



# Implementation Completion Memorandum (Bihar)

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Project Number: 43105-012  
Grant Number: 9147-IND  
May 2020

## India: Improving Small Farmers' Access to Market in Bihar and Maharashtra (Financed by the Japan Fund for Poverty Reduction)

This document is being disclosed to the public in accordance with ADB's Access to Information Policy.

The project was implemented for two states: Bihar and Maharashtra. This ICM only evaluates the activities under the Bihar component and shall be read in conjunction with the ICM for Maharashtra.

Asian Development Bank

**JAPAN FUND FOR POVERTY REDUCTION (JFPR)**  
**IMPLEMENTATION COMPLETION MEMORANDUM (ICM)<sup>1</sup>**

<b>I. BASIC INFORMATION</b>			
<b>1. JFPR Number and Name of Grant:</b> 9147- IND: Improving Small Farmers' Access to Market in Bihar And Maharashtra (Bihar Component)			
<b>2. Country (DMC):</b> India		<b>3. Approved JFPR Grant Amount:</b> \$3,000,000 <sup>2</sup>	
<b>4. Grant Type:</b> ● <b>Project</b> / ○ <b>Capacity Building</b>		<b>5-A. Undisbursed Amount</b> \$125,507.75 <sup>3</sup>	<b>5-B. Utilized Amount</b> \$2,274,492.25 (footnote 3)
<b>6. Contributions from other sources</b>			
<b>Source of Contribution:</b>	<b>Committed Amount</b>	<b>Actual Contributions:</b>	<b>Remark - Notes:</b>
<b>DMC Government</b>	<b>\$18,420</b>	<b>\$21,303</b>	Bihar component only. For the grant implementation unit (GIU) staff salaries and office operations.
<b>Other Donors</b> (please name)	<b>\$0</b>	<b>\$0</b>	
<b>Private Sector</b>	<b>\$0</b>	<b>\$0</b>	
<b>Community/Beneficiaries</b>	<b>\$193,080</b>	<b>\$0</b>	Bihar component only.
<b>7-A. GOJ Approval Date:</b> 5 February 2010		<b>7-B. ADB Approval Date:</b> 30 July 2010	<b>7-C. Date the LOA was signed (Grant Effectiveness Date):</b> 21 November 2011
<b>8-A. Original Grant Closing Date:</b> 30 June 2014		<b>8-B. Actual Grant Closing Date:</b> 31 December 2018	<b>8-C. Account Closing Date:</b> 30 April 2019
<b>9. Name and Number of Counterpart ADB (Loan) Project:</b> Loan 2669-IND: Agribusiness Infrastructure Development Investment Program (AIDIP) – Tranche 1 (MFF 0045-IND: Agribusiness Infrastructure Development Investment Program)			

<sup>1</sup> This ICM reviews the project activities of the Bihar component only.

<sup>2</sup> Total grant amount of \$3.0 million is for Bihar and Maharashtra. Initial allocation was \$1.5 million each for Bihar and Maharashtra. Allocation for Bihar was later reduced to \$600,000 following discussions with the executing agency. Total grant amount was reduced to \$2.4 million following a partial cancellation of grant funds (mainly for the Bihar component) approved on 14 November 2018.

<sup>3</sup> For the Bihar component, \$600,000 was earmarked for project activities. After the partial cancellation of grant proceeds, \$483,174.49 was disbursed for Bihar.

## 10. The Grant Recipient(s):

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## 11. Executing and Implementing Agency:

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## II. GRANT PERFORMANCE ASSESSMENT

### 12. Description (Background rationale):

*Note: The Project was implemented for two states: Bihar and Maharashtra. However, differences in the achievement of outputs between the two components require that separate ICMs be prepared for each to evaluate the accomplishment of each state more accurately. This ICM only evaluates the activities under the Bihar component and shall be read in conjunction with the ICM for Maharashtra.*

India has experienced strong economic growth that has averaged 8.7% per year since 2004, however the agriculture sector, which employs about 60% of the country's workforce, has stagnated at about 3% per year since 2000.<sup>4</sup> The rural non-farm sector, which is strongly correlated with the performance of the agriculture sector, has also been slow to grow. This has widened the rural-urban income disparity and contributed to the severe distress of some farmers. Rural per capita household expenditure is estimated to be less than half that of urban households. Of the nearly 120 million farmers in India, roughly 40% are landless and about 28% are classed as marginal, with only 0.01 to 0.04 hectares (ha) of cultivated land.

The Government of India made reducing regional and rural-urban disparity and chronic poverty through inclusive growth key priorities in its 11th Five-Year Plan (2008–2012). Recognizing the slow and stagnated growth of the agriculture sector, the government aimed to revitalize the sector through private sector-led growth, diversification to higher value crops, increased value addition, and improved farmer-market linkages. As most Indian farmers are considered marginalized, the importance of group formation to improve their bargaining power was highlighted.

In 2003, the government introduced model legislation titled the State Agricultural Produce Marketing (Development and Regulation) Act (or the Model Act) to provide for improved regulation in marketing of agricultural produce, development of efficient marketing system, promotion of agriculture processing and agricultural export, and the establishment and proper administration of markets for agricultural produce in Indian states.<sup>5</sup> The Model Act allowed the emergence of competitive agricultural markets. However, state monopoly of wholesale markets resulted in inadequate infrastructure and trade practices that were not favorable to farmers' interests. Thus, the Bihar State Government, after adopting it in 2003, repealed the Model Act in 2006 to encourage private sector investments in agriculture value chains. This has opened up space for new markets to emerge in the state.

<sup>4</sup> World Bank. World Development Indicators Dataset. <https://data.worldbank.org/country/india?view=chart> (accessed 8 August 2019).

<sup>5</sup> Government of India. 2003. *State Agricultural Produce Marketing (Development and Regulation) Act (The Model Act)*.

The rapid emergence of an organized retail sector (supermarkets, hypermarkets, specialty fresh produce stores) and the growth of consumer food services, food processing, and food export sectors also provided opportunities to significantly increase the incomes of small-scale fresh fruit and vegetable (FF&V) farmers. However, small-scale FF&V farmers in Bihar and Maharashtra were largely unable to take advantage of the emerging marketing options due to (i) lack of sufficient private sector investment in the development of emerging markets; (ii) farmers' inability to provide a consistent supply that meets the requirements of modern markets; and (iii) farmers' lack of capacity to obtain marketing information and interact with commercial players.

The government and ADB prepared the multitranche financing facility (MFF) for Agribusiness Infrastructure Development Investment Program (AIDIP) for approval in 2010 with an objective to address the constraints in agricultural growth in the states of Bihar and Maharashtra.<sup>6</sup> ADB approved the first periodic financing request for Bihar on 24 September 2010 for \$67.6 million (Tranche 1). During AIDIP consultations, it was agreed that a separate JFPR grant project would strengthen the small farmers' capacity so that they could be readily integrated into the value chains to be developed under AIDIP. This JFPR project was thus developed to focus on addressing two key constraints for the small-scale farmers: (i) ability to provide consistent supply; and (ii) capacity to obtain market information and interact with commercial players.<sup>7</sup> Component A of the JFPR—formation of farmer groups and producer companies—was intended to support the integration of small-scale FF&V farmers into the value chains that were to be developed under AIDIP.

ADB consistently discussed the lack of progress (both for AIDIP Tranche 1 and the JFPR project) in Bihar with the government's Department of Economic Affairs at the tripartite portfolio review meetings in India, including at the one on 20 April 2016, during which loan closure was discussed. Following several rounds of consultations and the fielding of seven review missions and four special loan administration missions to Bihar, a decision was taken to move towards loan closure due to slow progress, rapid staff turnover, and lack of interest from the private sector due to concerns over the high commercial risks of investment.<sup>8</sup> Tranche 1 of AIDIP was cancelled on 12 August 2016.<sup>9</sup>

Despite the cancellation of the associated loan, the JFPR project continued to be implemented in Bihar as most of the outputs were independent of the activities under AIDIP. In addition, the Maharashtra component's activities were ongoing and were making good progress. As the grant covered both states, ADB decided to keep the grant open but with reduced scope and budget allocation for Bihar.

Due to significant socioeconomic differences between Bihar and Maharashtra, a different project emphasis was designed for each state. In Bihar, four districts were identified for project intervention: Buxar, Muzaffarpur, Nalanda, and Vaishali. This component's emphasis was on providing farmers with incentives to improve their production and organize themselves to improve their bargaining power.

Safeguards categorization of this project is C for environment, C for involuntary resettlement and B for indigenous peoples. There was no change in the categorization between project appraisal and project closing.

### **13. Grant Development Objective and Scope:**

The Project was designed to enhance integration of small-scale FF&V farmers in Bihar and Maharashtra into modern value chains by: (i) organizing farmers into farmer groups (FGs); (ii) building their capacity to increase production; and (iii) establishing market linkages.

The impact of the Project was increased income of small-scale farmers in Bihar and Maharashtra through access to alternative higher-return markets. The outcome was the enhanced integration of small-scale FF&V farmers, including female and Scheduled Caste (SC) and Scheduled Tribe (ST) farmers, into the horticulture value chains in those states.

<sup>6</sup> ADB. India: Agribusiness Infrastructure Development Investment Program. <https://www.adb.org/projects/37091-013/main>

<sup>7</sup> ADB. 2010. *Grant Assistance Report: Proposed Improving Small Farmers' Access to Market in Bihar and Maharashtra*. Manila

<sup>8</sup> ADB. 2019. *Completion Report: Agribusiness Infrastructure Development Investment Program*. Manila.

<sup>9</sup> ADB. 2016. *Loan Cancellation: India, Agribusiness Infrastructure Development Investment Program – Tranche 1*. Manila.

**Grant Components.** The designed project outputs were: (i) enhanced ability of target farmers to provide consistent FF&V supply that meets the requirements of modern markets; (ii) improved linkage between target farmers and the market; and (iii) project management system established. The project targets were: (i) 2,000 small-scale farmers are organized into 20 effective FGs (6 in Bihar, 14 in Maharashtra); (ii) four well-performing FGs are developed into farmer producer companies (FPCs, one in Bihar, three in Maharashtra); (iii) 20 FGs and 4 FPCs are trained in business, technical, and organizational management skills; and (iv) FGs and FPCs establish long-term mutually beneficial agreements with buyers. The design and monitoring framework and the achievement of outputs is in Appendix 1.

When the associated Loan 2669-IND: AIDIP-Tranche 1 was closed in August 2016, the Bihar State Government assumed that the grant will also be closed, and suspended grant activities for about 15 months. As a result, the grant's implementation period was shortened and its scope for Bihar was reduced to: (i) formally establishing 12 FGs and 2 FPCs; (ii) training and exposure visits for the farmers on improving production of the four identified produce (onion, litchi, potato, and honey); and (ii) facilitating meetings and linkages with potential buyers to enhance marketing opportunities.<sup>10</sup>

**Implementation Arrangements.** The Department of Agriculture (DOA) was the executing agency (EA) for the project and the grant implementation unit (GIU) was under the Directorate of Horticulture (DOH) were the appropriate government agencies to manage the project. However, DOH staff appointed to the GIU worked on part-time basis and most of the grant activities were done by the baseline survey consultant, Global AgriSystem Pvt. Ltd. (GAPL). This implementation arrangement was not appropriate for the project and resulted in (i) lack of ownership from the relevant government agencies; (ii) lack of continuity after the consultant's contract ended; (iii) no proper handover of the management of the FPCs; (iv) lack of support from the state government; and (v) unsustainable outputs.

ADB advanced \$100,000 to the imprest account in December 2014. However, there was confusion over the fund flows from the state government's finance department to DOA and this contributed to delayed support to the farmers and poor utilization of funds. The imprest funds were not received by DOA until December 2017, after ADB's continued follow-up with the state government to transfer the funds. During review missions between 2016 and 2017, ADB advised the state government that it will reallocate the funds to Maharashtra if funds were not transferred immediately. However, the state government was only able to allocate the budget to DOH in December 2017 through a supplementary budget approval. The advance was used to pay for services rendered by GAPL between June 2015 and October 2017 and was fully liquidated on 16 April 2018.

Stakeholder participation was lacking over the duration of the project. The farmers were willing to learn and participate in the training programs, provided support in the formation of the FGs and FPCs, and contributed in-kind (through time spent in training and organizing themselves) to ensure the success of project activities. However, their expectation of government support could not be met. Interest in sustaining the FPCs waned, particularly the Vaishali India Honey Producers Ltd. (VHPCL), where financial support through the revolving fund did not materialize. The list of trainings is in Appendix 2.

**Project Implementation Schedule.** The Project was intended to be implemented over 3 years, from 2010 to 2013. The grant closing date was extended three times: (i) for 22 months, from 30 June 2014 to 30 April 2016, to ensure completion of grant activities and disbursement of remaining funds; (ii) for 24 months, from 30 April 2016 to 30 April 2018, to make up for start-up delays and complete project activities; and (iii) for 8 months, from 30 April 2018 to 31 October 2018, to allow the consultant in Bihar to continue supporting the FPOs and procure the product processing equipment for the FPOs. The original implementation period of 30 months would have been sufficient to complete all planned activities if not for the implementation delays due to: (i) the extensive time and effort taken to carry out sound baseline surveys and create FGs and FPCs based on solid economic potential and interest to ensure their sustainability; (ii) the delays in signing the JFPR agreement and establishing the project GIUs; and (iii) the long delay in fielding of the project consultants, which happened only in June 2015. In addition to these, DOA suspended activities of the consultant on 9 May 2016 due to confusion with the closure of the associated Loan 2669-IND. Despite ADB quickly advising DOA that the grant is independent of the loan and activities under the grant must be continued, DOA only remobilized the consultant on 1 September 2017. Given the limited implementation period, the Project could not achieve most of its targets, particularly in Bihar; thus, the Project was less than productive. A list of changes made during

<sup>10</sup> The reduced scope for the Bihar component was approved and discussed in the extension memo approved on 12 May 2016 and reiterated in the partial cancellation and reallocation memo approved on 29 October 2018.

implementation is in Appendix 3.		
14. Key Performance Indicators <sup>11</sup>	Accomplishments Rating (HS,S,PS,U <sup>12</sup> )	Evaluation of each Indicator:
i) Twenty farmer groups (6 in Bihar, 14 in Maharashtra), comprising approximately 2,000 farmers, are successfully organized in a financially sustainable manner	S	27 groups, comprised of between 15 and 25 farmers each (more than 600 farmers), were formed and registered in Bihar for two value chains (potatoes and honey) in two districts (Nalanda and Vaishali, respectively).
ii) Four well-performing farmer groups are turned into self-sustaining producer companies (1 in Bihar and 3 in Maharashtra).	PS	Two FPCs were formed and incorporated: Sangmitra Potato Producer Company Ltd. in Nalanda for potato and VHPCL in Vaishali for honey. Although the output of forming farmer groups into FPCs was achieved, the findings of the project completion mission showed that these two FPCs are not functioning as expected and have not yielded expected benefits to the farmers. <sup>13</sup>
iii) Members of farmer groups are trained in business, technical and organizational management skills that enable them to interact with markets.	U	There were 12 technical trainings, 20 regular trainings by extension staff, two executive trainings, and 5 exposure visits conducted under the project (Appendix 2). However, there is no verifiable data to determine whether these have contributed to enabling the farmers to interact with markets. In addition, the completion mission found that the two FPCs are not operational and that some of the farmer groups are also not functioning as designed.
iv) Farmer groups (at least 20% in Bihar and 50% in Maharashtra) enter into higher-value markets by the end of the Project.	U	GAPL facilitated signing of MOUs (i) between VHPCL and M/s Kashmir Apiaries, Ludhiana, Punjab; and (ii) between Sanghmitra Potato Producer Company and Jalendher, Punjab. However, no data is available on whether these transactions resulted in any increased income for the farmers.
v) Project beneficiaries' income increases by 30% within 3 years after the Project	U	The consultant reported an increase of 10.6% in potato production and 13.3% increase in honey production by the target farmers. The farmers, on the other hand, reported about 25% increase in production over the last few years. However, as poverty impact assessment survey was not conducted, there is no verifiable data to confirm if this has resulted in any increase in income of the project beneficiaries.
<b>15. Evaluation of Inputs:</b>  The project design, with a focus on substantial improvement in poverty reduction and increased income for small-scale farmers, was relevant as inclusive growth was an overarching goal of the government's 11 <sup>th</sup> Five-Year Plan and ADB's country partnership strategy for India, 2009–2012. However, the net implementation period, which was significantly reduced due to start-up delays and suspension of the work of the consultants		

<sup>11</sup> Indicators listed are the main indicators for Bihar only.

<sup>12</sup> HS=Highly Satisfactory; S=Satisfactory; PS=Partly Satisfactory; U=Unsuccessful

<sup>13</sup> Instead of converting one well performing FG into an FPC, consultants created 2 FPCs taking representatives from each of the 27 FGs. As the process was accelerated, the FGs did not have enough time to evolve as a harmonious entity which resulted in lack of active participation by members in the FPC.

by the government, was not adequate to ensure effectiveness of project interventions. In particular, the establishment of the revolving fund, which would have contributed to the farmers' working capital, did not materialize.

At the project design stage, grant fund allocation for Bihar was \$1.5 million. Due to the limited implementation period and following the partial cancellation of funds on 14 November 2018, the allocation for Bihar was reduced to \$0.6 million with the following reduced scope: (i) formally establishing 12 Farmer Groups (FGs) and two Farmer Producer Companies (FPCs); (ii) delivery of training and exposure visits; and (iii) facilitating meetings and linkages with potential buyers to enhance marketing opportunities.

Out of the allocated amount, only \$0.48 million was utilized, mainly for consulting services (\$444,025), GIU expenses (\$12,240), and support to FPCs (\$26,909). The Project initially allocated \$90,000 for the revolving fund for the farmers, however the delays in implementation left little time for the FPCs to complete registration and other requirements to enable establishment of the fund. The final reallocation and project cost at completion is in Appendix 4.

**Performance of the Executing Agency.** The performance of the DOA is rated *less than satisfactory* due to (i) lack of coordination with the state government resulting in delays in fund transfer from the state government to DOA; (ii) frequent changes in staffing of the GIU; (iii) lack of dedicated GIU staff to implement grant activities, particularly during the period of suspension of activities; (iv) lack of direction and management of consultant inputs; (v) lack of interaction with the beneficiaries to identify the most effective intervention for the project; and (vi) delay in compliance to loan covenants, particularly on submission of annual audit reports.

The delay in the transfer of funds from the state government to DOA resulted in the lack of financial activity and subsequently, the delayed submission of audit reports for fiscal years ending 2012, 2013, 2014, 2015, 2016 and 2017. The audit reports for these financial years were submitted by DOA to ADB in February 2019 and have been accepted by ADB. A special grant administration mission was fielded in December 2019, with a financial management consultant as mission member to guide DOA in the preparation of the final audit report covering the period 1 April 2017 to 31 March 2018 and 1 April 2018 to 30 April 2019. The final audit report was submitted on 15 January 2020 and accepted by ADB on 28 January 2020.

After initial confusion due to the cancellation of AIDIP loan, the DOA agreed to restart the project and ensured that there was sufficient budget allocation for the project and took a proactive approach to achieving the project outcomes. Following the revised timeline and proposal of a reduced scope work plan, the DOA suggested adding honey as one of the final commodities for value chain development. The renewed commitment of the government to complete the project resulted in the formation of two FPCs: VHPCL and Sangmitra Potato Producer Company. These FPCs were registered with the Registrar of Companies under the Ministry of Corporate Affairs; while the FGs were registered at Agricultural Technology and Management Agency and were trained in improving production of their respective commodities. Although the Project achieved some outputs, the delays in involvement and low commitment from the DOA resulted in underutilization of the allocated grant funds and low sustainability of project accomplishments.

**Performance of the consultant.** GAPL was engaged to (i) conduct the baseline survey and (ii) implement and supervise grant activities. Engagement of individual consultants (project implementation specialist and training specialist) to support the GIU, as designed in the grant report, did not materialize. GAPL mobilized 61 staff (seven key experts, 12 extension agents, 24 village extension agents, four data entry operators and 12 support staff) for the project. On GIU's recommendation, staff allocation was reduced during the extension period from April to October 2018, consistent with the reduced scope of the Project. As honey was added to the selected commodities, GAPL requested adding a beekeeping expert to the team. A business development expert was also added to the team of experts to support the preparation of business plans. The consultant completed the baseline survey of 4,800 farmers to identify the beneficiaries in four districts. As a result of the baseline survey, four commodities were identified for the Project: potato, onion, litchi, and honey.

Performance of the consultant is rated *less than satisfactory*. Although it reacted promptly and positively to requests from DOA and managed to complete most of the project outputs during the contract period, the quality of outputs is low. Part of the consultant's terms of reference is to identify the FPCs, find potential partner-buyers and suppliers, and establish market linkages. However, both FPCs established during the

project have ceased to function as efficient organizations and the signed memoranda of understanding between the FPCs and the potential buyers have proven to be ineffective in improving market linkages.

**Performance of ADB.** ADB supported the project implementation by taking steps to ensure the continued implementation of the grant (i.e., extending the completion date when needed) and responding to requests from DOA and GAPL. ADB fielded 11 missions including inception, review, and completion review, most of which were jointly carried out with review missions fielded for the associated loan project. Administration of the project was delegated to India Resident Mission between December 2011 and April 2013 and was returned to SAER until completion. Requests for contract variations, procurement and guidance to the GIU for liquidation of advance, submission of withdrawal applications were acted upon promptly. The government acknowledged positively the promptness and flexibility of ADB in accommodating the requested changes. However, eight changes in project officer (mainly due to transfers to other ADB units) and lack of interaction with the stakeholders resulted in varied directions for the Project. In addition, ADB's initial focus was on the associated AIDIP loan, thus, the JFPR grant activities were not prioritized. However, following closure of the associated loan, ADB provided timely and continued assistance within the limited remaining implementation period. ADB's performance is rated as *less than satisfactory*.

**16. Evaluation of Outputs and Results** (Reports generated, institution building, training, analysis of quality, comparison with terms of references, sustainability and exit strategy):

A baseline survey of 4,800 farmers (1,200 farmers in each district) in the four selected districts in Bihar was conducted in the first phase of the Project to facilitate the commodity selection for value chain development. An end line survey, including the poverty impact assessment, was to be conducted after project completion but because activities were delayed, there was insufficient data to evaluate the results of project interventions.

**Output 1. Enhanced ability of target farmers to provide consistent FF&V supply that meets the requirements of modern markets.** The Project established 27 FGs in the four selected districts in Bihar (Buxar, Nalanda, Muzaffarpur and Vaishali) for onion, potato, litchi and honey, respectively. FGs were reduced to 25 members each to align with the government's Agriculture Technology Management Agency program for sustainability.<sup>15</sup> Overall, more than 600 farmers (11% women members) were included in the collectivization process. Out of these 27 FGs, two FPCs were formed: Sangmitra Potato Producer Company Ltd. in Nalanda for potato and VHPCL in Vaishali for honey. However, due to delays in the administrative process, registration of the FPCs under the Companies Act 2013 was completed only in October 2018.

Fifty commodity-specific trainings were completed under the Project, organized by GAPL in association with the technical institution and partners. Farmers were also taken to exposure visits which helped them in connecting with buyers, particularly for the honey FGs. Training manuals on improved techniques for potato, onion, litchi, honey production, processing, and marketing were prepared and distributed to farmers. *Kisan* calendars in Hindi for onion, potato, litchi, and beekeeping were prepared and distributed to all farmers.<sup>16</sup> Photos of trainings and workshops are in Appendix 5, which also shows visibility of JFPR logos in project activities.

**Output 2: Improved linkage between target farmers and the market.** Market linkage was attempted for potato and honey by signing one Memorandum of understanding (MOU) each between FPCs and the buyers. However, due to limited time availability and delay in registration of the FPCs transactions were not carried out under these MOUs within the project period. FPCs also expressed reservations on continuing with these MOUs due to commercial and technical issues, such as delayed payments by the buyers and failure of the seed species provided by the farmer agency to yield productively in other areas. DOA has been requested to monitor and support FPCs in improving market linkages by facilitating the FPCs' interaction with institutional buyers and signing more effective MOUs with active participation of FPCs.

The FPCs were expecting to receive some working capital through the proposed revolving fund. However, the fund did not materialize due to the delays in project implementation and the lack of institutional support.

<sup>15</sup> Agriculture Technology Management Agency is a district-level society that coordinates various research and extension activities to optimize benefits of these activities to farmers.

<sup>16</sup> *Kisan* calendars are farmers' calendars that show monthly activities related to production, harvest, post-harvest management, processing, and marketing of produce.



In lieu of the revolving fund, two primary processing equipment were identified based on market surveys conducted by GAPL for potato and honey: a potato grader for Nalanda and a honey processing plant for Vaishali. ADB approved the purchase of the product processing equipment to (i) reduce costs of production; (ii) increase efficiency in producing market-ready products; and (iii) minimize losses due to inefficient product processing. The equipment was procured by DOH but is still to be installed by the FPCs once suitable locations are identified. Handover of the equipment to FPCs will be done as soon as the FPCs arrange necessary space for the equipment installation.

Project outputs have been partially achieved, mainly due to reduced scope of the project. Subsequently, the intended outcomes were not achieved. In addition, sustainability is expected to be *low* as one FPC (VHPCL) has stopped functioning as a collective unit and the other FPC found the MOU signed through the project of little use due to the questionable quality of seeds supplied by the other party to the MOU.

**Safeguards Assessment.** The Project did not have any adverse effect on the environment, nor did it require any land acquisition or resettlement, mainly because there was no civil works component. However, the Project was expected to have some positive impact on the SCs and STs, thus Indigenous Peoples Categorization was classified as Category B. The consultants ensured that 30% of the project beneficiaries were SCs or STs. As there was no poverty impact assessment conducted for the project, there was no evaluation of the positive impact on the member farmers who belonged to SCs and STs.

#### **17. Overall Assessment and Rating (HS,S,PS,U):**

**Relevance.** The Project was *less than relevant*. The farmers needed the intervention to strengthen and support market linkages, organize themselves collectively, and subsequently improve their bargaining power enough to drive prices and maximize profits. While the outcome is important in improving the conditions of small farmers in Bihar and the gaps in the value chains, the grant design of grouping together two states of varying capacities was not appropriate to the conditions of the two states.

**Effectiveness.** The expected outcome was enhanced integration of small farmers into high-value horticulture value chains in the target sites was not achieved. The Project identified the commodities but did not introduce farmers to improved technologies for higher yields nor was the Project able to improve and strengthen market linkages. In this respect, the Project is assessed to be *less than effective*.

**Efficiency.** The Project's scope had to be reduced due to the delays in implementation. Thus, resources allocated for the Project could not be maximized to achieve the outcome. There was no post-survey conducted to properly assess the economic benefits of the Project. The significantly reduced scope, significant delays, and the lack of appropriate support to the small farmers have made the Project *less than efficient*. Had interventions by the government been done earlier, specifically activities to establish the revolving fund and provide working capital for the farmers, the Project would have been more successful.

**Sustainability.** The formation of FGs and FPCs was on the right track to strengthening collective action among the farmers. However, the lack of consistent interaction and dialogue with the farmers to identify their actual needs became the major reason for the Project not to achieve its objective. In addition, the FPCs have stopped functioning as a unit and have not utilized their organization as farmers groups to improve production or to maximize profits. Thus, the Project is *unlikely sustainable*.

During the project design stage, it was identified that one of the weaknesses of the agriculture sector in Bihar is the lack of capacity to obtain marketing information and interact with commercial players. While there exist alternative marketing channels for small-scale FF&V farmers, the limited implementation period—further shortened by delays and time gaps with no project activity and insufficient continued support—has significantly contributed to not achieving the project objectives. Overall, the Project is rated *less than successful* as only two targets were achieved (forming farmer groups and establishing at least one FPC) and small-scale FF&V farmers could not effectively be linked to markets nor be integrated into the modern value chains. The overall rating for the Project is in Appendix 6.

#### **18. Major Lessons Learned:**

- A separate grant project for Bihar with more focus on farmer group capacity building would have greater benefits to the farmers. Each state has different needs, conditions, and economic and political environments. The project design needs to be specific to local conditions.
- ADB could have followed up more closely to ensure that DOA remobilized the consultant earlier and resumed grant activities sooner. Special administration missions could have been conducted quarterly to check on progress and ensure continued commitment from the DOA to implement grant activities. Due to the 15-month suspension of the Project, the transition period between farmer group formation and FPC incorporation could not be used effectively. This led to lack of readiness of the FPCs to absorb any grant support. The FPCs could not acquire necessary space for installing the primary processing equipment or take advantage of any other infrastructure support from the grant.
- In relation to the 15-month suspension period due to confusion over project closing and fund flows, ADB should ensure that the government is fully aware of, and understands the fund flow mechanism, particularly for related but separate financial products (i.e., the MFF loan and the JFPR grant). The imprest advance was not transferred to DOA in a timely manner, which caused delays in payment to the consultant, and subsequently, suspension of project activities.
- The project design should have allowed for the transition of FPC leadership from handholding by the consultants to independent leadership, with monitoring by the relevant government agency. The FPC formation was rushed towards the end of the grant closing period; thus, organic growth of management capacity of the FPCs was not realized over the project implementation period. Sustainability of the FPCs would largely depend on the management capacity of the leadership of the FPCs.
- Further assessment of the needs and capacities of the FGs should have been done at the beginning of the project to design more specific and targeted interventions. Instead of taking well-functioning FGs forward towards FPC formation, consultant has tried to get all the respective FGs for potato and honey value chains to be part of the FPC. However, not all FGs have the capacity nor the organizational structure and resources to be graduated into FPC as more advanced FGs. Thus, the disparity may not result in a market-oriented and vibrant entity.
- A dedicated and appropriately staffed GIU would have operated independently and achieved better results. Prompt guidance and intervention from ADB could have also prevented the significant lag in grant implementation and the gaps in GIU staffing. There was no dedicated GIU assigned for grant administration. Initially, the same project management unit assigned to the associated loan was given the responsibility to implement the grant. When the loan was cancelled, the GIU assumed that the grant was cancelled too, suspending grant and consultant activities.
- While staff movement is beyond the control of the project, ADB should have ensured the commitment from the government to implement project activities. There were frequent changes in ADB project officers. This led to varying directions in implementing the grant. In addition, the grant implementation was packaged with the loan and there was more focus on implementing the loan, which also did not achieve its targets, and the grant was left to be implemented by the consultants.
- Early and frequent interaction with the stakeholders is key to ensuring that grant activities were suitable for their needs. A more open communication line between the farmers and those implementing grant activities (ADB, the EA, and the consultant) would have provided better insight into what the farmers actually need, and interventions could have been modified to support them better.
- Effective and timely resolution of financial management issues, including avoiding deferment of submission of APFS should be closely monitored and followed-up by the project team.
- A financial management specialist should be part of the project team during processing and implementation. Depending on the financial management risk and performance during implementation, the financial management specialist may conduct site visits, recommend time-bound actions for improvement, and ensure they are implemented throughout the project duration.

#### **19. Recommendations and Follow-up Actions:**

The scope for the Bihar component of the Project was reduced because of lower capacity and commitment of the Bihar GIU to implement grant activities. The following are recommended to DOA to build on the achievements of this project:

- As the FPCs have already been established, DOA may continue to handhold the FPCs to access support from other central and state government schemes. The FGs and FPCs have reiterated that working capital support is key, especially if the majority members are small-scale farmers. Without such support farmers found it difficult to collect the surplus produce for marketing and would then depend on local traders in traditional value chains.
- A management capacity building support facility (including training on financial management, operations, and marketing) for the FGs and FPCs should be arranged. Without this support farmers would not be able to play a dual role in farming and managing the FPC operations.
- Linking of the FPCs with the extension services and input supply chains would require support from DOA. Discussions should be initiated by DOA.
- It would be vital to nurture the established FPCs by following-through on (i) the prompt installation of the primary processing equipment; and (ii) linking the FPCs to more established and reliable partner-buyers and seed suppliers. There should be commitment from the government to ensure that project efforts do not go to waste.
- Installation of the equipment purchased under the grant must be done as soon as possible to support the farmers during the next harvest season. DOA should initiate dialogue with the FPCs to identify suitable locations for the equipment and to support installation and operation. Support for operation and maintenance of the equipment should also be considered by DOA.
- DOA should ensure participation of women in project activities, where appropriate. Women's participation in agriculture activities, value addition activities and farmer collectivization process require sustained capacity building and a gender action plan. In future interventions a dedicated gender action plan should be developed and implemented.

#### Recommendations for ADB:


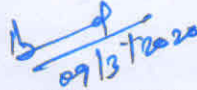
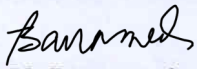
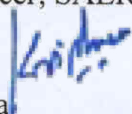
- ADB should promptly take action when there are delays in project implementation. While missions were fielded to Bihar, there were no concrete and time-bound actions agreed with the government and no ample follow-up was done. ADB should send reminders on a regular basis and elevate the matter accordingly if no actions are taken by the EAs or IAs.
- ADB should avoid combining multiple states under one grant, particularly if: (i) there was no successful experience in grouping the states; (ii) there was no detailed assessment of the capacity of the states to implement projects; and (iii) the grant project is associated with various loan projects. There was a tendency to focus on the state that was delivering results and overlook the state that had no progress. In addition, because the associated loans were larger and incurred commitment charges, the EA focused more on implementation of the loan projects.
- ADB should make sure that the grant implementation manual contains all the information needed to successfully implement and complete the project. This should be discussed in detail during the inception mission and referred to during review missions to emphasize to the EA's ownership and the importance of referring to the document during implementation.
- ADB project team should ensure that audited project financial statements are submitted on time and report on project fund utilization, including assurances that funds were used for the purposes intended. The inception mission must include pre-implementation trainings on ADB disbursement guidelines, financial reporting and audit and financial management to implementing agencies (recipient) particularly those not yet familiar with ADB procedures (especially use of advance account) to ensure that agreed funds flow

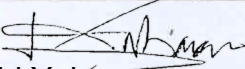


procedures are understood. During implementation and review mission, project team must follow up with EA/IA on the status of advance account and the preparation and submission of annual reports.

- ADB needs to orient recipients (implementing units) of the expectations in terms of annual reporting and audit of project funds and the financial management arrangements clearly documented as part of the financial management manual or project files to lessen impact on any changes in personnel administering the project.

**20. Additional Remarks, Comments and Suggestions:**

None.

III. PREPARATION AND APPROVAL		
Prepared by:	Name of Person and designation/Name of Institution/Signature	Date
1. Representative from the Recipient:	 Mr. Nand Kishor, IFS Director (Horticulture), Department of Agriculture, Bihar.	09/3/2020
2. Manager, JFPR-GIU <sup>17</sup> ;	 Mr. Nand Kishor, IFS Director (Horticulture), Department of Agriculture, Bihar.	09/3/2020
3. Project Officer, ADB:	 Ms. Pamela V. Barrameda Associate Operations Officer, SAER  Mr. Krishan Singh Rautela Associate Project Officer (Infrastructure), INRM	19 March 2020   19 March 2020

Approved	Name of Person and designation/Name of Institution/Signature	Date
1. Director General, Department, ADB:	 Kenichi Yokoyama Director General, SARD	20 May 2020
2. Division/Country Director, ADB:	 Mio Oka, SAER	19 May 2020
3. Head of Implementing Agency:	 Mr. Nand Kishor, IFS Director (Horticulture), Department of Agriculture, Bihar.	09/3/2020

## Appendix 1

### Design and Monitoring Framework

Design Summary	Performance Indicators and Targets	Changes to the Targets	Project Achievements for Bihar
<b>Impact</b> Increased income of the small-scale fresh fruit and vegetable (FF&V) farmers in the target sites of Bihar and Maharashtra.	Three years after Project completion, average farmer household income increases by 10% in the target sites compared to the 2010 baseline level.		There was no poverty impact assessment done following completion of the project. Any changes to farmer household income may not necessarily be attributable to the project.
<b>Outcome</b> Enhanced integration of small-scale FF&V farmers into high-value horticulture value chains in the target sites of Bihar and Maharashtra.	<ul style="list-style-type: none"> <li>• Average 35% increase in the number of target farmers selling their products to value chain buyers by the end of the Project, compared to 2010 baseline level.</li> <li>• 30% increase in the amount of target farmers' products sold through value chains by the end of the Project, compared to 2010 baseline level.</li> <li>• 10% increase in the value of the crop sales of target farmers by the end of the Project, compared to 2010 baseline level.</li> </ul>	<ul style="list-style-type: none"> <li>• No change for all indicators</li> </ul>	<ul style="list-style-type: none"> <li>• 27 farmer groups, comprising between 15 and 25 members each, were formed. However, based on farmer interviews, none of them is selling to the value chain buyers identified through the project.</li> <li>• The project was only able to cover one harvest season; there was no post-harvest survey done to assess the change in volume of the products.</li> <li>• Although there were changes in the prices of identified commodities (potato prices decreased and honey prices increased), this could not be directly attributable to project activities.</li> </ul>
<b>Outputs</b> 1. Enhanced ability of target farmers to provide consistent FF&V supply that meets the requirements of modern markets.	<ul style="list-style-type: none"> <li>• 20 farmer groups (6 in Bihar and 14 in Maharashtra) comprising 2,000 members (100 members per group) are established for 1 value chain each in Bihar and Maharashtra.</li> <li>• 30% of the farmer group members are scheduled castes,</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Original target:</b> 6 farmer groups with 100 members each or 600 farmers. <b>Revised target:</b> 24 groups with 25 members each (still with 600 farmers)</li> <li>• No change</li> </ul>	<ul style="list-style-type: none"> <li>• 27 groups comprising between 15 and 25 members each were formed (over 600 farmers). Bihar had a target of 12 groups with 50 members each. However, Agriculture Technology Management Agency only registers 15-25 members per group. Two farmer producer companies (FPCs) were formed for potatoes and honey.</li> <li>• The consultant reported that 30% of the farmers are scheduled castes, or women. However, this</li> </ul>

Design Summary	Performance Indicators and Targets	Changes to the Targets	Project Achievements for Bihar
	<p>scheduled tribes, or women.</p> <ul style="list-style-type: none"> <li>At least 10% increase in Grade A crops produced by target farmers.</li> <li>At least 10% increase in the quantity produced by target farmers.</li> <li>Revolving funds are functional in all 20 farmer groups, with at least 30% of them managed by women members.</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> <li>No change</li> <li><b>Revised target:</b> purchase of primary processing equipment for the FPCs in lieu of the revolving fund</li> </ul>	<p>information could not be verified through other sources.</p> <ul style="list-style-type: none"> <li>The remaining implementation period could only cover one crop cycle. Increase in production could not be verified.</li> <li>The remaining implementation period could only cover one crop cycle. Increase in production could not be verified.</li> <li>The revolving fund was not established for Bihar mainly due to the delays in implementation. In lieu of the revolving fund, the project purchased processing equipment (potato grader and honey processing plant) to support the farmers.</li> </ul>
2. Improved linkage between target farmers and the market.	<ul style="list-style-type: none"> <li>One well-performing farmer group is turned into a producer company.</li> <li>In Bihar, at least 20% of the farmer groups enter into long-term, mutually beneficial agreements with buyers.</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>Two FPCs were formed: one for potatoes and one for honey.</li> <li>Two agreements were signed between the FPCs and buyers. However, the purchase did not materialize, and the farmers are still selling directly to markets.</li> </ul>
3. Project management system established	<ul style="list-style-type: none"> <li>Target sites selected.</li> <li>Grant Implementation Units (GIUs) established and trained.</li> <li>Appropriate implementation agencies selected.</li> <li>Project manuals prepared and fully operated.</li> <li>Baseline survey and poverty impact assessment</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> <li>No change</li> <li>No change</li> <li>No change</li> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>Four target districts were identified: Nalanda, Buxer, Muzaffarpur, and Vaishali.</li> <li>A GIU was established but no full-time staff was appointed. None of the GIU staff received training.</li> <li>The Directorate of Horticulture was selected as the implementation agency.</li> <li>Only training manuals for the farmers were produced.</li> <li>Baseline survey was conducted, which identified the target</li> </ul>

Design Summary	Performance Indicators and Targets	Changes to the Targets	Project Achievements for Bihar
	accomplished, and sex-disaggregated information and data collected for effective monitoring of the social and gender impact.		districts and target products. Due to the delays, there was no time to conduct a poverty impact assessment for the project.



## LIST OF TRAININGS

Type of Training	Number of Events	Objectives/Content of the Training	Number of Participants
Technical training for potato farmers	3	To improve farmers' skills and knowledge on: <ol style="list-style-type: none"> <li>1. Suitable varieties and potato seed production</li> <li>2. Improved cultural practices for potato production in Bihar</li> <li>3. Nutritional deficiency symptoms and integrated nutrient management</li> <li>4. Incidence of diseases and integrated pest management</li> <li>5. Scientific post-harvest management practices</li> <li>6. Improved marketing practices</li> </ol>	More than 50 farmers attended each training session. No sex-disaggregated data was provided by the consultant.
Technical training for onion farmers	3	To improve farmers' skills and knowledge on: <ol style="list-style-type: none"> <li>1. Improved varieties and cultural practices for onion production</li> <li>2. Soil health management for onion production</li> <li>3. Judicious water and fertilizer use for onion production</li> <li>4. Plant protection practices</li> <li>5. Potential of Kharif onion production</li> <li>6. Problem and prospects of onion storage and marketing in Bihar</li> </ol>	More than 60 farmers attended each training session. No sex-disaggregated data was provided by the consultant.
Technical training for beekeepers	3	Improved practices on honey production, storage, processing, and marketing.	More than 50 farmers attended.
Technical training for litchi farmers	3	Improved practices of litchi production, storage, processing, and marketing	More than 50 farmers attended each training session. No sex-disaggregated data was provided by the consultant.
Extension staff training	8	Training on activities to be undertaken on a monthly basis and obtaining feedback on the constraints faced by farmers in the adoption of new technologies. Suggested remedial measures were given to them for further dissemination to the farmer groups.	12 extension agents
Village extension staff training	8	Training on activities to be undertaken on a monthly basis and obtaining feedback on the constraints faced by farmers in the adoption of new technologies. Suggested remedial measures were given to them for further dissemination to the farmer groups.	24 village extension agents
Farmers' training by extension staff	20	Training on activities to be undertaken on a monthly basis and obtaining feedback on the constraints faced by farmers in the adoption of new technologies. Remedial measures	No data available.

Type of Training	Number of Events	Objectives/Content of the Training	Number of Participants
		were suggested to the farmer groups to be adopted to their crop production.	
Executive training for potato and honey FPCs	2	Major points discussed during the trainings: 1. Update on the status of company registration 2. Statutory compliances needed for operation of the company 3. Shareholding and share distribution 4. Selection and appointment of the office bearers 5. Functioning of the farmer-producer companies 6. Activities to be undertaken by the company 7. Market demand and the need for quality control 8. Linkage with retail chains and big traders	No data available.
Exposure visits for honey producers	3	The farmers visited Punjab, an Indian state with advanced beekeeping, honey processing, and export practices. They visited laboratories where they were shown the latest technologies for honey production, processing, and storage. Information on different flora prevalent in Punjab, advances in the type of bee boxes, honeycombs, pollen venom collector, etc. was given to the farmers.	No data available.
Exposure visit for litchi farmers	1	Farmers visited National Research Centre on Litchi. Farmers were taken to the nurseries where a presentation was given on advanced techniques for raising healthy litchi seedlings, appropriate size of plants and other characteristics for identifying healthy seedlings.	More than 40 farmers attended
Exposure visit for potato farmers	1	Farmers visited Central Potato Research Station. They were informed about latest technologies for potato production, processing, and storage. Practical training on seed treatment was also given.	No data available.

Source: Consultant's final report

**JFPR 9147-IND: IMPROVING SMALL FARMERS' ACCESS TO MARKET IN BIHAR AND  
MAHARASHTRA  
LIST OF CHANGES MADE DURING IMPLEMENTATION**

<b>Date</b>	<b>Event</b>	<b>Remarks</b>
15 November 2012	Change in baseline projections	A change in baseline projections was requested due to delays in implementation of the Bihar component because of state approval processes and the GIU's limited experience in project implementation.
25 August 2014	Extension of completion date from 30 June 2014 to 30 April 2016	The extension was approved to ensure disbursement of remaining funds and completion of grant activities. The extension was within the maximum time allowed to complete JFPR-funded projects (i.e., 4.5 years from effectiveness date of 21 November 2011)
12 May 2016	Extension of completion date from 30 April 2016 to 30 April 2018	The extension was requested to make up for initial delays, complete most of the activities, ensure sustainable impact and deliver the project outcome.
18 May 2017	Minor change to recruit a consulting firm for web-based data management portal for Maharashtra	Maharashtra requested to engage a national consulting firm to develop and implement a web-based data management portal that contains information on personal details of farmers, crops, area, input demand, produce availability schedule, etc.
27 April 2018	Extension of completion date from 30 April 2018 to 31 December 2018, including approval of a revised work plan where the scope for Bihar was reduced	The extension was requested to make up for initial delays and allow the consultants of the Bihar component to complete ongoing activities, particularly (i) supporting the stabilization of the FPCs; (ii) establish long-term market linkages for the FPCs; and (iii) complete infrastructure facilities for the FPCs. The Bihar component was extended only up to 31 October 2018 as agreed between ADB and the government.
29 October 2018	Partial cancellation and reallocation of grant funds	Partial cancellation of \$0.6 million due to savings in (i) equipment and supplies, (ii) local training and workshop; (iii) grant management; and (iv) other inputs. Surplus funds were cancelled to ensure timely turnaround of funds to the JFPR pool.

FPC = farmer producer companies, GIU = grant implementation unit

**FINAL REALLOCATION AND PROJECT COST AT COMPLETION**  
(in US\$)

<b>Cost Category</b>	<b>Original Allocation</b>	<b>Revised Allocation for Bihar</b>	<b>Revised Allocation for Maharashtra</b>	<b>Revised Allocation (Total Grant)</b>
3101 – Consulting Services	331,000	502,200	357,800	860,000
3201 – Small Civil Works	120,000		260,000	260,000
3601 – Equipment and Supplies	98,000		21,000	21,000
3801 – Local Training & Workshops	1,015,000		290,000	290,000
3901 – Grant Management	702,000	32,000	660,000	692,000
4801 – Other Inputs	673,000	35,800	204,200	240,000
4901 – Contingency	61,000	30,000	7,000	37,000
<b>TOTAL</b>	<b>3,000,000</b>	<b>600,000</b>	<b>1,800,000</b>	<b>2,400,000</b>

PROJECT PHOTOS WITH EVIDENCE OF JAPANESE VISIBILITY



**Figure 1: Presentation to Field Staff on Improved Packaging, October 2017**  
Source: Global Agrisystems Pvt. Ltd. (GAPL) Reports



**Figure 2: Community Consultation Among Beekeepers**

Source: GAPL report



**Figure 3: Experts interacting with onion growers**

Source: GAPL report





Figure 4: Training Tarpaulin



Figure 5: Extension Agents Interacting with Farmers





Figure 6: Release of Potato "Kisan" Calendar



Figure 7: Training of Potato Farmers



**OVERALL PROJECT RATING**

<b>Parameter</b>	<b>Rating for Bihar</b>	<b>Rating Value</b>	<b>Weight 25%</b>	<b>Rating for Maharashtra</b>	<b>Rating Value</b>	<b>Weight 75%</b>	<b>Overall Rating</b>
Relevance	Less than Relevant	1	0.25	Relevant	2	1.5	1.75
Effectiveness	Less than effective	1	0.25	Effective	2	1.5	1.75
Efficiency	Less than efficient	1	0.25	Efficient	2	1.5	1.75
Sustainability	Unlikely sustainable	0	0	Likely sustainable	2	1.5	1.5
<b>Overall Rating</b>	<b>Less than successful</b>	<b>1</b>		<b>Successful</b>	<b>2</b>		<b>1.69 (Less than Successful)</b>