Report Number: ICRR0023905

1. Project Data

Project ID	Project Name
P153541	Shaanxi Poor Rural Areas Community Dev
Country	**Practice Area(Lead)**
China	Agriculture and Food

L/C/TF Number(s)	Closing Date (Original)	Total Project Cost (USD)
IBRD-86840	31-Dec-2022	99,506,993.44
Bank Approval Date	**Closing Date (Actual)**	
09-Feb-2017	30-Jun-2023	

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	100,000,000.00	0.00
Revised Commitment	99,506,993.44	0.00
Actual	99,506,993.44	0.00

Prepared by	Reviewed by	ICR Review Coordinator	Group
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2. Project Objectives and Components

a. Objectives

The Project Development Objective (PDO) of Shaanxi Poor Rural Areas Community Development Project as articulated in the Loan Agreement (LA, page 5) was identical to the one stated in the Project Appraisal Document (PAD, paragraph 14) and aimed to:

"Increase incomes of targeted beneficiaries in selected poor counties of Shaanxi."

Parsing the PDO. The PDO will be parsed based on one objective:

To increase incomes of targeted beneficiaries in selected poor counties of Shaanxi.

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

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

Date of Board Approval
06-Aug-2021

c. Will a split evaluation be undertaken?
No

d. Components
The PDO was supported by the following four components:

1. Farmer Cooperative and Value Chain Development (appraisal cost: US$93.41 million, actual cost: US$94.85 million). This component supported the improvement of value chains for selected agricultural products with local competitive advantage, establishing new farmer cooperatives or strengthening existing ones to become effective business entities, and strengthening forward and backward linkages. It included two sub-components:

1.1. Cooperative Development. This sub-component provided conditional grants to support business operations of eligible new or existing farmer cooperatives by enabling them to acquire new production systems, improved seedlings and breeding stock, facilities for processing agricultural products, storage and marketing facilities, and technical and advisory services for market analysis and development. The funds would also facilitate upgrading quality standards, improving labeling, acquiring certification, undertaking branding, improving logistics, investing in food safety, and carrying out other investments at the cooperative level. In addition, the project supported improving management facilities and basic office equipment and facilitate training in cooperative management and business operations, financial management, technical knowhow, and other training related to the establishment or improvement of farmer cooperatives.

2.2. Competitive Grants for Enterprises. This sub-component provided matching grants to finance eligible investments by enterprises that establish partnerships with beneficiary cooperatives with clear market linkages and benefit sharing arrangements with poor farming households. Grants were to focus on the investments that ensure markets for agricultural products and increase their value, extending activities either upstream or downstream in the value chain and creating income-generating opportunities for poor farmers.

2. Economic Infrastructure and Services Support (appraisal cost: US$35.84 million, actual cost: US$35.14 million). This component focused on improving economic infrastructure, including (a) improving intra-village and inter-village road connectivity, as well as road linkages between villages and central small towns and (b) upgrading production infrastructure, including construction and rehabilitation of irrigation and drainage infrastructure; establishment of communications and information infrastructure; and provision of cold storage and other post-harvest handling facilities and market facilities, among others.

3. Technical Assistance and Capacity Building Support (appraisal cost: US$4.17 million, actual cost: US$4.96 million). This component supported both technical and institutional capacity building for participating farmers, village committee members, community economic groups, farmer cooperatives and advisers, agricultural technicians, and agro-enterprises and companies, among others. This was to be achieved through training, extension services, study tours, skills development programs, consultations and project awareness raising campaigns, and dissemination of project lessons. The component included recruitment of cooperative facilitators and support for the Technical Advisory Groups to review and improve Cooperative Investment Plans. Applied research and analysis were also to be carried out under this component.

4. Project Management, Monitoring and Evaluation (M&E) (appraisal cost: US$4.39 million, actual cost: US$3.35 million). This component supported strengthening and developing the administrative and technical capacity of the Project Management Office (PMO) staff through: (a) capacity building for the provincial, municipal, and county PMOs to strengthen project management and (b) development of a management information system (MIS) and an M&E system for project activities, which included monitoring physical project progress, compliance with environmental and social safeguards, and project impact monitoring.

Revised Components. While the component structure and activities remained unchanged, adjustments were made to the appraisal cost estimates at MTR. Also, sub-component 1.2 was renamed to 'Value Chains Extension Grants for Enterprises' after the April 2021 restructuring to make the grants' purpose clearer.

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

Project Cost. The total project cost was estimated at US$150.04 million. This amount was revised at the Mid-Term Review (MTR) to US$139.12 million. The actual cost according to the ICR (Data Sheet, page 2) was US$140.30 million.

Financing. The project was financed by an IBRD loan, extended as an Investment Project Financing (IPF), in the amount of US$100.00 million. This amount was revised at the Mid-Term Review (MTR) to US$99.51 million. The revised amount was fully disbursed (ICR Data Sheet, page 2).

Borrower Contribution. The Government was expected to provide US$50.04 million of counterpart financing. This amount was revised at the Mid-Term Review (MTR) to US$39.61 million. The actual amount contributed was US$40.79 million. *In a further communication, the project team explained that the Government counterpart financing was reduced as a result of the slow traction of the 'Competitive Grants for Enterprises' sub-component which triggered a recalibration of the likely number of enterprises that would participate during MTR, hence a corresponding reduction in the anticipated level of matching grant support from the project.*

Dates. The project was approved on February 9, 2017 and became effective six months later on August 17, 2017. The MTR was conducted on April 18, 2021 which was about ten months later than the date stated in the PAD on June 30, 2020. The project closed on June 30, 2023 which was six months later than the original closing date of December 31, 2022. According to the ICR (paragraph 21) this extension was needed to "to facilitate completion of project activities whose implementation had been disrupted by the COVID-19 pandemic."

The project had two level 2 restructurings as follows:

1. On August 6, 2021, when the amount disbursed was US$52.77 million, in order to revise the Results Framework and change components and costs. One PDO indicator target was revised where the target for the 'share of project cooperatives making profits' was reduced from 60% to 40%. Also, four intermediate targets were modified where three targets were decreased and one was increased. Despite these revisions, the project met or exceeded the original and revised targets. A split evaluation will not be applied because the PDO was not revised and the changes to the indicator targets did not impact the ambition or the Theory of Change.

2. On December 14, 2022, when the amount disbursed was US$86.76 million, in order to extend the loan closing date by six months from December 31, 2022 to June 30, 2023, adjust the dates for project targets in the Results Framework to the new closing date, and update the implementation schedule in view of the extended timeline.

3. Relevance of Objectives

Rationale

Context at Appraisal. At the time of project appraisal in 2016, Shaanxi province had a rural poor population of about 4.6 million mostly engaged in agriculture. It was one of the provinces with significantly high levels of extreme poverty. The province included numerous unorganized household farms that were characterized by low productivity and primary products of sub-standard quality. This hindered their participation in modern value chains, which were increasingly demanding in terms of quality and food safety. While Shaanxi had 36,500 registered cooperatives with 1,950,000 members, most were poorly managed, and only about 15% of them were functioning well and effectively serving their members. This project aimed at enabling smallholder farmers to participate in modern value chains and improve their access to markets through investment in the development of pro-poor farmer cooperatives and by entering into strategic partnerships with agro-enterprises. The project would also help improve economic infrastructure such as intra- and inter-village roads, irrigation and drainage infrastructure, cold storage, and other post-harvest handling facilities.

Previous Bank Experience. This project was the fifth in a series of World Bank-supported poverty reduction projects in China (Southwest Poverty Reduction Project (P003639), Shanxi Poverty Alleviation Project (P003649), Qinba Mountains Poverty Reduction Project (P003590), and Gansu Inner Mongolia Poverty Reduction Project (P046564)), which focused on poverty reduction through an agriculture industrialization approach. This project built on lessons from the previous five projects, which put the Bank in a strong position to address emerging development challenges.

Consistency with Bank Strategies. At appraisal, the PDO was in line with the World Bank Group's Country Partnership Strategy for China (CPS, FY2013-FY2016). The CPS focused on two strategic themes: support greener growth and promote more inclusive development. The project supported the CPS theme two: promoting more inclusive development by focusing on lagging regions and small towns and by supporting policies and demonstration projects that address inequalities. It contributed to two outcomes: enhancing opportunities in rural areas and small towns, and improving transport connectivity for more balanced regional development. The PDO was also aligned with the World Bank Group's twin goals of ending extreme poverty and boosting shared prosperity. At completion, the PDO continued to be in line World Bank Group’s Country Partnership Framework for China (CPF, FY2020–FY2025), specifically Objective 2.3 (Demonstrating sustainable agriculture practices and improving food system quality and safety). The project-supported activities that strengthened the institutions needed to transform the agriculture and food production systems such as developing farmer cooperatives, fostering partnerships between some of the farmer cooperatives and agribusinesses. The project also supported expanding support to strengthen agriculture product quality and food safety systems.

Consistency with Government Strategies and Priorities. At appraisal, the PDO was in line with China’s 13th Five Year Plan and the poverty alleviation goals proposed during the fifth plenary session of the 18th Central Committee of the Communist Party of China (CPC). The project assisted the Government of China in its efforts to end extreme poverty for vulnerable groups, address rural-urban disparity and boost shared prosperity in the selected project areas. At completion, the PDO continued to be in line with China’s current 14th FYP (2021–2025), especially its theme on the value chain development approach to greening the agricultural modernization and rural revitalization to increase rural incomes.

Summary of Relevance of Objectives Assessment. The PDO statement was clear, focused and pitched at an adequate level of ambition relative to the Bank's experience in China. The PDO continued to be in line with the Bank Strategies and the Government priorities at completion. Therefore, Relevance of Objectives is rated High.

Rating

High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To increase incomes of targeted beneficiaries in selected poor counties of Shaanxi.

Rationale

Theory of Change (ToC). To achieve the stated objective, the project supported the following activities: (a) to address the low participation of the poor farmers in cooperatives: the project facilitated poor farmers cooperative membership; to address weak cooperatives, the project provided cooperative management and training and supplied cooperatives with equipment, seeds and new varieties; (b) to address poor linkages between cooperatives and agro-enterprises: the project supported incentivizing agro-enterprises linkages with cooperatives; to address inadequate supportive infrastructure, the project supported infrastructure investments including roads, cold storage facilities, and irrigation and drainage infrastructure. The outputs of the supported activities were: an increase in the number of the poor participating in cooperatives, an increase in the number of cooperative staff trained and number of assets acquired, an increase in the number of participating agro-enterprises, number of facilities constructed, length of roads in km constructed/rehabilitated. The expected intermediate outcomes were: an increase in the number of poor farmers receiving revenue from cooperatives (sale, dividends, wages, and rent); meeting market standards and enhanced cooperatives profitability; increased agro-enterprise transactions with cooperatives; and a reduction in post-harvest losses and increased value added. This would all contribute to increasing the incomes of targeted beneficiaries in selected poor counties of Shaanxi (PDO). The anticipated long-term impact was improved well-being of the poor.

The achievement of the PDO was underpinned by the following four critical assumptions: (a) successful integration of the poor into cooperatives that are prone to elite capture; (b) transformation of cooperatives into profitable entities; (c) adoption of the project-promoted improved technologies and practices by smallholder farmers, including the poor and vulnerable ones; and (d) product quality enhancement and improved market linkages.

Overall, the ToC reflected relevant activities that were directly connected to the outputs, intermediate outcomes and to the PDO in a plausible causal chain. Also, the stated critical assumptions were logical and realistic.

Outputs/Intermediate Results

- 83 cooperatives were supported by the project (71 farmer cooperatives and 12 enterprises) exceeding both the original target of 80 and the revised target of 70
- 12 enterprises received competitive grants which met the revised target of 12 but was below the original target of 20. In a further communication, the project team explained that this activity faced implementation delays that stemmed from the reluctance of Government officials to extend public financing to private enterprises, and enterprises were also reluctant to establish businesses in poor communities. The team also explained that with direct cooperative support and linkage with enterprises the decrease in the number of participating enterprises did not adversely impact the PDO.
- 63.59% of poor households were participating in the farmer cooperatives slightly exceeding the revised target of 60% and substantially achieving the original target of 70%.
- 68 agro-products certificates and brand names were obtained under the project significantly exceeding the target of 25. The project team explained that "the certified and branded agro-products are highly welcomed by the high end consumers, as they are green or organic products, trustworthy, safety ensured, thus they can easily find markets and enjoy high marketing prices."
- Cooperative management effectiveness reached 52.41 (METT) exceeding the target of 50, baseline was 29.33.
- 2,156 person months of advisory or facilitation services were provided to cooperatives under the project (cumulative) exceeding the target of 1,800.
- 10 analytical studies were completed and disseminated exceeding the target of 5.
- 21,233 cooperative management staff were trained exceeding the original target of 3,800 and the revised target of 7,700.
- 16,749 training (person-days) in project management were completed by PMO staff at all levels (cumulative) exceeding the target of 7,000.
- 97.6% of direct project beneficiaries were satisfied with access to economic infrastructure and services provision exceeding the target of 80%.

- Improving connectivity was achieved through the construction of 467 km of roads and 68 bridges (no targets provided).
- Upgrading production infrastructure was achieved through land leveling of 225 ha; establishing river embankments on 4,394 m3; providing 63 pumps; digging 78 km of ditches; and construction of 381 water pools (no targets provided).
- Upgrading farming facilities was achieved through supporting drip irrigation facilities on 300 ha farmland; constructing 1,333 greenhouses; providing anti-hail nets for 430 ha farmland (hails are frequently natural disaster occurrences with around 20-30% probability and are unpredictable-source: project team); and holders in 400 ha orchard (no targets provided). In a further communication, the project team explained that "holders are supporters/pillars for apple, grape, Kiwi orchards with the function to support structures (brackets) which are needed to maintain a good growth and fruiting state of the tree and maintain a certain tree shape. Reasonably distribute branches and leaves in space, create good ventilation conditions for the orchard, provide sufficient sunlight for the tree body, and facilitate agricultural operations in the orchards."

Outcomes

- Increasing incomes of targeted beneficiaries in selected poor counties of Shaanxi referred to increasing the income of those members of participating cooperatives who were assessed in the 2015 poverty assessment as being below the prevailing national poverty line which, at the time, was CNY 2,300 (ICR, paragraph 24). It is worth noting that concerted efforts by the Government to eradicate extreme poverty by 2020 through concurrent multiple programs resulted in changing the poverty landscape during project implementation. The project targeted 40,000 poor beneficiaries who were characterized as poor in 2015. By 2017, some of those beneficiaries were already above the poverty line, but needed to be sustained lest they fall back. By project completion, 45,512 individuals were placed or firmly sustained their position (if they had already surpassed the prevailing poverty line by the time of the baseline survey) above the poverty threshold (PDO indicator 2). This number represented about 21% of the population of the target communities.
- A survey was carried out among project participants and non-project participants to asses whether increases in income were attributable to the project. A sample of 2,337 households was used, of which 1,651 were members of farmer cooperatives supported by this project and 686 were not (sampling methods included control for sample bias). Through a difference-in-difference approach, the increase in income for farmer cooperative members was 100.4% higher than the increase in income for non-members, clearly demonstrating that the increase in income among farmer cooperative members was due to the project’s interventions (ICR, paragraph 25). Also, another assessment compared farmer cooperatives supported by this project versus farmer cooperatives supported by other government programs. The increase in income for farmers who were members of cooperatives supported by this project was 23.5% higher than that of farmers who were members of cooperatives supported by other government programs, which confirmed attribution of the observed income changes to the project’s interventions.
- The project-supported capacity building and market linkage efforts increased the share of project farmer cooperatives making profit reached 67.6% exceeding the revised end target of 40% and still higher than the original target of 60% (PDO indicator 3). In a further communication, the project team pointed out that "cold storage of fruits reduced spoilage by 5%, and optimal market entry timing through storage led up to 80% in price increment. Similarly, quality enhancement through cleaning improved product branding thus enhancing market entry."

Summary of Efficacy Assessment. The project reached 277,652 beneficiaries, compared to the end target of 160,000 (PDO indicator 1). The project achieved a remarkable increase in the income of cooperative members through supporting innovations in primary production, processing, and marketing. The project introduced new crop varieties, supported superior production methods, availed modern equipment, and introduced fertigation through drip irrigation to reduce overall water and fertilizer use. In addition, the project supported organic production technologies such as organic honey, some of which was being exported to the European Union market, as well as organic pepper. This enhanced the competitiveness of the project-supported cooperatives through tapping in the growing organic niche markets, nationally and abroad. The project also improved roads which facilitated access to input and output markets, and improved the agricultural irrigation and drainage capacity, which helped avert natural disasters such as flash floods and damage to farmers' crops, animals, and facilities. Also, higher growth in income among project beneficiaries was further facilitated by the success in strengthening the management capacity of the participating farmer cooperatives, which were further supported through developing relevant post-harvest infrastructure. This included storage facilities and cleaning and processing equipment, which enabled conserving perishable produce and maintaining post-harvest quality. Finally, the project exceeded its PDO outcome targets for the three PDO outcome indicators as noted above. Therefore, the efficacy with which this objective was achieved is rated High.

Rating
High

OVERALL EFFICACY

Rationale

Overall Efficacy is rated High. The project fully achieved its objective of increasing the income of the targeted beneficiaries. All targets for the three PDO outcome indicators were exceeded. The project supported a multifaceted approach through a strong focus on human capital development (by providing training and capacity building and subsequent technical assistance provided to strengthen cooperatives on financial management, community procurement, business plan preparation, and management of subprojects); funding cooperative productive assets (for example, cold storage, markets, processing equipment); and supporting public investments that included rural and production/farm roads, and irrigation and drainage improvements. These supported activities, as confirmed by two satisfaction surveys, significantly increased incomes of targeted beneficiaries in selected poor counties of Shaanxi.

Overall Efficacy Rating

High

5. Efficiency

Economic and Financial Analysis (EFA)

ex ante

- The overall economic internal rate of return (EIRR) for the whole project was estimated at 13.78% and the opportunity cost of capital (OCC) was
set at 6%. The overall EIRR was estimated on a community basis, taking into account the total project costs including those for infrastructure, institutional development and project management. Spill-over effects from production roads, tractor roads and field tracks will benefit other non-project farmers and users, and institutional capacity building will have a wider impact beyond the project, which implied that the estimated EIRR was conservative and overall project benefits were likely to be significantly higher than estimated.
- Using financial returns of cropping and household activity models, the financial internal rates of returns (FIRR) ranged from 19% to 46% for the key project activities (livestock, crop/tree crop production and post-harvest handling). The crop and household activity models indicated good financial returns and provided attractive income opportunities for the poor farmers and cooperatives in the project areas.
- Sensitivity Analysis. A sensitivity test was done for the financial analysis, showing the FIRRs were less sensitive to the increases of project investment costs than to deceases of agricultural produce prices. Most operations would still be financially attractive to farmers (FIRR at 10%) = with a cost increase of 25% or 20% reduction of product prices.

ex post

- The overall economic rate of return (ERR) at completion was estimated at 21% over a 20 years of project life and a discount rate at 6%. The estimation of project-level ERR was based on (a) net benefits from the operations of the 73 farmer cooperatives, plus additional 25% of their revenue, and (b) apportioned costs for the 19 farmer cooperatives from total project costs.
- However, the ERR at completion could not be compared with the ERR at appraisal because its estimation used two different methodologies. At completion, the economic analysis was based on the financial analysis while considering the benefits beyond farmer cooperatives' revenues. At appraisal, specific cooperative-level investment proposals were not available. Therefore, the financial net returns of a range of typical farming activities for the proposed value chains were used to estimate the FIRR on a household or per hectare basis, following a traditional production-focused approach. While at completion, the FIRR estimation was conducted based on the actual operations of the farmer cooperatives, which adopted a value chain approach, rather than the farm/crop models of specific commodities used at the appraisal stage.
- The results of the FIRR analysis of the 20 selected farmer cooperatives showed that the FIRR ranged between 9% and 24%.
- Sensitivity test. The sensitivity test conducted showed that the baseline project ERR of 21% would drop to 8% if costs are increased or benefits were reduced by 20%, respectively.
- Implementation efficiency. The project closed on June 30, 2023 which was six months later than the original closing date on December 31, 2022. According to the ICR (paragraph 35) this extension "gave more time to fully implement all planned investments and consolidate the gains from the institutional learning and demonstrations." The Competitive Grants for Enterprises sub-component experienced a delayed start. The World Bank loan of US$100.00 million was 99.5% disbursed at project completion.

Overall, and based on the information reported in the ICR (paragraph 35), this Review concludes that the project was efficiently implemented.

Summary of Efficiency Analysis. The economic rate of return (ERR) at completion was estimated at 21% well above the discount rate at 6%. While the ERR at completion was also significantly above the EIRR at appraisal (21% compared to 13.8%), both rates were not comparable due to different estimation methodologies. Finally, the project was efficiently implemented and almost fully disbursed the Bank loan. Therefore, efficiency is rated Substantial.

Efficiency Rating

Substantial

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	✓	13.80	0 ☑ Not Applicable
ICR Estimate	✓	21.00	0 ☑ Not Applicable

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

6. Outcome

Relevance of Objectives was rated High. Overall Efficacy was rated High. The project fully achieved its objective of increasing the income of the targeted beneficiaries, and all targets for the three PDO outcome indicators were exceeded. Efficiency was rated Substantial as the economic rate of return (ERR) at completion was estimated at 21% well above the discount rate at 6%.

Based on the assigned ratings for the three outcome criteria, Outcome is rated Highly Satisfactory.

a. Outcome Rating

Highly Satisfactory

7. Risk to Development Outcome

The following risks could potentially impact the Development Outcome:

1. Institutional risk. This relates to the possibility of backsliding in cooperative governance. The project supported capacity building activities to strengthen governance, including financial management, business planning, and marketing, among others. Member participation mechanisms were strengthened, and extensive member sensitization was carried out to avoid elite capture and maintain good performance and profitability. To further mitigate against the risk of backsliding, it was agreed with the provincial government authorities that the Rural Revitalization Bureau would continue to provide strong oversight over these farmer cooperatives (such as technical and financial audits), including continuation of capacity-building programs (refresher courses, study tours, and so on).

2. Financial risk. This relates to inadequate maintenance of assets created under the project. Assets created under the project were handed over to the respective entities, such as the beneficiary farmer cooperatives, participating agro-enterprises, and relevant government departments (for example, roads) for operation and maintenance. To ensure their adequate operation and maintenance, especially those handed over to farmer cooperatives, asset management plans were developed, which will be an integral part of their annual and multiyear business plans. There is much less risk regarding assets created under agro-enterprises that benefited from the project's matching grant funding. Similarly, public infrastructure, mostly small rural roads, are likely to be maintained through regular government budget appropriations. County governments will integrate this infrastructure in their operation and maintenance plans. It should be noted that these roads had a simple design falling within their technical capacities and were a small addition to their overall stock of roads, thus not imposing an undue fiscal burden.

3. Technical risk. This relates to potential adverse developments in some value chains supported by the project. The demand for food remains high in China, and this project focused on helping farmers adapt to the evolving urban consumer tastes and consumption patterns in tandem with the growing urban affluence, especially toward greater food safety, and the demand for more fresh fruits and vegetables. While there will be occasional but temporary gluts in certain commodities, persistent adverse shifts in demand for certain commodities (as was the case for the geese value chain) will require shifting to other value chains. However, the overall risk to the portfolio of farmer cooperatives supported by the project is not expected to be significant given the diverse range of value chains supported (persimmon, apples, tomatoes, mushrooms, pigs, goat milk, honey, rural/eco-tourism, chicken, walnut, vegetables, hot pepper, wheat, lavender, and sweet potato).

4. Environmental risk. This relates to climate change. Susceptibility to climate change remains high, including violent adverse weather events such as hail damage, unpredictable rainfall patterns, and flooding. The project introduced several climate-smart agriculture practices (including anti-hail nets and irrigation and drainage) which will help farmers adapt to the increasing risks. It will also be important that the provincial government continues to promote and facilitate access to agricultural insurance among project beneficiaries to mitigate the impact of severe climate events.

8. Assessment of Bank Performance

a. Quality-at-Entry

- **Strategic relevance and approach.** The project was strategically relevant and in line with the Government priorities. The PDO was also in line with the Bank strategies (see section 3 for details). The project was anchored in a clear policy framework, most notably China's Poverty

Reduction Strategy 2010–2020, and the project objective was a top priority for the Government, which actively participated in its formulation.

- **Technical, financial, and economic aspects.** The project adopted a pro-poor value chain approach to capture opportunities for poverty reduction arising from China's growing urban market. It also aimed to enable participation of smallholder farmers in modern value chains and improve their access to markets through investment in the development of farmer cooperatives and partnerships with agribusinesses. The project design was underpinned by solid value chain analyses and feasibility assessments of the proposed investments. Design also benefited from lessons learned from other poverty reduction projects within and outside China, which gave the project strong technical grounding. The PAD included a detailed economic analysis but the overall ERR was under estimated (see section 5 for details).
- **Poverty, gender, and social development aspects.** The project aimed to engage about 70% of poverty households in cooperatives to directly benefit from the project. Poor households would receive an additional 20% allocation of investment shares in cooperatives. Also, 80% of poverty households would receive training during project implementation. While women's expectations, ideas and recommendations were incorporated in the designs of sub-projects including training programs (PAD, paragraph 51), the RF lacked relevant disaggregated indicators to clearly reflect women's participation.
- **Environmental and Fiduciary aspects.** The project had adequate environmental and fiduciary aspects. The project implementing agencies had previously managed poverty alleviation projects financed by the World Bank and successfully demonstrated compliance with the Bank's operational policies and requirements.
- **Implementation arrangements.** The project implementing agencies had previously managed poverty alleviation projects financed by the World Bank and successfully complied with its operational policies and requirements. Implementation readiness benefited from significant work by project counties in identifying potential farmer cooperatives for the first round of project support, and preliminary sets of investment proposals were prepared. This facilitated early project startup of the cooperative development sub-component. However, there were initial implementation delays with the competitive grants to enterprises sub-component.
- **Risk assessment.** Eight risks were identified at appraisal, with an overall rating of Substantial. Two risks were rated substantial including technical design of project and the institutional capacity for implementation and sustainability. Overall, risk assessment was thorough and candid, and included relevant mitigation measures such as strong emphasis on capacity building for farmer cooperatives.
- **M&E arrangements.** The Provincial Project Management Office had the overall responsibility of M&E activities. A qualitative cooperative performance assessment tool was used to measure the management effectiveness and internal governance performance of farmer cooperative supported by the project. Overall, M&E had an adequate design that reflected relevant indicators to assess implementation performance and track progress toward attaining the PDO.

Summary of Quality-at-Entry (QAE) Assessment. The project was strategically relevant with a clear PDO. Design featured a pro-poor value chain approach to capture opportunities for poverty reduction arising from China's growing urban market. Environmental and fiduciary aspects were adequate, but gender was not adequately captured. Risk assessment was thorough and candid, and included relevant mitigation measures. M&E had an adequate design that reflected relevant indicators to assess implementation performance and track progress towards attaining the PDO. Overall, Quality at Entry is rated Satisfactory.

Quality-at-Entry Rating
Satisfactory

b. Quality of supervision

- The Bank conducted 12 implementation support missions with an average of two formal implementation support missions per year. This enabled the Bank to provide robust progress assessments. The skills mix of the project team was relevant to the project activities. The stability of the task team leadership throughout project implementation provided continuity and facilitated communication with the implementing agencies.
- Implementation benefited from the support provided by the World Bank office staff in Beijing through constant interactions with government counterparts to solve implementation issues.
- The Bank team was proactive in addressing the project's critical issues, including restructuring the project to realign resources and extend the project due to COVID-19 pandemic disruptions.
- The Bank team worked closely with the client to resolve the implementation delays of the matching grants to agro-enterprises activity. The MIS developed by the project functioned well throughout the project life.

Summary of Quality of Supervision Analysis. The Bank team successfully guided the project to achieve its objective. The project team provided relevant support to address implementation issues, and guided timely restructuring of the project to realign activities and extend the closing date. Overall, Bank Supervision is rated Satisfactory.

Based on the assigned rating to QAE and Bank Supervision, the Overall Bank Performance is rated Satisfactory.

Quality of Supervision Rating
Satisfactory

Overall Bank Performance Rating
Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

- The PAD did not include a Theory of Change (ToC) since it was not yet required by the Bank at the time of appraisal. Nonetheless, the ICR included a ToC that reflected the relationship between the project activities, outputs, outcomes and long-term impact in a plausible causal chain. This Review reconstructed the ToC based on the detailed project description in the PAD (Annex 2) in combination with the ToC reported in the ICR.

- The PDO was assessed based on the following three PDO outcome indicators: (i) number of direct project beneficiaries, disaggregated by female and poor; (ii) number of cooperative members lifted out of poverty (as measured by government “precise poverty alleviation” survey); and (iii) the share of project cooperatives making profit (percentage). The PDO outcome indicators were relevant, directly connected to the PDO, measurable and reflected reasonable targets.
- The Results Framework (RF) included 10 intermediate results indicators (IRIs) to track the progress of the different project activities. The IRIs were measurable, reflected reasonable targets, and were connected to the project activities. The improvement in the institutional capacity of the farmers cooperatives was tracked through a Managing Effectiveness Tracking Tool (METT). The METT enabled identifying the strengths and weakness of the cooperatives, assessing appropriateness of business plan, resources needed, products and services, and most importantly helped to prioritize and target the capacity building support. However, the RF lacked indicators to assess the impact of the project financed facilities (cold storage, sorting and grading) on reducing post-harvest losses among beneficiaries.
- Overall, M&E design was well aligned to the project PDO and ambitious enough to be able to effectively track and record real income improvements amongst farmers. The mechanisms in place to measure 'actual' real increases in income were rigorous and the RF reflected relevant indicators to assess the achievement of the PDO and track the progress of the different project activities.

b. M&E Implementation

- According to the ICR (paragraph 48) the M&E benefited from adequate staffing and funding. Also, an external M&E service provider emphasized independence and analytical rigor.
- The M&E system conducted baseline surveys, coupled with periodic county government poverty monitoring surveys, and beneficiary satisfaction surveys, as well as end-of-project impact assessments. Also, annual external audits were performed on farmer cooperatives to gauge their financial performance.
- M&E implementation collected included collection data on both the beneficiaries of the project-supported farmer cooperatives and non-beneficiaries (controls). This enabled better assessment of the impact attributable to the project.
- Overall, the project benefited from a successful implementation of M&E activities.

c. M&E Utilization

- The project M&E data provided valuable inputs to guide the project implementation. Specifically, the continuous monitoring of the performance of participating farmer cooperatives helped in guiding the capacity-building program, particularly in tailoring it to each farmer cooperative’s specific needs.
- In addition, data on each farmer cooperative’s profitability helped in understanding whether its performance was management related or due to market forces. For example, the poor

performance of a farmer cooperative raising geese stemmed from value chain challenges. This prompted the project to guide this cooperative to diversify into other areas.
- The M&E system gauged the counties' use of community procurement and this enabled guiding the participating counties to use procurement more efficiently.
- Overall, M&E utilization was clearly evident in guiding implementation and making timely course corrections through restructuring.

Summary of M&E Quality Assessment. M&E design was comprehensive and dealt well with the challenge of tracking increases in incomes, implementation was effective, and utilization of M&E data was evident in guiding implementation as noted above. Therefore, given the innovation build into the approach and the ability to effectively track what matters, M&E Quality is rated High.

M&E Quality Rating
High

10. Other Issues

a. Safeguards

- **Environmental Category and Safeguards.** The project was classified as a Category B - partial assessment due to short-term general construction activities associated with the construction/rehabilitation/upgrading of basic infrastructure (e.g. rural roads) and livelihood intervention activities. Two environmental and one social safeguard policies were triggered: Environmental Assessment (OP/BP 4.01), Pest Management (OP/BP 4.09), and Involuntary Resettlement (OP/BP 4.12). An Environmental and Social Management Framework (ESMF), an Environmental Management Plan (EMP), and a Resettlement Policy Framework (RPF) were prepared.
- **Compliance with Environmental and Social Safeguards.** According to the ICR (paragraphs 52 & 53), the project complied with both environmental and social safeguards. External environmental monitoring was conducted during project implementation to ensure that mitigation measures in the Environmental Management Plans and Pest Management Plans were implemented adequately. The ICR (paragraph 52) highlighted the following environmentally friendly practices promoted by the project: "(a) using straw as organic fertilizer instead of burning it; (b) promoting traceability as a way of encouraging accountability in the production of safe, wholesome foods; (c) safely disposing of animal manure; and (d) using mushroom residue to produce organic fertilizer, among others." A total of 36.72 Mu (One Mu = 666.67 square meters) of collectively owned land was acquired by three companies in Baishui county to support construction of processing facilities and a cold storage, which affected 38 persons from 10 households. The affected persons were compensated to restore their long-term livelihoods in accordance with the resettlement framework, and the land acquisition in Baishui county was conducted in line with OP/BP 4.12 (ICR, paragraph 53).

b. Fiduciary Compliance

- **Financial Management (FM).** The FM arrangements were satisfactory. The project timely submitted five project audit reports for the fiscal years 2018 to 2022 to the World Bank, which according to the ICR (ICR, paragraph 56) were of acceptable quality and with unmodified (clean) audit opinions. Also, most interim financial reports were submitted to the World Bank in a timely manner and were of acceptable quality. However, some interim financial reports were received with short delays due to the financial staff's heavy workload. Financial Management was rated as Satisfactory at project closing.
- **Procurement.** Procurement was carried out by the provincial/county Project Management Offices as well as by cooperatives. Procurement documents were uploaded into Systematic Tracking of Exchanges in Procurement (STEP). According to the ICR (paragraph 55) "there was no reported malfeasance in the procurement processes." Procurement was rated as Satisfactory at project closing.

c. Unintended impacts (Positive or Negative)

"The project contributed significantly to promoting environmentally friendly agricultural production technologies and practices and cultivating a greater consciousness about environmental considerations in agricultural value chain development (ICR, paragraph 43)."

d. Other

None.

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Highly Satisfactory	Highly Satisfactory	
Bank Performance	Satisfactory	Satisfactory	
Quality of M&E	Substantial	High	There was innovation and rigor in the approach that ensured an accurate measure of income shifts and clear attribution to the project.
Quality of ICR	---	High	

12. Lessons

The ICR included four lessons. The following three are emphasized with some adaptation of language:

1. To ensure the success of farmers cooperatives, projects need to invest in complementary infrastructure in combination with investments in human capital. The project supported investments in human capital development including training and capacity building, technical assistance to strengthen cooperatives financial management and community procurement, business plan preparation, and management of sub-projects. In addition, the project's investments in cooperative productive assets (for example, cold storage, markets, and processing equipment) and public investments (for example, rural and production/farm roads, irrigation and drainage) greatly contributed to the success of farmers cooperatives.

2. Projects that include public funding for private enterprises need to clearly articulate the public benefits from such partnerships with the private sector to ensure smooth implementation of activities. The project's experience showed that matching grants to agro-enterprises caused delays in project implementation. To ensure smooth implementation, it is important to clearly articulate the public benefits from such partnerships with the private sector, and the need for maintaining strong communication with the government to familiarize new staff with the rationale and benefits to avoid any impediments to implementation. The project highlighted the poverty reduction dimensions, especially the gain for the poor and the Government, and the ability to leverage private sector capital to rural and remote areas that would otherwise not be considered attractive investment destinations. There is also need for extensive consultations among prospective agro-enterprises to ensure that their own benefits from this arrangement are clearly understood.

3. Project design needs to accurately assess the timeframe needed to bring framers cooperatives to profitability to ensure realistic achievements over the implementation duration. The project experience showed that bringing farmers cooperatives to profitability is a lengthy process that entails restructuring existing or establishing new farmer cooperatives, including setting up the governance organs, administrative systems, accounting systems and software, and training. In addition to developing business plans; and carrying out physical investments and sometimes planting crops that have long maturity periods (for example, up to three years in perennial crops) before harvest begins. In view of this lengthy process and based on this project's experience, ensuring significant progress toward profitability requires early identification, mobilization and training of beneficiary farmer cooperatives. Also, a strong M&E system is needed for performance evaluation and constant feedback loop to guide tailored and continuous technical and administrative capacity building—the presence of both a third-party M&E service provider and a financial auditor for farmer cooperatives can be helpful in this regard.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

- Quality of Evidence. The ICR benefitted from a robust M&E design and effective implementation, which provided an adequate evidence base to verify the achievements reported. Multiple sources of information facilitated triangulation of data and attribution of achievements to the project activities.
- Quality of Analysis. The ICR provided clear linkage between evidence and findings and used the evidence base to serve the arguments under the different sections.
- Lessons. Lessons reflected the project experience and were based on evidence and analysis.
- Results Orientation. The ICR included a relevant discussion on the achievement of the PDO. The outcome discussion was balanced between reporting on the achievement of outcome indicators and what the project actually achieved on the ground.
- Consistency with guidelines. The ICR used the available data to justify most of the assigned ratings.
- Conciseness. The ICR was well written and provided adequate coverage of project activities and candidly reported on most shortcomings. Most sections were thorough yet concise.

Summary of the Quality of ICR Assessment. The ICR included an adequate assessment of outcomes, and reported relevant lessons that were based on the project experience. Most sections were concise and reflected relevant information. Overall, the Quality of the ICR is rated High.

a. Quality of ICR Rating

High