



China Guangdong Agricultural Pollution Control (P127775)

EAST ASIA AND PACIFIC | China | Agriculture and Food Global Practice |
IBRD/IDA | Investment Project Financing | FY 2014 | Seq No: 15 | ARCHIVED on 29-Jan-2021 | ISR45179 |

Implementing Agencies: Department of Agriculture, Guangdong Province, THE PEOPLE'S REPUBLIC OF CHINA

Key Dates**Key Project Dates**

Bank Approval Date: 27-Dec-2013

Effectiveness Date: 23-May-2014

Planned Mid Term Review Date: 23-Sep-2016

Actual Mid-Term Review Date: 28-Sep-2016

Original Closing Date: 31-Dec-2019

Revised Closing Date: 30-Jun-2021

Project Development Objectives

Project Development Objective (from Project Appraisal Document)

The proposed development objective is to reduce water pollutant releases from crop and livestock production in selected areas of Guangdong Province.

Has the Project Development Objective been changed since Board Approval of the Project Objective?

No

Components Table

Name

Environmentally Friendly Crop Production:(Cost \$51.66 M)

Livestock Waste Management (LWM):(Cost \$125.80 M)

Monitoring and Evaluation (M&E), Capacity Development and Knowledge Management (KM):(Cost \$16.14 M)

Project Management:(Cost \$10.69 M)

Overall Ratings

Name	Previous Rating	Current Rating
Progress towards achievement of PDO	<input type="checkbox"/> Moderately Satisfactory	<input type="checkbox"/> Moderately Satisfactory
Overall Implementation Progress (IP)	<input type="checkbox"/> Moderately Satisfactory	<input type="checkbox"/> Moderately Satisfactory
Overall Risk Rating	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate

Implementation Status and Key Decisions

This implementation status report (ISR) is based on the findings of the implementation support mission (ISM) which was undertaken from December 21-28, 2020.

Progress towards achieving Project Development Objective (PDO)



The project development objective (PDO) is to reduce water pollutant releases from crop and livestock production in selected areas of Guangdong Province. The achievement of the PDO is measured by two indicators: (i) Mass of Chemical Oxygen Demand (COD) pollution load reduction achieved under the project; and (ii) Nutrient load reduction (nitrogen-ammonia) achieved under the project.

The project was adversely impacted by the African Swine Fever (ASF) outbreak of 2018, which is still not fully under control. This was exacerbated by the disruptions caused by the COVID-19 pandemic, especially during the first half of 2020. Despite these setbacks the project has made significant progress towards building the capacity for reducing COD at participating pig farms (PDO indicator (i)). However, the actual reduction of COD has fallen short mainly because restocking of pig farms is still ongoing. By end of November 2020, the total inventory of pigs in project supported farms was 662,918, an increase of 204,075 (up 44.48 percent) from 458,843 present in December 2019. This demonstrates that the biosecurity measures implemented by the project pig farms have brought remarkable increase in production. The combined stocking capacity of the 123 pig farms supported by the project 1,289,934 pigs. This is the number of pigs required to generate wastewater, which after treatment will reduce COD by the revised target of 36,000 tons/year by the closing date of June 2021.

Significant ecological benefits have been achieved in the project areas. In double cropping rice fields, the total nitrogen in water bodies has been reduced by 3.035 kg/ha, with a reduction rate of 28.02 percent; and the total phosphorus has been reduced by 0.288 kg/ha, with a reduction rate of 28.77 percent. The total nitrogen and total phosphorus decreased by 2.792 kg/ha and 0.795 kg/ha, respectively. Based on the estimated planted areas, since the last ISM held in May 2020, the total nitrogen (TN) and total phosphorus (TP) emissions were reduced by 217.337 tons and 35.825 tons, respectively. Cumulatively, by June 30, 2020, the nutrient load reduction from the project supported crop production areas reached 2,730.91 tons, with the revised end of project target being 4,000 tons. With two cropping seasons remaining prior to the closing of the project this PDO indicator is on track to be fully achieved.

Implementation Progress (IP)

The physical project implementation progress recovered during the second half of 2020 following the disruptions caused by the COVID-19 pandemic during the first half of the year. Despite the easing of travel restrictions and improve flow of agricultural inputs and outputs (impacting especially Component 1- Environmentally-Friendly Crop Production due to the delays in delivering subsidized formula fertilizers and low toxic residue pesticides in project areas), COVID-19 had impacts on training and monitoring and evaluation activities of the project (Component 3 - Monitoring and Evaluation (M&E), Capacity Building and Knowledge Management). The total area under CA (Environmentally friendly tillage) in the early crop growing seasons of 2020 was 9,780 mu of which 7,800 mu (79.8 percent) were in the reduced tillage, while 1,980 mu (20.2 percent) were in the no-till rice production systems. Despite reducing rate of application of inorganic chemical fertilizers, the crop yields in the demonstration areas increased. For example, the rice yield increased by 386 kg/ha or about 3.4 percent to 11,699 kg/ha, compared to the non-project areas where rice yield was about 11,313 kg/ha. The potato yield increased by 476 kg/ha or by about 1.3 percent.

Regarding Component 2 – Livestock Waste Management (LWM), good progress was made towards civil works for managing wastewater and improving biosecurity in the project supported pig farms. The cumulative number of completed LWM projects reached 125. At the same time, the cumulative number of LWM projects that are at least in the process of being accepted reached 107. This means the implementation progress of the LWM projects has reached 97 percent and 83 percent of the revised total numbers of LWM projects, respectively. Restocking of these farms increased but still participating farms are reluctant to fully restock their facilities for fear of recurring AFS outbreaks.

During the ISM held in May 2020, the Guangdong leadership informed the Bank task team of its intention to scale back the LWM activities and cancel part of the IBRD loan proceeds. The reasons behind this decision were: (i) the devastating impact of the ASF outbreak has caused many pig farmers to delay restocking their farms; and (ii) the construction, commissioning and acceptance of some of LWM civil works may result in some of the final payments to fall beyond the project's closing date. A formal request to restructure the project to accommodate these changes was made by the Ministry of Finance (MoF) via a letter dated November 26, 2020. The task team is currently processing a level 2 restructuring of the project to cancel US\$19.1 million from the IBRD loan and reallocate the balance amongst the expenditure categories. Consistent with the reduced scope of the project some targets in the results framework are being revised down (COD and Nitrogen-Ammonia) and a new indicator to capture the biosecurity training and capacity building will be added.

On account of the project restructuring and the implementation performance so far, the ratings of both progress towards achieving the PDO and the IP remain Moderately Satisfactory (MS).

Risks

Systematic Operations Risk-rating Tool

Risk Category	Rating at Approval	Previous Rating	Current Rating
Political and Governance	--	☐ Moderate	☐ Moderate
Macroeconomic	--	☐ Moderate	☐ Moderate
Sector Strategies and Policies	--	☐ Low	☐ Low
Technical Design of Project or Program	--	☐ Moderate	☐ Moderate
Institutional Capacity for Implementation and Sustainability	--	☐ Moderate	☐ Moderate



Fiduciary	--	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate
Environment and Social	--	<input type="checkbox"/> Substantial	<input type="checkbox"/> Moderate
Stakeholders	--	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate
Other	--	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate
Overall	--	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate

Results

PDO Indicators by Objectives / Outcomes

reduce water pollutant releases from crop and livestock production				
▶ Mass of COD pollution load reduction achieved under the project (Tones/year, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	20,395.00	51,821.88	36,000.00
Date	01-May-2013	31-Dec-2019	30-Jun-2020	30-Jun-2021
▶ Nutrient load reduction (nitrogen- ammonia) achieved under the project (Tones/year, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	2,243.00	2,730.91	4,000.00
Date	01-May-2013	31-Dec-2019	30-Jun-2020	30-Jun-2021

Intermediate Results Indicators by Components

Environmentally Friendly Crop Production				
▶ WHO Class II pesticide residue compliance rates (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	90.00	99.66	99.87	96.00
Date	01-May-2013	31-Dec-2019	30-Jun-2020	30-Jun-2021
Comments:	No updated data in this ISR.			
▶ Crop production areas adopted project promoted practices (Hectare(Ha), Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	38,354.00	38,322.00	28,000.00



Date	01-May-2013	31-Dec-2019	30-Jun-2020	30-Jun-2021
► Clients who have adopted an improved agr. technology promoted by the project (Number, Corporate)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	108,526.00	106,038.00	60,000.00
Date	01-May-2013	31-Dec-2019	30-Jun-2020	30-Jun-2021
□ Clients who adopted an improved agr. technology promoted by project – female (Number, Custom Breakdown)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	18,195.00	17,726.00	12,000.00
Date	01-May-2013	31-Dec-2019	30-Jun-2020	30-Jun-2021
► Reduction in total consumption of pesticides in project areas (Metric ton, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	435.18	486.50	135.00
Date	01-May-2013	31-Dec-2019	30-Jun-2020	30-Jun-2021
Comments:	No updated data in this ISR.			
► WHO Class I pesticide residue compliance rates (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	90.00	99.93	99.93	100.00
Date	01-May-2013	31-Dec-2019	30-Jun-2020	30-Jun-2021
Comments:	No updated data in this ISR.			
► Phosphorus load reduction (TP) achieved under the project (Metric ton, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	484.00	664.07	250.00
Date	01-May-2013	31-Dec-2019	30-Jun-2020	30-Jun-2021
► BOD load reduction achieved under the project (Tones/year, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	10,197.00	19,988.38	11,200.00
Date	01-May-2013	31-Dec-2019	30-Jun-2020	30-Jun-2021



Livestock Waste Management (LWM)				
▶ Number of project supported pig farms in compliance of performance requirements (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	108.00	123.00	123.00
Date	01-May-2013	31-Dec-2019	30-Jun-2020	30-Jun-2021
▶ Number of livestock waste management facilities constructed (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	23.00	89.00	123.00
Date	01-May-2013	31-Dec-2019	30-Jun-2020	30-Jun-2021
▶ The beneficiary pig farm from bio-safety prevention (newly added) (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	--	62.00	100.00
Date	01-May-2013	--	30-Jun-2020	30-Jun-2021

Monitoring and Evaluation (M&E), Capacity Development and Knowledge Management (KM)				
▶ Client days of training provided (number) (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	66,116.00	237,730.50	36,000.00
Date	01-May-2013	31-Dec-2019	30-Jun-2020	30-Jun-2021
□ Client days of training provided - Female (number) (Number, Custom Breakdown)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	23,254.00	76,096.00	7,000.00
Date	01-May-2013	31-Dec-2019	30-Jun-2020	30-Jun-2021
▶ Number of policy studies completed (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	14.00	11.00
Date	01-May-2013	31-Dec-2019	30-Jun-2020	30-Jun-2021

Performance-Based Conditions



Data on Financial Performance

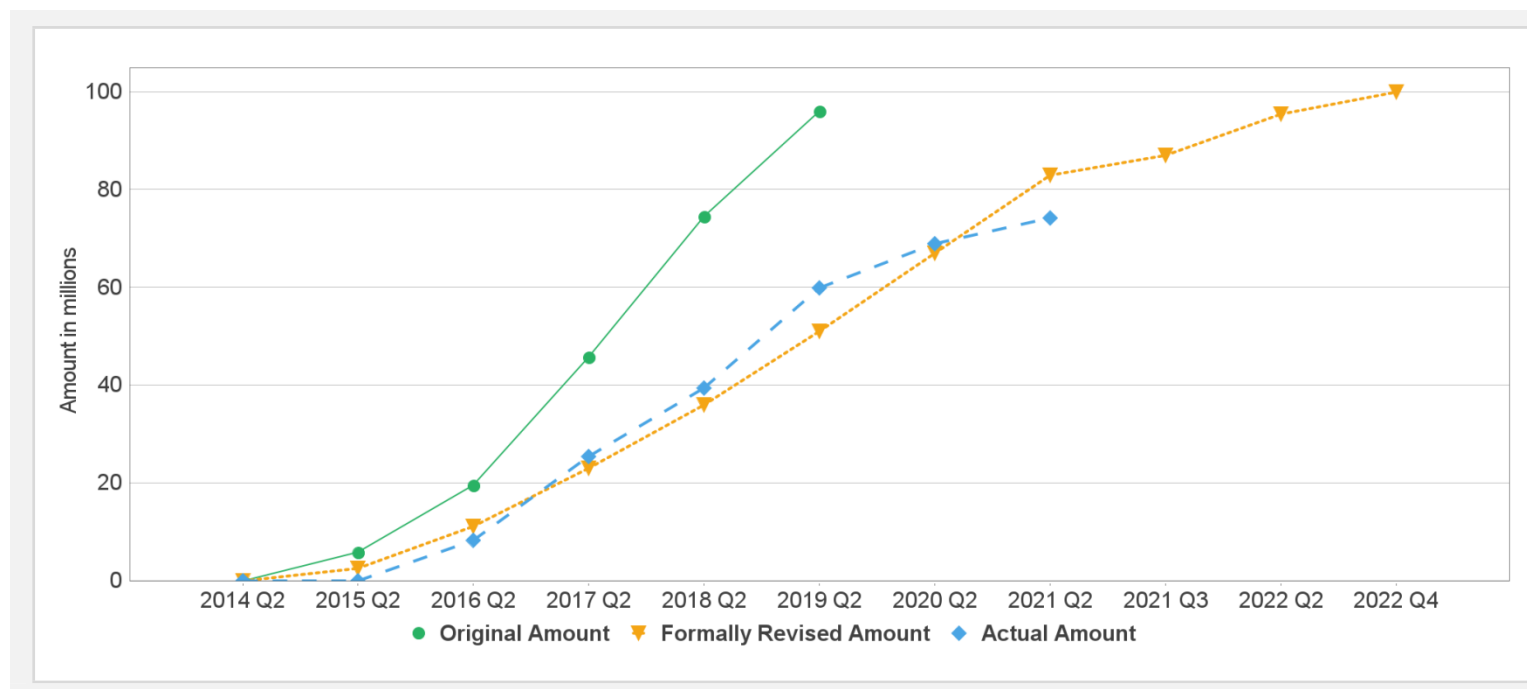
Disbursements (by loan)

Project	Loan/Credit/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P127775	IBRD-83110	Effective	USD	100.00	100.00	0.00	70.50	29.50	70%
P127815	TF-15418	Effective	USD	5.10	5.10	0.00	3.90	1.20	76%

Key Dates (by loan)

Project	Loan/Credit/TF	Status	Approval Date	Signing Date	Effectiveness Date	Orig. Closing Date	Rev. Closing Date
P127775	IBRD-83110	Effective	27-Dec-2013	28-Feb-2014	23-May-2014	31-Dec-2019	30-Jun-2021
P127815	TF-15418	Effective	28-Feb-2014	28-Feb-2014	23-May-2014	31-Dec-2019	30-Jun-2021

Cumulative Disbursements



Restructuring History

Level 1 Approved on 06-Apr-2017



Related Project(s)

P127815-China Guangdong Agricultural Pollution Control
