



Food and Agriculture Organization
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IMPROVEMENT OF DATA COLLECTION ON FISHERIES AND AQUACULTURE PRODUCTION: PILOT SYSTEM FOR THE YANGON REGION

November 2019

SDGs:



Countries:

Myanmar

Project Codes:

TCP/MYA/3601

FAO Contribution:

USD 250 000

Duration:

15 October 2016 – 31 August 2019

Contact Info:

FAO Representation in Myanmar

FAO-MM@fao.org

Implementing Partners

Department of Fisheries (DoF), Ministry of Agriculture, Livestock and Irrigation.

Beneficiaries

Immediate beneficiaries are DoF staff, while final beneficiaries are fishers, fishing-dependent communities, and society as a whole.

Country Programming Framework

CPF Output 3: Sustainable management of natural resources and the environment.

CPF Output 5: Human resource development and institutional capacity-building.



BACKGROUND

Reliable and detailed fishery statistics are a key to developing sound policies, better decision-making and responsible fisheries management. Such information is also essential for assessing the validity of fisheries policy over the years and for tracking the performance of fisheries management. For some years, FAO has noted a constant and impressive increase of capture and aquaculture production officially reported by Myanmar. Marine catches reported in 2013 were 5.5 times those in 1996 and inland water catch statistics have grown at a rate of 15.5 percent per year since 1999. Species breakdown of capture fishery statistics is very poor, however, with marine catches reported by only three highly aggregated species items and no breakdown being made for inland water catches. Following an FAO mission in November 2014, recommendations were made to improve Myanmar's data collection system for fisheries statistics. Given the size of the country, it was decided to develop a pilot project in the Yangon Region in order to test and gain experience on the structure and constraints of the new data collection system. After the local pilot phase, the system would be extended to the national level.

IMPACT

The overall impact of the pilot project is a better understanding of fisheries and aquaculture production in the Yangon Region thanks to increased capacity in the collection and analysis of fisheries data. When extended nationwide, the new data collection system will contribute to a more sustainable exploitation of fisheries resources, enhanced livelihoods for many rural and urban households involved in fisheries, and improved food security for the entire population.

ACHIEVEMENT OF RESULTS

Following an inception workshop attended by 50 participants and the selection of 16 pilot townships in the Yangon Region, the project enhanced knowledge and awareness of fishery statistics and data collection by providing training in the operation of an integrated database to 40 DoF township officers and enumerators, and in the use of ODK collect software to 47 DoF township officers and enumerators. Two ad hoc training courses were also provided, the first to 19 DoF officers and enumerators from five townships and the second to 28 DoF officers and enumerators from the remaining 11 townships. Following training, a fully functional web-based pilot data collection system was designed and successfully implemented in the Yangon Region. The results of the project were presented in a final workshop organized in May 2019. The project also developed a project proposal for the full implementation of a new national data collection system based on the results of the project.

IMPLEMENTATION OF WORK PLAN

Most project activities were successfully implemented. An envisaged analysis of existing data was not conducted as these data would not have added significantly to the knowledge already available.

FOLLOW-UP FOR GOVERNMENT ATTENTION

It is recommended that a new national data collection system based on the results obtained under the project be developed and implemented.





SUSTAINABILITY

The pilot project for the Yangon Region has demonstrated the feasibility of a sample-based data collection system for fisheries and aquaculture statistics in Myanmar. A project proposal for the full coverage of Myanmar through a national data collection system was developed by the project to ensure that the lessons learned were applied nationwide, either as part of the Government's annual budget, or by circulating the proposal among the donor community for financial support. The implementation of the proposed project will help to ensure the sustainability of fisheries in the country as a whole.



DOCUMENTS AND OUTREACH PRODUCTS

- ❑ Travel report to participate in the inception meeting of the project on the improvement of data collection on fisheries and aquaculture production: pilot system for the Yangon Region. L. Garibaldi, 2016. October 2016.
- ❑ Improvement of data collection on fisheries and aquaculture production: pilot system for the Yangon Region. Mission report. G.J. de Graaf, 2017. TCP/MYA/3601, March 2017.
- ❑ Improvement of data collection on fisheries and aquaculture production: pilot system for the Yangon region (TCP MYA/3601). Terminal report. FAO, 2019. May 2017.
- ❑ Improvement of data collection on fisheries and aquaculture production: pilot system for the Yangon Region. Mission report. G.J. de Graaf, 2017. TCP/MYA/3601. August 2017.
- ❑ Summary of the analyses of the data collected. G.J. de Graaf, 2017. TCP/MYA/3601.
- ❑ A concept note for the implementation of a newly developed data collection system for fisheries and aquaculture in the whole of Myanmar. G.J. de Graaf, 2017. TCP/MYA/3601.
- ❑ Improvement of data collection on fisheries and aquaculture production: pilot system for the Yangon Region. Midterm review report. G.J. de Graaf, Aung Htay Oo, and U Thant Zin, 2018. TCP/MYA/3601. April 2018.
- ❑ Training manual on the operation and maintenance of the Web-based Fisheries Information System for the Yangon Region. Ace Consultants, 2018.

ACHIEVEMENT OF RESULTS - LOGICAL FRAMEWORK

Expected Impact	The project will contribute to better knowledge of the exploitation of fisheries resources and livelihoods of fishing communities, contributing to a more sustainable development of fisheries for food security and poverty alleviation. It will further improve the regular provision of reliable information that will allow the sustainable management and development of fisheries resources		
Outcome	A pilot new national data collection system for the Yangon Region is initiated		
	Indicator	Number of training events conducted. <ul style="list-style-type: none">– Training in fisheries statistics and data collection.– Training in the operation of the integrated database (data input, querying and reporting).– Training for administrators and enumerators.– Training in inshore fisheries data collection using paper forms and web-based data form (ODK collect).– First ad hoc training for five townships.– Second ad hoc training for 11 townships.	
	Baseline	0-15	
	End Target	18-47	
	Comments and follow-up action to be taken	All targets were achieved. <ul style="list-style-type: none">– 40 DoF township officers and enumerators received training in the operation of the integrated database (data input, querying and reporting) conducted in December 2017 by the project national consultant (NC). They also built capacity in web-based database input and web database querying methods.– 47 DoF township officers and enumerators received training in ODK collect software downloading, installation and use, and data entry to tablet or mobile phone by the project NC.– 19 DoF township officers and enumerators from five townships took part in the first ad hoc training in September 2017 by the project NC.– 28 DoF township officers and enumerators from 11 townships took part in the second ad hoc training in October 2017 by the project NC.	
Output 1	National knowledge and awareness on fishery statistics and data collection is enhanced		
	Indicators	Target	Achieved
	Number of training courses established and number of staff members trained.	One training event with 18 participants and training manual distributed.	Yes
Baseline	0		
Comments	An international FAO training course in sample-based fisheries data collection was established and conducted. Eighteen participants from DoF township offices received training in fisheries statistics and data collection, conducted in March 2017 by the project international consultant (IC) and a professor from the statistics department, Yangon Institute of Economics. They also gained knowledge of strategies and methods of data collection, statistical terms, basic statistic concepts, normal distributions, confidence limits, precision and accuracy, definitions of target and sample population, variables, means, average, standard deviation, error and method of calculation using excel spreadsheets.		
Activity 1.1	The project was launched in an inception workshop attended by local authorities of the Yangon Region, senior DoF officers involved in statistics and other relevant participants		
	Achieved	Yes	
Activity 1.2	Comments	The inception workshop was effectively organized and all planned activities were agreed during the workshop. A total of 50 participants from DoF, universities and other stakeholders attended.	
	Work on a new pilot data collection system for the Yangon Region was initiated		
	Achieved	Yes	
	Comments	Sixteen townships from the Yangon Region were selected for a new pilot data collection system.	

Output 2	Staff members of DoF are trained in sample-based statistics		
	Indicators	Target	Achieved
	Number of training courses established and staff members trained. Training in inshore fisheries data collection using paper forms and web-based data form (ODK collect) conducted and training manual distributed.	A total of 22 participants received training.	Yes
Baseline	0		
Comments	A total of 22 DoF township officers and enumerators received training for administrators and enumerators, conducted in December 2018 by ACE Database Limited. They also had the opportunity to practise accessing DoF server from each township with the specific user name and password for data entry.		
Activity 2.1	FAO standard training course in fisheries statistics and data collection (FAO Fisheries Circular C1091) was delivered to 15 participants, including DoF officers and four district officers of the Yangon Region		
	Achieved	Yes	
	Comments	The international FAO training course on sample-based fisheries data collection was established. Eighteen participants (DoF officers and township fisheries officers) were trained in methods and principles of sample-based fisheries data collection, (http://www.fao.org/3/a-i3639f.pdf), following FAO international training in English, and a local version of the training manual in Myanmar language was developed.	
Activity 2.2	The new pilot data collection system for the Yangon region was designed		
	Achieved	Yes	
	Comments	All systems of conventional routine data collecting from DoF were reviewed and the recommendations made by concerned DoF officers were used in the design of the new system.	
Activity 2.3	The current situation and available data incorporated in the new pilot data collection system were analysed		
	Achieved	Partially	
	Comments	This was not carried out as good data were available in the registers for aquaculture and fisheries in the Yangon region. Analyses of old data from the Myanmar Census of agriculture would not have added significantly to the available knowledge on fisheries.	
Activity 2.4	An appropriate data collection system was designed		
	Achieved	Yes	
	Comments	A data collection system of aquaculture, marine inshore fisheries, inland lease fisheries, marine offshore fisheries and open-water fisheries was designed. Registration was designed for the aquaculture system, aquaculture production and inland lease fisheries, as well as for fishing gear licensing, fishing effort reporting and fisherman registration for marine offshore, marine vessels, check-in, check-out and landing report data. OpenArtFish marine inshore and OpenArtFish open-water were also designed.	
Activity 2.5	Township officers were trained in collection of data		
	Achieved	Yes	
	Comments	Training courses were developed for OpenArtfish data collection systems for marine and inland fisheries. Sixteen township officers were trained in data collection for marine inshore, marine offshore, aquaculture, marine inshore and inland fisheries	

Output 3	The pilot data collection system was implemented in the Yangon Region		
	Indicators	Target	Achieved
	Number of data collection systems covered		Yes
Baseline	0		
Comments	A fully functional web-based data collection system was operated in the Yangon Region. Different data collection systems were implemented and made functional in the region. Frame surveys to establish sampling frames and sampling plans were refreshed regularly. The functioning of the enumerators was ensured by allocating appropriate financial and technical resources.		
Activity 3.1	Data collection will be operationally active		
	Achieved	Yes	
	Comments	A fully functional web-based data collection system was operated in the Yangon Region.	
Activity 3.2	New data collection system will be tested for 12 months		
	Achieved	Partially	
	Comments	All indicators were calculated for a period of 12 months. Data collection for the different data collection system has been generally ongoing since June 2017. It should be noted that the fully functional database only became available in January 2019 owing to the late recruitment of new IT consultants.	
Activity 3.3	Proposal for the full coverage of Myanmar was developed		
	Achieved	Partially	
	Comments	A project proposal for the full implementation of the new national data collection is available.	
Output 4	Project proposal for the full implementation of the new national data collection system		
	Indicators	Target	Achieved
	Project proposal developed for the full implementation of the new national data collection system		Partially
Baseline	0		
Comments	The results of the project were presented in a final workshop organized in May 2019. It was proposed to include the operation of the system nationwide in the European Union-funded project currently being prepared by FAO.		
Activity 4.1	National consultation workshops are held to present and discuss the results of the pilot data collection system		
	Achieved	Yes	
	Comments	A national workshop for the evaluation and dissemination of the project’s achievements and the results of the pilot data collection system was successfully conducted in May 2019.	
Activity 4.2	Development of project proposal for the full coverage of Myanmar		
	Achieved	Yes	
	Comments	The objective was achieved.	

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