Implementation Completion Report (ICR) Review

Report Number: ICRR0022983

1. Project Data

Actual	85,9	32,453.99	14,851,926.28
Revised Commitment	85,255,056.13		14,851,926.28
Original Commitment	31,000,000.00		15,000,000.00
	IBRD/ID	A (USD)	Grants (USD)
Bank Approval Date 22-Mar-2011	Closing 30-Sep-2	Date (Actual) 2021	
L/C/TF Number(s) IDA-48840,IDA-60130,IE 99692	•	Date (Original) 2016	Total Project Cost (USD) 85,002,759.75
Country Benin		e Area(Lead) ire and Food	
Project ID P115886	Project BJ: Agric	Name cultural Diversification	

2. Project Objectives and Components

Ebru Karamete

a. Objectives

Richard Anson

The Project Development Objective (PDO), as stated in the IDA Agreements (IDA H6550, IDA 48840, IDA 60130), Trust Fund Agreement (TFA 99692) and the Project Appraisal Document (PAD, 2010), was to: "restore and improve productivity and value addition for selected value chains in the Recipients' territory".

Christopher David Nelson

IEGSD (Unit 4)

While the PDO of Agricultural Productivity and Diversification Project (PADA) remained the same, the Project had several restructurings and increased some of the key outcome and impact level targets (see below).

For purposes of assessing the extent to which the PDO was achieved (Section 4), this review parses the PDO into two objectives:

Objective 1: to restore and improve productivity for selected value chains;

Objective 2: to restore and improve value addition for selected value chains.

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

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

c. Will a split evaluation be undertaken?
No

d. Components

- 1) Adoption of Improved Technologies and Restoration of Productivity (Original allocation: US\$21 million; Revised allocation: US\$29 million; Actual cost: US\$ 31.0 million). This component aimed to support the restoration of farmers' means of subsistence in flood-damaged areas and the adoption of improved technologies. Specifically, the project: supported the production of cereals (maize and rice), aquaculture, and livestock through the acquisition and distribution of production inputs to farmers; provided matching grants to strengthen producers' and agro-processors' access to improved technologies, and competitive grants to finance innovative activities for the development of the targeted value chains, including rice, cashew, pineapple, and aquaculture;
- 2) <u>Development/rehabilitation of Production and Market Infrastructures</u> (Original allocation: US\$13 million; Revised allocation: US\$32.5 million; Actual cost: US\$ 26.0 million). This component supported both the development/rehabilitation of irrigation infrastructure and the expansion/improvements of market infrastructure. With regard to irrigation infrastructure, the project supported primarily the rehabilitation and development of irrigation systems for the rice value chain. With regard to market infrastructure, project support under this component funded the construction and rehabilitation of critical market and storage facilities (for input and product storage and marketing), and provided critical market information and services to beneficiaries (especially spatial price information for inputs and outputs), in synergy and complementarity with similar value chain development projects;
- 3) <u>Value Chain Coordination and Access to Finance for Private Initiatives</u> (Original allocation: US\$ 5.6 million; Revised allocation: US\$15.1 million; Actual cost: US\$ 13.9 million). This component aimed to build value chain coordination institutions/access to markets and to facilitate agricultural financing through: (a) supporting creation of well-structured inter-professions, the organization of producers and strengthening roles and partnerships between private and public stakeholders involving targeted value chains; (b) financing provision of key development services, market information systems, quality control

systems/standards, market promotion at regional and international levels; (c) facilitating access to financial services among project beneficiaries along targeted value chains;

- 4) <u>Sector Program Coordination and Project Management</u> (Original allocation: US\$6.4 million; Revised allocation: US\$14.4 million; Actual cost: US\$15 million). This component aimed to: (a) strengthen the capacity of the Ministry of Agriculture, Livestock and Fisheries (MAEP) to coordinate the agriculture sector program through: financing studies and consultant services that support the expanded role of the private sector and enhanced implementation of sector coordination tools; strengthening of fiduciary capacities; and improving the quality and targeting of public expenditures in agriculture sector; (b) support project management and monitoring and evaluation.
- e. Comments on Project Cost, Financing, Borrower Contribution, and Dates
 - (i) Project Cost: The total original project cost was US\$61.4 million (including counterpart contribution of \$15.4 million from Government and beneficiaries). With an Additional Financing (AF) of \$45 million (approved in 2017), the resulting total project cost was US\$ 106.4 million. The actual project cost/actual disbursements at closing was US\$97.9 million (or 92%). The difference was due to cancellation of some IDA funds, lagging implementation of some components and decrease in the Government's counterpart contribution (see ICR, Data Sheet and Annex 3).
 - (ii) Financing: At approval, the financing amounts included: IDA Credit:\$25 million; IDA grant: \$6 million; Trust Funds (grant): \$15 million; Government counterpart funds: \$8.7 million; contributions from beneficiary local communities: \$6.7 million. An AF IDA Credit was added in 2017, for \$45 million, totaling \$106.4 million. By the closing of the project, total financing and actual disbursements were: \$97.9 million, with: World Bank (IDA and TF): \$85.9 million; Government counterpart contributions: \$3 million; and beneficiary contributions: \$9 million.
 - (iii) Borrower/Community Contribution: The original contribution from Government was \$8.7 million, and from beneficiary local communities was \$6.7 million. At closing, the final contribution/disbursements from Government was \$3.0 million and from local communities was \$9.0 million (77% and 134%, respectively). The lower contribution from Government was due primarily to the "limited fiscal space and budgetary constraints", experienced especially after the initial 3 years of implementation. The fiscal challenges added by COVID also contributed to the lower Government counterpart contributions.
 - (iv) Dates: The project was approved on March 22, 2011, became effective on March 13, 2012. A midterm review was carried out in 2014. The original closing date was December 15, 2016, with the actual closing being September 30, 2021 (i.e., an extension 57 months). This extension was due to enable implementation of additional financing, which was coupled with increased targets, and also due to some implementation delays, exacerbated by COVID conditions in Benin.
 - (v) Restructurings and Significant Changes During Implementation: While the Agricultural Productivity and Diversification Project had four level-2 restructurings (2014, 2016, 2021), coupled with additional financing (2017), the PDO remained the same, while increasing some of the key outcome and impact level targets. The main revisions included: (i) 2014: to reallocate TF proceeds between disbursement categories to help finance additional food security-related subprojects; (ii) 2016: to reallocate IDA funds between disbursement categories to correct original under allocations and to enable smooth completion of project activities; (iii) 2017: to provide additional IDA financing (\$45 M) to: consolidate and scale-up Project

achievements and strengthen project focus on income-generating activities and improving nutritional status of poor households; to extend the closing date; increased targets for various targets in the results framework; (iv) 2021: to reallocate IDA resources between disbursement categories to support Government response to the disruption of food supplies due to the COVID-19 pandemic; to cancel some of the IDA resources, and to reallocate funds between disbursement categories, consistent with updated project requirements. Available information in the ICR (and other reports) suggests that none of the Project's grant funds were cancelled. The ICR provides further details on the above changes (ICR, paras. 16 – 18, including Table 1). The ICR also provides a sound rationale for the above restructurings, which included increased output and outcome targets, consistent with the Project's reconstructed theory of change (see below).

3. Relevance of Objectives

Rationale

The project's objectives were highly relevant to addressing the country's key developmental challenges (especially pervasive poverty, high population growth, limited diversification of economy, external shocks) and food crisis, and to contributing to the implementation and achievement of the country's main developmental strategies. At the country level, the country developmental strategy, known as "Benin – 2025 – Alafia", accorded high priority to the agricultural sector, especially with respect to improving productivity, strengthening diversification and value chain development, and increasing agricultural exports. The project also was consistent with and supported operationalizing various other related strategies, including (ICR, paras. 5, 29): Benin's long-term development strategy (Benin 2025 – "Alafia"); Benin's Growth and Poverty Reduction Strategy (2011 – 2015); Benin Development Strategy and Orientation document (2006 – 2011); Benin's Strategic Plan to Revitalize the Agricultural Sector; National Agricultural Investment Plan (2010 – 2014), consistent with the framework of the AU-supported Comprehensive Africa Agricultural Development Program (CAADP; Benin's National Agricultural Development Strategy -2025; National Agricultural Investment and Food and Nutritional Security Plan (2017 – 2025);

The project (PADA) development objectives were and remained during implementation strongly aligned with and implemented key pillars and elements of the Bank's strategy documents and various analytical reports of economic and sector work (ESW), including: Country Economic Memorandum for Benin (2009); Country Assistance Strategy/CAS (2010), which emphasized strengthening competitiveness, accelerating private sector-led growth and diversification, in support of increased growth and reduced poverty; Bank's analytical work, especially with reference to: "Sustainable Options for Agricultural Diversification in Benin", 2010); Country Partnership Framework/CPF (FY19 – FY23), especially with respect to focus area 1 (increased productivity, improved quality of infrastructure, improving environment for private sector investment and competitiveness) and to focus area 3 (increased climate resilience). Accordingly, the project's focus on promoting increased productivity and competitive value addition were very relevant, coupled with Government's capacity and commitment to pursue these objectives at the operational level.

Accordingly, the project's design at appraisal and additional financing stages used/applied the results of the relevant analytical and strategic documents from Government and the Bank, guided by sound criteria, in the selection of the five crops and strategic livestock commodities supported by the project. The selection

criteria included commodities which would promote inclusive agricultural growth, reduce poverty and enhance food security.

Rating

High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To restore and improve productivity for selected value chains.

Rationale

The project's original design included a results framework in the Project Appraisal Document (PAD), but did not include a theory of change (ToC) because it was not required at the time the PAD was written. The ICR constructed a ToC for the project, which was consistent with the overall PDO, core outcomes and components (ICR, para. 8 and Figure 1). The ICR figure on the ToC highlights the rationale for, operational logic and linkages among various interventions/activities, outputs, intermediate outcomes and outcomes, "To restore and improve productivity for selected value chains" (ICR, para. 8). The project pursued a sound strategy and design through promoting increased food crop, livestock and fish production, and increased high value crop production and processing for exports (e.g., cashews and pineapples), coupled with strengthened market linkages for smallholders. Accordingly, this strategy was envisioned to contribute to the broader objectives of enhanced food security, increased farmer incomes and improved trade balance.

Theory of Change:

Restored/improved productivity would be achieved through (with Figure 1 of ICR showing the linkages between outcomes, intermediate outcomes, outputs and priority activities): the expanded provision and use of farm inputs, expanded/rehabilitated small-scale irrigation facilities, the replenishment of the stocks of small livestock and fish stock, with improved breeds and fingerlings, the vaccination of livestock, expanded and improved advisory services, and increased competitive funds and matching grants to farmers, expanded partnerships between farmers and other key actors in the supply and marketing chain.

Key IRIs/Outputs (ICR, Annex 1):

In summary, the project provided improved technologies on crop production, vaccination services for improved animal health, improved breeds for livestock, as well as small scale irrigation services. All the revised output targets for the various activities were exceeded, with the exception of small-scale irrigation works, where achievements were slightly lower than the targets. Below are further details.

(i) Area Planted with Improved Technology Disseminated (has):

- (a) Total: Original Target: 59,000; Revised Target (2017): 88,000; Actual: 135,549; Actual as % of Revised: 154%;
- (b) Pineapple: Original Target: 5,000; Revised Target (2017): 8,000; Actual: 8,509; Actual as % of Revised: 106%;
- (c) Cashew: Original Target: 30,000; Revised Target (2017): 45,000; Actual: 79,090; Actual as % of Revised: 176%;
- (d) Rice: Original Target: 24,000; Revised Target (2017): 35,000; Actual: 47,950; Actual as % of Revised: 137%:
- (ii) No. of Animals Participating in Vaccination Campaign:
- (a) Total: Original Target: 1.5 million; Actual: 2.5 million; Actual as % of Target: 167%;
- (b) No. of Small Ruminants: Original Target: 0.5 million; Actual: 0.7 million; Actual as % of Target: 140%;
- (c) No. of Poultry Birds: Original Target: 1 million; Actual: 1.7 million; Actual as % of Target: 170%;
- (iii) No. of Livestock Producers Using Improved Breeding Stock: Original Target: 3,000; Actual: 4,540; Actual as % of Target: 151%;
- (iv) Area (has.) provided with small-scale irrigation & drainage services:
- (a) Total: Original Target: 9,000; Revised Target (2017): 12,678; Actual: 11,828; Actual as % of Revised Target: 93%;
- (b) Rehabilitated Area: Original Target: 4,500; Revised Target (2017): 6,950; Actual: 6,450; Actual as % of Revised Target: 92%;
- (c) New Area: Original Target: 4,500; Revised Target (2017): 5,728; Actual: 5,378; Actual as % of Revised Target: 94%;

Key Outcomes

The PDO was to be assessed through the following outcome indicators, all of which were adequate to measure the objective and all of which achieved or exceeded their target values: (i) percentage of beneficiaries using improved technologies; (ii) yields for crops and fisheries; (iii) farmer adoption of improved technology and restoration of productivity. The main achievements vis-à-vis the outcome indicators are highlighted below (with further details in the ICR, Annex 1)

- (i) Percentage of Project Beneficiaries using improved technologies disseminated through the Project:
- (a) Agro-processors: Original Target: 69 %; Revised Target (2017): 80%; Actual: 100; Actual as % of Revised Target: 125%;

- (b) Producers: Original Target: 78 %; Revised Target (2017): 80%; Actual: 91; Actual as % of Revised Target: 114%;
- (ii) Yields of Crops and Fish (Crops: metric tons/MT per ha.; Fish: MT/ha./year):
- (a) Maize: Original Target: 1.5; Revised Target (2017): 3.0; Actual: 2.97; Actual as % of Revised Target: 99 %;
- (b) Pineapple: Original Target: 60; Revised Target (2017): 70; Actual: 72; Actual as % of Revised Target:103 %:
- (c) Cashew: Original Target: 0.7; Revised Target (2017): 0.8; Actual: 0.81; Actual as % of Revised Target:101%;
- (d) Rice: Original Target: 5.0; Revised Target (2017):6.0; Actual: 6.2; Actual as % of Revised Target: 103%;
- (e) Fish: Original Target: 6.0; Actual: 6.5; Actual as % of Revised Target: 108 %;
- (iii) Adoption of Improved Technologies and Restoration of Productivity (No., 000s)
- (a) No. of Project Beneficiaries of relief activities: Original Target: 257; Revised Target (2017): 215.5; Actual: 215.5; Actual as % of Revised Target: 100 %;
- (b) No. of maize growers: Original Target: 50; Revised Target (2017): 27; Actual: 27; Actual as % of Revised Target: 100 %;
- (c) No. of Rice Growers: Original Target: 6; Revised Target (2017): 7.1; Actual: 7.1; Actual as % of Revised Target: 100 %;
- (d) No. of Livestock Producers: Original Target: 200; Revised Target (2017): 170; Actual: 170; Actual as % of Revised Target: 100%;
- (e) No. of Fish Farmers: Original Target: 1; Revised Target (2017): 1.5; Actual: 1.5; Actual as % of Revised Target: 100 %;

Based on the above evidence (and further details in the ICR), the efficacy with which Objective 1 was achieved is rated **Substantial**. The majority of the output and outcome targets (most revised upwards) were achieved (i.e., of 23 targets, 60% were exceeded, 22% were equaled, and 18% were slightly below the target). It is noteworthy that all of the revised upwards yield targets for all of the target commodities were exceeded, which also is consistent with exceeding the targets for farmer adoption of improved technologies, reflecting also improved provision of inputs and agricultural services. At the same time, the ICR (para. 74) recognized there were various external constraints to enable the existing seed system to generate/supply enough improved seeds to producers, thereby limiting the widespread adoption of improved seeds, and achieving higher yield levels; this seeds constraint also helps explain the difference in the estimated economic rate of return of the project (at appraisal and ICR stages; see below, sections 5 and 12/Lesson 1).

Rating Substantial

OBJECTIVE 2

Objective

To restore and improve value addition for selected value chains

Rationale

Similar to Objective 1, the rationale for Objective 2 is reflected in the project's original design and in the Theory of Change reconstructed in the ICR (para. 8 and Figure 1) with respect to the priority project-funded activities, which contributed to generating strategic outputs, which, in turn, contributed to generating sustainable intermediate outcomes and strategic outcomes involving increased value addition of key value chains (milled rice, pro processed cashew nuts, pineapple juice, and exports of pineapple and cashew). (See key output and outcome indicators below). The project's AF/restructuring also contributed to achieving (and exceeding in most cases) strategic outputs and outcomes, thereby contributed to the broader objectives of accelerated agricultural growth and reduced rural poverty.

Theory of Change: The ToC (ICR, Figure 1) identifies and illustrates the linkages between the two of the four project components with respect to a sound results chain involving the linkages between the priority activities/actions and resulting outputs, which then contributed to generating the intermediate outcomes. and to the core outcome, with respect to objective 2. More specifically, improved value addition would be achieved through the provision of processing facilities and equipment for targeted crops, for construction of storage facilities and drying area areas, the provision of business development services, such as quality control, grading standards, market information services, and the participation of producers to trade fairs and market prospections, and for establishment of permanent market linkages, competitive funds and matching grants, and improved advisory services to farmers, processors and value chain actors, funded through various channels/mechanisms. This included support for establishing ten ESOPs (Business Services and Producer Organizations) established by the Project to support rice processing. The project also supported various legislative initiatives to promote an expanded role of the private sector in promoting competitive value chain development, although experienced some delays (see Lesson 2 below). Strengthened institutional policy, legislative, coordination, environment and implementation capacities for the agricultural sector (component 4), involving farmers and their organizations, and the Ministry of Agriculture, Livestock and Fisheries (MAEP) would help ensure effective implementation of the above activities and sustained achievement of the two objectives.

Key Outputs/Intermediate Results (ICR, Annex 1, with "intermediate results shown with *):

Based on the above ToC, the project met or exceeded almost all of output targets for carrying out activities involving: marketing of food and cash crops; marketing infrastructure; access to finance; subproject competitive fund; establishment of SMEs; performance-based management information system.

- (i) Number of Market Infrastructure Built or Rehabilitated: * Original Target: 100; Revised Target (2017): 200; Actual: 236; Actual as % of Revised Target: 118 %;
- (ii) Quantity (000s of Metric Tons) of products collected and stored in Project area:*

- (a) Cashew: Original Target: 10 ; Revised Target (2017): 25 ; Actual: 111.3 ; Actual as % Revised Target: 445 %;
- (b) Maize: Original Target: 10; Revised Target (2017): 50; Actual: 52.9; Actual as % of Revised Target: 102 %;
- (c) Rice: Original Target: 20; Revised Target (2017): 40; Actual: 40.4; Actual as % of Revised Target: 101%;
- (iii) No. of Drying areas built in support of rice value chain *: Original Target: 100; Actual: 65; Actual as % of Target: 65 %;
- (iv) No. of Inter-professions created *: Original Target: 2; Revised Target (2017): 4; Actual: 4; Actual as % of Revised Target: 100 %;
- (v) Percentage of cotton producer groups trained: Original Target: 100; Actual: 100; Actual as % of Target: 100%;
- (vi) Percentage of Project beneficiaries receiving agricultural credit: * Original Target: 10; Revised Target: 15; Actual: 58; Actual as % of Target: 387 %;
- (vii) Number of Innovative Subprojects financed by the competitive fund: *
- (a) Total: Original Target: 8; Revised Target: 52; Actual: 52; Actual as % of Target: 100 %;
- (b) Rice: Original Target: 2; Revised Target:11; Actual: 11; Actual as % of Target: 100 %;
- (c) Cashew: Original Target: 2; Revised Target: 9; Actual: 9; Actual as % of Target: 100 %;
- (d) Fish: Original Target: 2; Revised Target 20; Actual: 20; Actual as % of Target: 100 %;
- (e) Pineapple: Original Target: 2; Revised Target: 12; Actual: 12; Actual as % of Target: 100 %;
- (viii) Percentage Rate of Loan Repayment (among project beneficiaries):* Original Target: 90; Revised Target: 95; Actual: 97.7; Actual as % of Target: 103 %;
- (ix) Number of Micro Projects Transformed into SMEs:* Original Target: 20; Actual: 23; Actual % of Target: 115 %:
- (x) Number of micro-projects funded through matching grants: * Original Target: 180; Actual: 242; Actual as % of Target: 134 %;
- (xi) Percentage of Projects monitored through MAEP M&E system: * Original Target: 75; Revised Target: 100; Actual: 100; Actual as % of Target: 100 %;
- (xii) Percentage of Budget Execution ratio of agricultural sector program: * Original Target: 70; Revised Target: 90; Actual: 82; Actual as % of Revised Target: 91 %;

- (xiii) Percentage of Execution ratio of approved Project's work plan and budget: * Original Target: 100; Actual: 84; Actual as % of Target: 84 %;
- (xiv) Number of reports published by project-supported organizations on findings of beneficiaries' feedback: * Original Target: 6; Actual: 7; Actual as % of Target: 117 %;

Key Outcomes (ICR, Annex 1)

As shown below, the project-generated outcome targets were exceeded in most cases, involving processed and exported high value commodities.

- (i) Quantity of processed target crop in project area: (000s of Metric Tons):
- (a) Total: Original Target: 72.2; Revised Target: 240; Actual: 293.4; Actual as % of Revised Target: 122 %;
- (b) Pineapple Juice: Original Target: 10; Revised Target: 125; Actual: 132.6; Actual as % Revised Target: 106 %;
- (c) Processed Cashew: Original Target: 2.2; Revised Target: 15; Actual: 47.9; Actual as % Revised Target: 319 %;
- (d) Milled Rice: Original Target: 60; Revised Target: 100; Actual: 112.8; Actual as % of Revised Target: 113 %;
- (ii) Quantity of Exported Cashew and pineapple: (000s of Metric Tons):
- (a) Total: Original Target: 74; Revised Target: 350; Actual: 477.7; Actual as % of Revised Target: 136 %;
- (b) Cashew: Original Target: 44; Revised Target: 200; Actual: 218.8; Actual as % of Revised Target: 109 %;
- (c) Pineapple: Original Target: 30; Revised Target: 150; Actual: 258.6; Actual as % of Revised Target: 172 %.

In summary, the efficacy with which Objective 2 was achieved is rated **Substantial**, because the majority of the output and outcome targets (most revised upwards) were achieved (i.e., of 16 targets, 56% were exceeded, 25% were equaled, and 19% were slightly below the target). It is noteworthy that all of the revised upwards yield targets for all of the target commodities were exceeded, which also is consistent with the targets for farmer adoption of improved technologies, reflecting also improved provision of inputs and agricultural services.

Rating Substantial

OVERALL EFFICACY

Rationale

The overall efficacy of the extent to which the original objectives (which remained the same), and their original and revised-upward targets (arising in the main restructuring carried out in 2017, which also included AF), were achieved is rated **Substantial**. The project substantially achieved Objective 1: productivity for selected value chains (rice, cashews, pineapple, livestock and fisheries) were improved and restored, as evidenced by improved yields and adopted technologies. Also, the project substantially achieved Objective 2: value addition for selected and strategic value chains were improved/restored, as well as evidence of generating increased exports of processed goods.

As indicated above, most of the output and outcome targets were met or exceeded (26 of 32 targets, or about 81%). It is noteworthy that all of the outcome targets were met for both objectives. Regarding the output targets which were not met, the percentages in most cases were above 80% of the targets (and most were revised upwards). It is noted that the AF in 2017 introduced increased targets for nearly all of the performance indicators. Also, the project's evaluation study provided relevant evidence to support the solid achievements of the above-mentioned output and outcome targets, as well as to strengthening institutional capacities of the key Ministries and farmer-based organizations, coupled with legislative reforms on clarifying and expanding the roles of the private sector, to help sustain the increased benefits with respect to increased productivity and competitive value chain development of the target crops/value chains.

Overall Efficacy Rating

Substantial

5. Efficiency

Overall, the project's performance and empirical analyses demonstrated an efficiency rating of Substantial, based on the application of various evidenced-based tools and analyses applied and presented in the ICR (ICR, paras. 37 – 42, and Annex 4, present further details). The methodology and results used to assess the project's efficiency involved applying sound economic and financial analyses (EFA), with respect to the project's components assessed at appraisal. The ICR used a mix of methods and based on a cost-benefit approach to estimate the incremental benefits attributable to the project's activities, outputs and outcomes, together with a cost analysis to assess the efficient use of resources. The ICR used a total of 13 "representative" models linked to the four main value chains, as the basis for the economic and financial analyses (and using "economic prices" and financial prices, respectively, for the EFA), using standard methodology to generate incremental benefits based on "without" and "with" project scenarios for farmers and processing units targeted by the project. The EFA used various sources of information (including project M&E data, the Government's project completion report, various studies on the project's impact evaluation, available information from other relevant projects in Benin, discussions with various agricultural sector experts to validate key assumptions and information used.

(a) Economic Analyses: At appraisal of the original project (in 2010), the project's economic internal rate of return (EIRR) was estimated at 33.1 %, and a net present value/NPV of \$54.6 million. At appraisal of the AF (2017), the EIRR for the project was estimated at 15.3 %. Both EIRRs resulted from the project's activities to improve productivity and value addition of the target value chains, based on the following 6 main types of interventions: (i) the investments in the production and agro-processing related to the selected value chains: maize, cashew, rice, pineapple, livestock, and aquaculture; (ii) the adoption of improved production techniques;

(iii) the expansion of production area; (iv) improved crop production and productivity; (v) improved aquaculture production; (vi) increased processing and exports; and (vii) the provision of market facilities.

The ex-post EIRR of PADA was estimated at 16.6 %, the NPV at US\$ 33.5 million over a 15-year period (based on a social discount rate of 6 percent), and a benefit-cost ratio estimated at 1.9. The sensitivity analysis indicates that the results are robust for small to moderate delays, cost overruns, and reduction in benefits (see ICR, Annex 4 for further details). While the ex-post EIRR and NPV of PADA are below the estimates at appraisal (2010) – EIRR of 16.6% vs. 33.1%, respectively --, the ICR results fall close to those of the additional financing (2017) – EIRR of 15.3%. The ICR concluded that the higher EIRR reflected a "likely overestimation of the project's potential returns at design," (ICR, para. 39), especially with respect to the yield assumptions; the ICR also noted "the yields obtained under the with-project scenario, although higher, they are still far from reaching the potential yields" (ICR, para. 39). Therefore, these 2 factors explain the above difference in the estimated EIRRs.

- (b) <u>Financial Analyses</u>: Similar to the economic analysis, the project's financial analyses is based on the incremental benefits and financial profitability arising from the 4 project components/associated activities which helped generate increased crop productivity and value addition of the five target value chains (i.e., rice, maize, pineapple, cashew, aquaculture). Accordingly, the ICR conducted the financial analyses to assess the profitability of the proposed project activities (with-project (WP) situation), modelled from the perspective of the target beneficiaries, and compared with the without-project (WOP) situation. The ICR prepared a total of 13 models to assess the financial profitability of the five target value chains, and estimated costs and benefits experienced by the project's beneficiaries, using market prices. The ICR showed and concluded that: (i) all farming activities supported by the project generate positive additional benefits, ranging from US\$ 34 for rainfed rice production to US\$ 781 for irrigated rice production; (ii) the targeted processors secured significant incremental benefits, in the range of US\$ 12,206 \$23,477 per year. For further details, see ICR, Annex 4.
- (c) Efficiency of Project Expenditures: The ICR highlighted 4 other efficiency aspects of the project, namely: (i) less funds were disbursed to achieve the expected results at project closing; (ii) the project was implemented without cost overruns; (iii) available data on project expenditures (see ICR, Annex 3) exhibited the project's administrative and cost efficiency, based on high disbursement rates of most components (about 90 %); (iv) most of the PDO, output and outcome targets were revised upwards (with AF in 2017), achieved or exceeded, whereby the AF consolidated and scaled-up the project's achievements. The ICR recognizes that the project also showed some administrative inefficiencies which contributed to project delays and extension of the closing date, especially due to "cumbersome" procurement procedures for irrigation works and to COVID-related restrictions introduced by Government (ICR, paras. 53 and 55, respectively).

In summary, the positive EFA and other efficiency indicators/assessment (e.g., administrative and disbursement) suggest that that the project's overall efficiency is rated **Substantial**.

Efficiency Rating

Substantial

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

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	√	33.10	90.00 □ Not Applicable
ICR Estimate	✓	16.60	90.00 □ Not Applicable

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

6. Outcome

The overall outcome rating is based on the assessment of the 3 dimensions as summarized above, namely:

- (a) High rating for Relevance of Objectives: This rating is based on the project's initial and continued (throughout implementation) strong alignment of objectives and activities with: Government's national and agriculture sector policies and strategies, and contribution to key targets; the Bank's CAS and CPS during the preparation and implementation period of the project, and various analytical reports.
- **(b) Substantial rating for Efficacy:** The project substantially achieved its objective of improving productivity and promoting strategic and competitive and value chains. It is noteworthy that all of the outcome targets were met for both objectives, including the increased targets that were revised during the AF., The project's evaluation study provided relevant evidence to support the solid achievements of the above-mentioned output and outcome targets as well as to strengthening institutional capacities of the key Ministries and farmer-based organizations to help sustain the increased benefits with respect to increased productivity and competitive value chain development of the target crops/value chains.
- **(c) Substantial rating for Efficiency:** The ICR's sound ex-post quantitative and qualitative analyses demonstrated favorable economic, financial and administrative efficiencies and progress in achieving and exceeding most of the targets.

Based on the IEG guidelines (IEG, 2017, p. 46 – 48), a split evaluation was not undertaken, mainly because the PDO remained the same, and the additional financing/AF enabled the project to increase its geographical scope, and to increase most of its outcome, intermediate result and output targets. Accordingly, the assessment of the entire project is based on the revised/upwards output and outcome targets, and achievements (see above).

a. Outcome Rating Satisfactory

7. Risk to Development Outcome

Overall, the ICR concludes there is **modest risk** to sustaining the project's developmental outcomes, based on the following evidence and conclusions presented in the ICR, and also consistent with other relevant analyses/reports (ICR, paras. 70 - 73). Given the nature of the risks, "external factors" (ICR, para. 73) and

the remaining implementation uncertainties of many of the risk-mitigation measures, this ICRR concludes that a more realistic risk assessment is "moderate to substantial" risks.

- (a) Project design and implementation incorporated and carried out sound sustainability mechanisms to help ensure project impacts with respect to objective 1 (increased productivity) are sustained, including (para. 70):
- (i) project's support for capacity building of interprofessional and farmers' apex organizations within the targeted value chains (cashew, pineapple, rice, and fish) targeted towards producers' organizations would help ensure the continued advisory support and services to beneficiaries after project closure, and help maintain the progress achieved in terms of productivity improvements;
- (ii) project's support to the seeds subsector, including a national seed crop strategy, would likely contribute to seed availability for improved seed by farmers, while recognizing there are still remaining challenges (see below):
- (iii) project's support and capacity building for various key public entities providing services to the agricultural sector, so they can continue providing capacity building, advisory services, monitoring, quality control, and other supports to beneficiaries within their respective mandates, even after project closing. Also, a follow-up Bank-supported project (Agricultural Competitiveness and Diversification Project, PACOFIDE P168132) is providing technical and financial support to many of these public entities to strengthen their capacities to provide/sustain these technical services, and also to contribute to sustaining the project's PDO.
- (b) Project design and implementation incorporated and carried out sound sustainability mechanisms to help ensure project impacts with respect to objective 2 (expanded value chain development) are sustained, including (ICR, para. 71):
- (i) provision of storage and processing facilities, as well as training, operations manuals, beneficiary-led committees, with on-going support from the Ministry, to ensure efficient operations and sustained use of infrastructure for processing and storage;
- (ii) continued access to finance is being enabled by a Memo of Understanding signed with the National Fund for Agricultural Development (FNDA), which has a national mandate to enable expanded to finance in various sectors, as well as through fostering the engagement of various private financial institutions, which are expected to provide continued support to the value chains;
- (iii) continued and increased support for increased exports of cashew and pineapple, which is expected to be enabled by the National Agency for the Promotion of Investments and Exports (APIEx), which has this mandate. Also, the ongoing Bank Project (PACOFIDE) is strengthening the capacity of APIEx to fulfill its mandate.

At the same time, the ICR correctly highlights three specific risk factors which could potentially threaten the sustainability of the project's achievements, affecting both Objectives 1 and 2, namely (ICR, para. 72):

(a) Insufficient support to seed research and supply system, and a sub optimal organization of public research institutions to supply the needed volume of breeder seed for onward multiplication by seed producers and private seed companies, could affect the availability of improved seeds and planting materials, animal breeds and fingerlings; the ICR team recognizes challenges in ensuring adequate enforcement of the harmonized seed regulatory framework; the ICR team also highlighted the on-going role

of the Bank-supported PACOFIDE Project, especially with respect to supporting a stronger private sector role in the seeds subsector (refer to note from ICR team to IEG evaluator, dated August 10, 2022);

- (b) Uncertain sustainability of the ten ESOP (Business Services and Producer Organizations) established by the Project to support rice processing, due to various governance and operational challenges, including access to finance and adequate operational funds. It will be important that the Bank's follow-up projects/agricultural portfolio in Benin provide monitoring to help ensure these ESOPs continue to operate;
- (c) Various external factors, including (ICR, para. 73): pressures induced by COVID restrictions; significant decrease in Government revenues and capacity to sustain/increase its allocations to the agricultural sector to ensure sustained services; fall in the demand of agricultural products in local, regional and international markets; and periodic natural disasters and increasing threats of climate shocks affecting stable and increased production supplies of the targeted value chains.

8. Assessment of Bank Performance

a. Quality-at-Entry

The quality-at-entry of PADA (identification, preparation and appraisal) is rated Satisfactory, based on the following evidence (ICR, para. 66):

- (i) project preparation was carried out with an adequate number of specialists, with appropriate expertise and experience to address sector challenges and project requirements, to help ensure high quality preparation and appraisal of the project, including a generally sound Results Framework and design of a M&E system;
- (ii) the project focused on supporting strategic food crops, based on applying the results of the Government's and Bank's analytical work, and guided by sound criteria of promoting agricultural growth, reduced poverty and enhanced food security.
- (iii) the project design considered its complementarity with other relevant projects and incorporated relevant lessons learned from the Bank's previous operations in Benin and the agricultural sector;
- (iv) the Bank's project team had a good working relationship with the Borrower/key counterparts, and consistently and constructively engaged its counterparts during preparation and appraisal;
- (v) the procurement and financial management (FM) systems were designed adequately, with clear identification of FM risks and effective mitigation measures;
- (vi) the project was a Category "B" project, the environmental risks associated with project activities were clearly identified, together with putting in place before implementation appropriate mitigation measures.

Quality-at-Entry Rating Satisfactory

b. Quality of supervision

The quality of supervision was **Satisfactory**, based on evidence provided in the ICR, the project's independent evaluation, and included the following aspects (ICR, paras. 67 and 68):

- (i) the Bank team carried out regular implementation support missions at least twice per year, involving technical team members with the required expertise, to cover the 4 components, and to ensure compliance with the Bank's procurement and finance requirements, and environmental safeguards;
- (ii) there was continuity of the Bank's TTL, with only two TTLs during the entire life of the project;
- (iii) the Bank carried out regular supervision missions, with regular follow-up actions, interim technical missions, and prepared Aide Memoires and Implementation Status Reports (ISRs). These Bank project team actions provided an objective and realistic assessment of project progress, and which also highlighted relevant issues which required attention by Government and the Bank.

Quality of Supervision Rating Satisfactory

Overall Bank Performance Rating Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The project's M&E design was **Substantial**, based on the following supporting evidence (ICR, para. 57):

- (i) during preparation and appraisal of PADA, the project team formulated a sound and comprehensive results framework, implementation guidance and M&E arrangements;
- (ii) the results framework was consistent with the project's implicit theory of change (although not developed explicitly at design stage), based on generally sound, quantitative and measurable indicators to monitor and assess progress in implementation and toward achievement of project outcomes; at the same time, the RF presented some indicators as outputs, rather than outcomes; intermediate results, rather than outputs (e.g., various indicators involving adoption of improved technologies were shown as outputs, rather than outcomes. Subsequently, the ICR team provided to IEG evaluator various clarifications (note from ICR team, dated August 10, 2022);
- (iii) there was a formulation of a Project Implementation Manual, which clarified the roles and responsibilities of project entities, and the M&E arrangements;

(iv) there was the preparation of a sound and comprehensive M&E operations manual, which also specified: clear concepts and variables; data sources, methods, and frequency; institutional roles for data collection and processing; and institutional coordination.

b. M&E Implementation

Overall implementation of the Project's M&E system was also **Substantial**, based on the following evidence (para. 58):

- (i) There was strong Government and project team commitment to M&E implementation (see below);
- (ii) There was adequate human and financial resources mobilized/allocated for the implementation of the M&E system;
- (iii) the M&E team showed continuity, carried out by the same team (with exception of one person), which helped ensure consistent and sound M&E implementation of a sound methodology;
- (iv) during the Bank's implementation support missions, all reports on implementation and achievements, and supporting data/evidence, were discussed and vetted (including spot checks and triangulation) to ensure reliable data, analyses and conclusions; and
- (v) the Government's project completion report and the project independent impact evaluation studies provided results which were fully consistent with the project's M&E findings.

c. M&E Utilization

- (i) Throughout project implementation, especially in the last three years, the project generated information from the M&E system, which was used for operational decisions (both Government/project and Bank teams);
- (ii) the Geographical Information System (GIS) localization of project investments (under the parallel Geo-Enabling Initiative for Monitoring and Supervision/GEMs initiative) made it possible to monitor implementation progress more closely;
- (iii) the Central Monitoring Unit of the Ministry of Agriculture carried out field visits to project activities, and provided technical advice to support the project's M&E system, and its utilization;
- (iv) the Project's M&E information was used to support decision-making and to refine the project's implementation strategy (especially with respect to key indicators which were lagging behind the targets);
- (v) the information collected and assessed through the M&E system helped the Government and Bank teams to make timely and well-informed decisions, and to provide timely implementation support on key issues (including project design issues, reallocation of funds, and financial management issues).

M&E Quality Rating Substantial

10. Other Issues

a. Safeguards

The project was classified as environmental category "B" (partial assessment), and triggered various safeguard policies: Environmental Assessment (OP/BP 4.01); Pest Management (OP/BP 4.09); and Involuntary Resettlement (OP/BP 4.12). Despite a few shortcomings, the ICR concluded the project complied with the applicable environmental and social safeguard policies, as reported in the safeguard compliance report at closing (ICR, para. 63). The ICR provided the following supporting evidence (ICR, paras. 62/63):

- (i) the Environmental and Social Management Framework (ESMF), the Integrated Pest Management Plan (IPMP), and the Resettlement Policy Framework (RPF) were prepared, approved and disclosed (ref. to the safeguard policy compliance assessment report, initial version: 2017; final version: 2021 (ICR, para. 63);
- (ii) the project provided training for relevant groups to strengthen technical and institutional capacity in environmental safeguards (e.g., for decentralized technical government service entities; for beneficiary groups, including training in risk mitigation measures);
- (iii) the project conducted sound environmental monitoring of key activities in the field, and identified and recommended to beneficiaries relevant mitigation measures;
- (iv) the project team and Bank environmental and social teams monitored the implementation of these mitigation measures during implementation support missions;
- (v) the project was implemented with adequate attention to the social safeguard requirements, including the formulation, approval and public release of a Resettlement Policy Framework. During the AF assessment (2017), the Bank conducted a stock taking study to assess compliance with the safeguard policies; the assessment report concluded overall compliance, while reinforcing the need to ensure adequate monitoring of key actions. The Project arranged a final safeguard assessment report at closing (2021), which confirmed continued compliance with key safeguard policies and guidelines, despite a "few shortcomings" (para. 63);
- (vi) Notwithstanding some delay, the project established a formal and functional grievance redress mechanism (GRM), with complaints being addressed on a timely basis;
- (vii) the project complied with OP 4.10 (ref. Indigenous Peoples) by ensuring the implementation arrangements at the field level embed its core principles of a "free, prior, and informed consultation, leading to a broad community support for the project.

b. Fiduciary Compliance

- (i) <u>Financial Management</u>: Overall, the project's financial management was **Satisfactory**, as follows (ICR, para. 64):
- (a) During preparation, the project developed an FM plan to ensure that the Project Implementation Unit (PIU) would have the required capacity to implement the project;
- (b) the project complied with the relevant financial covenants and ensured regular and timely submission of financial reports and annual audits, to both Government and the Bank;
- (c) the 2020 audit report was received by the Bank, and the auditors issued an unqualified opinion. The final audit report was due on March 31, 2022. The Government submitted to the Bank the final audit report on June 30, 2022, with unqualified opinion. Subsequently, the Bank reviewed and endorsed the report; and
- (d) The project had a final disbursement rate of about 95%, and no ineligible expenditures were recorded during implementation.
- (ii) <u>Procurement:</u> The ICR's assessment of procurement performance is summarized in para. 65, implying moderately satisfactory performance.

Procurement was foreseen to be a major challenge during implementation, given the project's national coverage and the wide scope of activities supported, and the nature of investments, including infrastructure investments. As context, the limited financial capacity of local entrepreneurs to provide counterpart guarantee and the general failure to meet agreed deadlines add complexity to the national procurement system and hinder the timely implementation of project operations in Benin. Although procurement on PADA has been quite challenging (delayed in filing procurement-related documents in STEP (Systematic Tracking of Exchanges in Procurement), the PIU had conducted procurement activities in line with agreed World Bank procedures. Post procurement reviews were conducted regularly, and recommendations were implemented. As indicated in the ICR, procurement delays had called for an extension of closing date with additional operational and administrative costs. The ICR concludes that the magnitude of the increase in project expenditures induced by this situation was kept within reasonable limits, as the project only slightly overspent on Component 4 (104%).

c. Unintended impacts (Positive or Negative)Not Applicable

d. Other

The ICR highlights 4 other positive aspects contributed by the project: gender; institutional strengthening; mobilizing private sector financing and expanded private sector role; and poverty reduction and shared prosperity. While recognizing some attribution challenges with respect to the precise role and contributions of this project to these other strategic benefits, the nature/scope of these "other" benefits are summarized below, based on evidence presented in the ICR (paras. 44 - 47).

- (i) **Gender**: The project's documents/ICR provides the following evidence of the project's positive contributions to the project's gender dimensions (ICR, para. 44):
- (a) The project reached 40.2 % of women-beneficiaries, against the end-target of 40%;
- (b) About 47% percent of the matching grants beneficiaries were women and invested in processing activities in which women are heavily involved (cashew apple juice, pineapple juice, fish processing);
- (c) the matching grant schemes included training tailored to women beneficiaries, focused on helping subprojects grow into successful SMEs, led either by women entrepreneurs or to create more jobs for youth and women;
- (d) Women were also the key beneficiaries of the nutrition-related activities (promotion of nutrient-rich food crops, such as soybean, iron-fortified cowpea, sweet potatoes, vegetable gardening, nutrition education and awareness) supported by the project. Through these activities alone, the project trained 7,708 women out of 13,869 small and marginal farmers, developed eleven (11) gardening farms, and distributed 70,000 seedlings of moringa, papaya, and banana, as well as vegetable seeds (tomato, pepper, okra, watermelon, cabbage, leafy vegetables) and funded 48 subprojects on gardening farms, leading to a better integration of nutrition-rich food in their beneficiary diet.
- (e) By promoting women participation in the project activities and in decision-making, the ICR concluded that the project contributed significantly to foster women participation in the labor market in the communities involved, as well as to improve food security, safety, and nutrition among vulnerable groups, including women and children.
- (ii) Institutional Strengthening: PADA provided various types of strategic support to institutional strengthening to help ensure effective and efficient implementation, and prospects for sustainability. The ICR provided the following evidence (ICR, para. 45):
- (a) the project supported the establishment, capacity strengthening and staffing for four inter-professional organizations, in implementing in carrying out project monitoring and citizen engagement activities to voice the concerns and opinions of the beneficiaries over the project implementation on the ground;
- (b) The project supported reforms and capacity strengthening, and equipping of MAEP and its main national and regional directorates, including: training of MAEP staff on market information system, data collection, and information system management; mainstreaming nutrition-sensitive agriculture into the projects and programs under the MAEP;
- (c) improvements to the country's seed research and production system through the establishment of partnerships and funding of applied research involving various entities;
- (d) the support for the structuring and drafting of operation manual for the National Fund for Agricultural Development (FNDA) and the provision of seed money for the Fund Guarantee Scheme.
- (e) The project had a significant impact on the institutional strengthening of the MAEP by supporting: the organization of several review meetings and strategic exercises; the strengthening of national capacities in the development of agricultural clusters; the improvement of the quality of agricultural statistics;

strengthened capacity and better sector coordination, the Ministry was able to implement 82% of the agricultural sector budget against an end project target of 90%.

- (iii) Mobilizing Private Sector Support and Financing (ICR, para. 46): At closing, the project mobilized some private sector financing within the targeted value chains through the matching grant scheme and the guarantee funds in the amount of about US\$5 million. The ICR provided limited evidence regarding the expanded role of the private sector, while also recognizing in the lessons the need for formulating and implementing an action plan for expanded private sector role (see below, section 12). The Bank's ICR team provided separate and additional clarifications to IEG regarding the role of the project in expanding the role of the private sector through supporting various types of project activities, including: facilitating access to financial services by small and medium enterprises and services provided along the targeted value chains; relevant market-based training for producers, processors and traders; the expanded role private sector in supplying improved seeds, planting materials, animal breeds and fingerlings; expanded agro-processing by SMEs; and expanded access to expanded local and international markets.
- (iv) Poverty Reduction and Shared Prosperity: The ICR highlights the project's contributions, including (ICR, para. 47):
- (a) The project targeted the poorest areas, as well as the areas affected by the 2010 flood (55 out of 77 communes of Benin);
- (b) the target crops and value chains are produced by a significant number of the poor and smallholders;
- (c) the project interventions impacted the beneficiaries' livelihoods positively and significantly;
- (d) The project contributed to improving employment, incomes and the living conditions of the beneficiaries as indicated in the various monitoring reports, the project completion report, as well as the 2021 impact evaluation reports. The project has created 1,079 permanent jobs and about 3,145 temporary jobs. Average incomes of project beneficiaries improved by 253,586 FCFA, 620,875 CFA, 1,500,000 FCFA, and by between 94,800 FCFA and 201,000 FCFA, for maize, rice, pineapple, and cashew producers, respectively;
- (e) project impact evaluation report (2021) show that the additional income generated as the result of the project support was used to support household expenses, as consumption expenditures of project beneficiaries had increased significantly compared to non-beneficiaries.

11. Ratings			
Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Satisfactory	
Bank Performance	Satisfactory	Satisfactory	
Quality of M&E	Substantial	Substantial	
Quality of ICR		Substantial	

12. Lessons

The ICR presents 4 strategic lessons arising from this project (ICR, paras. 74 – 77). The key elements of these lessons, which especially have relevance for other similar type of agricultural projects, are highlighted below (including some enhancements with respect to the ICR findings).

- (a) Lesson 1: Promoting a strong private sector involvement in the seed production system is key to improving and sustaining the supply of planting materials to producers. During the project's implementation, due to various constraints, it was challenging for the research and public entities to supply the needed volume of breeder seed for onward multiplication by seed producers and private seed companies. These constraints have limited the development of the seed system and its ability to supply enough seeds to fully meet producers' demand, and therefore, to promoting a wide scale farmer adoption of improved seeds. Agricultural development projects seeking to promote sustainable access to improved seeds and planting materials should include priority activities to foster a strong private sector involvement in the seed system, including enforcement of a sound harmonized regulatory framework and a clear demarcation of the roles of key stakeholders and their strengthened capacities to fulfil effectively their mandates; these actions would help ensure wider farmer adoption of improved seeds, and therefore, to contribute to achieving higher productivity levels;
- (b) Lesson 2: Creating an improved enabling policy and institutional environment is key for achieving increased private sector investments in the relevant value-chains. The expanded and sound role of an inclusive private sector in the agricultural sector, similar to the approach being followed by the Ministry Agriculture, Livestock and Fisheries (MAEP), needs to be mainstreamed and institutionalized, and become the standard practice in the MAEP, and other relevant entities. Although the project had mobilized a modest amount of private sector investments (only \$5.0 million), in retrospect, more progress could have been achieved if the MAEP was more proactive in reaching out to other ministries (Ministry of Finance, of Trade and Industry, APIEx) and relevant private sector entities to capitalize on synergies and share experiences and best practices for promoting and achieving an expanded private sector role in the targeted value chains. Future projects seeking to promote the development of agricultural value-chains should include in their design a clear and comprehensive private sector action plan, with a clear strategy on how the Ministry of Agriculture and relevant private sector entities will reach out to and engage relevant public institutions and private sector stakeholders for achieving a strengthened and expanded role of an inclusive private sector;
- (c) Lesson 3: Priority and sound institutional reforms in the agricultural sector are important to formulate and implement for empowering producers' apex organizations and interprofessional bodies, to promote sustainably an expanded role of an inclusive private sector. The sustainability of these private sector organizations and the effective fulfillment of their functions (advisory services, training, policy dialogue, promotion of value chains) require the proper formulation and implementation of their resource mobilization strategy, which is strongly dependent on the prevailing regulatory environment. The project supported the preparation of the resource mobilization strategy and funded some of the activities included in their workplan. The project supported the MAEP in drafting and transmitting the law on inter-professional organizations to the national assembly for its promulgation (submitted in 2021). This law set the framework for the organization of inter-professional bodies and their funding mechanisms. Recently, this law was merged with another relevant law, which is now being reviewed for adoption by the National

Assembly. This legislative gap has limited the funding available for private sector inter-professional bodies to fulfill their mandates. Future similar projects seeking to expand and empower inter-professional entities (and other relevant private sector actors) should accord high priority to the timely formulation, approval and implementation of these types of institutional, legislative, funding and partnership reforms;

(d) Lesson 4: Promoting expanded access to finance, availability of inputs, and efficient and effective advisory services are key ingredients for fostering the widespread and sustainable adoption of productivity-enhancing technologies and food and nutrition security. The project supported strategic value chains, and effectively used a blend of targeted capacity building activities, and adequate financing instruments (matching grants and competitive funds) to facilitate the expanded availability and access to inputs (seeds, fertilizers, chemicals, fingerlings, fish and poultry feed, animal breeds, veterinary products), equipment, and support small scale irrigation schemes. This strategic support resulted in the adoption of productivity-enhancing technologies, with positive impacts on production, income, and food and nutrition security. Agricultural development projects seeking to promote the adoption of technologies for enhancing food and nutrition security and competitive value chains should design and implementing an integrated approach, customized to each country conditions and requirements. Also, it is important to help ensure that relevant follow-up projects help consolidate, expand and sustain these strategic improvements and results.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

Overall, the quality of the ICR is **Substantial**. The ICR is well written and concise, consistent with IEG guidelines, analytical and results-focused, supported by adequate evidence to justify the various assessments; provides strategic lessons; and provides candid assessment, including revealing Government and Bank weaknesses during implementation.

The most notable shortcomings of the ICR refer to:

- (1) excluded reference to increased farmer/beneficiary incomes as a core PDO-level indicator (while summarizing the results from the financial analyses/farm models);
- (2) some conceptual inconsistencies (relatively minor) in the manner which some of the project's outcomes, intermediate results and outputs were classified (ref. ICR, summary presented on pages 45 and 46);
- (3) limited clarity regarding the Bank's strategy to enhancing the project's prospects for sustaining many of the project's notable achievements in: (a) continued strengthening of the agriculture research extension systems involving MAEP and relevant private sector entities; (b) improved enabling environment for an expanded role of the private sector, especially with respect to ensuring continued competitive and expanded value chain development, and access to finance; and (c) the role of follow-up and on-going Bank-supported projects to help



consolidate, expand and sustain project achievements, especially with respect to the various risks to sustaining development outcomes (see Section 7 above); and

- (4) Some of the content of the lessons outlined in the ICR are not completely and clearly based on the analyses, although implied in the ICR.
 - a. Quality of ICR Rating Substantial