

# TCP/DRK/3204

## Supporting marine finfish aquaculture in DPR Korea

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The Democratic People's Republic of Korea is a predominately mountainous country with some 15 percent of its land area suitable for agriculture. The country has very long coastal line and with rich marine fisheries resources in proportion to its territory. An estimated half million coastal dwelling Korean have almost no access to arable land and derive their livelihood from fishing, foraging and aquafarming activities. In recent years, drastic decline of stocks of high valued marine fishes has been observed, resulting from various factors. On the other hand, catch of small fish of low quality has increased significantly. Such change has not only threatened the livelihood of the coastal fishing community, but has significant impacts on the domestic fish supply and export. To compensate the declining catch from marine fisheries, the Government of the Democratic People's Republic of Korea has shifted its policy from capture fisheries focus to promoting marine aquaculture development. Marine finfish have been identified by the government as the priority species for aquaculture development.

Due to the lack of appropriate mariculture technologies and technical know-how, the government requested FAO for technical assistance in developing its marine finfish culture in 2007. A complete TCP project document was developed and submitted following a TCP project formulation mission, conducted by two Chinese experts from the Yellow Sea Fisheries Research Institute (YSFRI) in Qingdao, at the end of 2008. The TCP project TCP/DRK/3204 "Capacity building in fingerling production and farming of selected marine finfish species" was approved July 2009. The approval of the TCP project was highly appreciated by the government. It is considered as

another major FAO support to the fisheries industry of the country after the successful implementation of an earlier FAO TCP project TCP/DRK/3001 "Strengthening marine aquaculture development", a project focused on farming scallop, sea cucumber and kelp.

Project implementation started in August 2009 with the identification and dispatch of Technical Cooperation among Developing Countries (TCDC) experts to assist the Yanghwa Fishing and Mariculture Cooperative, the main project beneficiary, in setting up a functional hatchery for the artificial propagation of turbot and black rockfish and establishment of pilot cage culture facilities through the purchase of necessary equipment and material.



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*FAO Officer (centre) with the National Project Coordinator (NPC) and Manager of Yanghwa Fishing and Mariculture Cooperative*

To date, the two FAO TCDC Chinese experts (marine fish hatchery design and operation; marine fish breeding and culture) have completed their first in-country field mission. The experts surveyed the sites for setting up the marine finfish hatchery and installation of the experimental, but commercial size marine cages. The experts further completed the detailed design of the hatchery and rearing facilities to be constructed inside an old fish storage building. The preparatory earthwork for the construction is almost completed. Furthermore, the site for the future installation of the marine cages has been identified in the Yanghwa Bay in close consultation with the national experts taking into account important environmental parameters and conditions to ensure proper selection of the site. The experts also helped in finalizing the technical specification of equipments and materials to be provided by the project and identification of potential suppliers.

Arrangements for another important project activity, i.e. the training of key technical staff from the government in China was also finalized. Four technical staffs from the Yanghwa Cooperative, Wonsan University and a fisheries institution in a neighboring province are scheduled for training on related technologies and technical know-how at YSFRI (Qingdao, China) starting at the end of October 2009.

The first technical backstopping mission of the Aquaculture Officer from the FAO Regional Office for Asia and the Pacific, carried out in September 2009, consisted of meetings with the TCDC experts, Assistant FAO Representative in Pyongyang, Project National Project Coordinator (NPC) and local project staff; visit to Yanghwa project sites and inspection of the progress in the construction of the hatchery and rearing facilities. Extensive discussions were also held with the TCDC experts on the project progress, constraints and solutions to overcome the difficulties. The FAO Officer noted the dedicated work of the experts and national project staff and the strong support given by the project NPC. The project progress has been generally satisfactory despite some delay in procurement and delivery of equipments and materials caused by communication and logistical constraints. A visit was made to the large Bay of Jinpu where marine cage aquaculture is likely to expand in the future due to the availability suitable and extensive sites. The project NPC informed that



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*FAO Officer and TCDC experts meeting with NPC and Assistant FAO Representative*



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*TCDC experts working on the project site*

the Ministry of Fisheries is planning to support a large-scale expansion of marine cage aquaculture in the area following the implementation of the TCP project.

During a wrap-up meeting with project NPC, TCDC experts and the Assistant FAO Representative, the FAO Officer briefed the mission findings and recommendations on project implementation, particularly with regard to the introduction of fish seed and fertilized eggs from China. The NPC reassured the full support to the project implementation from the government and looked forward to the successful implementation of the project, which is expected to further promote the development of marine finfish culture in the country.