Validation Report
October 2018

India: Agribusiness Infrastructure Development Investment Program (Tranche 2)

Reference Number: PVR-559
Project Number: 37091-033
MFF Number: 0045
Loan Number: 2837

Independent Evaluation ADB

Raising development impact through evaluation

ABBREVIATIONS

ADB	–	Asian Development Bank
AIDIP	–	Agribusiness Infrastructure Development Investment Program
DCMT	–	Department of Cooperation, Marketing and Textile
DMF	–	design and monitoring framework
IVC	–	integrated value chain
MSAMB	–	Maharashtra State Agricultural Marketing Board
PCR	–	project completion report
PPP	–	public–private partnership
RRP	–	report and recommendation of the President
TAG	–	technical advisory group

NOTE

In this report, "$" refers to United States dollars.

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PROJECT BASIC DATA

<table>
<tr><td>Project Number</td><td>37901-033</td><td>PCR Circulation Date</td><td colspan="2">29 August 2017</td></tr>
<tr><td>Loan Number</td><td>2837</td><td>PCR Validation Date</td><td colspan="2">Oct 2018</td></tr>
<tr><td>Project Name</td><td colspan="4">Agribusiness Infrastructure Development Investment Program (Tranche 2)</td></tr>
<tr><td>Sector and subsector</td><td>Agriculture and Natural Resources</td><td colspan="3">Agricultural production and markets</td></tr>
<tr><td>Strategic agenda</td><td colspan="4">Inclusive Economic Growth</td></tr>
<tr><td rowspan="3">Safeguard categories</td><td colspan="2">Environment</td><td colspan="2">B</td></tr>
<tr><td colspan="2">Involuntary resettlement</td><td colspan="2">C</td></tr>
<tr><td colspan="2">Indigenous peoples</td><td colspan="2">C</td></tr>
<tr><td>Country</td><td colspan="2">India</td><td>Approved
($ million)</td><td>Actual
($ million)</td></tr>
<tr><td rowspan="5">ADB Financing
($ million)</td><td>ADF: 0.00</td><td>Total Project Costs</td><td>30.30</td><td>0.88</td></tr>
<tr><td rowspan="4">OCR: 24.3</td><td>Loan</td><td>24.30</td><td>0.52</td></tr>
<tr><td>Borrower</td><td>6.00</td><td>0.36</td></tr>
<tr><td>Beneficiaries</td><td>0.00</td><td>0.00</td></tr>
<tr><td>Others</td><td>0.00</td><td>0.00</td></tr>
<tr><td>Cofinancier</td><td>-</td><td>Total Cofinancing</td><td>0.00</td><td>0.00</td></tr>
<tr><td>Approval Date</td><td>19 Dec 2011</td><td>Effectiveness Date</td><td>17 Apr 2012</td><td>9 Apr 2012</td></tr>
<tr><td>Signing Date</td><td>18 Jan 2012</td><td>Closing Date</td><td>31 Dec 2015</td><td>31 Mar 2016</td></tr>
<tr><td>Project Officers</td><td>
A. Tayyab

Y. Shiroishi
H. Varma
A. Tayyab
H. Woldring
R. Khan
P. Spantigati
A. Tayyab</td><td>Location
India Resident Mission (INRM)
ADB headquarters
INRM
INRM
INRM
INRM
INRM
INRM</td><td>From
Dec 2011

Jul 2012
Sep 2012
Feb 2013
Apr 2013
Oct 2013
Dec 2014
Aug 2016</td><td>To
Jul 2012

Aug 2012
Jan 2013
Apr 2013
Oct 2013
Dec 2014
Aug 2016
Aug 2017</td></tr>
<tr><td>IED Review
Director
Team Leader</td><td colspan="4">
N. Subramaniam, IESP
S. Takahashi, Evaluation Specialist, IESP*</td></tr>
</table>

ADB = Asian Development Bank, ADF = Asian Development Fund, IED = Independent Evaluation Department, IESP = Sector and Project Division, IRM = India resident Mission, OCR = ordinary capital resources, PCR = project completion report.

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I. PROJECT DESCRIPTION

A. Rationale

1. The agriculture sector is of strategic importance to the economy of India. The sector represented 17.5% of the national domestic product in 2015. It was also the main source of income and livelihood for 53% of the population living in rural areas in 2010.[1] The increased demand for higher value agricultural products in the last decade created an opportunity for the sector to grow while increasing farm income in rural areas. However, potential growth in the sector has not been realized due to these factors: (i) outdated technologies and management at the farm level; (ii) limited public investment in connectivity infrastructure (such as roads); and (iii) lack of private investment and inefficient management in marketing infrastructure (storage facilities, cold chains, product grading). [2]

2. To address these sector issues, the Agribusiness Infrastructure Development Investment Program (AIDIP), a multitranche financing facility, was approved in 2010 with two tranches (footnote 2). Tranche 1 was designed to support private infrastructure investments, capacity building, and institutional links for the development of two value chains in the state of Bihar. This tranche was canceled in 2016 due to the lack of progress in establishing the public–private partnership (PPP) arrangement.[3] Tranche 2 was established to promote private sector investment in horticultural value chains within the state of Maharashtra. A loan was approved for $24.3 million in 2011.[4] This validation pertains to AIDIP tranche 2 project completion report (PCR).[5] The project was designed to promote (i) site development and agribusiness infrastructure, (ii) infrastructure links to ensure connectivity and basic services across the value chain, (iii) backward links to the production areas through contract farming and producer companies, and (iv) capacity building to strengthen technical and managerial skills along the value chain (footnote 4). The project was aligned with the agriculture targets of the Eleventh Five-Year Plan of the Government of India.[6] To attract private investment into the sector, the government established a policy framework that promotes PPPs and provides public sector capital grants for private investment in agribusiness infrastructure (footnote 2).

B. Expected Impact, Outcome, and Outputs

3. The expected impact of AIDIP tranche 2—as stated in the design and monitoring framework (DMF)—was increased private sector investment in integrated value chain (IVC) infrastructure and producer returns in high-value crops in Maharashtra (footnote 4). The intended outcome was expanded agricultural value chains and better integration of small-scale farmers into IVCs in the Nashik and Aurangabad–Amravati regions. The three expected outputs were (i) functional IVC infrastructures in Nashik and Aurangabad–Amravati regions are established, (ii) IVC stakeholders are effectively participating and managing IVCs, and (iii) project management support strengthened. IVCs were to be established through PPP contracts that

[1] ADB. 2016. *Key Indicators for Asia and the Pacific 2016*. Manila.
[2] ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to India for the Agribusiness Infrastructure Development Investment Program (Facility and Project 1)*. Manila (MFF 0045-IND and Loan 2669-IND).
[3] ADB. 2017a. *Loan Cancellation: Agribusiness Infrastructure Development Investment Program–Tranche 1*. Manila (Loan 2669-IND).
[4] ADB. 2011. *Periodic Financing Request Report for the Proposed Agribusiness Infrastructure Development Investment Program in India–Tranche 2*. Manila (Loan 2837-IND).
[5] ADB. 2017b. *Completion Report: Agribusiness Infrastructure Development Investment Program in India-Tranche 2*. Manila (Loan 2837-IND).
[6] Footnote 5, para 5, footnote 2.

leveraged private sector investment and management into agribusiness and market infrastructure on land provided on lease by the Government of Maharashtra.

C. Provision of Inputs

4. AIDIP tranche 2 was approved for $24.3 million in December 2011 and became effective in April 2012 as planned (footnote 5). The project was to be closed by December 2015 but took a year longer. The project's total cost at appraisal was estimated at $30.3 million, comprising an Asian Development Bank (ADB) loan of $24.3 million and government counterpart funds of $6.0 million and it did not involve cofinancing. The project costs at appraisal were based on a capital grant to private investors of 100%.[7] The grant would cover investment costs associated with investments in agribusiness infrastructure on government land sites. Investors were to (i) design, build, operate, and maintain the infrastructure; (ii) collect revenues from it; and (iii) pay land rents to the government. They were to be selected through a competitive bid process. The capital grant was reduced to a maximum of 40% in the final bidding arrangements, reducing the financing needs of the Government of Maharashtra for this project. The reason for the reduction was not clearly explained in the PCR.[8] To rectify this, ADB and the Government of Maharashtra agreed to partially cancel $13.1 million of the loan.[9] A further $10.7 million was canceled at loan closure on 31 March 2016 since the bidding process did not attract private investors that would meet the bidding criteria, thus, contracts were not awarded. Overall, investors were interested in investing in individual value chains, at different locations, and preferred not to use public land. The actual project cost was only $0.9 million (2.9% of estimates at appraisal). ADB financing amounted to $0.5 million (59.6% of actual project cost) and government financing was $0.4 million (40.4% of actual project cost).

5. Total disbursements were $0.5 million or 2.2% of the original loan amount. The minimal disbursement was due to the lack of physical progress. Initial disbursement occurred on 17 September 2012 and final disbursement on 31 March 2016. Consulting services of $0.9 million were originally allocated to cover the cost of three packages: (i) a technical advisor team (10 person-months); (ii) a market and value chain design team, and PPP and project management unit implementation support teams (62 person-months); (iii) a procurement specialist (15 person-months of national consultants).[10] The PCR indicated that two of the consulting service packages were financed (footnote 5). The first provided 10.7 person-months and the second provided 30.5 person-months of inputs.

6. The periodic financing request document for AIDIP tranche 2 showed a safeguard category B for the environment, and C for involuntary resettlement and indigenous peoples. An initial environmental examination was conducted in Maharashtra and concluded that most of the adverse impacts predicted were of low significance, short term, and could be mitigated with the implementation of an environmental monitoring plan.[11]

[7] Footnote 2, para. 10. The maximum capital grant available to bidders will be 70% of the total investment cost in Bihar and 40% in Maharashtra.
[8] According to an internal report in 2013, the State Government of Bihar made changes in the implementation arrangements, including capital grant to the concessionaire to be reduced to 35% of the project cost. However, reasons were not provided.
[9] This first cancellation was approved on 16 January 2014. The loan was effectively reduced to $11.2 million.
[10] Footnote 4, Table 3.
[11] Footnote 4, Appendix 5.

D. Implementation Arrangements

7. The PCR indicated that the implementation arrangements for the project generally followed the design. The executing agency was Maharashtra's Department of Cooperation, Marketing and Textiles (DCMT) while the implementing agency was the Maharashtra State Agricultural Marketing Board (MSAMB). The MSAMB established a project implementation unit that was to select the concessionaires for the development of IVCs, assisted by technical advisory group (TAG) consultants. The design, construction, operation, and maintenance of the IVCs were the responsibility of private sector investors under the guidance and supervision of the MSAMB.

8. Gaps in the value chain were identified during project preparation stage, which formed the basis of the investment project design. Stakeholder consultations were used as the basis for preparing (i) the project components for the selected IVCs, and (ii) the investments to be funded under tranche 2 of the multitranche finance facility.

9. No covenants were modified or suspended during implementation. The PCR indicated that 20 out of 25 covenants were complied with in a timely manner. The remaining five, which were not due until actual progress was made on the PPP arrangements and other project physical activities were completed, were to ensure that: (i) the preparation, design, construction, implementation, commissioning, and decommissioning of project facilities comply with environmental and safety requirements; (ii) land is available to the concessionaires for facilities to be constructed; (iii) safeguards monitoring and reporting was done; (iv) the works contracts comply with applicable labor laws; and (v) the gender action plan is implemented and incorporated in key documents and activities.

II. EVALUATION OF PERFORMANCE AND RATINGS

A. Relevance of Design and Formulation

10. The PCR rated the project less than relevant. The project was consistent with ADB's India Country Partnership Strategy, 2009–2012,[12] which placed a high priority on agriculture and emphasized private sector participation in infrastructure development, including through PPPs. The project was also aligned with ADB's strategic theme of inclusive economic growth and private sector development as the driver of change. Both ADB and the government had been working on catalyzing infrastructure investments through private sector participation.[13] It was also in line with the agriculture sector priorities of the Government of India's Eleventh Five-Year Plan (footnote 6) and with the policies and plans of the Government of Maharashtra.

11. As the PCR indicated, the design identified the constraints in the sector,[14] but did not undertake any comprehensive assessment of potential private sector investors' interest, and their preference not to invest in supply chain operations and to be located near urban centers. The PCR also noted the project's rigid design for the PPP modality in establishing two IVCs in Nashik and Aurangabad–Amravati regions. A competitive bid process was to be used to select private concessionaires, which were to design, build, finance, operate, and maintain IVCs on predetermined government land sites. The concessionaires were to retain all revenue streams for 20 years, having to pay a land rental fee to the government. To attract private sector investors,

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[12] ADB. 2009. *Country Partnership Strategy: India, 2009–2012.* Manila.

[13] Independent Evaluation Department. 2017. *Country Assistance Program Evaluation: India, 2007–2015*. Manila: ADB. Chapter 4. F: Special Priority Catalyzing Infrastructure Investment and Public–Private Partnerships.

[14] Footnote 5, para. 10. This is mainly due to poor coordination and low management capacity to deal with large numbers of individual multi-location producers and multi-location wholesale and retail.

the Government of Maharashtra offered a capital grant that is maximum of 40% of the total investment cost to the successful bidder. The project was unable to award PPP contracts and undertake activities as planned. The lack of private sector response—even following extensive rounds of consultations and clarifications to their concerns on the conditions in the contracts—indicated that the overall relevance of the project design and selection of the PPP modality did not match the demands of the market.

12. This validation rates the project less than relevant. Inappropriate design was the basis for a less than relevant project rating. The size of investment required under each PPP contract was beyond the financial and managerial capacity of small-value chain investors, which specialized in their own trade within the value chain. Furthermore, potential concessionaires indicated their preference to (i) bid for individual locations and not for the whole value chain, and (ii) use private land instead of government land on a lease basis for establishing business facilities. The provision of public land and the proposed size of the capital grant did not prove to be critical factors in triggering additional private sector investment. These aspects could have been considered yet none of them were incorporated into the project design, which resulted in the project's failure to achieve intended outcomes.

B. Effectiveness in Achieving Project Outcomes and Outputs

13. The PCR rated the project ineffective as it did not achieve the outcome targets of (i) reduced post-harvest losses, (ii) required number of producers supplying high-value crops to modern value-added infrastructure, (iii) additional value added to the IVCs, and (iv) farmer groups entering into long-term agreements with IVCs. There was no physical progress at the project level and data is not presented on the values of target indicators at project closing. The PCR presented further information on the achievement of the three main outputs. None of the performance targets were achieved for the first two outputs related to building and operation of value chain infrastructure, and stakeholder participation and management of IVCs. Two out of three targets associated with the third output of strengthened project management were achieved.[15]

14. The project was under category B for environment and C for involuntary resettlement and indigenous peoples. An initial environmental examination, a resettlement framework, and an indigenous peoples' framework were prepared to guide concessionaires in planning PPPs. It was anticipated that some minor environmental impacts would be associated with the project. Environmental review and planning aspects were satisfactory but were never implemented due to the poor performance of the project.[16] Since there were no capital works, no environmental management, involuntary resettlement, nor indigenous peoples' plans were prepared, as required in the loan covenants. This validation rates the project ineffective since none of the outcomes and key outputs as defined in the DMF were achieved.

C. Efficiency of Resource Use

15. The PCR rated the project inefficient since (i) no economic benefits were generated as the outputs and outcomes were not achieved, and (ii) process efficiency was poor given the disbursement of only 2.2% of funds.

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[15] Footnote 5, Appendix 1, Design and Monitoring Framework. The first indicator was "Technical Advisory Group for the project management unit formed within 6 months from project effectiveness." The second indicator was "project management unit officials trained on the job in managing a transparent bidding process, awarding a contract in agribusiness infrastructure by the end of 2012."

[16] ADB (Independent Evaluation Department). 2018. Project Safeguard Assessment: Agribusiness Infrastructure Development Investment Program Tranche 2. 12 May (internal).

16. The intended investment outcomes were not achieved; hence, no benefits were generated. The PCR did not calculate the economic internal rate of return at completion. It documented process inefficiencies in the implementation of the project. At appraisal, a 3-year window was estimated to establish PPP concessionaire contracts and implement civil works contracts. In actual, it took 17 months (35% of the implementation period) to prepare, amend, and finalize the request for qualifications. Following the issuance of the request for qualifications, it took 15 months to issue the request for proposals to the short-listed firms.[17] A total of 11 corrigenda were issued, including five extensions of the deadline for submission of qualification requirements. Prospective bidders did not respond in the first round of bidding and a second round of bidding took place in October 2015, 42 months after loan effectiveness. However, only two proposals were received by 28 December 2015 and both were determined to be nonresponsive. In summary, except for the timely establishment of the project management unit, the entire implementation period was consumed by the procurement process without completing the selection of the concessionaires for the IVCs. This validation rates the project inefficient.

D. Preliminary Assessment of Sustainability

17. The PCR assessed the project unlikely sustainable mainly because there were no major outputs and outcomes to sustain. The PCR did not calculate the project's financial internal rate of return nor its weighted average cost of capital at completion since no revenues were generated from the project. The fact that no PPP contract was awarded suggests that the project was not financially sustainable. While environmental and social sustainability considerations were covered at project appraisal through loan covenants on the preparation of management plans by the concessionaires, no further assessment can be made at completion since no concession was subscribed. This validation rates the project unlikely sustainable.

III. OTHER PERFORMANCE ASSESSMENTS

A. Preliminary Assessment of Development Impact

18. The PCR did not explicitly rate the project's development impact. It states that the project did not result in any poverty or economic impacts given the lack of achieved outputs or outcome. The PCR acknowledged that the government's capacity to understand agribusiness through PPP was enhanced. The knowledge imparted by the project through road shows and consultations also raised awareness in the private sector on possible options available when investing in the value chains.

19. This validation rates the project's development impact unsatisfactory given that the project had very few positive impacts, among which was increased awareness of the private sector's investment options in agribusiness value chain. However, there is no evidence of increased private sector investment in value chains in selected regions of Bihar and Maharashtra, which was the main expected development impact.

B. Performance of the Borrower and Executing Agency

20. The PCR assessed the performance of the borrower, the Department of Economic Affairs of the Government of India; and the executing agency, the DCMT, satisfactory. The PCR emphasized that the Department of Economic Affairs played a central role in the design of the

[17] The PCR indicated that this delay was because prospective investors sought clarifications, particularly on documentation and eligibility requirements.

investment program, particularly in recommending the PPP approach for agribusiness development, and followed up with the Government of Maharashtra on several occasions to expedite implementation progress. At the same time, the DCMT, together with the MSAMB, made extensive efforts to reach out to prospective stakeholders and adjust the existing design of the PPP arrangements. The PCR indicated that the DCMT and MSAMB continued to demonstrate interest in further pursuing PPPs for agribusiness projects, but no evidence was presented of PPP contracts awarded to increase private sector investment in value chains.

21. The Country Assistance Program Evaluation for India mentioned that the project was "prematurely closed, as the proposed PPP modality was unworkable and inadequately considered the private sector's needs and appetite for risk" (footnote 13). Although all agencies made efforts to implement the project by engaging with stakeholders during implementation, they did not attract private sector investment in the proposed IVCs. The agencies did not anticipate the complexity of the project and lacked information about the real preferences of the private sector with regard to investments in agribusiness during the project design stage. As a result, a large part of project implementation time (35%) was used to generate information about the private sector to structure the PPP arrangements. Based on the absence of project progress, this validation rates the performance of the borrower and executing agency less than satisfactory.

C. Performance of the Asian Development Bank

22. The PCR assessed the performance of ADB less than satisfactory based on the deficiencies during project design and its contributions to implementation delays. The project design did not properly recognize the challenges associated with implementing a pioneering project with a PPP approach to agribusiness development. In hindsight, the choice of PPP modality was inappropriate for the market and not sufficiently flexible to be adapted during project implementation. The design of PPPs was overly complex and not aligned to the emerging needs of private sector operators who preferred more flexible business models. The PCR reported that "ADB was unable to advise the DCMT and MSAMB on appropriate bidding documents and processes to be used for selecting the concessionaire for the proposed IVCs. This contributed to extensive delays, with the consultants mobilized through the TA assisted the MSAMB in streamlining the procurement process."[18]

23. The performance of ADB during project preparation, specifically for safeguard, is satisfactory given that appropriate instruments were prepared. The initial environmental examination and the report and recommendation of the President (RRP) were appropriate to the nature and scale of potential impacts (footnote 18). From loan effectiveness to actual loan closure, nine project officers administered the project (Project Basic Data). This indicates that the frequent change of project officers limited good continuity in project management on the ADB side. The PCR provided information on ADB's support to the implementation agency in the following: "ADB fielded 10 missions, entailing 85 person-days, to support project implementation. From November 2014 to June 2015, the project was delegated to the India Resident Mission to enhance support to the DCMT and MSAMB. ADB provided the required project administration support and responded promptly on all matters that required facilitation, including selection of consultants, processing of withdrawal applications, and timely cancellation of loan proceeds." Notwithstanding, the project design presented major deficiencies and implementation time was much longer than anticipated. Based on the evidence presented in the PCR, this validation rates ADB performance less than satisfactory.

[18] ADB (South Asia Department). 2014. Loan Review/Special Project Administration Mission to India: Agribusiness Infrastructure Development Investment Program Tranche 2. Aide mémoire. 16 October (internal).

D. Others

24. The project financed two consulting service packages, as follows: (i) TAG 1—to support the bidding process for IVCs in the Nashik and Aurangabad–Amravati regions, and (ii) TAG 2—to prepare the detailed project reports for additional four IVCs envisaged under the project. The performance of the consultants was assessed in the PCR. The support provided by TAG 1 consultants was rated satisfactory. The PCR noted that the consultant not only made efforts to revise the PPP bid contract, but also reached out to private investors to increase awareness on the PPP approach in the state. TAG 2 consultants were rated less than satisfactory. The PCR stated that consultants' proactive engagement with prospective investors on improvements in the bidding process was not there. Due to the lack of effective guidance from the consultant, "the implementing agency was not able to provide informed recommendations to the Government of Maharashtra on suitable adjustments to the procurement processes for selecting concessionaires for the IVCs."[19] The PCR did not present further evidence on the timeliness of consultants' deliverables nor their quality to further support the ratings provided.

IV. OVERALL ASSESSMENT, LESSONS, AND RECOMMENDATIONS

A. Overall Assessment and Ratings

25. The PCR rated the project unsuccessful given the ratings of less than relevant, ineffective, inefficient, and unlikely sustainable. This validation rates the AIDIP tranche 2 unsuccessful. Although the project was consistent with India's and ADB's priorities for the agriculture sector, this validation finds the project less than relevant primarily because of major design flaws. The PPP modality did not match the demands of private agribusiness investors. The project was not implemented as designed, contract awards and disbursements were minimal, and just a few of the targets in the DMF were met. As such, the project is rated ineffective, inefficient, and unlikely sustainable.

Overall Ratings

Validation Criteria	PCR	IED Review	Reason for Disagreement and/or Comments
Relevance	Less than relevant	Less than relevant	
Effectiveness	Ineffective	Ineffective	
Efficiency	Inefficient	Inefficient	
Sustainability	Unlikely sustainable	Unlikely sustainable	
Overall Assessment	**Unsuccessful**	**Unsuccessful**	
Preliminary assessment of impact	Not rated	Unsatisfactory	No evidence was cited in the PCR of increased private sector investment in value chains, the main expected development impact.
Borrower and executing agency	Satisfactory	Less than satisfactory	Paras. 20–21.
Performance of ADB	Less than satisfactory	Less than satisfactory	
Quality of PCR		Satisfactory	Para. 30.

ADB = Asian Development Bank, IED = Independent Evaluation Department, PCR = project completion report.
Source: ADB Independent Evaluation Department.

[19] Footnote 5, para. 25.

B. Lessons

26. The PCR identified several valuable lessons from this project, as follows:

(i) **Sector level.** (a) There is limited experience on procedures and mechanisms as to PPP arrangements in the agribusiness sector, particularly for large-scale projects. These arrangements are better suited for pilot testing before scaling up; (b) financing schemes constitute another option besides capital grants or subsidies to promote infrastructure investments; and (c) private agribusiness entrepreneurs have specialized in different segments of the value chain, which limits their capacity and interest to invest in infrastructure beyond their segment.

(ii) **Project level.** (a) A flexible project design that allows private entrepreneurs to identify their needs and submit their proposals may have been more successful; and (b) the detailed value chains assessment should incorporate the investor's view to effectively contribute to the design of the bidding process.

27. This validation endorses the lessons identified in the PCR and adds the following lessons:

(i) **Sector level.** (a) Understanding and managing PPP contracts[20] involve a significant level of capacity for implementation agencies; and (b) the private sector perceives political risks in the use of public lands as part of PPP contracting schemes. (a) The growth and sustainability of revenues for agribusiness investors depend crucially on successfully integrating and coordinating many small farmers to provide a consistent supply that also meet the quality requirements of the food market; and (b) the provision of subsidies for private sector investments needs to be carefully assessed vis-a-vis other business-enabling factors.

(ii) **Project level.** A more detailed assessment of private sector preferences for investment needs to be conducted at project design stages to reduce project implementation risks.

C. Recommendations for Follow-Up

28. Most of the recommendations proposed in the PCR are lessons rather than actions for follow-up.[21] It also suggested that ADB's Private Sector Operations Department should have been involved in project preparation to better assess the private sector's willingness to participate. The PCR listed these two follow-up actions for ADB: (i) monitor how the government has integrated lessons identified for the promotion of agriculture value chains; (ii) consider the inclusion of Maharashtra state in future agribusiness projects, given all the accumulated experiences. Additional follow-up actions are suggested for the state government and ADB, as follows: (i) continue sector dialogue with major stakeholders for each of the value chains, monitoring closely the evolution of prices, and quantities supplied and demanded; and (ii) further assess small- scale producers' needs and limitations for their integration in value chains.

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[20] The contract structure needs to properly distribute risks and responsibilities between the private and the public sectors to be effective.

[21] These are (i) undertaking additional assessments on private sector's interest to participate in the project, (ii) reducing the size of the PPP component given its high-risk nature, and (iii) allowing more flexibility in project implementation.

V. OTHER CONSIDERATIONS AND FOLLOW-UP

A. Monitoring and Reporting

29. The PCR recommended not to continue the formal monitoring of the DMF since no investments in IVCs materialized. No further assessment was presented on the design of the monitoring framework. This validation finds that some of the indicators and data proposed in the DMF at project design could have been more accurate, measurable, and time-bound.[22] The choice of some indicators has limited the DMF's effectiveness in assessing the project's development results. Most of the data for the indicators proposed in the DMF were not collected since the project did not have physical progress. Accordingly, the PCR could not make much use of the proposed DMF.

B. Comments on Project Completion Report Quality

30. The PCR covered most of the requirements necessary under the PCR guidelines and the results of the project are spelled out in an appropriate manner. Some of the lessons identified revolve around the same underlying issues, and conclusions are pertinent. This validation rates the quality of the PCR satisfactory. However, it did not exactly align with the structure suggested in the guidelines. In addition, the main text could have been more specific in discussing actual project implementation issues for each of the two regions, and the value chains considered. No discussion on environmental management was included in the PCR. No rating was also provided for the development impacts of the project. Finally, the adequacy of the proposed monitoring and reporting arrangements were not assessed.

C. Data Sources for Validation

31. Data sources for this validation were the PCR, the RRP for the AIDIP Multitranche Financing Facility, the periodic financing request for AIDIP tranche 2, technical assistance documents,[23] back-to-office reports and aide memoire relating to loan review missions,[24] special

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[22] At impact level, the indicator measuring the share of private sector investment in infrastructure for IVCs is presented as a percentage. No investment data was presented, which could have been useful in comparing the actual amount of investment expected through the PPP arrangement. The indicator of farm gate prices received by farmers supplying to IVCs is to measure the welfare impact on farmers. However, increases in farm gate prices can also be associated with greater production costs, hence, lower margins. A more appropriate indicator would be the income of farmers participating in IVCs compared to that of farmers that did not integrate value chains. At the outcome level, proposed indicators are not readily measurable nor time-bound, which gives the impression that no actual phasing was considered in the project. The proposed indicator of at least 30,000 producers supplying more than 250,000 metric tons to modern value chains is an example of this. At the output level, some of the proposed indicators are not accurate nor measurable. For example, it is not clear how to measure the 50% expected stakeholder training in IVCs or the number of officials that will be trained in managing PPPs. These indicators do not properly measure or reflect the project's impact on forming capacity.

[23] ADB. 2008. *Technical Assistance to India for Agribusiness Infrastructure Development Investment Program (Phase 2)*. Manila; and ADB. 2004. *Technical Assistance to India for Preparing the Agribusiness Development Support Project*. Manila.

[24] ADB (South Asia Department). 2012. Loan Inception and Project Review Mission in India: Agribusiness Infrastructure Development Investment Program. Back-to-office report. 12 December (internal); ADB (South Asia Department). 2013a. Loan Review Mission in India: Agribusiness Infrastructure Development Investment Program. Back-to-office report. 30 October (internal); ADB (South Asia Department). 2014b. Loan Review Mission in India: Agribusiness Infrastructure Development Investment Program. Back-to-office report. 20 February (internal); ADB (South Asia Department). 2015a. Midterm Review Mission in India: Agribusiness Infrastructure Development Investment Program. Back-to-office report. 07 September (internal); and ADB (South Asia Department). 2015b. Loan Review Mission in India: Agribusiness Infrastructure Development Investment Program. Back-to-office report. 15 December (internal).

loan administration missions,[25] ADB's country partnership strategy for India, and the national strategies. The 2017 country assistance program evaluation for India was also used as reference in this validation.

D. Recommendation for Independent Evaluation Department Follow-Up

32. This validation does not recommend further IED follow-up.

[25] ADB (South Asia Department). 2013b. Loan Review Mission in India: Agribusiness Infrastructure Development Investment Program. Back-to-office report. 7 February (internal); ADB (South Asia Department). 2013c. Loan Review Mission in India: Agribusiness Infrastructure Development Investment Program. Back-to-office report. 27 March (internal); ADB (South Asia Department). 2013d. Loan Review Mission in India: Agribusiness Infrastructure Development Investment Program. Back-to-office report. 26 July (internal); and ADB (South Asia Department). 2014c. Loan Review Mission in India: Agribusiness Infrastructure Development Investment Program. Back-to-office report. 17 October (internal).