PROSPECTUS – SYMPOSIUM ON HYDROPOWER, FLOOD CONTROL AND WATER ABSTRACTION: IMPLICATIONS FOR FISH AND FISHERIES

The European Inland Fisheries Advisory Commission (EIFAC) will hold a Symposium on Hydropower, Flood Control and Water Abstraction: Implications for Fish and Fisheries, in connection with its Twenty-fourth Session in Mondsee, Austria, from 14 - 17 June 2006. The venue will be the Conference Centre at the Mondsee Palace in Mondsee. The Chairperson of the Symposium is Prof. Wolfgang Stalzer from the Ministry of Agriculture, Forestry, Environment and Water, Vienna. The Convener of the Symposium is Dr. Robin Welcomme, UK. The first Session of the Symposium should start immediately after the Opening Ceremony on Wednesday 14 June. The Symposium will end on Saturday 17 June around lunch time. Participants will probably have to arrive on Tuesday 13 June in Mondsee.

BACKGROUND

Modification of flow in rivers and streams by hydropower plants and other water resource development schemes is increasing across Europe. This process is being accelerated by recent trends to promote small hydropower installations in many countries. However, the damming of rivers and the control of water that accompanies the operation of power plants, prevention of flooding, and abstraction of water for agriculture and domestic supply, cause serious damage to the aquatic ecosystem, despite the claims by certain lobby groups that hydropower is a sustainable source of energy. Impoundments upstream of dams may create new fisheries opportunities, but are also associated with environmental impacts on fish through changes in habitat and in hydrology. Serious and lasting impacts are experienced downstream of dams, through changes in the morphology of the rivers and the flow conditions within them, as well as through interruptions to migratory pathways of fish species. Other aspects of concern to EIFAC in this context are the responsible handling of fish and the distribution and spread of fish diseases. Because numerous stakeholders recognize the importance of these issues across Europe, EIFAC will hold a Symposium to explore the issues, problems and mitigation measures to reduce the impact of such activities.

AIMS

The main aim of the Symposium will be to review the impact on fish and fisheries of activities that modify river hydrology, specifically hydropower plants, flood control measures and water abstraction; examine mitigation and rehabilitation practices; and consolidate social, economic and legal issues.

OBJECTIVES

The objectives of the Symposium will be to:

1. Review the scale and diversity of the impact of flow-modifying structures and activities on fish populations;

2. Review ways to avoid or mitigate the impacts of such structures on fish. These might include: decommissioning of dams; provision of upstream and downstream fish passage facilities; the setting of environmental flow criteria and the provision for releases to maintain fish populations and habitat;
3. Advise on guidelines to avoid or minimize the negative impacts of such structures on fish and to ensure equitable allocation of water among fisheries and other users.
4. Develop information for policy- and decision-makers to increase awareness of the impacts of such structures;
5. Facilitate dialogue between decision makers, engineers and fisheries interests on the operating of such structures.

THEMES

1. To assess the scale and distribution, current locations and local characteristics of hydropower generating structures in Europe with respect to their impacts on fisheries;

2. To assess dam removal, the distribution and efficiency of fish passes, fish guidance systems and of management measures for minimizing effects of such structures on fish populations and fisheries;

3. To examine the methodology and approaches for setting ecological flows for fish, especially potamodromous, diadromous and threatened species;

4. To assess social and economic evaluations of the balance between power generation and other flow related activities as against fishery-based livelihoods and ecological resources;

5. To evaluate existing and proposed guidelines and legal mechanisms that regulate the interface between fisheries and activities that impact on river hydrology.

ORGANISATION

The Symposium will be organized in five sessions. Each of the four thematic sessions will have time for a number of 20-minute presentations of selected experience papers. The oral presentations will be supplemented by posters as appropriate.

Sessions

Session 1: Assessment of issues and impacts S. Schmutz

The session will review the scale and diversity of the interactions between power generation, flood control and water abstractions with fish and fisheries. Contributions should address present and planned activities in the EIFAC member countries that have significant effects on river hydrology.

Session 2: Rehabilitating and mitigating mechanisms G. Armstrong

This session will consider strategies for the mitigation of the effects of river and flow regulation. These may include, among others, passes for upstream and downstream movements of fish, maintenance of spawning substrates, rehabilitation of channel diversity, reconnection of floodplains and decommissioning of dams.

Session 3: Environmental flow criteria; methodology and practice I. Cowx

This session will examine current methodologies for the assessment of flow criteria for the conservation of fish and fisheries. It will also accept case studies that evaluate the successes and shortcomings of existing methods, and that explore the scientific basis for environmental flow criteria. Flow issues should also consider drawdown in impoundments as well as hydropeaking and other flow patterns in rivers.

Session 4: Social, economic, conservation and legal issues G. Castelnaud/ T. Brenner

This session will attempt to place value on the balance between power generation and other flow-modifying activities as against fishery-based livelihoods and ecological resources. It will also explore the social and conservation implications of changes in fisheries and river structure arising from flow alterations. It will also review current and planned guidelines, regulations and legal approaches with a view to advising decision makers on the effectiveness of such mechanisms in the equitable allocation of water between fisheries and the various flow modifying human activities.

Session 5: Conclusions and recommendations R. Welcomme

This session will draw conclusions and formulate recommendations from the material presented at the symposium.

STEERING COMMITTEE

Chairperson from Host Country		W. Stalzer
Convener of the Symposium		R. Welcomme
Session leaders:	Session 1	S. Schmutz
	Session 2	G. Armstrong
	Session 3	I. Cowx
	Session 4	G. Castelnaud and T. Brenner
Technical Secretary		G. Marmulla

PARTICIPATION

The Symposium is intended to attract environmental and fishery scientists, those involved in policy- and decision-making on the allocation of water, engineers and representatives of the water and power generating industries.

Papers will be accepted in English or French, the official languages of EIFAC, but the language of the Symposium will be English and no interpretation will be provided.

It is intended to publish the Proceedings of the Symposium either as a stand-alone book or in a scientific journal.