

# Internal Ex-Post Evaluation for Grant Aid Project

conducted by Morocco Office: March, 2014

Country Name	The Project for Construction of Central Laboratories of the National Institute of Fisheries Research (Le Projet de construction des laboratoires centraux de l'Institut National de Recherche Halieutique)
Kingdom of Morocco	

## I. Project Outline

Background	<p>The National Institute of Fisheries Research (l'Institut National de Recherche Halieutique: INRH) is an autonomous institute under the Ministry of Agriculture and Fisheries (Ministère de l'Agriculture et de la Pêches Maritimes: MAPM). Its mission is to contribute to planning and implementation of fisheries development plans by providing MAPM with information and recommendations based on scientific evidence. At the time of ex-ante evaluation of this project, the headquarters of INRH located in Casablanca had two functions: i) research work as the central laboratories, and ii) monitoring of fishing activities and water quality, as a regional center, for the approx. 400km-long coastal area in Casablanca. Therefore, the headquarters could not focus entirely on research work to fulfill the function as the central laboratories. Also, the building of the headquarters was old (built in 1947) with the air conditioning system based on natural ventilation, which was not suitable for use of precision analysis instruments and bacteriological testing. To improve such conditions, it was an issue to secure adequate testing and research environment by developing new facilities and procuring equipment that would enable accurate and efficient research and analysis activity.</p>		
Objectives of the Project	<p>The project aims to optimize the research environment and efficiency of the central laboratories of the National Institute of Fisheries Research (INRH) in Casablanca City by developing facilities and equipment of the laboratories, thereby contributing to the enhancement of research capacity of INRH.</p>		
Outputs of the Project	<ol style="list-style-type: none"> <li>1. Project Site: Casablanca City</li> <li>2. Japanese side: Grant Aid for the construction of the facilities and procurement of equipment as follows. <ol style="list-style-type: none"> <li>1) Construction of the facilities: a central laboratory building with related facilities and exterior structures</li> <li>2) Procurement and installation of the equipment: research instruments for the central laboratories (mainly the ones to cover a deficiency after dividing the existing research instruments that had been used to fulfil the central laboratory function of the INRH headquarters into the new central laboratories and the Casablanca regional center)</li> </ol> </li> <li>3. Moroccan side: <p>Securement of land for construction; acquisition of the land ownership certificate; land preparation; construction of fences, gates and a guard station; construction of infrastructures such as electricity, water supply and communications; relocation of equipment from the existing INRH headquarters; procurement of necessary equipment and office equipment, etc.</p> </li> </ol>		
E/N Date	August 3, 2007	Completion Date	April 27, 2009
Project Cost	E/N Grant Limit: 968 million yen, Contract Amount: 967 million yen		
Implementing Agency	<p>Responsible agency: Ministry of Agriculture and Fisheries (Ministère de l'Agriculture et de la Pêches Maritimes: MAPM) or former Ministry of Agriculture, Rural Development and Sea Fisheries (Ministere de l'Agriculture, du Développement Rural et de Pêches Maritimes)</p> <p>Implementing agency: National Institute of Fisheries Research (l'Institut National de Recherche Halieutique: INRH)</p>		
Contracted Agencies	System Science Consultants Inc.; Konoike Construction Co., Ltd.; Mitsubishi Corporation.		
Related Studies	Basic Design Study: February 2007 – August 2007		
Related Projects (if any)	<p>Japan's Cooperation:</p> <ul style="list-style-type: none"> <li>- The Project on Construction of a Fishery Research Vessel "Charif Al Idrissi" (Le Projet de construction d'un navire de recherche halieutique) (Grant Aid, 1985)</li> <li>- The Project on Construction of a Fishery Research Vessel "Al Amir Moulay Abdallah" (Le Projet de construction d'un navire de recherche halieutique) (Grant Aid, 1999)</li> <li>- The Project of Construction of Special Center for Seafood Processing Technology (Grant Aid, 2001)</li> <li>- Capacity Development of Fisheries Resource Monitoring for Sustainable Management of Small Pelagic Resources (Technical Cooperation, 2010-2015)</li> </ul>		

## II. Result of the Evaluation

### 1 Relevance

This project has been highly consistent with Morocco's development policy, such as "establishment of sustainable and responsible fisheries" as set in the Fisheries Sector Development Strategy (la Stratégie de développement du secteur des Pêches, 2000-2004) and "sustainable utilization of fisheries resources" as set in the Halieutis Plan (Le Plan Halieutis, 2009-2020), development needs for scientific research and study on high potential of fisheries development and the vast coastal waters, as well as Japan's ODA policy such as the Economic Cooperation Policy Dialogue in 1997 (which positioned "assistance in development and promotion of agriculture and fisheries" as one of the six priority areas), at the time of both ex-ante and

ex-post evaluation. Therefore, relevance of this project is high.

## 2 Effectiveness/Impact

This project has achieved its objective “to optimize the research environment and efficiency of the central laboratories of INRH” to a certain extent. The facilities and equipment developed under this project have been mostly used, but some instruments could not fully achieve the intended purpose or are broken<sup>1</sup>. The data to show the actual performance of the indicators for optimization of the research environment were not available. According to the implementing agency, while there are some issues such as insufficient research space for the wet laboratory and genetic analysis, the overall situation is that the new research instruments have enabled not only more researches and analysis of more samples but also practical training to researchers, which has improved the quality of their reports. As for research efficiency, time spent on data analysis and the number of tissue samples for pathology research have shown an improving trend by the time of this ex-post evaluation, i.e., the former has decreased to 1 month/year (half of 2 months as of 2006) and the latter has increased to 4,500 samples (1.5 times larger than 3,000 samples as of 2006), though they have not reached the target values for the year 2010.

With respect to impact, the number of research reports and articles have increased and attained the target (though the attainment took longer time than expected), and policy recommendations are provided based on research results. The fishery research vessels procured under other grant aid projects are utilized for study and research as well. As for environmental impact, no problem has been observed, as the laboratory waste is properly treated by a consigned professional disposal firm in accordance with the standard, and there has been no issue (such as effluent gas) reported. This project involved relocation of some residents from the construction site for the laboratory building<sup>2</sup>, which was processed along with the JICA guidelines, and no problem has been reported. Therefore, effectiveness/impact of this project is fair.

### Quantitative Effects

Indicators	2006 (before the project) Actual value	2010 (target year) Target value	2010 (target year) Actual value	2013 (ex-post evaluation year) Actual value
Indicator 1: indicators to measure optimization of research environment				
1-1 Number of research reports on bacterial, virological and DNA analyses	10 reports/year	20 reports/year	Uncertain <sup>(2)</sup>	Uncertain <sup>(2)</sup>
1-2 Evaluation by EU study missions	EU recommended some points to be improved <sup>(1)</sup>	No points to be improved	Uncertain <sup>(2)</sup>	Uncertain <sup>(2)</sup>
Indicator 2: indicators to measure enhanced efficiency of research				
2-1 Time spent on data analysis of nutrient salts	2 months/year	1 month/year	approximately 2 months/year	approximately 1 month/year
2-2 Number of tissue samples for pathology research	3,000 samples /year	5,000 samples/year	approximately 4,000 samples/year	approximately 4,500 samples/year
2-3 Number of high performance liquid chromatography (HPLC) analyses of bio toxin, etc.	500 analyses/year	1,000 analyses/year	approximately 300 analyses/year	approximately 1,000 analyses/year
Indicator 3: indicator to measure improvement of research capacity				
3-1 Number of research reports and articles for recommendations for fisheries policy	20 titles	30 titles	22 titles	35 titles

Notes: (1) Before the project, EU recommended to improve the temperature control and airtightness of the microbiology laboratory.

(2) “Uncertain” means that the data on actual values were not available from the implementing agency.

Source: Questionnaire response from INRH

## 3 Efficiency

Although the project cost was within the plan (ratio against the plan: 100%), the project period slightly exceeded the plan (ratio against the plan: 111%) due to the construction delays caused by bad weather and the delay in the refund of the value added tax (TVA) to the Moroccan-side contractor. The outputs of the project were produced as planned. Therefore, efficiency of this project is fair.

## 4 Sustainability

The operation and maintenance of the facilities and equipment procured by the project have been carried out by INRH, the implementing agency. The implementation structure, namely, the role of the central laboratories, has sustained what it was considered desirable at the time of ex-ante evaluation even after the renewal of the organization of INRH in 2009. Detailed information on staff allocation was not available, but problems have not been reported. In the technical aspect, the academic level of the research staff had been high even before the project implementation, and the current situation is considered to be

<sup>1</sup> For example, although the quality of analysis using the auto analyzer has reached the expected level, the quantity of analysis is limited due to unavailability of the spare parts in Morocco. The stereo microscope lacks a micrometer to measure young fish, and therefore part of the research purpose has not been attained. The research purpose of using the flow cytometer has not been attained due to insufficient information on methods of plankton analysis. The automatic tissue processor (automate de traitement des tissus) is broken.

<sup>2</sup> Information on the scale of relocation was not available from the implementing agency.

mostly good, too. In the financial aspect, the budget necessary for operation and maintenance of the facilities and equipment has been allocated. As for the current status of operation and maintenance, the equipment procured under this project is cleaned and adjusted regularly by the central laboratory staff and once a year by professional agents. In case of breakdown, repair is entrusted to such agents. On the other hand, most advanced analytical instruments require more reinforced maintenance services (i.e. conclusion of a maintenance contract with a professional agent), and there is a room for improvement of the maintenance of air conditioning of laboratories.

Therefore, there are some problems in the structural aspect and in the current status of operation and maintenance, and sustainability of the effects of this project is fair.

#### 5 Summary of the Evaluation

This project has achieved its objective, “to optimize the research environment and efficiency of the central laboratories of the National Institute of Fisheries Research (INRH)”, to a certain extent: while there are some aspects that have not reached the expected level (such as the facility space and usefulness of some analytical equipment), improvements have been seen other aspects such as time spent on data analysis and the number of samples analyzed. As for sustainability, no problem is observed in the technical and financial aspects of the implementing agency as the staff’s academic level is high and INRH has a firm status as a national institute under the Ministry of Agriculture and Fisheries. However, there are some problems observed in terms of the structural aspect and the current status of operation and maintenance due to some issues over concluding a maintenance contract in relation to air conditioning, etc. and availability of spare parts. For efficiency, while the project cost was within the plan, the project period slightly exceeded the plan.

In light of the above, this project is evaluated to be partially satisfactory.

### III. Recommendations & Lessons Learned

Recommendations to implementing agency:

It is desirable to strengthen the maintenance system, e.g. to conclude a maintenance contract with a professional agent for analytical equipment.

Lessons learned for JICA:

There observed cases where some facilities and equipment developed and procured under this project could not fulfill the intended purpose due to lack of spare parts, etc. and breakdown. Therefore, in implementing a grant aid project, it should be thoroughly assessed whether the implementing agency has operation and maintenance capacity for the facilities and equipment to be developed, and the assistance that is suitable for such capacity should be considered.

In addition, even though INRH is a large organization that has regional and technical centers across the country, the management section at the headquarters in Casablanca could not promptly respond to the inquiries for this ex-post evaluation on the current status of the equipment procured under this grant aid project or other matters. Therefore, discussion with the implementing agency in the project planning stage should cover strengthening of the management section at the headquarters and institutionalization so that they could continue monitoring after project completion.



External appearance of INRH



Observation of plankton using a microscope procured under this project