for all stocks in the North American Commission area, but some are based upon limited data. There will be a requirement for ICES to continue to review and, where possible, improve these conservation limits. Current conservation limits for the North-East Atlantic Commission area are largely based upon very imprecise data. The Council has identified as a

priority for immediate action the establishment of river-specific conservation limits for stocks in the North-East Atlantic Commission area. As the Precautionary Approach is applied more widely, consideration will need to be given to other factors that may need to be taken into account when setting biological reference points; these will include the need to maintain biological diversity.

2.2.2 Develop management targets

The Agreement on Adoption of a Precautionary Approach states that stocks should be maintained above the conservation limits by the use of management targets. These will be set relative to the conservation limits on the basis of the risks of not achieving the fishery management objectives. As a basis for setting management targets, assessments are required of the degree of uncertainty in the current state of the stocks, in the biological reference points and of the fishery management capabilities. Once the appropriate risk levels for setting management targets have been agreed by NASCO, management targets will then need to be developed for all stocks by ICES.

2.2.3 Stock groupings to be used in management

The Agreement on Adoption of a Precautionary Approach states that conservation limits and management targets set for each river should be combined as appropriate for the management of different stock groupings defined by managers. ICES has also noted that there may be scientific reasons for linking particular groups of stocks. These biological data need to be integrated with appropriate management rationales to determine appropriate stock groupings for management purposes.

2.3 Pre-agreed management actions for fisheries

The Agreement on Adoption of a Precautionary Approach states that the application of a precautionary approach to salmon fishery management requires the formulation of pre-agreed management actions in the form of procedures to be applied over a range of stock conditions. It is important that a consistent approach is adopted for different fisheries, as appropriate to the particular conditions.

Actions relating to Section 2

Action to date:

- In its 1998 request for scientific advice, the Council asked ICES to further develop the age-specific stock conservation limits for smaller stock units in the North-East Atlantic Commission area, where possible based upon individual river estimates.
- For the North American Commission area, ICES has been asked to update age-specific stock conservation limits based on new information as available.
- ICES has also been asked to assess the risks relative to the objective of exceeding stock conservation limits when providing catch options or alternative management advice.

Timescale: The response from ICES to these questions will be presented at the Council's 1999 Annual Meeting.

Future action:

- The Council should continue to request that ICES review and improve the conservation limits being developed by the Contracting Parties throughout the North Atlantic area taking account of factors such as the maintenance of biological diversity. **Timescale: 1999 onwards**
- The development by the Contracting Parties of river-specific conservation limits for the North-East Atlantic Commission area is a priority for immediate action. **Timescale: 1999 onwards**
- ICES should be asked to advise on the most appropriate stock groupings based on biological information. The Commissions should consider this advice and decide on the stock groupings to be used in management. **Timescale: 1999 onwards**
- The Standing Committee on the Precautionary Approach should:
 - further clarify the interpretation of the fisheries management objectives and concepts of NASCO and its Contracting Parties;
 - recommend risk levels for establishing management targets taking account of uncertainty in the current state of the stocks, in biological reference points and fishery management capabilities;
 - propose procedures for developing pre-agreed management actions for distant water fisheries;
 - develop guidelines for preparing pre-agreed management actions for homewater fisheries;
 - advise on the circumstances under which stock rebuilding programmes would be required, procedures for disseminating information on these programmes, and procedures for assessing the effectiveness of these programmes.**Timescale: To be recommended by SCPA**
- The Council should consider the recommendations of the Standing Committee on the Precautionary Approach on the application of a precautionary approach to salmon fisheries management and decide on future actions. **Timescale: To be recommended by SCPA**

3. Socio-Economic Issues

3.1 *Indicate how socio-economic factors could be included in fisheries management, aquaculture, introductions and transfers, stock rebuilding programmes, by-catches*

Article 9 of the Convention refers to a number of socio-economic factors that shall be taken into account by the Commissions of NASCO in establishing regulatory measures and such factors have formed a major input to the NASCO measures to date. The Agreement on Adoption of a Precautionary Approach states that socio-economic factors could be taken into account in applying the Precautionary Approach to fisheries management issues. They may also need to be considered in relation to the application of this approach to other salmon management and conservation activities. However, concerns have been expressed that consideration of socio-economic factors

could negate the effectiveness of the Precautionary Approach unless clear priority is given to conservation issues. Resolving how socio-economic factors can be included in implementation of a Precautionary Approach to salmon conservation, management and exploitation without negating its effectiveness will require careful consideration and possibly the development of guidelines.

Actions relating to Section 3

Future action:

- The Standing Committee on the Precautionary Approach will ensure that the relevant short-term and long-term socio-economic factors are taken into account in implementing the Precautionary Approach in relation to, *inter alia*:

- fisheries management;
- aquaculture;
- introductions and transfers;
- stock rebuilding programmes;
- by-catches.

Preparatory discussion papers should be sought from independent sociologists and economists to outline the principles that might need to be considered by the Standing Committee on the Precautionary Approach. **Timescale: To be recommended by SCPA**

- The Council should consider the recommendations of the Standing Committee on the Precautionary Approach on socio-economic aspects in the precautionary approach and decide on future actions. **Timescale: To be recommended by SCPA**

4. Unreported Catches

4.1 *Develop and improve estimation procedures*

The Agreement on Adoption of a Precautionary Approach recognises that efforts to improve estimates of unreported catches are consistent with the Precautionary Approach. ICES has indicated that it is unable to evaluate the accuracy of the processes used to develop “guess-estimates” of unreported catches but has stressed the need for efforts to improve them. Concern has been expressed within NASCO that the information provided by ICES does not give a breakdown by country of the “guess-estimates” of unreported catches and does not provide an explanation of how each country determined its value.

4.2 *Improve catch reporting procedures*

The Council has expressed concern about the high level of unreported catches and strongly emphasised the need to take stronger measures to minimise the level of such catches. The Agreement on Adoption of a Precautionary Approach recognises that efforts to minimise unreported catches are consistent with the Precautionary Approach.

Actions relating to Section 4

Action to date:

- Since 1985, the Council has, on an annual basis, requested ICES to provide estimates of unreported catches. This information has been provided by Commission area only. In 1998, the Council requested that ICES provide a breakdown of unreported catches on a stock complex basis.
- At its 1998 Annual Meeting the Council agreed that each Contracting Party should provide, on an annual basis, an explanation of how it arrives at its figure for unreported catch.
- At its 1998 Annual Meeting the Council agreed that each Contracting Party should provide, on an annual basis, a description of its management control and reporting systems by country, the extent of catch and release fishing and the measures taken to further minimise the level of unreported catches.

Future action:

- The Council should consider ways to reduce levels of unreported catch by improving reporting mechanisms.
- The Contracting Parties should review their management control and reporting systems with the aim of reducing the level of unreported catches.
- The Council should review the progress on measures taken to minimise the level of unreported catches.

Timescale: 1999 onwards

5. Scientific Advice and Research Requirements

5.1 *Reformulate the request to ICES with respect to CNL(98)46*

Under the Agreement on Adoption of a Precautionary Approach it is agreed that ICES or other scientific advisors should be requested, *inter alia*, to: provide stock conservation limits and management targets for all river stocks; advise on the risks of not achieving the objectives of NASCO or its Contracting Parties; provide catch options or alternative management advice with associated risk assessments; advise on stock rebuilding programmes; identify the monitoring and data collection required; advise on the impacts on salmon stocks of existing and new fisheries for other species, and of salmon fisheries on non-target species.

5.2 *Reformulate the request for advice in the light of management decisions on application of the Precautionary Approach*

It is anticipated that as the Precautionary Approach is applied to the conservation, management and exploitation of salmon, there will be a need to modify the existing request for advice and seek additional information from ICES.

Actions relating to Section 5

Action to date:

- At its 1998 meeting, the Council agreed on the scientific advice that might be sought in support of a Precautionary Approach (CNL(98)41) and this was taken into account by the Standing Scientific Committee in developing the 1998 request for scientific advice from ICES. The response from ICES to this revised request for advice will be presented at the Council's meeting in 1999.

Future action:

- The Standing Scientific Committee should reformulate the request for scientific advice, as necessary, in the light of management decisions on application of the Precautionary Approach. **Timescale: 1999 onwards**

6. **Stock Rebuilding Programmes**

6.1 *Develop framework for stock rebuilding programmes (SRPs)*

Under the Agreement on Adoption of a Precautionary Approach it is recognised that application of the Precautionary Approach to salmon fishery management is an integrated process that requires, *inter alia*, that stock rebuilding programmes (including, as appropriate, habitat improvement, stock enhancement and fishery management actions) be developed for stocks that are below their conservation limits. ICES has been asked to develop a framework for stock rebuilding programmes.

6.2 *Provide advice on SRPs*

The Agreement on Adoption of a Precautionary Approach indicates that stock rebuilding programmes should be developed for stocks that are below their conservation limits. There is a need to consider in detail the circumstances under which such Plans will be required and how they will be implemented and managed.

6.3 *Identify stocks requiring SRPs*

Once the circumstances under which SRPs would be required have been agreed, there will be a need to identify those stocks for which SRPs are required.

6.4 *Develop SRPs for stocks identified above*

The development of stock rebuilding programmes by the Contracting Parties, with appropriate involvement of and co-ordination with the regional Commissions, will be a long-term commitment which should commence once the relevant stocks have been identified.

6.5 *Report to Council on SRPs*

The Council will wish to be advised, through the Standing Committee on the Precautionary Approach, on progress with the development of SRPs and resulting changes in the status of the stocks.

Actions relating to Section 6

Action to date:

- In 1998 the Council requested ICES to develop a framework for stock rebuilding programmes. The response from ICES should be available at the Sixteenth Annual Meeting in 1999.

Future action:

- The Standing Committee on the Precautionary Approach should:
 - identify the circumstances under which stock rebuilding programmes would be required;
 - develop procedures for disseminating information on stock rebuilding programmes and for reviewing progress on these programmes;
 - develop procedures for assessing the effectiveness of stock rebuilding programmes.

Timescale: To be recommended by SCPA

- The Council should consider the recommendations of the Standing Committee on the Precautionary Approach, as these apply to stock rebuilding programmes, and decide on future actions. **Timescale: To be recommended by SCPA**
- In the light of the decision of the Council, the Contracting Parties, with appropriate involvement of and co-ordination with the regional Commissions should:
 - identify those stocks requiring stock rebuilding programmes; **Timescale: To be recommended by SCPA**
 - develop appropriate stock rebuilding programmes and report to the Council on progress with their development and effectiveness. **Timescale: To be recommended by SCPA**

7. Introductions, Transfers, Aquaculture and Transgenics (including stocking and ranching)

The Agreement on Adoption of a Precautionary Approach states that it is essential that there be full implementation of the measures developed by NASCO in the various agreements concerning introductions and transfers and aquaculture. It is further stated that the Contracting Parties agree to report to the Council or appropriate Commission on the steps taken to achieve the measures described in the agreements, ensure full implementation of these agreements and consider whether the agreements need to be re-examined and complemented by additional steps.

NASCO and its Contracting Parties recognise that the development of a number of these issues requires close collaboration with appropriate industry representatives which deal with fish farming or stock enhancement.

7.1 *Introduce, review, develop and extend reporting procedures*

A reporting procedure has already been initiated for the North American Commission's Protocols on Introductions and Transfers, NAC(92)24 and NAC(94)14.

Under Article 5 of the Oslo Resolution (CNL(94)53) there is a requirement for the Contracting Parties to provide to the Organization, on an annual basis, information concerning the measures adopted and the research and development carried out. A format for the provision of this information was agreed in 1995 and revised in 1998.

Under the NASCO Guidelines for Action on Transgenic Salmon, CNL(97)48, there is a requirement for the Contracting Parties to report to the Council any proposal to permit the rearing of transgenic salmonids and provide details of the proposed method of containment and other measures to safeguard the wild stocks. Time is allocated on the Council agenda for these reports to be made.

The North-East Atlantic Commission's Resolution to Protect Wild Salmon Stocks from Introductions and Transfers (NEA(97)12) contains no requirement to report on the measures taken by the Contracting Parties.

Actions relating to Section 7.1

Action to date:

- In 1998 the Council agreed a new, more detailed format for the provision of information concerning the measures taken by the Contracting Parties under the Oslo Resolution. The first returns were presented to the Council at its June 1998 Meeting.
- In 1998 the North-East Atlantic Commission agreed that in the interests of transparency it would be desirable to introduce a regular reporting system for measures taken in accordance with the Resolution to Protect Wild Salmon Stocks from Introductions and Transfers. The Secretariat was asked to develop a format for the provision of this information.

Future action:

- The Council will work on the development of a new liaison structure between NASCO and the North Atlantic salmon aquaculture industry. **Timescale: Commencing autumn 1999**
- The Standing Committee on the Precautionary Approach will develop further objectives for the implementation of the Precautionary Approach for introductions, transfers, aquaculture and transgenics following the Liaison Meeting. **Timescale: to be recommended by SCPA**
- The system for reporting under the North American Commission's Protocols should be kept under review and improved as required. **Timescale: To be recommended by SCPA**
- The information provided by the Contracting Parties, under the new format, on measures taken in accordance with the Oslo Resolution will be recorded in a database by the Secretariat. This reporting system should be kept under review and improved as required. **Timescale: 1998 onwards**
- At its 1999 meeting the North-East Atlantic Commission will review a format for reporting under the Resolution to Protect Wild Salmon Stocks from Introductions and Transfers. Once this procedure has been agreed by the Commission it will need to be kept under review. **Timescale: 1999 onwards**

7.2 *Take account of the application of a Precautionary Approach in the review of NAC(94)14*

The Protocols on Introductions and Transfers were agreed by the North American Commission in 1992 and were amended in 1994. They are presently under review.

Actions relating to Section 7.2

Action to date:

- At the North American Commission's 1998 meeting a Discussion Document for revision to the Protocols was tabled. The Commission agreed that recommendations for modifications to the Discussion Document should be provided during the calendar year so that revised protocols can be presented to the Commission for approval at its Sixteenth Annual Meeting in 1999.

Future action:

- In the light of the decision of the Council and Contracting Parties to adopt and apply a Precautionary Approach, the review of the North American Commission Protocols should ensure their consistency with this approach, and take account of appropriate risk assessments. **Timescale: To be recommended by SCPA**

7.3 *Re-examine the other NASCO Agreements and consider the need for additional steps in the light of the Precautionary Approach*

Under the Council's Agreement on Adoption of a Precautionary Approach it is stated that the Contracting Parties should ensure full implementation of the existing agreements and consider whether they need to be re-examined and complemented by additional steps.

Actions relating to Section 7.3

Future action:

- The Standing Committee on the Precautionary Approach will:
 - review the measures contained in the Oslo Resolution, CNL(94)53, Guidelines for Action on Transgenic Salmon, CNL(97)48, and the NEAC Resolution to Protect Wild Salmon Stocks from Introductions and Transfers, NEA(97)12 and advise on their consistency with the Precautionary Approach;
 - make recommendations for additional measures where these are required to safeguard the wild stocks;
 - review measures to prevent unintentional introductions and transfers.
- In reviewing these agreements and measures, and in making recommendations for additional measures, the Standing Committee on the Precautionary Approach should take account of appropriate risk assessments. **Timescale: To be recommended by SCPA**
- The Council should consider the recommendations of the Standing Committee on the Precautionary Approach on introductions, transfers, aquaculture and transgenics and decide on future actions. **Timescale: To be recommended by SCPA**

7.4 *Review the use of sterile salmon in aquaculture*

The use of sterile salmon in aquaculture might offer a way forward to protect the genetic integrity of the wild stocks. However, there could be disadvantages for industry in terms of yield, fish health, ecological impacts, consumer resistance and other marketing factors. Concerns have also been raised about the possible ecological impacts of sterile salmon on the wild stocks. These disadvantages would have to be balanced against the risks to the wild stocks from existing practices. The results of on-going research on the feasibility of using all-female triploid sterile salmon in aquaculture and on their ecological impacts should be available in 1999.

Actions relating to Section 7.4

Action to date:

- The Council has agreed that the question of the use of sterile salmon in farming should be the subject of a substantial review in 1999.

Future action:

- In the light of this review the Council agree to encourage further research on the use of sterile salmon in aquaculture. **Timescale: 1999 onwards**

7.5 *Review measures to prevent unintentional introductions and transfers of salmonids and of diseases and parasites*

There is concern about the impact of unintentional introductions of aquatic species which may adversely affect wild salmon stocks. Such introductions can occur, for example, in ships' ballast water, or on fishing equipment.

Actions relating to Section 7.5

Future action:

- The Standing Committee on the Precautionary Approach will develop advice on measures to prevent unintentional introductions and transfers. **Timescale: To be recommended by SCPA**
- The Council should consider the recommendations of the Standing Committee on the Precautionary Approach on the application of a precautionary approach to introductions, transfers, aquaculture and transgenics, as these apply to unintentional introductions and transfers, and decide on future actions. **Timescale: To be recommended by SCPA**

8. Habitat Issues

8.1 *Special Session on Habitat Issues*

There is little doubt that the degradation of freshwater habitats as a result of a wide range of aquatic and terrestrial factors is contributing to the decline of salmon stocks in some areas. This is a complex topic involving a wide range of disciplines. Initial discussion on these issues will take place during a Special Session on Habitat Issues at the Sixteenth Annual Meeting.

8.2 Consider application of a Precautionary Approach to freshwater habitat issues

The Council will need to consider how the Precautionary Approach will be applied to freshwater habitat issues. The Council has agreed that this should be considered in the second phase of implementing the Precautionary Approach.

Actions relating to Section 8

Action to date:

- The Council has agreed to hold a Special Session on habitat issues at its 1999 Annual Meeting. This session will provide a forum for a review and discussion of habitat issues which may impact on Atlantic salmon.

Future action:

- The Standing Committee on the Precautionary Approach should establish methods for ensuring exchange of information between Contracting Parties on restoration methods. **Timescale: To be recommended by SCPA**
- The Council has agreed that habitat improvement may be one of the elements in Stock Rebuilding Programmes. Measures to address habitat issues may be introduced as these measures are implemented. **Timescale: Long-term**
- The Standing Committee on the Precautionary Approach should consider the application of a Precautionary Approach to habitat issues. **Timescale: To be recommended by SCPA**

9. By-catches

9.1 Consider application of the Precautionary Approach to by-catch problems

The Council has agreed that by-catch is an issue that should be considered in the second phase of implementing the Precautionary Approach.

In recent years there has been a significant growth in fishing for pelagic species of fish in the North-East Atlantic Commission area, and concern has been expressed about the possible by-catch of salmon in these fisheries.

Under the Agreement on Adoption of a Precautionary Approach it is stated that new fisheries targeted on salmon, or fisheries which could result in a by-catch of salmon, should be subject to cautious conservation and management measures and that the Contracting Parties shall invite the attention of non-Contracting Parties to any significant by-catch of salmon by its vessels. It is also stated that ICES or other scientific advisors should be requested to advise on the impacts on salmon stocks of existing and new fisheries for other species, and of salmon fisheries on non-target species.

Actions relating to Section 9

Action to date:

- The Council has advised the non-Contracting Parties (Estonia and Latvia) involved in the fishery for mackerel of its concerns about the possible by-catch of salmon.
- The Council is seeking information from ICES and from the Contracting Parties on the by-catch of salmon and has agreed that information also be sought from the North-East Atlantic Fisheries Commission (NEAFC).

Future action:

- The Council should continue to seek information on the by-catch of salmon and consider appropriate action in the light of the information obtained. **Timescale: 1999 onwards**
- ICES should be asked to advise on the impacts on salmon stocks of any new fisheries for other species and of fisheries targeted at salmon on other species. **Timescale: 1999 onwards**
- The Council should encourage the appropriate management authority to manage new fisheries in a manner which would minimise the by-catch of salmon. **Timescale: 1999 onwards**
- The Standing Committee on the Precautionary Approach should consider the application of a Precautionary Approach to by-catch issues. **Timescale: To be recommended by SCPA**