



1. Project Data

Project ID P120397	Project Name AF:Agricultural Inputs Project	
Country Afghanistan	Practice Area(Lead) Agriculture and Food	
L/C/TF Number(s) TF-15003	Closing Date (Original) 30-Jun-2013	Total Project Cost (USD) 38,301,558.53
Bank Approval Date 17-Jun-2013	Closing Date (Actual) 30-Jun-2019	
	IBRD/IDA (USD)	Grants (USD)
Original Commitment	74,750,000.00	74,750,000.00
Revised Commitment	67,250,000.00	38,301,558.53
Actual	38,301,558.53	38,301,558.53

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2. Project Objectives and Components

a. Objectives

The project development objectives stated in the Trust Fund Grant Agreement (TFGA, page 4) and Project Appraisal Document (PAD, page 13), were the same, namely: **“strengthened institutional capacity for safety and reliability of agricultural inputs and sustainable production of certified wheat seed”**.

b. Were the project objectives/key associated outcome targets revised during implementation?



Yes

Did the Board approve the revised objectives/key associated outcome targets?

No

c. Will a split evaluation be undertaken?

No

d. Components

The project had four components:

A. Improved Wheat Seed Production (Appraisal estimate: US\$26.4m and Actual: US\$22.74m). The component aimed to (a) improve the efficiency of varietal selection and production of breeder seed in the Agricultural Research Institute of Afghanistan (ARIA); (b) improve the efficiency of multiplication of breeder seed into foundation and registered seed at the Improved Seed Enterprise (ISE). Capacity building was planned through workshops and training for staff of ARIA, ISE, the National Seed Board (NSB); and the Afghanistan National Seed Organization (ANSOR).

Revisions: Under Component A, the production of “registered seed” was removed from the project description because the government discontinued the production of registered seeds from 2013. The change did not negatively affect the production of certified seeds as there was an increase in the production of other high-grade seeds to meet the national requirements of certified seeds. The project also developed new activities to support the Seed Certification Directorate including development of the seed database.

B. Plant Quarantine Networks and Quality Control of Agro-chemicals (Appraisal estimate: US\$29.9m and Actual: US\$9.16m). The aim of this component was to prevent marketing of banned, hazardous, substandard, and unreliable pesticides and fertilizers and to lower the risk of the introduction and spread of quarantine pests into the country. There were two sub-components to improve the safety and reliability of agricultural inputs through TA and physical infrastructure for quality control of agrochemicals and plant quarantines. The planned activities included investments in physical infrastructure and TA to implement the relevant laws including the Pesticides Act and to enhance the capacity of MAIL for the implementation of the Plant Quarantine Act and Regulations.

Revisions: Under Component B, the support to the three Border Quarantine Stations (BQS) was expanded to include the provision of fumigation facilities in order to facilitate exports.

C. Input Delivery Systems (Appraisal estimate: US\$2.5m and Actual: US\$0.43m). This component aimed at analyzing the agricultural input delivery systems and pilot improvements to enhance farmers’ access. The component was expected to (a) analyze the data from the two surveys carried out during preparation (i.e. farm level production activities survey and agricultural inputs value chain survey); (b) develop a plan of action for investment activities in inputs delivery systems including piloting alternative forms of input delivery systems; and information and communications technology (ICT) applications in agricultural inputs delivery systems. Candidate ICT applications include mobile phone-enabled text messaging system to provide farmers with prices of various agricultural inputs at various locations in the country; a “hotline” to provide farmers with information on safe handling and usage of various agro-chemicals; and mobile phone- based application for input quality verification using unique identifiers.



Revisions: The scope of Component C was reduced due to inadequate capacity. The Component was expected to conduct farm level surveys on seed value chains, develop and pilot investment plans, establish alternative forms of inputs delivery and pilot an ICT based application on input delivery system. Due to low capacity, all the activities were cancelled except for piloting an input voucher delivery system as an alternative form of input delivery. This was to address the inefficient input distribution system, support the establishment of a fully privatized seed market system and gradually encourage the phasing out of government intervention in the seed distribution system.

D. Project Management and Monitoring (Appraisal estimate: US\$15.9m and Actual \$5.97m). The component financed activities of the Project Management Unit (PMU) for project implementation, coordination, financial management, procurement, safeguards, monitoring and evaluation and management of information systems.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project Cost. The actual total project cost was US\$38.3 million, significantly lower than the appraisal estimate of US\$74.5 million (51 percent of appraisal amount). This was mainly due to depreciation of Afghanistan currency (AFS); it depreciated dramatically versus the US\$, from AFS 55 at appraisal to AFS 78 at closing. In addition, some activities under Component B and C were canceled and efficiency gains were achieved under the project management component.

Financing. The project was financed 100 percent by an IDA grant (TF-15003).

Borrower contribution: There was no borrower contribution.

Dates. The project was approved on June 17, 2013 and became effective on June 30, 2013. The mid-term review was carried out on May 22, 2016. The project closed on June 30, 2019, after a delay of one year due to delays in procurement and construction of laboratories and the need to train laboratory staff after construction was completed. (Restructuring Paper, 2017, page 8).

Restructuring: A Level II restructuring that does not require Board approval was conducted on June 2nd, 2017. The restructuring included (i) changes in the results framework; (ii) budget reallocations from components B and C to component A as it was discovered during implementation that the cost for renovation and rehabilitation of research and seed production units and civil works were underestimated; (iii) changes in legal covenants; and (iv) cancellation of US\$7.5m funds (this was carried out in order to reduce the allocation to component D that was unrealistically estimated at appraisal and a cancellation of US\$0.5m for incentive payments to selected civil servants).

Split Rating: While the ICR conducted a split rating due to revisions in the results framework, the changes in the outcome indicators either included more relevant and measurable indicators or better described/clarified the indicators, but no changes were made by lowering the indicator targets. Therefore, this review is not going to conduct a split rating.

3. Relevance of Objectives



Rationale

Country and Sector Context: After decades of war and political instability, Afghanistan is one of the world's poorest and least developed countries in the world. The national poverty rate in 2010, was about 36 percent, and more than half the population was considered vulnerable. Since over 70 percent of the Afghanistan population lived in rural areas, rural poverty accounted for almost 84 percent of the national poverty rate. Both economic development and poverty reduction in Afghanistan were highly dependent on the performance of the agricultural sector. The sector accounted for 31 percent of GDP but provided employment to 59 percent of the labor force. About 36 percent of households relied on farming as their main source of income, while another 6 percent depended on farm wages as their main source of income. Wheat was the primary staple food of most households. The crop was grown on some 2.55 million hectares and more than 20 million rural people directly depended on it (ICR page 1). Despite donor-funded agriculture and rural development programs, the country lagged significantly behind its neighbors in agricultural productivity due to reduced private sector activity, increasing criminal activities and deteriorating infrastructure resulting from increasing fragility. Limited access to quality inputs at affordable prices was a key constraint to higher agricultural productivity. The agricultural inputs delivery network in Afghanistan remained underdeveloped, weakly regulated, and distorted. Fertilizers and other agrochemicals (pesticides, fungicides, herbicides, etc.) were nearly entirely imported and often of unreliable quality. There were no legal and regulatory frameworks, as well as the infrastructure to exercise and enforce quality control. Furthermore, farmers' access to the inputs was insufficient with weak knowledge regarding their safe transport, storage and use. Besides potentially damaging farmers' crops, the unreliable quality of most agrochemicals led to hazardous situations for human health and the environment (in particular soil and water resources).

Relevance to Government Strategies: The project aligned with the government strategies. Afghanistan had a National Seed Law (2005), an updated Seed Policy of 2012 and Official Seed Rules and Regulations which were in the process of legal review, and a National Seed Board (NSB). The NSB provided oversight to the seed sector and standardized the process of variety selection and improved seed production by the government and private sector agencies. There was also a functioning (but not yet formalized) Seed Certification Agency (SCA). The government in collaboration with its development partners, prioritized the strengthening of the agricultural production base especially for wheat, under the 2008 National Agricultural Development Framework (NADF) through enhancing the capacity of the institutions involved in the inputs value chain system. An assessment of investment requirements (infrastructure, training, equipment etc.) was completed for the main agencies involved in the improved wheat seed production chain, including the Agricultural Research Institute of Afghanistan (ARIA), the Improved Seed Enterprise (ISE), the Afghanistan National Seed Organization (ANSOR), the Seed Certification Agency (SCA), the National Seed Board (NSB) and the International Center for Improvement of Maize and Wheat (CIMMYT). These organizations not only required institutional strengthening to make them functional, but also capacity building to support implementation of their functions. Also, substantial investments remained to be made in the seed sector in order to transition towards a market for certified wheat seed with minimal external support.

The PDO reflected the country's vision and strategy, starting with the Agriculture Master Plan prepared in 2005, the National Agriculture Development Framework (NADF) as well as the Agriculture and Rural Development Strategy (ARDS), which is a chapter of the Afghanistan National Development Strategy (ANDS) developed in 2008. At closing, the AAIP project remained fully in line with the country's agriculture sector priorities; particularly the Strategic Priority 2: "Increased Wheat Production" outlined in the Government's adopted National Comprehensive Agriculture Development Priority Program (2016-2020). It



contributed to the Strategic Priority 3 “Horticulture Value-chain” by creating a functional phytosanitary system; which was one of the key obstacles for accessing higher end markets.

Relevance to the World Bank Strategies: The project was fully consistent with the Bank Group’s Afghanistan Interim Strategy Note (ISN) for FY 2012-14 which had three pillars: (a) institutions and capacity, (b) equitable service delivery, and (c) growth and jobs. The Project also remained fully aligned with recommended Pillar I: “Developing Prioritized Value Chains” of Afghanistan Agriculture Sector Review (AASR) completed by the World Bank in 2014 and the World Bank’s Country Partnership Framework (CPF) FY2017-20 objective 2.4: “Increased agricultural productivity” through its efforts to improve access to key inputs.

Rating

High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To strengthen institutional capacity for safety and reliability of agricultural inputs

Rationale

Theory of Change

The project aimed to help finance the costs associated with improving the wheat seed value chain; preventing marketing of banned, hazardous, sub-standard, and unreliable pesticides and fertilizers, lowering the risk of the introduction and spread of quarantine pests in the country and improving the reliability of sanitary and phytosanitary certification systems for export commodities; and improving farmers’ access to agricultural inputs of reliable quality. The support was to be achieved through (A) establishing a commercially viable and technically efficient seed production and certification system to improve the currently unsustainable production system of certified wheat seed (which is assessed in detail under the second objective); (B) improving safety and reliability of agricultural inputs through building and strengthening the institutional capacity and physical infrastructure for quality control of agrochemicals and plant quarantine; and (C) analyzing current agricultural input delivery systems and piloting improvements to improve farmers’ access (assessed under the second objective).

Three major activities were carried out to achieve this objective. These were the quality control of pesticides, fertilizers and the conduct of plant protection and quarantine services as detailed below.

Quality Control of Pesticides: Before the project, Afghanistan lacked an appropriate legal framework to establish safety/reliability of inputs. The project supported the preparation of policies, acts and regulations related to plants and quarantine. These Plant Protection & Quarantine; and the Agricultural Pesticides Acts were passed into law and are currently being implemented. The project also initiated a nationwide insect



pest and plant diseases survey. In addition, the project conducted a pesticides market survey between 2016-18, with the aim of assisting PPQD and traders to identify and isolate banned pesticides. The survey identified 93 good pesticides while nine other expired/banned pesticides were isolated and collected into warehouses of PPQD for disposal. The project also introduced the Integrated Pest Management (IPM) approaches on cereals in 2016 through the conducting of farmer's field schools (FFS). A total of 49 FFSs were organized for 862 farmers in 10 provinces on wheat and vegetables. They were carried out to complement the efforts at ensuring limited use of chemicals and safe use of available ones. These were complimented with IPM training of trainer activities with PPQD, National Horticulture and Livestock Project (NHLP), 245 farmers and training of 61 women on kitchen/home gardening. In addition, bio-efficacy trials were also conducted on pesticide use at the research centers of ARIA. The above activities were carried out and almost all the intermediate indicators were fully achieved, but the end results of sample testing to ensure compliance with standards, determine composition of pesticides and downstream assessment of pesticide residue in food products were not realized within the timeframe of the project's implementation.

Quality Control of Fertilizers: Against a target of 20, the project supported bio-efficacy trials on 37 different fertilizers in 12 locations from 2016 -2018, which assisted in building the capacity of PPQD staff. Training was also provided for over 5,000 staff of the Department of Agriculture, Irrigation and Livestock (DAIL), agrochemical traders and farmers in 29 provinces, on fertilizer formulation and quality analysis. In addition, training of 24 staff of ARIA, PPQD, Seed Certification and Animal Husbandry department of MAIL was carried out in the areas of gas chromatography and DNA Sequencing. Fertilizer Rapid Test Kits were also supplied to PPQD to assist in testing the quality of imported fertilizers. The project supported the preparation of policies, acts and regulations for development of the Fertilizer Act which is being processed for approval in Parliament.

Plant Protection and Quarantine Services: The project planned to rehabilitate, establish and equip the central and national border plant quarantine stations to provide such services as issuing of plant health certificates, testing consignees and plant products and prevention of entering microbial and epidemic pests and enforcing quarantine laws and by-laws. The project constructed four central laboratories for the Plant Protection and Quarantine Directorate so that the lab could be used for DNA level diagnosis of pests and diseases as well as ascertaining agro chemicals qualities. Nine border stations were also fully rehabilitated out of the 11 scheduled. Due to slow procurement, only the physical structures were built at project closing. Relevant training was provided, and some basic equipment was also purchased but the high-tech equipment for DNA level diagnosis of pest and diseases could not be procured. Furthermore, agricultural products quality testing for heavy metals, aflatoxins, microbes etc. could not be carried out. Some basic inspections were conducted and improved phytosanitary certificates for export markets issued, but without the high-tech equipment, the proposed plant products protection, issuance of plant health certificates, enforcement of quarantine measures and safety practices could not be fully carried out and there are valid concerns relating to the sustainability of the infrastructure investments.

Outcomes:

Three sets of indicators were listed as PDO indicators in the Results Framework (RF) to assess the outcome, which are weak in measuring progress against the objective. No outcome level indicator was designed to measure the improved institutional capacity building. Also, the activities leading to the outcome were significantly broader than represented by the indicators. The outcome indicators are; PDO indicator 3: Listing of plant quarantine pests and diseases; PDO indicator 4: Number of Agricultural products samples tested for compliance; and PDO indicator 5: "Bad pesticide samples intercepted" which was later changed to "Pesticides samples tested for compliance". Out of these three outcome indicators only the first one was achieved. The focus was to establish standard plant protection and quarantine networks that will help



the country meet credible food safety and SPS measures for major international food markets. While the project completed all the planned activities on quality control on pesticides and fertilizers, due to procurement issues, the high-tech plant quarantine testing equipment could not be procured. Due to the above-mentioned weaknesses the achievement of this objective is rated as modest.

Rating
Modest

OBJECTIVE 2

Objective

To strengthen institutional capacity for sustainable production of certified wheat seed.

Rationale

Theory of Change:

The objective was to be achieved through establishing a commercially viable and technically efficient seed production and certification system to improve the currently unsustainable production system of certified wheat seed. Institutionalization of an independent Seed Certification Authority, which is essential for improving the sustainability of seed value chains, was financed by the European Union. The activities to be implemented for sustainable production of certified wheat seed were expected to strengthen the entire seed value chain with the following outputs: utilization of advanced breeding lines for variety trials and agronomic experiments in ARIA; efficient production of breeder, foundation and registered seeds in ARIA and ISE; improved seed multiplication factors (from breeder to foundation seed); improved coordination of the seed industry by the NSB; and increased production of certified wheat seed to economically justifiable levels in line with sustainable seed replacement practice. These activities were implemented to strengthen the capacity of the major institutions involved with the seed value chains; ARIA, ISE, PSE and ANSCU.

Outputs:

- In the formal seed production system, as specified in National Seed Policy, ARIA is responsible for developing and introducing new varieties and the production of Breeder Seeds. Breeder seeds are provided to the Improved Seed Enterprise (ISE) for multiplication to Foundation Seeds on its regional farms or through contracted seed growers. The Foundation Seeds are then made available to the Private Seed Enterprises (PSEs) working under the umbrella of Afghanistan National Seed Companies Union (ANSCU) for Certified Seed production and final distribution to the farmers. The outputs are as follows:
- **Building research capacity at ARIA:** The agriculture research system suffered widespread degradation of infrastructure and human capital during the years of conflict. The project played a vital role in building the institutional capacity of the ARIA and now 11 research stations are being used for testing of varieties, experimental trials and production and release of certified wheat and various other crop seeds. Land was rehabilitated (308 ha as opposed to 350 ha at ARIA farms), equipment supplied (207 farm machinery supplied), and staff trained on breeder seed selection (642 staff).
- **Building institutional capacity at ISE:** The project constructed or renovated four standard seed production farms in Balkh, Herat, Parwan and Nangarhar provinces to improve the production capacity



of breeder and foundation seeds. The construction and land development mainly included construction of office buildings, equipment shelters, threshing floors, workshops, warehouses, water reservoirs, irrigation canals, grading and land leveling. In total 460 hectares of land were developed at ISE farms (51% of the original target and 81% of restructured target). 72 types of farm machineries were provided to ISE farms and training provided for 150 staff members. Due to this support, the yield of wheat increased from 3.92mt/ha to 4.27mt/ha from 2017 to 2018, and the production of foundation seeds by ISE increased from 406.3mt in 2014 to 867.13mt in 2018 or an increase of 113.4%.

- **Strengthening seed distribution chain through support to ANSCU and PSE:** The project provided technical and financial support to ANSCU for production/distribution of certified wheat seed and an assessment of technical capabilities of Private Seed Enterprises (PSEs) was also conducted. The seed database was developed for the Directorate of Seed Certification, and its staff were trained and equipped in seed quality assessment. Based on the assessment, 102 PSEs were certified, profiled and registered. AAIP also established 285 wheat seed demonstration plots in 28 provinces through the PSEs to improve linkages between PSEs and farmers, ascertain seed qualities and provide a choice of seed providers to the farmers based on quality of seed produced. Workshops, training programs and seed demonstration plots were sponsored by AAIP in 28 provinces for 76 PSEs in collaboration with the major seed organizations including the Directorate of Seed Certification, and Extension. The project supported the government to produce 9,755.56mt of certified seeds.
- **Piloting an input voucher system conducted for 2 years:** At project start-up, the input delivery system in Afghanistan was ineffective and concentrated on public sector subsidies delivered to farmers through bulk purchase of certified seeds from PSEs. The bulk purchase and distribution system compromised quality and lacked transparency with an average of 15,000 farmers targeted as beneficiaries. The project developed and piloted a voucher-based system of input delivery which targeted farmers through their registered profiles and transferred the government subsidy directly to them through the vouchers. This was piloted in collaboration with FAO in 2017 in four provinces of Balkh, Kabul, Nangarhar and Herat for a total of 6,000 farmers. In participating districts, farmers were selected through a verification survey based on district data received from FAO. The scheme expanded in 2018 to cover additional seven provinces and 40 districts with a total number of 18,920 wheat growers as beneficiaries. In those piloted districts, the beneficiaries confirmed the benefits of the voucher system and the quality assurance of the certified seed. While the voucher system established a smart subsidy system, its requirement of a central control system presents challenges when it is scaled up, thus it may not be able to meet the aim of creating a self-supporting, market based, subsidy free system in the long run. The system requires a census of farmers to establish a list of eligible farmers to be provided with subsidy card, which would have to be verified annually. The preparation of voucher cards, their distribution, coordination, monitoring and timely delivery will be a challenge given the country's size and terrain. These activities also need to be repeated every year and the resource requirements in terms of funds and manpower will be significant. In this way, the operational model was probably unrealistic.

Outcomes:

The outcome was evaluated against the achievement of the first two indicators which measured the wheat seed multiplication factor and the production of certified seeds. Accordingly, the project exceeded the wheat seed multiplication, with an actual ratio of 26.3 (compared to the baseline 14.8 and the target of 26). The project supported the government to produce 9,755.56mt of certified seeds. Given the target of 10,498.8mt set by the NSB in 2018, the project almost achieved the set target with 93% of planned amount compared to the target of 95 % (before restructuring this indicator was measured in tons, with the



restructuring the indicator was revised as % of the planned amount by NSB). While the project piloted a voucher system, the aim of creating a self-supporting, market based, subsidy free seed distribution system in the long run is yet to be tested further and developed. On balance the achievement of the objective is rated Substantial.

Rating

Substantial

OVERALL EFFICACY

Rationale

While the first objective of strengthened institutional capacity for safety and reliability of agricultural inputs was modestly achieved due to lack of appropriate indicators measuring the objective and due to various performance shortcomings. So while the project did many activities on the quality control of pesticides and fertilizers with the exception of delivery of high-tech lab equipment for plant protection and quarantine due to fragility situation it is difficult to gauge the level of achievement against the objective. The second objective of strengthened institutional capacity for sustainable production of certified wheat seed is achieved substantially. On balance, the overall efficacy is rated substantial.

Overall Efficacy Rating

Substantial

5. Efficiency

Economic Efficiency:

Ex-ante cost-benefit analysis estimated the returns on the improved wheat seed production (Component A) and plant quarantine networks and quality control of agro chemicals (Component B). The overall project ERR was estimated at 19 percent and the expected values of NPV was estimated at US\$34.7 million in 2012 prices over a project horizon of 25 years.

The ex-post analysis followed the same methodology. The benefits of Component A were estimated based on: (i) efficiency gains in wheat seed production; and (ii) productivity increase in wheat production. The benefits attributed to Component B included mainly higher price realization for exports and expansion in the volume of exports of agricultural commodities particularly raisins (10 % incremental increase). Since the major activities of the project lagged by one year during implementation, the ICRR lagged the benefits one year as well compared to the appraisal timeline; i.e. assumed that the project benefits would start in year 5 reaching at full potential by year 11. Data was based on a Mid-line Survey and from the Final Project Review Report, both prepared by the Independent Project Consultants with support from the PMU. Full project cost was used in the analysis.

The project interventions enabled Afghanistan to make significant progress towards the status of self-sufficiency



in production of certified seed of wheat. Estimation of requirement versus production capacity developed through the project indicated that Afghanistan would be able to produce 49,743 tons of certified seed of wheat in year 2021 against a demand for 50,750 tons, provided that the government continues to support the three institutions (i.e. ARIA, ISE, and PSE) after the project is closed. Wheat productivity increases were estimated at 25 percent due to the introduction of agroecology specific varieties and agronomic technologies introduced as part of the project intervention. However, these estimations are quite optimistic and very much dependent on the sustained support from the government/donors, as well as demand from the farmers for certified seeds.

The comparison of results of the ex-post economic evaluation with the appraisal is as follows: (i) NPV was US\$ 34.7 million at appraisal; and at the Project’s closing it is expected to be US\$24.0 million; and (ii) Economic rate of return was 19.0 percent at appraisal, at the closure of the Project it is expected to be 21.8 percent mainly due to the gains in currency exchange rate during the project period.

Administrative and Operational Efficiency:

The project experienced operational and implementation challenges and there were also delays due to procurement challenges for the first 4 years of operation. While the fragility situation contributed to the bottlenecks and delays, there were also administrative issues that impacted efficiency such as limited technical and procurement capacity, weak governance, poor inter-ministerial coordination, high staff turnover and land disputes. At restructuring, the project was scaled down with a 10 percent budget reduction, and at closing, only 51.2 percent of the original budget could be utilized, while acknowledging that part of this reduction was due to exchange rate changes. The project management costs were low at only about 1/3 of the estimated cost, (\$5.97m instead of the estimated \$15.9m at appraisal).

Due to modest gains, unrealistic economic analysis assumptions as well as administrative and operation inefficiencies, efficiency is rate as modest.

Efficiency Rating

Modest

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	19.00	100.00 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	21.80	100.00 <input type="checkbox"/> Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome



The project's objective is highly relevant to the strategies of the World Bank and the Government both at appraisal and at closing. The Efficacy in achieving the development objectives is rated as substantial, but marginally so, based on the substantial evidence on strengthened institutional capacity for sustainable production of certified wheat seed but offset by the modest achievement on strengthened institutional capacity for safety and reliability of agricultural inputs. Efficiency is rated modest due to unrealistic assumptions of the economic analysis and some administrative or operational bottlenecks. Based on these three sub-ratings, the project's overall outcome is rated moderately satisfactory.

a. Outcome Rating
Moderately Satisfactory

7. Risk to Development Outcome

The ICR rated the risk to development outcomes as high, for which IEG concurs and described three main risk areas as below (ICR page 24-25):

- **Seed development:** The sustainability of the seed production is dependent on the continuous support of the three institutions (i.e. ARIA, ISE, and PSE), otherwise, it is highly at risk. (i) **Research on variety development:** Due to fragility and on-going conflicts, the country has severe fiscal constraints and it is doubtful if government can allocate sufficient budget for these activities on an annual basis to sustain the seed production chain unless the current donors (USAID, CGIAR, EU) support is sustained. (ii) **Farm development:** In addition to the project supported eight farms, there are two farms (Kariz farm in ARIA and Kunduz farm in ISE) that will require around US\$1.24 million for rehabilitation and equipment. It is not clear where the budget for this activity will come from at project closing. (iii) **O&M:** There was no provision for Operation and maintenance of the facilities (canals and research plots) established by the project. At closing, all farms rehabilitated, and new farms established require support of both workers and maintenance of the canals and research plots.
- **Operation of PQS, BQS and Laboratory Complex:** To meet WTO standards for food safety and SPS measures, PQS and BQS labs need to be operationalized. The construction work in eight BQS and the lab complex has been completed but the equipping, operationalization and technical capacity enhancement of these laboratories remained to be carried out. This might require up to US\$ 5 million for the equipment. The GOIRA is actively seeking alternate source of funding to complete the remaining work.
- **Inputs Delivery System:** A pilot Voucher System was implemented, and the department of extension started an ICT system to continue with this scheme, but it is highly dependent on the availability of subsidies, as well as administrative costs when scaled up nationally. The MAIL may have to consider the design of an alternative distribution system without subsidy.
- **Security and Fragility** is a continued risk in Afghanistan and with a deteriorating peace situation, the fragility indices are becoming significant. Therefore, stable prices, qualified experts and investors' confidence will continue to be a major concern.



8. Assessment of Bank Performance

a. Quality-at-Entry

Project preparation took more than two years. The project design was based on a systematic study of the institutions involved in seed production and handling of agrochemicals funded by the Afghanistan Reconstruction Trust Fund (ARTF) as well as a comprehensive institutional needs assessment of all the key institutions. Based on the assessment, component A was designed to address the identified shortcomings. A Quality Enhancement Review (QER) was also conducted which enriched the design. Procurement issues were identified as high risk and mitigation measures provided. Procurement was a major problem still, so it is not clear if these measures were sufficient.

A major shortcoming of the design was the failure to envisage possible land disputes during the project life. Though the project design was based on land utilization, little consideration was given to possible land disputes because public institutions were involved as direct beneficiaries and thus the resettlement policy framework (RPF), OP 4.12 was not triggered. The Bank team also did not complete the assessment and design of the project with support for civil works, particularly the laboratories during the preparation phase. The design of the civil works was carried out during implementation and took over two years to complete (with realistic cost estimation) leading to re-allocation of budget between components and the partial cancelation of the grant to proceed. In addition, the design of Component C, input distribution system, was not realistic given the institutional capacity constraints. These design shortcomings limited the potential impact of the project.

Quality-at-Entry Rating Moderately Unsatisfactory

b. Quality of supervision

Bank supervision was responsive to procurement challenges and supervision assessments were candid, but the restructuring was done quite late and the decision not to extend the project closing date negatively impacted the project outcomes. The first two years of implementation focused on the designs of the complex civil works and with the low capacity of the client, the response rate was slow. Mid-term review (MTR) was rather late but held appropriately and major problem areas including procurement delays were correctly flagged. Steps were also taken by the team through consultation, training, handholding and recruitment of consultants to address the identified procurement delays. Delays were partly due to the low capacity of the client, frequent changes in leadership of the implementation agency, slow and indecisive response coupled with staff attrition and bureaucracy. After the restructuring, project implementation picked up significantly. A second request for an extension of the project closing by one more year was made by the government to complete the delayed procurement process for the complex lab equipment, but this was declined by the Bank due to prolonged delays and suspected governance issues resulting from frequent changes in the technical specification, estimated cost and possible vested interests.

Given the fragility context of Afghanistan and some of the political and security issues that affected the progress of the project, the Bank management could have been more flexible. The overall Bank performance is rated Moderately Satisfactory.



Quality of Supervision Rating

Moderately Satisfactory

Overall Bank Performance Rating

Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The M&E system had the following broad components: (i) concurrent monitoring of physical and financial progress in MAIL Directorates using formats developed by the Implementation Management Support Team (IMST); and (ii) M&E support agency to assist in monitoring PDO and intermediate outcome indicators through surveys. The IMST was also expected to engage various consultancies to undertake three surveys; MIS software development; decentralization of various MIS modules to MAIL Directorates; operation and maintenance of the MIS; and capacity building. A survey firm was engaged in the preparation phase to conduct two baseline surveys for component C– a technical farm survey and a supply chain survey for agricultural input distribution networks (importers – wholesalers – retailers).

The M&E had two design shortcomings: (a) The PDO indicators particularly measuring the PDO on institutional capacity for safety and reliability of agricultural inputs, was weak, i.e. adequate outcome level indicators were not designed and the scope of the indicators did not fully capture the full range of actions involved in the achievement of the PDO; (b) It did not specify regular thematic studies to be conducted to aid improvement of project performance.

b. M&E Implementation

The project developed an M&E system that collected data regularly for process monitoring and was adequate to support record keeping and subsequent analysis. However, the planned survey to decentralize various MIS modules to MAIL Directorates was not carried out. Also, the thematic studies were not conducted based on the data collected. The greatest challenge that faced the M&E unit was the high turnover of M&E specialists. Over the span of the project, three M&E specialists and four Directors were employed but the established M&E system at all levels of the project functioned as designed. The project utilized communities to collect and report on data on project indicators and on implementation progress.

c. M&E Utilization

The collected data was utilized to prepare periodic reports and compute project achievements and evaluate project performance with some weaknesses particularly regarding Component B. The post-completion Economic and financial analysis was also carried out based on the data produced by the



M&E system. There were challenges in its implementation which limited the use of the results especially in flagging the delays and remedial measures for implementation of component B of the project. While there were shortcomings, the M&E system worked relatively well in an FCV environment. Thus the M&E quality rating is substantial.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

The project was a category B project triggering Environmental Assessment (OP/BP 4.01) and Pest Management (OP 4.09). Environment and Safeguard Management Framework (ESMF) for all civil works as well as Pest Management Plan (PMP) was prepared.

The project hired an Environmental Specialist to prepare Site specific Environment and Safeguard Management Plans (ESMPs) for the subprojects, the project team and its IPM specialist also provided capacity development sessions and a practical session on Integrated Pest Management (IPM) to relevant project staff. The project also built some infrastructure for Agrochemical testing laboratories and facilities to support the screening of the quality of agrochemicals imported from other countries. A Consultant was also hired a consultant to audit the implementation of the Environmental and Social management including Pest Management and application of IPM approach. The project was not able to achieve aspects of the objectives of the PMP that required: (i) finalization and approval of the pending Pesticide Regulation to operationalize the country Pesticide Law that is already approved by Parliament and signed into law by the country president, (ii) Prepare and implement a Pesticide Policy, (iii) Establish Steering Committee for Pest Management, (iv) the project due to structural constraints did not properly contributed to the capacity of PPQD Department, (v) prepare a Management Information System (MIS) in the country and utilize it for curtailing pest and diseases, and (vi) establish the needed laboratories to check, verify, approve or disapprove the quality of the pesticides coming into the country.

The land disputes issues were not envisaged at appraisal because the land areas identified were categorized as public land. However, during implementation, conflicts from land ownership delayed activities and the Involuntary Settlement Safeguard Policy (OP 4.12) was triggered by the task team. The ICR did not describe how this policy was implemented if a resettlement plan was prepared and the land disputes were resolved.

b. Fiduciary Compliance

Financial Management: The ICR noted that (page 22-23), the FM performance rating of the project remained moderately satisfactory throughout the project life. The project received unqualified audit reports for the FY 2011 to FY 2017; the audit report for the FY 2018 was to be received by December 31, 2019 and the audit report for FY 2019 was scheduled to be received by June 30, 2020. The project team subsequently stated that, "The project's responsiveness to audit and supervision observations improved in



the last two years of the project and there was no pending unaddressed audit observations as of end of project.”

FM Issues identified during implementation of the project: (i) Fixed assets management of the project remained weak till end of 2018, the project had no proper asset verification and the fixed asset register was not updated regularly. However, there was improvement in 2018 when the fixed asset records were transformed from MS spread sheet to a management information system, (MIS) developed by the project.

(ii) The project used a large operational advance which was retired and acquitted with significant delays especially from the provincial offices.

Procurement: The ICR noted that (page 22) procurement for the project remained an issue throughout the project life with long delays, re-bidding, integrity, inability to hire qualified procurement staff etc. In the last two years of the project when procurement was centralized to the procurement directorate, the procurement process accelerated and AAIP/MAIL was able to award most of the work contracts. However, the project was not able to procure Lab Equipment which was a high priority for the AAIP and MAIL due to prolonged delays and suspected governance issues resulting from frequent changes in the technical specification, estimated cost and possible vested interests. The ICR reported that the procurement performance rating for the project was not very encouraging throughout the project, but did not provide the actual ratings.

c. Unintended impacts (Positive or Negative)

No unintended impacts were reported by the ICR.

d. Other

Gender: The project achieved some gender related results despite having interventions in traditionally male dominated activities. Initially, the project was not gender focused; however, after the restructuring of the project and because of constant follow-ups on gender issues during ISMs, gender-related interventions increased. These included consultations with both men and women at the design stage of each infrastructure sub-project as well as in the preparation of ESMPs, inclusion of female staff in the various trainings and degree programs, raising awareness of female community members on the GRM and improving their access to it, developing a gender strategy and implementation plan, gender affirmative action in recruitments, and collecting gender disaggregated data to analyze the impact of the project on women. Despite paucity of female employees, 33 females were trained at ARIA, one at ISE and five at PPQD. The significant gender achievement was that the project developed its own gender strategy toward the end of 2018. 282 female farmers, fertilizer dealers, and MAIL staff were trained in topics such as pesticide, fertilizer, IPM, and plant quarantine in 14 provinces. Six agricultural companies, four of which were run by women and two others with women in lead-roles were supported by the project. Another good aspect of the intervention was hiring of women laborers under the project and by August 2018, 20 female laborers in Bamyan, and 51 female laborers in Balkh were hired. The gender unit of the project organized various trainings related to gender and anti-harassment to the AAIP and MAIL staff. Observed shortcomings included some structural problems (e.g. in terms of training of female staff, very low number of female staff in the department, or lack of female staff's interest in these trainings). On the staffing, although each ISM of



the project emphasized a 30-40% quota for women hiring especially through internship programs as an entry path, the data in November 2018 showed that only four women out of the total 159 staff which was disappointingly low. The project and the ministry could have hired more female staff for labs and quarantine stations.

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Satisfactory	Moderately Satisfactory	
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	
Quality of M&E	Modest	Substantial	While there were shortcomings, the M&E system worked relatively well in an FCV environment. Thus the M&E quality rating is substantial.
Quality of ICR	---	Substantial	

12. Lessons

The lessons identified by the ICR with some reformulation are as follows:

In an FCV country, it is appropriate to tie-up complex procurement to pre-selected institutions/firms at preparation stage and helpful to initiate and complete design of complex civil works in the preparation phase. Most activities of the project were dependent on complex procurement of goods/civil works and the engagement of international or national consultants which brought implementation delays. If a preselected institution was hired to oversee and coordinate these procurement activities, capacity and governance issues would not have created delays.

Land resettlement should be triggered for all projects that utilize land. In-depth analysis and consultations with communities should be conducted in advance to avoid land disputes. There were land disputes during the project which were not envisaged at the project preparation stage because of the involvement of public institutions. Selection of sites free from disputes and consultation with communities by the project authority should be the prime consideration for expeditious project implementation. Furthermore, improving land tenure governance by providing guidance and information on internationally accepted practices for systems that deal with the rights to use, manage and control land is critical.

An appropriate structure to facilitate inter-ministerial coordination is necessary when multiple ministries/agencies are involved. Inter-ministerial coordination was a major issue for the project. There were delays because of lack of agreement among directorates. The bureaucracy did



not allow any authority below the level of Minister to have a coordinating role. The issue of coordination should be taken seriously in future projects.

The Bank could be more flexible in support of extensions for project duration and embrace projects with more than five years of implementation, particularly in an FCV context.

Procurement delays that resulted due to capacity, governance and lack of bids were partly due to the FCV situation in the country. Should the request of the government for a second extension have been granted, some key activities could have been completed. The Bank management needs to consider additional challenges and delays in a FCV context and act flexibly in these situations.

In fragile and conflict environments, efforts could be made to engender trust and ownership of beneficiary communities so that regular M&E data can be supplied by community members.

In most project areas where land development was made and local infrastructure were constructed, the project basically utilized information from community and CDC members as part of record on implementation progress and validation of contractor's record. This made data collection efforts more accurate and reliable.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR was well written, concise, candidly described challenges of the project and in general followed the guidelines. The shortcomings were: (i) economic analysis assumptions could have been described better to show if they were realistic given the unfinished activities; (ii) the ICR could have provided more information on the land disputes and how resettlement safeguards were mitigated; (iii) some of the lessons were not clear and they could have been described better.

a. Quality of ICR Rating

Substantial

