

**Validation Report**  
December 2019

# Viet Nam: Quality and Safety Enhancement of Agricultural Products and Biogas Development Project

Reference Number: PVR-599  
Project Number: 39421-013  
Loan Number: 2513

Independent  
Evaluation  ADB

*Raising development impact through evaluation*

## ABBREVIATIONS

ADB	–	Asian Development Bank
BPMU	–	biogas project management unit
CPMU	–	central project management unit
CPS	–	country partnership strategy
DMF	–	design and monitoring framework
EIRR	–	economic internal rate of return
GAP	–	good agricultural practice
ha	–	hectare
IPMU	–	institutional project management unit
MARD	–	Ministry of Agriculture and Rural Development
MTR	–	midterm review
O&M	–	operation and maintenance
PCR	–	project completion report
PFI	–	participating financial institution
PPMS	–	project performance monitoring system
PPMU	–	provincial project management unit
SAZ	–	safe agricultural zone
SDR	–	special drawing right
TA	–	technical assistance

## NOTE

In this report, “\$” refers to United States dollars.

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## PROJECT BASIC DATA

<b>Project Number</b>	39421-013	<b>PCR Circulation Date</b>	13 July 2018	
<b>Loan Number</b>	2513	<b>PCR Validation Date</b>	Dec 2019	
<b>Program Name</b>	<b>Quality and Safety Enhancement of Agricultural Products and Biogas Development Project</b>			
<b>Sector and subsector</b>	Agriculture, natural resources, and rural development	Agriculture, natural resources, and rural development		
<b>Strategic agenda</b>	Environmentally sustainable growth Inclusive economic growth			
<b>Safeguard categories</b>	Environment		B	
	Involuntary Resettlement		C	
	Indigenous Peoples		B	
<b>Country</b>	Viet Nam		<b>Approved</b> (\$ million)	<b>Actual</b> (\$ million)
<b>ADB Financing</b> (\$ million)	<b>ADF: 95.0</b>	<b>Total Project Costs</b>	110.39	109.95
	<b>OCR: 0.00</b>	<b>Loan</b>	95.00	92.10
		<b>Borrower</b>	6.22	3.05
		<b>Beneficiaries</b>	1.35	2.95
		<b>Others</b>	7.82	11.83
<b>Cofinancier</b>		<b>Total Cofinancing</b>		
<b>Approval Date</b>	18 Mar 2009	<b>Effectiveness Date</b>	28 Sep 2009	26 Aug 2009
<b>Signing Date</b>	30 Jun 2009	<b>Closing Date</b>	30 Jun 2015	29 Nov 2017
<b>Project Officers</b>	M. Ahmed	<b>Location</b> ADB headquarters	<b>From</b> Mar 2009	<b>To</b> Jan 2010
	A. Musa	ADB headquarters	Jan 2010	Mar 2013
	N. Ikemoto	ADB headquarters	Mar 2013	Oct 2015
	C. Salter	ADB headquarters	Oct 2015	Jan 2016
	S. Setboonsarng	ADB headquarters	Jan 2016	Dec 2016
	S. Ranawana	ADB headquarters	Jan 2017	Oct 2017
	L. Leung	ADB headquarters	Oct 2017	Jul 2018
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ADB = Asian Development Bank, ADF = Asian Development Fund, IED = Independent Evaluation Department, IESP = Sector and Project Division, OCR = ordinary capital resources, PCR = project completion report.

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## I. PROJECT DESCRIPTION

### A. Rationale

1. Quality and safety standards of agricultural products have been identified as a central pillar to long-term competitiveness of agricultural production in Viet Nam. The agriculture sector has faced challenges in harmonizing the country's standards to conform with international food quality and safety standards: (i) not well established safety-related laws and regulations regarding penalty enforcement; (ii) unclear institutional responsibilities; and (iii) limited capacity in terms of staff, laboratories, and funds to properly perform crop inspections and certifications. Several factors have contributed to increasing contamination in food products and putting food quality and safety at risk including (i) the increasing demand of agricultural production in peri-urban areas; (ii) high level use of agro-chemicals in production; (iii) the untreated disposal of livestock waste in densely populated areas; and (iv) limited knowledge about food safety issues and capacity to implement good agricultural practices among producers, processors, and traders.<sup>1</sup>

2. The Quality and Safety Enhancement of Agricultural Products and Biogas Development Project was designed to (i) create effective regulatory institutions to manage agro-products safety and quality standards; (ii) promote the development of agro-production, processing, and marketing to ensure food quality and safety; and (iii) support biogas development to supply clean energy to households and manage livestock waste pollution. Its component 2 required to develop safe agricultural zones (SAZs) with agricultural lands free from excessive microbiological, chemical, and heavy metal pollution and contamination, and that met Viet Nam's standard for irrigation water and soil. Under component 3, biogas technology was introduced to reduce environmental pollution. Bio-digestion could also provide an alternative household energy source and serve as a safe and economic substitute to chemical fertilizers (footnote 1). The project was implemented in 16 provinces that produced fruits, vegetables, tea, and livestock.

### B. Expected Impacts, Outcomes, and Outputs

3. The project's expected impact was agriculture sector's sustainable and equitable growth through more livelihood opportunities and better human health. The project's intended outcome was improved quality and safety of agricultural products. There were four expected outputs: (i) improved regulatory framework and fully operational quality and safety system for agro-products; (ii) infrastructure and facilities for quality and safety of agro-products; (iii) biogas development for clean energy, improved agro-product safety, and reduced health hazards from livestock wastes; and (iv) effective project management support established at central and provincial levels. The design and monitoring framework (DMF) was revised during the midterm review (MTR) with seven performance targets and/or indicators modified at the output level.<sup>2</sup>

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<sup>1</sup> Asian Development Bank (ADB). 2009. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Socialist Republic of Viet Nam for the Quality and Safety Enhancement of Agricultural Products and Biogas Development Project*. Manila.

<sup>2</sup> See effectiveness assessment for further information in paras. 15–19.

### C. Provision of Inputs

4. ADB's Board approved the SDR62.4 million loan (\$95.0 million equivalent) in March 2009 and became effective in August 2009. The project closed in June 2016 after a 12-month delay. The project completion report (PCR)<sup>3</sup> indicated that the loan closing was extended to complete a few SAZ models, support SAZ-market links, and finish food quality and safety research and dissemination activities.<sup>4</sup>

5. While total project cost was estimated at \$110.39 million, actual project costs were \$109.95 million. In total project costs, fund reallocations among components were agreed during project execution.<sup>5</sup>

6. Total disbursements amounted to 96.9% of the \$95.0 million originally committed. At loan closing, the undisbursed amount of \$1.5 million was cancelled. The initial disbursement took place in November 2009 and the final in January 2017. The PCR indicated that disbursement was slower than originally projected due to the wide geographic coverage of the project, the complex nature of project management and implementation arrangements, and the limited experience with food quality and safety in the country. At appraisal, 208 person-months of consulting services were proposed as inputs (60 person-months of international specialists and 148 person-months of national specialists). A total of 166.8 person-months by the end of the project had been used (35.7 person-months of international specialists and 131.1 person-months of national specialists).

7. The project was classified category B for the environment. Initial environmental examinations suggested that only minor environmental impacts were anticipated. An environmental management plan was prepared with mitigation and monitoring measures. Environmental protection was included in the training materials provided for the certification of agricultural practices and variety replacement. The project was category C for resettlement as no resettlement was expected. The project was classified category B for indigenous peoples, however, no indigenous peoples' action plan was prepared at appraisal. The PCR did not provide adequate basis to justify this. It explained "the Summary Poverty Reduction and Social Strategy of the [report and recommendation of the President] RRP indicates limited beneficial impact for indigenous peoples. It proposed 'Other Action' in terms of measures to address any issues but these were not specified."<sup>6</sup> The PCR also did not mention what action was taken for what impact on indigenous people.<sup>7</sup>

8. The project had a \$1.8 million associated technical assistance (TA) at \$1.8 million,<sup>8</sup> of which, ADB financed \$1.5 million through a grant, and the government provided \$0.3 million. According to the PCR, the TA account was closed in November 2013, with a 99% disbursement of funds.<sup>9</sup>

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<sup>3</sup> ADB. 2018. *Project Completion Report: Quality and Safety Enhancement of Agricultural Products and Biogas Development Project in Viet Nam*. Manila.

<sup>4</sup> Footnote 3, para. 25.

<sup>5</sup> Footnote 3, para. 22. These were (i) actual component 1 costs were only 28.6% of what was originally estimated, (ii) component 2 costs were 7% greater than estimated, (iii) component 3 costs were 18% lower than estimated, and (iv) component 4 costs were 32.8% greater than originally estimated.

<sup>6</sup> Footnote 3, p. 9.

<sup>7</sup> In addition, RRP did not describe what impact and what benefits on ethnic minorities would be expected.

<sup>8</sup> Footnote 3, para. 27 and Appendix 12.

<sup>9</sup> Footnote 3, para. 27.

## D. Implementation Arrangements

9. The Ministry of Agriculture and Rural Development (MARD) was the project's executing agency. There were several implementing units created within the agencies of MARD. A central project management unit (CPMU) was established in the Agricultural Projects Management Board for overall project coordination and management. A total of 16 provincial project management units (PPMUs) were established in the provincial branches of the Department of Agriculture and Rural Development for local project management. An institutional project management unit (IPMU) was established in the Department of Crop Protection to implement regulatory development activities. A biogas project management unit (BPMU) was established in the Department of Livestock Production. Finally, participating financial institutions (PFIs) utilized the Ministry of Finance-administered credit line to finance eligible household biogas investments. During implementation, the envisaged institutional arrangements were followed. The CPMU was established within MARD in December 2008, the IPMU and BPMU in March 2009, and the 16 PPMUs were established between March and May 2009. The selected PFIs for the biogas project financing were the Viet Nam Bank for Agriculture and Rural Development, and the Central Credit Fund (later renamed as Cooperative Bank). The PCR documented that no dedicated project steering committee was formed.<sup>10</sup>

10. The accompanying TA was designed to support the CPMU during the start of the project and provide technical support in the design of the biogas development component. The first part of the TA provided support to project implementation, oversight, and capacity building. The project implementation manual was prepared, procurement training was provided, and SAZ planning was conducted. The second part provided support for the design of investments and implementation of biogas development projects.

11. The PCR indicated that the borrower and the executing authority largely complied with the loan covenants.<sup>11</sup> A total of 33 out of 35 covenants were fully complied, two covenants were partially complied, and a covenant was amended. The amended covenant was to allow households that had received a grant for the construction of a biogas digester to borrow under the project credit line.<sup>12</sup> One of partially complied covenants was related to the establishment of eligibility criteria, including technical and environmental criteria, for the financing of biogas digester construction. The other partially complied covenant was related to the establishment of a project performance monitoring system (PPMS) that undermined proper monitoring of the project, given the project complexity. A PPMS was to be established in 2010, but the consulting services work package that was supposed to implement the PPMS for the CPMU was only awarded in December 2013. Also, the consulting services for the PPMS finished in December 2015, thus, it failed to monitor the activities undertaken until project closing in June 2016. A separate monitoring and evaluation system was established as a corrective measure under the TA support. Audited project reports were submitted on time except for the first year due to the delay in contracting an external auditor.

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<sup>10</sup> Footnote 3, para. 26.

<sup>11</sup> Footnote 3, para. 35 and Appendix 6.

<sup>12</sup> In the original covenant, households receiving these grants were not allowed to borrow from the credit line.

## II. EVALUATION OF PERFORMANCE AND RATINGS

### A. Relevance of Design and Formulation

12. The PCR rated the project relevant. The rating was based on the project outcome's alignment with government plans to improve food security and the quality of high-value agriculture and agro-products for domestic and international markets.<sup>13</sup> The government was interested to establish a comprehensive framework and action plan for food safety after Viet Nam's accession to the World Trade Organization in 2006. At design stage, the project was aligned with ADB's country partnership strategy (CPS), 2007–2010 targets to strengthen institutional capacity, promote equitable development and sustainable environmental management, and increase agricultural production value.<sup>14</sup> The CPS, 2012–2015 at completion referred to the need to continue the modernization and market orientation of agriculture, while ensuring environmental sustainability and resilience to climate change.<sup>15</sup> Food quality and safety were a government priority as reflected in its strategic sector development plans.<sup>16</sup>

13. The PCR emphasized weaknesses in project design that could have been foreseen.<sup>17</sup> The project scope was deemed as overly ambitious, covering 16 geographically dispersed provinces. Many activities were programmed without considering their interdependencies with other activities and components.<sup>18</sup> Problems for the implementation and achievements of outcome arose that led to changes in project scope. During the MTR in November 2013, it was agreed to adjust seven output performance targets, remove three indicators, and reallocate funds to different activities.<sup>19</sup> The MTR mission noted that the large provincial coverage limited the available investment budget per province.<sup>20</sup> At design stage, the available budget and feasibility to achieve performance targets were not taken into account adequately.

14. Intended project's outcome was aligned with government priorities and pertinent ADB strategies. However, the project did present foreseeable deficiencies at design. It was an ambitious design to implement a varied set of activities and the wide coverage of 16 provinces that made it difficult for the project to achieve the intended outcome. Some original performance targets were not realistic and had to be reduced considerably during implementation. For example, the target SAZ areas was revised from 45,627 hectares (ha) to 2,500 ha.<sup>21</sup> This was due to inadequate fund allocation for the SAZ development, reflecting weak project design. The change diminished the project's relevance. Also, the project had a complex implementation structure with 16 PPMUs exhibiting limited technical capacity. Thus, the CPMU spent additional time and resources to cover the existing PPMUs' capacity gaps. The validation considers these significant design deficiencies that should have been anticipated at appraisal. In addition, the

<sup>13</sup> Government of Viet Nam, 9th National Congress. 2001. *Strategy for Socio-Economic Development, 2001–2010*. Ha Noi.

<sup>14</sup> ADB. 2006. *Country Strategy and Program: Viet Nam, 2007–2010*. Manila.

<sup>15</sup> ADB. 2012. *Country Strategy and Program: Viet Nam, 2012–2015*. Manila.

<sup>16</sup> Government of Viet Nam. 2011. *The Five-Year Socio-Economic Development Plan 2011–2015*. Ha Noi.

<sup>17</sup> Footnote 3. Para. 5 mentioned "the DMF did not include indicators for increased livelihoods, and the improved health indicators at the output level were not measurable. Several indicators at the output level were unclear, difficult to measure, or overambitious."

<sup>18</sup> For example, livestock biogas development was not always planned in the same areas as the SAZs.

<sup>19</sup> Footnote 3, Appendix 11 provided information on the reallocation of funds at MTR.

<sup>20</sup> ADB (Southeast Asia Department). 2013. Midterm Review Mission to Viet Nam: Quality and Safety Enhancement of Agricultural Products and Biogas Development Project. Back-to-office report. 3 December (internal).

<sup>21</sup> Another example was the target area for safe variety replacement, reducing it from 72,355 ha to 14,000 ha, and it achieved 16,000 ha.

design logic and justification of some components were based on limited empirical evidence. The targeted size of the interventions was not justified, and neither were the linkages with the incidence of food poisoning, the pollution levels, or the incidence of pests and diseases.<sup>22</sup> Due to these design deficiencies, this validation assesses the project less than relevant.

## **B. Effectiveness in Achieving Project Outcomes and Outputs**

15. The PCR rated the project effective. It provided information of the achievement of the four outcome performance indicators: (i) from 2009 to 2015, the production of vegetables, fruit, and tea increased by 633%,<sup>23</sup> processing increased by 351%,<sup>24</sup> and trading increased by 716%,<sup>25</sup> all of these results exceeded the original target of 200% increase; (ii) by 2015, 5% of the processed vegetables, fruits, and tea certified safe by accredited laboratories were below the 20% DMF target; (iii) decrease in incidence of food poisoning related to unsafe vegetables, fruits, and tea was not assessed at completion;<sup>26</sup> (iv) the proposed reduction of medical treatment cost due to foodborne diseases was not assessed at completion.<sup>27</sup> The report elaborated that the target for the second indicator was too ambitious<sup>28</sup> and that a 5% certified safe was still a significant achievement since it represented 212,000 tons of certified produce in 2015, as compared to 47,000 tons in 2009. The PCR argued that the last two indicators were not relevant to assess project outcome, indicating a design issue of the project.

16. The PCR documented achievements in terms of output performance indicators, considering the agreed changes to some indicators and targets after MTR. The changes in scope at MTR drastically reduced several output performance targets as budget availability was constrained due to the large number of provinces that the project covered. A total of 19 of the 23 output targets were achieved, 2 were partly achieved,<sup>29</sup> 1 was not achieved, and 1 was not assessed.<sup>30</sup>

17. Achieved outputs under component 1 were (i) 14 legal or regulatory documents were completed, (ii) food safety units were established in the corresponding government agencies, (iii) a food safety monitoring system was established, (iv) 993 staff of MARD and Department of Agriculture and Rural Development were trained in food safety and quality certification systems management, (v) 23 certification bodies were established, and (vi) two national good agricultural practices (GAPs) standards and one technical regulation was adopted. This validation notes that the most important output of having 20 GAPs standards was not achieved, while the PCR said it was achieved.<sup>31</sup> In component 2, achieved outputs were (i) 3,100 ha were established as SAZ

<sup>22</sup> Footnote 1, para. 10. The RRP provided information on how quality standards had affected the access of these products to domestic and international markets.

<sup>23</sup> Footnote 3, Appendix 1. The DMF documented an increase from 97,344 tons in 2009 to 713,000 tons in 2015. The PCR did not indicate, however, whether the production increases corresponded to the project's provinces.

<sup>24</sup> The DMF documented an increase from 47,000 tons in 2009 to 212,000 tons in 2015.

<sup>25</sup> The DMF did not present data in absolute value.

<sup>26</sup> The DMF noted that there were no recorded food poisoning from consuming these products in the project's provinces.

<sup>27</sup> The DMF noted that since there were no recorded food poisoning from consuming these products, there were no estimates of medical costs.

<sup>28</sup> Footnote 3, Appendix 1. The DMF targets were over ambitious as testing laboratories were far from the production areas and the testing cost was high. The numbers of certified projects were 11% vegetables, 5% fruits, and 3% tea.

<sup>29</sup> These were (i) the assessment of all policies and regulations on quality and safety of agricultural products was completed by 2012 instead of 2010; and (ii) out of the 40,000 originally planned, 30,078 household's biogas units were constructed.

<sup>30</sup> A standing committee on food safety was supposed to be formed and chaired by MARD. However, the PCR indicated that no committee was formed as the responsibility for food safety was under the Ministry of Health.

<sup>31</sup> Footnote 3, Appendix 1.

models and provided with facilities for quality and safety;<sup>32</sup> (ii) 27,477 households were issued with certificates of food safety; (iii) more than 40,000 people participated in trainings on GAP, food safety, and system management; (iv) 11 new pest and disease tolerant varieties were introduced; and (v) 15,230 ha were replaced with disease tolerant varieties.<sup>33</sup> Achieved outputs in component 3 were 30,078 household's biogas units were constructed and 59,808 people participated in training for the construction and operation of biogas units.<sup>34</sup> Component 4's outputs were achieved, with CPMU, IPMU, BPMU, PPMUs, and a monitoring and evaluation system established.

18. The PCR provided limited information on the management of possible project impacts on the environment.<sup>35</sup> It indicated that some voluntary land donations occurred to facilitate the SAZ development, but no further information was documented. Ethnic minorities were also expected to be positively impacted by the project, with 1,506 ethnic minority households were supported to obtain certifications, and 25,660 were supported for crop variety replacements.<sup>36</sup> In addition, the PCR assessed that project implementation was successful in achieving the gender action plan targets: 8 of the 10 activities (80%) were completed and 90% of the targets were achieved. Although the DMF did not contain gender-specific indicators, the PCR provided information on gender specific results, such as (i) women represented more than 50% of beneficiaries (2.2 million) from infrastructure and equipment upgrades of SAZ models, certification, and the introduction of new varieties; and (ii) 68,020 women benefited from the installation of biogas systems, representing 50% of all beneficiaries.<sup>37</sup>

19. Project outcome was partly achieved where out of four outcome indicators, one targeted indicator was achieved, one partly achieved, and two were not assessed. Although outputs were largely achieved, some of the proposed indicators and targets to measure achievement were revised downwards at MTR.<sup>38</sup> As a result, the agricultural area covered by SAZs and new varieties was significantly reduced, and the total production certified was lower than originally anticipated.<sup>39</sup> These facts raised concerns about what proportion of increased agricultural production of vegetables, fruits, and tea could be directly attributed to the project activities. It was not clear if the quality and safety of agriculture products improved with limited available information. This validation views the project less than effective.

### C. Efficiency of Resource Use

20. The PCR rated the project efficient. The economic internal rate of return (EIRR) was estimated at project completion. The economic analysis at completion was not directly

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<sup>32</sup> Footnote 3, Appendix 8. The aggregated figures for the interventions in all provinces were 237.6 kilometers (km) of access roads; 2,787 km of new or upgraded irrigation canals; 64.6 km of electricity power lines; and 1,522 locations of refuse collection points.

<sup>33</sup> The distribution was 1,757 ha of fruits and 13,473 ha of tea.

<sup>34</sup> No demonstration sites for SAZ model were established; 3,100 ha of agricultural land were established as SAZ models and provided with facilities for quality and safety; and 30,078 household's biogas units were constructed. These achievements were much lower than originally expected.

<sup>35</sup> ADB (Independent Evaluation Department). 2018. Project Safeguard Assessment: Quality and Safety Enhancement of Agricultural Products and Biogas Development Project in Viet Nam. 8 August (internal).

<sup>36</sup> Footnote 3, para. 33.

<sup>37</sup> Footnote 3, Appendix 14.

<sup>38</sup> Targets of GAP standards for selected crops were revised from 20 to 5; SAZ coverage area from 45,626 ha to 2,500 ha; and the agricultural land area replaced with new varieties went from 72,355 ha to 15,230 ha.

<sup>39</sup> No demonstration sites were established in the provinces. It was planned that three demonstration sites were to be established in each of the project's SAZ province.

comparable to the analysis undertaken at project design. At design, EIRR was calculated for three subprojects instead of the entire project,<sup>40</sup> the EIRR for each of the subprojects ranged from 24.8% to 28.9%. The estimated project level EIRR at completion was 13.1%. The approach used was based on the quantification of benefits and costs for outputs 2 and 3. For output 2, benefits were based on increased agricultural production in SAZ areas where support infrastructure was built.<sup>41</sup> For output 3, benefits were based on the fuel cost savings from substituting traditional fuels with biogas. The adopted approach to estimate the EIRR had the following limitations: (i) limited information was provided to justify the validity of the counterfactual (agricultural producers outside of SAZ, and households not receiving biogas digesters); and (ii) no information was provided on prices, changes in yields, and cost structures for the agricultural production models, instead aggregate revenues and costs were used.

21. The estimated EIRR at completion was greater than 12%. Even though the project benefits were quite sensitive to benefits and cost changes, they represented a lower bound since other benefits of the project were not included. On the whole, the methodology used to calculate the EIRR was valid despite some limitations in quantifying benefits. Process efficiency was mixed. No significant cost overruns occurred, although budget was reassigned among project components. Fund disbursement was much slower than anticipated due to the complex nature of project management and implementation arrangements. Accordingly, implementation delays resulted in a 12-month extension. This validation assesses the project efficient.

#### **D. Preliminary Assessment of Sustainability**

22. The PCR rated the project less than likely sustainable. Most of the arguments presented to support the rating were related to social and financial sustainability. The project funded the initial certification of 25,000 households. As new food quality and safety standards will be developed, farmers will have to borne higher compliance costs. The PCR argued that while farmers have increased income, they may not be willing to continue being certified unless they perceive additional benefits from it. The PCR also mentioned that the sustainability of rural infrastructures developed for SAZ models did not seem guaranteed. The PCR did not provide evidence to justify adequate funds for local government's operation and maintenance (O&M).

23. This validation assesses the project less than likely sustainable. In addition to the issues presented in the PCR, this validation considers that similar problems are likely to arise in other interventions financed by this operation. The sustainability of biogas development does not appear to be guaranteed. The PCR did not provide evidence on the O&M requirements for biogas infrastructure and how households would finance them.<sup>42</sup> The demonstration effect of this intervention was also questionable as a combination of subsidies and credits had to be provided for households to adopt. In addition, little information was presented on the distribution and adoption of improved varieties, what costs to be borne by the farmers, and their willingness to adopt. Finally, the PCR did not provide information on the sustainability of the investments in public management of food quality and service. While public agencies were strengthened to perform the inspection, monitoring, and certifying services including the upgrade and expansion of public testing laboratories, no information was presented about securing budget to cover O&M of the expanded services.

<sup>40</sup> The sample subprojects included (i) high-yield tea subproject in Yen Bai Province, (ii) lychee fruits subproject in Bac Giang Province, and (iii) vegetable (tomatoes) subproject in Vinh Phuc Province.

<sup>41</sup> Although the PCR claimed that these benefits quantified were only attributable to infrastructure in SAZ, other activities of output 2 may have also contributed.

<sup>42</sup> ADB's Southeast Asia Department explained that biogas digester's O&M requirement was minimal based on their other projects.

### III. OTHER PERFORMANCE ASSESSMENTS

#### A. Preliminary Assessment of Development Impact

24. The PCR rated the project's development impact satisfactory. It presented some evidence on DMF's impact indicators. Annual average growth of agriculture value added was 3.1% from 2011 to 2015. Growth of fruits, vegetables, and tea products was 27.8%. Annual agriculture export growth was 11.3%, with project-supported crops reaching 21.4% growth. While data presented show how the DMF targets were substantially met for the period 2011–2015, the PCR did not provide information for the DMF target period of 2016–2017. A question of project attribution also arises for both impacts and outcome given the large reduction in the total number of agricultural lands that benefited from project interventions.

25. The PCR stated that the project had positive impacts on the livelihoods of VietGAP-certified farmers (part of the SAZ models) who adopted improved agricultural practices and invested in biogas digesters. Positive health and environmental impacts were supposedly achieved through better use of fertilizers and agrochemicals. However, the PCR did not provide evidence to support these claims. Finally, the PCR suggested that while the project had a significant impact on women, the impact was "less certain" on poor and ethnic minorities.

26. This validation views the project's development impact less than satisfactory. The PCR did not provide specific evidence on the positive impacts on agricultural and export value. Additional positive impacts are expected to come from the capacity building of both government agencies and farmers.

#### B. Performance of the Borrower and Executing Agency

27. The PCR assessed the performance of the borrower and the executing agencies satisfactory. It emphasized that, while the CPMU performed reasonably well in implementing activities, the performance of PPMUs varied due to differences in capacity across 16 provincial government agencies. The lack of a dedicated project steering committee exacerbated coordination problems. ADB reported some delays and shortfalls in the transfer of funds from provinces to PPMUs. As far as PFIs performance, the PCR stated that their lending activities for biogas "were largely unsupervised by the CPMU and PPMUs." No assessment was presented about the performance of the IPMU and BPMU. On the whole, the CPMU achieved the output targets, although these had to be revised after a slow initial implementation.

28. As documented in the PCR, there was uneven performance among PPMUs, and project implementation started slowly. The project's MTR accelerated implementation, changes in scope were taken to provide more realistic targets. On the whole, the CPMU achieved these revised targets, although project closing occurred 12 months later than originally estimated. Coordination among the different government agencies had some deficiencies, and the PPMS was not established on time. However, these issues did not preclude the executing agency to achieve results. This validation assesses the performance of the borrower and executing agency satisfactory.

#### C. Performance of the Asian Development Bank

29. The PCR assessed the performance of ADB satisfactory. It presented information on supervision and problem resolution activities during implementation. ADB fielded 15 missions to support project implementation from March 2010 to April 2016. The PCR noted that ADB changed

project officers several times, resulting in lack of project leadership. A permanent project analyst counterbalanced the frequent team leader changes, and successfully managed to administer the project together with the CPMU. The PCR also emphasized shortcomings in the design and monitoring of the project. The DMF target design and fund allocation at appraisal were not realistic and had to be revised during MTR.<sup>43</sup>

30. Although the design, supervision, and implementation activities seemed appropriate, ADB had some shortcomings. The PCR indicated that the project design had foreseeable deficiencies in project scope and DMF targets. While some of these issues had to do with the complexity of the project execution arrangements and inadequate local capacity, investing more resources in the appraisal could have prevented other issues.<sup>44</sup> ADB responded adequately to manage project implementation problems and revised targets accordingly. However, these revisions were not duly incorporated into the project monitoring systems. High turnover of project officers may have affected implementation effectiveness. Finally, further technical support could have been provided in implementing safeguards and eligibility rules for selecting beneficiaries. Considering the project complexity including 16 provinces and high turnover of project officers, this validation views ADB performance satisfactory.

#### **D. Others**

31. The project financed consulting services to help process regulatory development and project management. Some difficulties arose in service implementation due to delays in contracting and unclear allocation of consultants to support the different PMUs. The PCR mentioned that all consultants were assigned to the CPMU, leaving the IPMU and BPMU without dedicated support. On the whole, the PCR suggested that the government was generally satisfied with the consultants' performance, particularly in supporting regulatory development, organizing training courses, creating the SAZs, and preparing plans for certification and monitoring. Consultants also helped prepare progress reports that consolidated information from the 19 implementation agencies and were generally submitted in a timely manner.

32. The PCR provided information on the main procurement issues that arose during project implementation: (i) several PPMUs had limited experience with ADB procurement procedures and had to rely heavily on CPMU staff; (ii) ADB rules did not allow public research institutes to bid for contracts, resulting in implementation delays in component 2;<sup>45</sup> and (iii) too many civil works and services contracts were initially established at the province level that ADB had to review and approve, creating an implementation bottleneck. During the MTR, it was agreed that all civil works within a province were to be consolidated into a single contract.

## **IV. OVERALL ASSESSMENT, LESSONS, AND RECOMMENDATIONS**

### **A. Overall Assessment and Ratings**

33. Overall, the PCR rated the project successful. This validation assesses the project less than successful. Under the core criteria, the program is less than relevant, less than effective, efficient, and less than likely sustainable. Although the project was aligned with the country's and

<sup>43</sup> ADB failed to reflect the revisions in the PPMs.

<sup>44</sup> For example, the PCR indicated problems with ADB procurement rules for agricultural research. As most research were conducted by public institutions, they were ineligible to bid for contracts, thus, a significant delay occurred in the awarding of the contracts.

<sup>45</sup> For example, the National Institute of Agricultural Planning and Projections was to assess safe agricultural production areas; however, it was ineligible to bid for a contract based on ADB rules.

ADB's priorities, it had significant design deficiencies. The project outcome was partially achieved, and several output targets were below what was originally targeted even when assessed with respect to the MTR's revised targets. Both the production of vegetables, fruits, and tea, and its certification grew less than expected. Fewer food quality and safety regulations were approved. For the efficient rating, the estimated EIRR at completion is greater than 12%. For the less than likely sustainable rating, food quality and safety standards may imply higher compliance costs resulting in farmers' unwillingness to continue being certified. In addition, there is no evidence on providing funds for adequate O&M of several project interventions. The table summarizes the ratings.

### Overall Ratings

Validation Criteria	PCR	IED Review	Reason for Disagreement and/or Comments
Relevance	Relevant	Less than relevant	Project had significant design issues.
Effectiveness	Effective	Less than effective	Outcome and outputs were partially achieved. Supporting information for the outcome achievement was limited.
Efficiency	Efficient	Efficient	
Sustainability	Less than likely sustainable	Less than likely sustainable	
<b>Overall assessment</b>	<b>Successful</b>	<b>Less than successful</b>	
Preliminary assessment of impact	Satisfactory	Less than satisfactory	No specific evidence was provided to support the positive impact.
Borrower and executing agency	Satisfactory	Satisfactory	
Performance of ADB	Satisfactory	Satisfactory	
Quality of PCR		Less than satisfactory	Para. 39.

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

## B. Lessons

34. The main lessons identified in the PCR: (i) it is preferable to reduce the scope and geographical coverage of innovative interventions (SAZs, standards) to ensure effective implementation and results; (ii) farmers may require financial assistance to obtain certifications if they are not convinced of its benefits; (iii) the establishment of SAZs and the clustering of agribusiness activities around them can facilitate value chain development; and (iv) inadequate assessment of technical design, project scope, and institutional capacity can lead to problems in project implementation.

35. This validation builds on the PCR's key lessons and suggests the following lessons:

- (i) **Sector-level lesson.** The management of food quality and safety requires actions beyond the development of a regulatory framework. On one hand, institutional coordination is required among different agencies. At the central level, MARD must coordinate well with the Ministry of Health for food safety management, and with the Ministry of Industry and Trade to ensure adequate compliance with standards required for export markets. Coordination is also important between central- and provincial-level government agencies to ensure that local conditions are taken into

consideration. On the other hand, public resources are needed to monitor and enforce standards together with other actions to promote compliance among farmers.

- (ii) **Results framework and methodology level lesson.** It is important to monitor the project's impact on farmer's livelihoods, particularly agricultural income. This information is useful to understand their intention to adopt GAP, new crop varieties, or certification of their production, and to determine the possibilities to scale-up the intervention. Monitoring the incidence of foodborne diseases and pests, and access to export markets is important to adequately design and measure the project's results. Finally, appropriate performance indicators should be established to assess public agencies' monitoring, inspecting, and enforcing services.

### **C. Recommendations for Follow-Up**

36. This validation builds on the PCR's key recommendations and suggests the following: (i) the government should ensure effective oversight and implementation of the new food quality and safety regulatory framework, including the coordination among agencies; (ii) awareness of food product certification should be promoted among consumers; (iii) links between SAZs' farmers and the rest of the value chain should be strengthened; and (iv) further support is needed for research of new varieties and increasing their access and use by farmers.

## **V. OTHER CONSIDERATIONS AND FOLLOW-UP**

### **A. Monitoring and Reporting**

37. The PCR presented data collected through the project end survey,<sup>46</sup> and the completion report mission. The PCR documented the problems that arose in establishing a PPMS that weakened the implementation monitoring and evaluation framework. Further discussion was presented on the poor adequacy of some outcome and output indicators, their unclear definition and difficulty for measuring, and their unrealistic targets.

38. This validation is on the same view with the PCR's assessments on the limitations of the project monitoring and evaluation framework, and adds the following limitations of the proposed DMF: (i) no metric was established to assess project's impact on the livelihoods (e.g., household incomes), equity (i.e., poverty rates), or the environment (e.g., greenhouse gas emissions, pollution); (ii) a valid control group was not established to determine project attribution; (iii) the definition of several indicators and its methodology for computation was not straightforward,<sup>47</sup> in many instances a baseline was not provided; (iv) indicators could have been included to measure performance of the public laboratories (e.g., number of inspections, average time, percentage of detection); (v) no indicator was included to measure the incidence of pests and diseases in the supported crops; and (vi) indicators could have been included to monitor access to exports markets resulting from increased food safety and quality.

### **B. Comments on Project Completion Report Quality**

39. This validation finds the quality of the PCR less than satisfactory. Although the PCR was well written and comprehensive, the performance ratings were not appropriate for two core

<sup>46</sup> Supervised by the CPMU and used in the government's PCR.

<sup>47</sup> For example, the outcome indicator related to the increase in the production of safe crops did not specify if this was for the provinces of intervention, nor it distinguished by type of product. The definition of safe was not specified.

criteria. Additional aspects that could have been improved are (i) further discussion on environmental and social safeguards should have been provided, particularly for the infrastructure constructed in SAZs; (ii) providing a rating for the development impacts of the project; and (iii) some of the DMF impact indicators presented used data until 2015, while it would have been more appropriate to use data for the 2016–2018 period.

### **C. Data Sources for Validation**

40. Data sources for this validation were the PCR, the RRP, the government's PCR,<sup>48</sup> TA completion report, and back-to-office reports and aide memoire relating to loan review missions and MTR mission. Viet Nam's CPS for 2007–2010 and 2012–2015 were also reviewed.

### **D. Recommendation for Independent Evaluation Department Follow-Up**

41. This validation does not recommend further Independent Evaluation Department follow-up.

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<sup>48</sup> Government of Viet Nam, Ministry of Agriculture and Rural Development. 2015. *Project Completion Report for Quality and Safety Enhancement of Agricultural Products and Biogas Development Project*. Ha Noi.