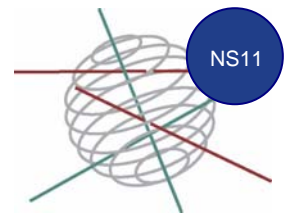


LECOFISH



An ecosystem approach in sustainable fisheries management through local ecological knowledge

DURATION OF THE PROJECT
01/07/2009 – 30/06/2011

BUDGET
177.250

CONTEXT

During the last decade, a shift has occurred internationally in the governance of marine fisheries toward an ecosystem approach. Its main goal is to achieve sustainable use of resources in which all components of the marine ecosystem and their interactions are covered.

A parallel movement is also underway in which the growing interest in Local Ecological Knowledge (LEK) as a knowledge system as well as the recognition that LEK can make a contribution to sustainable use of resources. In general, LEK can be defined as knowledge held by a group of people about their local environment.

In Belgium, studies regarding LEK are yet to be carried out. Recently, scientific research has acknowledged the existence of knowledge gaps and has made an appeal to the scientific community to do research concerning LEK.

LECOFISH is suitable as an answer to this call. LECO FISH contains the characteristic to be one of the first studies relating to LEK in fisheries conducted in Belgium.

PROJECT DESCRIPTION

Objectives

The objective of LECO FISH is twofold, notably theoretical and practical. The theoretical goals are to improve our knowledge about the local ecosystems in the Belgian Part of the North Sea (BPNS). Secondly, we want to create new and additional information in order to minimize the knowledge gaps existing in Scientific Ecological Knowledge (SEK). The main goal is to gain a full insight into the complex marine ecosystem.

The practical goal of this project is its contribution to the ecosystem approach in the framework of a sustainable fishery policy of the BPNS.

Concretely, oral data and information will be gathered in relation to fisheries and the ecosystems from fishermen in the BPNS from the 1950's to the present time. This information will be collected by means of a Local Ecological Knowledge methodology and through the use of interviews with fishermen.

Methodology

Very often, it seems that studies regarding LEK do not pay enough attention to the utilized methodology, in particular the issue of how local knowledge 'experts' are identified and selected.

Sampling

The population in LECO FISH encompasses the commercial and recreational fishery in the Belgian Part of the North Sea from the 1950's to the present.

Local Ecological Knowledge is dependent on the holder of this knowledge. LEK fluctuates in level and content because of the fact LEK is mediated by fishery features, knowledge transition, external environment and their influence on the fisherman and his knowledge. The consequence of this heterogeneity is the effect on the population and on the sample.

In the pursuit of reaching fishermen with a profound knowledge and the characteristic of heterogeneity, the snowball method will be used. This method will be underpinned by the key-informant method and social network analysis. The consequence is that the sample size is not known at the beginning of the research. The sample size will grow during the research and will end when reaching the point of saturation.

Data collection

A questionnaire and a semi-structured interview will be used to gather LEK data and information. The questionnaires and the interviews will be taken face-to-face with both commercial fishermen and recreational fishermen.

The questionnaire endeavours to collect quantitative knowledge of the respondent regarding the location of fish ground, the fish catch, the by-catch, the fish technique, the fish species, the shift in fish species, etc. Questions about the characteristics of the respondent (age, function, experience, etc.) are important to contextualize the interviews and the knowledge of the fishermen. Moreover these additional questions might be useful in finding relations between knowledge of fishermen and those background parameters.



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A distinction will be made between the commercial and recreational fisheries because of different characteristics (fishing techniques, fish species). However, both questionnaires need to be in line with the objectives and the methodology.

The first goal of the interviews is the indication of valuable and non-valuable fishing ground, fishing locations, nursery and spawning areas. The second aim is to provide additional information about ecological, social and economic issues arising from the fishermen.

During the interviews and questionnaires, spatial maps will be used as a support during the interview but also to indicate important areas (fishing grounds, spawning grounds, etc).

Data-analysis

The responses of the interviewees will be transcribed and analysed through software (Excel and NVIVO). The analyzed data will be interpreted and validated with the members of the Follow-up committee. A central interest is the possibility to compare, contrast and combine the LEK with information from other sources (e.g. SEK). Furthermore, data concerning the spatial maps will be transcribed into Corel Draw.

EXPECTED RESULTS AND/OR PRODUCTS

During year one a project website (www.lecofish.be) will be set up with a section available to the public, but also with a restricted access area for the members of the Follow-up committee to exchange and comment on documents. This website will be updated on regular basis during the project. The fishery maps of GAUFRE will be supplemented by new maps that will be more detailed in terms of geographical density and variations of fishery activities. At the same time, the new maps will be more specific concerning the various areas and fish species. Finally, these maps will offer more information in terms of changes in the fishery over a period from the 1950's until the present.

The research results will be presented in a workshop with external experts. In addition a final report will be made.

CONTACT INFORMATION

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Follow-up Committee

For the complete and most up-to-date composition of the Follow-up Committee, please consult our Federal Research Actions Database (FEDRA) by visiting <http://www.belspo.be/fedra> or <http://www.belspo.be/ssd>

