Strengthening Agricultural Value Chains to Feed Africa
Cluster Evaluation Report

March 2018
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- Impact Evaluations
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- Evaluation Syntheses
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## ACKNOWLEDGMENTS

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**Strengthening Agricultural Value Chains to Feed Africa – Cluster Evaluation Report**  
An IDEV Project Cluster Evaluation, March 2018

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# Acknowledgments

ii

# Abbreviations and Acronyms

v

# Executive Summary

1

## Introduction

7

- Key Definitions
- The Bank Approach and Support to Agricultural Value Chain Development
- Evaluation Purpose and Scope
- Evaluation Approach, Methods and Limitations

## Project Cluster Performance

13

- Relevance
- Effectiveness
- Inclusiveness
- Sustainability

## Key Issues and Lessons Learnt

23

- Comprehensive AVCD Analysis at Project Design and its Subsequent Adaptation During Implementation is Critical
- Profitability Focus is Essential Throughout the Entire VC
- Appropriate Scope and Scale
- Ensuring Inclusiveness in AVCD
- Sustaining the Benefits of AVCD Intervention

## Annexes

27
List of figures

Figure 1 Overview of selected countries and VC as case studies 9

List of boxes

Box 1 Definition of key terms 8
Box 2 Country commodity strategies provide an important framework for AVCD 13
Box 3 Lack of stakeholder participation in AVCD analysis is an obstacle to ensuring interventions have an appropriate scope and scale 14
Box 4 Examples of results achieved in case study interventions 15
Box 5 Support to organizations and institutions, and inter-linkages between them, was varied in case studies 16
Box 6 The Bank’s support to increase access to finance 17
Box 7 Results can be strengthened in interventions of longer duration 17
Box 8 Inclusiveness requires deliberate effort 18
Box 9 Sustainability of impact requires more participatory processes and VC analysis 20
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AfDB</td>
<td>African Development Bank</td>
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<td>AVC</td>
<td>Agricultural Value Chain</td>
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<td>AVCD</td>
<td>Agricultural Value Chain Development</td>
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<td>BLICRP</td>
<td>Baixa and Limpopo Irrigation and Climate Resilience Project (Mozambique)</td>
</tr>
<tr>
<td>CIDP</td>
<td>Cashew Infrastructure Development Project (Zambia)</td>
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<td>CSP</td>
<td>Country Strategy Paper</td>
</tr>
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<td>DRC</td>
<td>Democratic Republic of Congo</td>
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<td>FO</td>
<td>Farmer organization</td>
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<td>ICT</td>
<td>Information and communication technologies</td>
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<td>Independent Development Evaluation</td>
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<tr>
<td>KOSFIP</td>
<td>Kimira-Oluch Smallholder Farm Improvement Project (Kenya)</td>
</tr>
<tr>
<td>LEAF</td>
<td>Lakes Edward &amp; Albert Integrated Fisheries &amp; Water Resources (Uganda)</td>
</tr>
<tr>
<td>LISP</td>
<td>Rwanda livestock Infrastructure Support Programme</td>
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<td>MCC</td>
<td>Milk Collecting Centre</td>
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<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<td>PADEBL</td>
<td>Dairy Cattle Development Support Project (Rwanda)</td>
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<tr>
<td>PADIR</td>
<td>Rural Infrastructure Development Support Project (DRC)</td>
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<td>PAIA-ID</td>
<td>Agricultural Infrastructure Support Project in Indénié-Djublin Region (Côte d’Ivoire)</td>
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<td>PAPMV</td>
<td>Green Morocco Plan Support Programme</td>
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<td>PAPNEEI</td>
<td>National irrigation Water Conservation Programme support project (Morocco)</td>
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<tr>
<td>RBL</td>
<td>Government agency Regadio do Baixo Limpopo (Mozambique)</td>
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<tr>
<td>SAPEC</td>
<td>Smallholder Agricultural Productivity Enhancement and Commercialization (Liberia)</td>
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<tr>
<td>SUCDEN</td>
<td>Agricultural Commodities Programme SUCDEN (Côte d’Ivoire)</td>
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<td>ToC</td>
<td>Theory of Change</td>
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<td>Value Chain</td>
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<td>Value Chain Development</td>
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Executive Summary

Introduction and Evaluation Purpose/Scope

This document presents key findings and lessons from the evaluation of a cluster of nine agricultural value chain interventions by the African Development Bank (AfDB or “the Bank”) over the period 2005–2016. The nine case studies were conducted as inputs to the formative evaluation titled “AfDB Support for Agricultural Value Chains Development: Lessons for the Feed Africa Strategy,” which was completed in December 2017.

The Agricultural Value Chain Development (AVCD) approach is key to the Bank’s Feed Africa Strategy (2016–2025). The Bank has increasingly been moving towards AVCD in its agricultural sector portfolio.

The purpose of this cluster evaluation is two-fold: a) to assess the performance of the Bank’s project approaches in relation to AVCD with respect to relevance, effectiveness, inclusiveness and sustainability; and b) to provide key lessons that can be applied for designing new AVCD interventions and improving ongoing ones.

Project Cluster Performance

Relevance

The projects maintained high relevance to Member Countries and Bank strategies as well as the needs of the target population. However, there have been several limitations in the analysis and design of AVCD approaches.

Despite having been implemented before the Feed Africa Strategy, the case study projects have demonstrated relevance for AVCD due to the Bank’s approach to strengthening commercial agriculture. The overall approach is largely appropriate and well-aligned with the Bank’s country strategies and programs but the analyses of both the policy environment and specific value chain operations are inadequate across all studied interventions.

Country commodity strategies provide an important framework for AVCD and could be more closely aligned with interventions. Case studies findings show that interventions are not always designed to have the appropriate scope and scale suited to the needs of the value chain (VC). In particular, activities were not sufficiently targeted to the most pertinent needs, and interventions are often of too short a duration to influence VC dynamics.

Effectiveness

The Bank’s VC-related interventions are generally effective in achieving their stated objectives of increasing production or physical access to markets, but they are not consistent in achieving overall AVCD results.

Each case study exhibited positive results in relation to commercialization of agriculture for smallholder producers. While positive results included improvements in yields, productivity, income, job creation and diversification of products, achievements in value addition were less evident. The case studies highlighted the value of working over a prolonged period in one sector with multiple intervention points in a systematic way to achieve greater results compared with what is possible in shorter-term interventions.

The Bank is supporting some enablers identified for successful AVCD but generally does not provide a
full package of support for the targeted commodities in ways that would achieve the intended objectives. Packaging can be achieved by working with partners but incomplete support impedes results.

Availability of appropriate infrastructure & information and communication technology (ICT). Historically the Bank has been focusing on infrastructure and contributing to AVCD, yet the infrastructure created was not always effective in addressing the priority needs of VC actors. The use of ICT, particularly to improve provision of market information, is an area that requires strengthening.

Partnerships and linkages in a VC. In the most successful cases, partnerships between producers and private sector actors were forged, as in dairy in Rwanda and cocoa in Côte d’Ivoire. However, institutional strengthening and partnerships were consistently weak in all cases studied, adversely affecting achievement of VC outcomes.

Conducive regulatory environment. Only three of the nine country case studies (Morocco, Rwanda and Uganda) were found to have supported conducive policies and regulations. In others, enforcement of regulations and development of quality standards and norms would have strengthened performance.

Access to appropriate business support. There were interventions that provided support to increase the access of VC actors to appropriate business support (e.g. Rwanda, Kenya and Mozambique), although as a whole, this support over the cluster, was inadequate.

Access to finance. The Bank’s support to facilitate access to finance was evident, involving a variety of financial intermediation support. Where access to finance was improved, positive VC results were achieved.

Inclusiveness

AVCD interventions in all case studies have incorporated some design elements to address inclusiveness, but in practice, equitable distribution of benefits is not achieved.

Seven of the nine interventions included some design elements (quotas) to ensure the participation of women, and in a few cases, youth. Indicators and appropriate data to measure inclusiveness were not usually present in the interventions and evidence was not found to support quotas and participation rates in order to guarantee equitable distribution of benefits among all VC actors.

Sustainability

Sustainability of benefits from AVCD interventions is difficult to assess and receives insufficient attention.

Each case study raised the concern that sustainability of the Bank’s interventions was not given sufficient attention from design to exit strategy. Sustainability measures were not included in monitoring and evaluation data.

Overall, sustainability of investment results is assessed as unlikely due to insufficient planning for institutional mechanisms to support ongoing operations beyond project implementation.

Facility maintenance, capacity building, as well as institutional and sociocultural sustainability, were considered as an area for improvement across the case studies.

Environmental issues and green growth are not addressed sufficiently as systematic concerns across interventions.
Key Issues and Lessons Learnt

The Bank’s focus on AVCD is emergent and yet to mature. The case studies demonstrate substantial potential for strengthening the AVCD approach within the Bank’s strategies and operations. Lessons learnt from the evaluation could help guide and consolidate this process.

Comprehensive AVCD analysis in project design and its subsequent adaptation during implementation is critical

Lesson 1: Insufficient analysis in AVCD project designs constrains achievement of outcomes and impact, while comprehensive VC analysis guides implementation and responsiveness to changes in markets and contexts.

- Interventions are relevant and effective when supported by sound VC analysis and design is specific to local contexts. During implementation, flexibility to respond to any opportunities or risks arising from changes in contexts and markets enables the intervention to achieve desired outcomes.

- Each VC case study operated in different ways and needed specifically designed infrastructure and processes. For example, the design of facilities for slaughterhouses in DRC is very different from cashew processing centers in Zambia or fish processing facilities in Uganda.

- AVCD analysis includes a viability assessment in terms of profits but other values also need to be considered in the analysis to test the feasibility of interventions, such as improved resource bases — allowing diversification, efficiency improvements, stronger inclusion in the value chain, safer work practices for value chain actors or bringing a new product to market in line with market demand (e.g. cocoa in Côte d’Ivoire or cashew nuts in Zambia).

- Implementation of interventions must respond to market signals, and original analyses need to be regularly reviewed to assess if they are still relevant. For example, in Zambia project plans had been to invest in large scale processing facilities, but during implementation, it was identified that multiple, smaller facilities might be more effective.

Profitability focus is essential throughout the entire value chain

Lesson 2: AVCD interventions that focus heavily on increases in commodity production without sufficiently considering the efficiency of the production system and the value chain as a whole, will incur net financial and economic losses.

- If VC interventions do not ensure added value along the chain for as many actors as possible, improvement in one link of the chain may not be supported by others, resulting in inefficiencies and net loss. A systematic VC analysis (see Lesson 1) will clearly identify where interventions can strengthen benefits across the whole value chain for all VC actors.

- A profitability focus involves technical innovation in production, processing and marketing. This involves moving beyond a focus on product and processing yields to consideration for distribution mechanisms and market information efficiencies, pricing, packaging, quality and consumer feedback mechanisms to improve responsiveness to market demand. This helps to achieve real profits for targeted value chain actors including producers and processors.

Appropriate scope and scale

Lesson 3: Experience from the case studies shows that effective AVCD interventions require realistic planning that takes into account appropriateness of scope in terms of the time required for contributory activities to mature, the VC actors chosen for support, the scale of activities responsive to the market demand, and sequencing of activities.
VCs need specific timeframes for investments. Rice in Mozambique depended on investment in irrigation but also needed to consider credit for land preparation and technical support to increase yields. If either of these inputs had not been available, results would not have been as robust.

In the Uganda fisheries sector, a longer timeframe for the current project would be necessary to address complex governance responsibilities to ensure better resource protection as well as growth of the sector.

There was a difference in scope and scale when the intervention focused on an independent value chain such as cocoa in Côte d’Ivoire (which is a single commodity approach) and tomato farming in Kenya which was strongly linked to other intensive horticulture production and needed strong market-related responsiveness.

The necessary chronology of effects is often not adequately taken into account in project planning; e.g. in Liberia where the production focus from the commencement of the project led to increased production, but market support was not sufficiently developed to absorb the increased supply.

**Ensuring inclusiveness in AVCD**

**Lesson 4:** Deliberate, concerted and targeted efforts at all stages of AVCD design and implementation are essential to ensure inclusiveness. Processes that ensure participation, and mechanisms for equitable benefit sharing, enable meaningful inclusiveness.

The case studies identified that quotas for target groups are common but were not followed by adequate strategies for inclusion. For instance, although 50% women participation was targeted in Uganda, the case study found that women were largely ‘invisible’ to policy makers in prioritizing fishery sector development and further, that considerations regarding their role in marketing of certain fish varieties were not considered in the support.

Benefits for vulnerable groups were not assured. In DRC, the meat value chain offers limited opportunities for poor households because they are more likely to be engaged in poultry and small ruminant farming and less likely to benefit from support largely provided to beef producers.

Deliberate targeting helped achievement of positive results, for example as in Rwanda’s provision of one cow per poor family intervention.

**Sustaining the benefits of AVCD interventions**

**Lesson 5:** Sustained benefit from AVCD interventions requires a comprehensive package of support that ensures partnerships with the private sector, the government and other development actors.

Sustainability of infrastructure such as irrigation systems was an issue (i.e. Kenya, Morocco) due to unclear responsibilities and lack of resources for maintenance; similarly, rural access via road maintenance was not guaranteed (i.e. Zambia), and fish landing site management modalities were not clearly pre-established before the sites were built in Uganda. Without clear management arrangements and implementing partners willing to resource and support, sustainability of investments is at risk.

The environment should be given importance as the key resource in AVCD and more focus given to green growth opportunities, as well as sustainable agriculture and environmental protection. In Uganda concerns about the sustainability of fishery resources raise concerns about overall sustainability of project support.

In Kenya, the case study found that the sustainability of impacts on the AVCD are
expected to be unlikely since there is little attention for aspects such as involvement of the private sector and access to finance. As a result, many exporters and traders are no longer involved in business transactions with farmers and households, and benefits from the project have been lost.

In Rwanda, the engagement of producers and commercial operators along the chain and the sustained support at all links of the chain has resulted in a spread of benefits across VC actors. Building capacity of producers’ organizations, introducing standards and guidelines has contributed to the likelihood of sustainability.
Introduction

The Independent Development Evaluation (IDEV) of the African Development Bank Group (the Bank) recently introduced a cluster approach to project level evaluation in the Bank’s priority thematic areas. This report relates to Agricultural Value Chain Development (AVCD) interventions in the context of the Feed Africa Strategy. The cluster report accompanies a thematic evaluation of AVCD which comprised a literature review, portfolio review, a series of nine country case studies, and a synthesis report. This evaluation provides lessons learnt from the nine country case studies which were focused on value chain (VC) related agricultural development interventions implemented by the Bank during the period 2006–2016, including completed and ongoing interventions.

Objectives of this evaluation of Bank support to AVCD were to: a) assess the relevance, effectiveness, sustainability and inclusiveness of the Bank’s support for value chain development; and b) provide lessons learnt and recommendations for the design and implementation of agricultural value chain interventions associated with the Feed Africa Strategy. This cluster evaluation particularly assesses the performance of agriculture projects in delivering approaches aligned with AVCD and analyzes why the expected results were achieved, or not, in order to draw relevant lessons. The key evaluation questions for each country case study focuses on the extent to which the projects are relevant in their focus and approach to AVCD; their effectiveness in delivering sustainable development results; and the extent to which interventions are inclusive (pro-poor, supporting women and youth) and supportive of green growth.

This first section of the report outlines key AVCD definitions, the context of the Bank’s approach and support to AVCD, and the background to this cluster evaluation including its purpose, scope, approach, methodology and limitations. The second section of the report outlines the project cluster performance in relation to the evaluation criteria. Finally, the third section of the report details the key issues and lessons learnt from the case studies that can inform design and implementation of future AVCD interventions.

Key Definitions

The evaluation developed VC definitions, based on those used by the World Bank and IFAD\(^1\) and then refined to contextualize Bank and Feed Africa Strategy definitions (Box 1).

The Bank’s Approach and Support to Agricultural Value Chain Development

The agriculture sector has always been a priority for the Bank in supporting livelihoods and food security, historically via infrastructure support to enable agriculture and rural development. The first mention of value chains in the Bank’s strategies appeared in its Long-term Strategy (2013–2022);\(^2\) however, a portfolio review for the evaluation found that there were earlier indications of an increasingly commercially-oriented and sustainable approach to agricultural development in the Bank’s operations.\(^3\) Similarly, there is an increasing use of AVCD terminology in recent country strategies and projects.\(^4\)

The Feed Africa Strategy (2016–2025)\(^5\) marks a strategic shift for the Bank towards agriculture as one of its top priorities and brings to the Bank a new and strong focus on AVCD. The vision of the Strategy is to transform African agriculture into a competitive and inclusive agribusiness sector that creates wealth, improves lives and secures the environment.
The ultimate goals of the Bank’s interventions in AVCD are to reduce poverty, enhance food security and support Africa in becoming a net food exporter. Inclusiveness is a special concern to ensure that benefits from AVCD reach poor farmers, women and youth. The Feed Africa Strategy promotes an integrated AVCD approach with the private sector at the heart of the development process, while also ensuring that the public sector facilitates investments in the agricultural sector, particularly when serving smallholders and Small and Medium-sized Enterprises (SME). The Bank’s role is perceived as a catalyst, designer and agent for scaling up successes in specific commodity value chains working in synergy with other partners. Feed Africa Strategy takes a commodity-specific focus for value chain investments, having identified region-specific and Africa-wide priority commodities.

Evaluation Purpose and Scope

The purpose of this cluster evaluation is to: a) provide the Bank’s board and management with credible and actionable evidence on the performance of agriculture projects that have resorted to approaches aligned with AVCD and b) provide the Bank’s operational management and staff, and other stakeholders, with relevant lessons learnt for informing design and implementation of the Bank’s support to AVCD in the implementation of the Feed Africa Strategy.

The evaluation of performance in relation to an AVCD approach relates mainly to three of the Organization for Economic Co-operation and Development’s (OECD-DAC) evaluation criteria – relevance, effectiveness, and sustainability – adapted to a focus on learning in the context of the Bank’s emerging focus on AVCD. The cluster questions adapted from these criteria are:

- To what extent is the Bank’s support of the agriculture sector focused on value chain development?
- To what extent have VC development interventions been effective in delivering sustainable development results?
- To what extent have VC development interventions been inclusive (pro-poor, women and youth) and supportive of green growth?

In addition, performance is assessed with respect to inclusiveness and green growth which are important priorities for the Bank, in response to a third question:

- To what extent have VC development interventions been inclusive (pro-poor, women and youth) and supportive of green growth?

The evaluation covers nine country case studies of VC related agriculture development interventions implemented by the Bank during the period 2005–2016, including completed and ongoing interventions. The countries covered and the respective VC investigated in the evaluation were:
Morocco (wheat); Liberia (cassava); Côte d’Ivoire (cocoa); DR Congo (meat); Uganda (fish); Kenya (tomato); Rwanda (dairy); Zambia (cashew); and Mozambique (rice). The countries were selected on the basis of regional coverage, extent of AVCD activities and with one project focusing on a Feed Africa priority commodity. The project characteristics are summarized in Annex 2.

Evaluation Approach, Methods and Limitations

Approach. The AVCD evaluation was designed as a formative (learning) evaluation which would generate lessons learnt that can be applied to the design of new interventions and demonstrate possible modifications to ongoing ones in line with good practice. A draft Theory of Change (ToC) was developed to articulate pathways by which the Bank’s support to AVCD is expected to achieve desired outputs, outcomes, and impacts to ultimately contribute to the vision and objectives of the Feed Africa Strategy. The draft ToC was applied to the nine case studies and individual ToCs were developed for each of the nine case studies and then tested during the case study process. It is important to note that the case studies did not assess the overall performance of the projects – rather the extent to which they have applied an AVCD approach. The findings then informed revision of the overarching ToC. The resulting final ToC is illustrated in Annex 1, and its components are described in detail in the main evaluation synthesis report.

The nine case studies used a common data collection protocol to gather both quantitative and qualitative data on the performance of their respective projects. The data were generated from multiple sources and...
collection methods including: a) review of relevant literature and AfDB documents; b) interviews and focus group discussions with key stakeholders (within and outside the Bank); and c) field visits to the project sites.

A **cluster evaluation methodology** comprised the review of the nine country case study reports. It was also informed by a case study synthesis report, as well as the main AVCD evaluation report. The latter synthesized the literature and portfolio review in addition to the case studies, and provides an assessment of performance of the Bank’s support to AVCD in relation to evaluation criteria of relevance, effectiveness, sustainability and inclusiveness.

The main **limitations** of the AVCD case studies are the following:

- Many of the projects studied were identified before the Feed Africa Strategy was approved. In these situations, the assessment related to the intervention’s contribution to specific VC development were not always explicitly stated or intended.

- In many cases, there was a lack of relevant/reliable data, statistics and technical analysis concerning the VC under study; data/information were at times outdated or incomplete.

- The relatively short time allocated to field trips resulted in a limited number of interviews and/or focus group discussions. Although all relevant types of stakeholders were generally consulted in each case study, crosschecking of information was not optimal. Complex VCs such as cocoa, wheat or rice will require more time for analysis.

- A wide variety of approaches were identified across the case studies, where most interventions were not following any particular set of practice guidelines or standards against which performance could be assessed. This limitation was mitigated by the case study generated ToC which was used to assess the probability that interventions were likely to achieve the expected AVCD-related outcomes.
Project Cluster Performance

Relevance

The case studies demonstrate relevance for AVCD in line with country strategies and good practice approaches. However, VC relevance is constrained by a lack of comprehensive VC analysis. The overall AVCD approach is largely appropriate and well-aligned with country strategies but the detailed analyses of both the policy environment and specific VC operations are inadequate.

All case studies found that the priority commodity targeted by the Bank was in line with country priorities and was appropriate for their potential to reach and benefit small-holder farmers. In each country, the relevant ministry or industry body had already carried out some strategic analysis of the potential for VCD within the commodity market and supply chain but the extent of analysis varied substantially. For example, in Côte d’Ivoire, there is a comprehensive cocoa strategy; in Zambia, the Cashew Growers Association of Zambia formulated a National Cashew Development Strategy 2013–2017; and in the DRC, investments in the meat sector are largely project-driven. Yet, the Bank’s Country Strategy Papers related to the case studies rarely made reference to the sector or commodity’s national strategy where these were in place, nor did they refer to a VC approach or even VC support (Box 2). Rather, these retain a strong focus on infrastructure dimensions rather than VC dimensions, although much of the infrastructure at the project level has nevertheless been chosen to have an impact on agricultural VCs.

Lack of systematic VC analysis results in inadequate identification of specific support needs: VC analysis was found to be limited in the case study interventions. This has had consequences for the identification of the most appropriate interventions and respective prioritization of the Bank’s support to the VCs. A common conclusion across the case studies is that, although a wealth of knowledge on the various supported VCs exists among the VC stakeholders, it is not always clearly documented and contextualized in relation to the Bank’s support. The case studies found that none of the VCs supported by the AfDB have benefited from a systematic VC analysis (with a related stakeholder map, added value distribution map, cost of production calculations or an analysis of by-product potential). Only in Zambia does the sector strategy contain at least a superficial

Box 2: Country commodity strategies provide an important framework for AVCD

For most commodities studied in the case studies, a national support strategy provides a general framework for project implementation (e.g. National Cashew Development Strategy (2013–2017) in Zambia, 2004 Fish Bill in Uganda, upcoming National Rice Development Program in Mozambique, 2013 National Dairy Strategy in Rwanda, National Cassava Sector Strategy (2010) in Liberia, Programme Quantity, Quality, Growth (2QC, 2014–23) covering cocoa in Côte d’Ivoire). However, strategies are not always up to date (e.g. fisheries in Uganda) or may still be in the process of being developed (e.g. rice in Mozambique). Furthermore, the strategies may lack aspects that are important for AVCD. In Zambia for instance, the strategy appears to have been drawn up without external participation and, as a result, the strategy is centered on technical aspects of cashew production and processing and gives limited importance to marketing and VC organization. Morocco is a good example with a sound, focused national strategy to develop VCs which reflects positively on wheat commodity development and provides a foundation for VC analysis.
There was little consideration at the design stage as to how poorer farmers, women or youth would benefit, other than introduction of quotas. Furthermore, the Zambia case study identified potential opportunities which were not investigated, such as nut quality or methods of production (fair trade, organic trade), terms of cashew nut transformation (paste, cakes) or even by-products (shell oil, jams). The level of analysis during the identification phase of the interventions studied does not enable identification of the most limiting factors for VC development in the context of the commodity concerned. As a result, some country case study reports concluded, as in DRC particularly for small meat producers, that the Bank’s interventions did not tackle the main constraints faced by the supported VC.

**Undue focus on production volumes rather than value-added, profitability and responsiveness to markets.** One important consequence of the lack of analysis is that all interventions give significant importance to production with relatively low attention to the potential greater added value which could be created at the processing, storage and marketing stages of the VC (e.g. cashew, cocoa, rice). There was a lack of common understanding around VC approaches, resulting in an undue focus on production rather than how to add value to production through processing and marketing support. Although the term "Value Chain" has begun to be much more frequently used in Bank documents, Country Teams have not yet totally adopted the VC approach promoted by Feed Africa Strategy that encourages value addition. The case studies show that the steps towards commercialization have started but that there is insufficient engagement of market players or responsiveness to market demand to enable projects to go beyond a production focus. Usually much attention is given to improving specific VC activities (such as input supply, seeds, credit, extension) but far less attention is devoted to optimizing the interactions and profitability of VC agents. There is also a lack of attention to technical opportunities for adding value and in building market and price advantages for primary producers. This is unsurprising considering the fact that almost all active interventions were formulated before the introduction of the Feed Africa Strategy.

**Appropriateness of scope of interventions and approaches would improve designs.** The interventions and approaches used did not always have an appropriate scope and scale, largely due to the lack of stakeholder participation in designing and implementing interventions (Box 3). This lack of analysis also led to questions relating to the relevance of the target groups chosen and activities or infrastructure supported in some

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**Box 3: Lack of stakeholder participation in AVCD analysis is an obstacle to ensuring interventions have an appropriate scope and scale**

In Côte d’Ivoire, the target population did not feel included in the formulation process or sensitized to criteria used in choosing beneficiaries. In Zambia, key parties knew little about the exact activities planned by the project despite the action having officially started in 2016. In Mozambique, producers respond to the edicts of the government agency Regadio do Baixo Limpopo (RBL) and the private processing company Wambao to know how and who will produce rice but have not developed their own capacity. In Uganda and Zambia, the target population was not consulted on the suitability of the landing site and the bulking center management modalities. The lack of producer engagement in needs identification may explain the tendency to go for "modern" high input, high volume production techniques when other means of production may be just as relevant and cost effective. In Uganda, the project tends to consider exports exclusively from the point of view of industrially processed fish (exported mainly) to Europe and requiring quite costly processing, transport and marketing material. Trade within the sub-region attracts less focus despite the fact that the limited available data indicate that it is at least as beneficial to the Ugandan population to develop local markets with a lower investment cost.
interventions (e.g. the relevance of rice producer size in Mozambique, cashew infrastructure size in Zambia and suboptimal choice of irrigation infrastructure design for tomato growers in Kenya). In Morocco, the second phases of both projects were recently prepared and made explicit links with VC development although did not focus on a specific VC. In addition, the case studies found that the time allocated to the interventions was insufficient to consolidate results.

Effectiveness

The Bank’s interventions are generally effective in achieving their stated objectives in terms of increasing production or physical access to markets. However, they are not systematically achieving the desired outcomes of AVCD, as identified in the ToC (Annex 1). While stakeholders in the case study interventions were generally satisfied with effectiveness, this mainly related to the interventions as a whole rather than specific AVCD aspects (Box 4).

The Bank is already supporting some enablers identified for successful AVCD. Five key aspects of the enabling environment for AVCD addressed in this section (viz. good partnerships and linkages, a conducive policy and regulatory environment, availability of infrastructure and information communication technology (ICT), business support services, and access to finance) are supported within the case study projects. However, these

**Box 4: Examples of results achieved in case study interventions**

- In Zambia’s cashew sector, the Bank’s support is mainly achieving results in relation to increasing production. There are positive prospects for increasing incomes associated with improved production, processing and marketing.
- In Rwanda’s dairy industry, the study found that PADEBL has contributed substantially to the development of the milk sector, particular by increasing milk production. Both LISP and PADEBL in Rwanda successfully achieved income increases for participants. In LISP, there were also positive outcomes in increasing the involvement of the private sector in dairy activities, and in establishing sector policies.
- In the meat sector in DRC, PADIR achieved improvements in the efficiency of supply chain operations resulting from rehabilitation of roads, processing and marketing facilities, which may in the future contribute to added value for meat products. However, the study did not find evidence of outcomes in improving livestock production or input supply, increasing incomes, or influencing the regulatory environment.
- In Uganda’s fisheries sector, the LEAF II project is too early in implementation to have effectively addressed complex challenges of reducing illegal fishing. However, steps have been taken to improve the quality of fish products.
- In the tomato VC in Kenya, the availability of irrigated land for farming has been increased with associated benefits for production. However, support for marketing remains a gap.
- In Côte d’Ivoire support to the cocoa VC, production has been increased via input distribution in PAIA-ID and access to finance for producers in SUCDEN soft commodity facility, which in both cases have resulted in improved product quality and some associated income increases. Support to cooperatives is also improving connectivity and marketing though there has been no support to the institutional environment.
- In Liberia’s cassava sector, SAPEC has effectively increased capacity, knowledge and skills of VC actors relating to production and productivity, which has had increased access to markets.
- In support to the wheat sector in Morocco, yield increases as a result of improved water use efficiency is seen in both PAPNEEI and PAPMV, and provision of certified seeds in PAPMV. The study found that PAPMV has contributed to improvements in the governance of the irrigation sector, including reinforcement of the agricultural insurance system, strengthening of the legal framework, and promotion of the aggregation process.
- Mozambique’s rice sector interventions via BLICRP, have increased yields due to introduction of improved varieties, inputs and water management practice, which is expected to add production value.
generally do not fully support AVCD in the targeted commodities in ways that would achieve the intended outcomes for AVCD, as identified in the ToC (Annex 1).

**Partnerships between VC actors, including private sector, are not sufficiently supported.**

The case studies found some positive examples of the Bank’s support to organizations and institutions (e.g. in Rwanda dairy sector). However, the evaluation found that support to organizations and linkages in VCs were limited, and particularly that support to strengthen farmers’ organizations was lacking, as well that they did not effectively strengthen private sector capacity and linkages (Box 5).

**Development of a conducive regulatory environment.** Only three of the nine country case studies were found to have supported conducive policies and regulations. These were surveillance for illegal fishing and a fishery conservation policy in Uganda; national policy dialogue relating to the wheat VC in Morocco; and quality standards for milk in Rwanda. Nevertheless, the case studies also found that the more recently identified projects appeared to attach greater importance to norms and standards. The cashew VC in Zambia or fisheries investments in Uganda are examples of this, but these projects have only just begun, so it is difficult to determine how far the AVCD dimension will be put into practice. Enforcement of regulations (e.g. export standards for tomatoes in Kenya), as well as quality awareness and related norms and standards for food production (e.g. cassava in Liberia), have not received adequate attention in the case study interventions to progress towards an AVCD approach.

**Availability of appropriate infrastructure.** The Bank’s interventions are generally effective in strengthening infrastructure which has been a strong focus of the Bank’s efforts in agriculture and rural development. This includes a wide variety of infrastructure that relates to production, processing and marketing, as well as market access, such as feeder roads (DRC), markets and processing facilities (Zambia and DRC), and irrigation infrastructure (Kenya, Morocco and Mozambique). In general, these infrastructure components make a positive contribution towards strengthening the enabling environment for AVCD. However, some gaps were identified in terms of outcomes achieved from constructing large processing facilities compared with strengthening existing, smaller ones. For instance, in DRC where meat processing were underutilized, and in Uganda where there were plans to construct facilities without due consideration of market size and natural resource capability. The use of appropriate ICT, particularly to provide market information to VC actors, is an area where few outcomes were evident, but where there may be opportunities for future interventions.

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**Box 5:** Support to organizations and institutions, and inter-linkages between them, was varied in case studies

The country case studies found that few efforts were made to strengthen Farmers’ Organizations (FO). For example, in Liberia, the Bank assumes that farmers are organized in cooperatives, however the evaluation team found that this was not the case. In addition, no support was being provided to support formation of FOs and help them better structure the VC in terms of production, processing and marketing services. In Mozambique, the case study identified that a lack of FOs led to weakening the position of rice producers in relation to large agro-processing companies and prevented them from negotiating good terms for their farming contracts. The only example that the case studies found in which improved coordination and partnerships were realized, occurred in support to dairy farmers’ cooperatives in Rwanda. The cooperatives formed a collective voice for dairy farmers and were able to provide economies of scale and enhance quality of the product which was then marketed by the cooperatives on behalf of the farmers.
Access of VC actors to appropriate business support. This has implications on outcomes achieved by the target groups. Business support in some form was provided in six of the nine cases, however, overall this support was insufficient. In Rwanda and Morocco, business support services were improved through institutional strengthening of producer organizations such as dairy cooperatives (Rwanda) and water users’ associations (Morocco). Support included knowledge sharing, and support for improved business and resource management practices. In Kenya, support was provided for quality management through tomato pack houses. In Mozambique, support to supply chain distribution was delivered through contract farming (where producers are linked to private sector consolidation and processing operators). Cassava processors in Liberia are producing a more diverse range of products with project support but marketing remains an issue due to the lack of market analysis and business support. In Zambia, limited support is provided to VC actors but it is not systematic. Nonetheless, overall, there is limited business support provided in tandem with other Bank support, leading to suboptimal results in direct benefits for producers in engaging with expanded markets.

Where access to finance is improved, substantial benefits are achieved. Access to finance was seen in five of the nine cases, involving a variety of financial intermediation support (Box 6). Where access to finance was improved it was evident that substantial benefits can be achieved. However, access to credit remains a gap within some VCs (e.g. rice in Mozambique). Producers do not have enough investment capacity to pay for land preparation, inputs, labor for harvesting or processing. In addition, the conditions for obtaining rural credit (collateral, paperwork, etc.) are not always well suited to smaller producers, particularly as agriculture is considered risky and banks are reluctant to support it. Consequently, despite the improved infrastructure facilities, the capacity of poor farmers to reap the potential benefits is constrained.

Box 6: The Bank’s support to increase access to finance

In Rwanda support was provided to dairy cooperatives to access finance to support members. To reduce risk of losses, finance was provided as in-kind (one cow per poor family). Through this, 16,072 families received cows with repayments deducted through the cooperatives, thus contributing substantially to increased dairy production in the country by 59.6%. A contribution to poverty reduction was also realized among participating families (from 44.9% to 39.1%). In the DRC, the project liaised with a microfinance institution to increase access to finance in the project area. In Morocco, the project assisted farmers to access agricultural insurance which increased their likelihood of accessing formal credit. On the other hand, in Mozambique, overall access to credit was limited and severely affected the extent of benefits to poor farmers.

Box 7: Results can be strengthened in interventions of longer duration

Over two associated projects in Rwanda, LISP and PADEBL, national dairy production was assessed to have increased from 442,337 tons in 2011 to 706,030 tons in 2014 (59.6%), and that of meat rose from 73,633 tons to 108,813 tons (47.8%) for the same period. This was assessed as contributing to a decline in poverty rates from 44.9% to 39.1%. At the same time, the quantity of milk collected through project support increased by 210% and the quality of milk supplied on the market and to processing factories improved. Furthermore, work has been carried out on policies and certification, contributing to a more stable and safe sector. The investment in the dairy sector over two subsequent projects, has helped to build on lessons learnt.
Results in employment creation are positive in certain VCs. This was the case in several countries, such as cashew (Zambia), fisheries (Uganda) and dairy (Rwanda) VCs where significant job creation ensued, however it was very limited in cereal VCs, for example, wheat (Morocco) and rice (Mozambique). In the case of rice, the production cycle is labor intensive so employment increase is seasonal.

The case studies highlighted the importance of an investment timescale, including the value of working over a prolonged period in one sector with multiple intervention points to achieve greater benefit compared with what is possible in shorter interventions (Box 7). These positive examples of impact provide opportunities to strengthen impact in future interventions.

Inclusiveness

All case study interventions have incorporated design elements and strategies to address inclusiveness, though these are inadequate to bring about equitable distribution of benefits among all VC actors.

All the country case studies, except two, indicate presence of some design elements that relate to ensuring participation of women, youth and/or vulnerable groups (Box 8). The case studies for wheat in Morocco and rice in Mozambique found that while there were design elements such as training targets and statements regarding mainstreaming, inclusiveness was not a priority during implementation and limited efforts were evident to ensure inclusion. For those that did include some design elements for inclusion, these were most commonly quotas for participation of certain target groups such as women and youth. It was not evident from the case studies whether participation alone is enough to ensure that these groups benefit equitably from the interventions.

Indicators and appropriate data to measure inclusiveness of interventions were not usually present in the studied interventions. Case studies in this evaluation concluded that tracking quotas for participation are not sufficient to lead to benefits for women, youth and vulnerable groups. Tracking disaggregated quantitative and qualitative data by target group is important. Not all projects include a monitoring and evaluation system that allows the collection of data disaggregated by gender or age (e.g. Project Completion Report for the Livestock Infrastructure Support Program in Rwanda, 2015 identifies a lack of disaggregated data which makes tracking of benefit to vulnerable groups challenging). In the larger infrastructure projects such as in Mozambique, Morocco and DRC, gender and other inclusion related factors

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**Box 8: Inclusiveness requires deliberate effort**

None of the case study interventions received adequate analysis to fully determine and address the needs of women, youth and other vulnerable groups. Nevertheless, most did include at least one respective design feature. In Liberia, quotas have ensured vulnerable populations receive training and cassava cuttings, but benefits do not extend much further. In DRC, women’s inclusion is an explicit objective, but other vulnerable groups are not identified or involved. In Zambia, a quota of 50% of women must participate in training sessions, 30% are to benefit from loans, and similar quotas are in place for youth. However, it is far from clear how benefits will be achieved equitably for these groups. In Uganda, all project activities should include equal gender participation but there was no evidence of this participation being translated into benefits. In Kenya, the study identified risks of benefits being concentrated in the hands of large companies, which may not equitably benefit women and youth. In Rwanda, there was evidence of some benefits for women but little for youth. In Côte d’Ivoire, specific targets for women and youth were included for training only. In Morocco and Mozambique, despite training targets and statements regarding mainstreaming, the implementation did not have sufficient focus or deliberate efforts to ensure inclusiveness.
were not considered, nor tracked, so it was difficult for the case studies to identify whether any benefits had reached the more vulnerable target groups.

### Sustainability

Sustainability of benefits received insufficient attention in all interventions studied. Infrastructure, equipment management and maintenance were given too little attention, though there are some positive examples.

Across all cases studied, the sustainability of intervention results was difficult to measure and has neither been monitored nor addressed comprehensively. Many of the interventions are not mature enough to assess the extent to which interventions and their impact were, or were likely, to be sustained. The case studies show that sustainability of the Bank’s support is mixed. For example, in Zambia, concerns were raised about the sustainability of bulking centers, in the absence of market analysis. In Rwanda, Bank investments were considered likely to be sustained due to the ongoing activities of dairy cooperatives. Nonetheless, all the case studies noted the lack of indicators to measure the sustainability of intervention impact, and highlighted this as an area that has received limited attention.

Overall, sustainability of intervention results is unlikely due to inadequate feasibility assessment and planning of institutional mechanisms to support ongoing operations beyond project implementation. Each case study raised the concern that sustainability had not been sufficiently addressed from neither design nor exit strategies. For instance, in Côte d’Ivoire, cocoa cooperatives will likely contribute to sustainable management of cocoa plantations, yet project training material was assessed as poor and unlikely to be continued to be used. The price volatility of cocoa is also a major risk to farmer’s continued production as well as crop disease and climate change. In DRC, the number of users for slaughterhouses was found to be low, presenting a financial viability issue as operations may not be able to cover recurrent costs. In Zambia, sustainability of cashew bulking centers was uncertain due to the absence of a business plan or profitability projections. Overall, sustainability of results is unlikely; yet the benefits of capability development and specific enterprise growth can be sustained by individual VC actors.

Ownership and functionality of facilities and production systems is key for sustainability. Some positive results were seen in incorporating infrastructure maintenance into project operations to ensure ongoing use of created facilities, such as irrigation structures in Mozambique that will be managed through water users’ associations. However, in other examples, infrastructure facilities were not well planned and did not have the full support of local producers or private sector actors. This led to facilities being underutilized as in the case of meat processing facilities in DRC and, concerns regarding increased pressure on fish stocks in Uganda. Moreover, management and maintenance of most irrigation systems (e.g. in Kenya and Morocco) were assumed rather than strategically supported to ensure continuity of facility use.

Environmental risks, including those relating to climate resilience, were not sufficiently addressed. Most stakeholders met during the case study process appeared to have limited concern about environmental issues. Although environmental assessments are conducted, these studies have a tendency to downplay or even overlook potential environmental problems. For instance, the management of waste through the development of byproducts (shell oil from cashew processing for instance) is given limited attention. Organic production, certification and marketing are often mentioned but do not appear to be put into
practice, as no results in terms of specific organic production are registered. There is a tendency for projects to advocate for more input-intensive methods of production without taking into account the possible negative environmental effects of the use of chemicals (e.g. rice in Mozambique, cashew in Zambia, cage fish farming in Uganda). Even in a project such as BLICRP in Mozambique, which integrates climate resilience in its purview, the issue is limited to managing climatic risk through the introduction (or improvement) of irrigation and drainage. Another example is in Côte d’Ivoire, where sustainability remains a challenge for the cocoa VC in the sense that no cocoa varieties resistant and/or adapted to climate change have been developed.

The case studies found that **VC analysis and participatory processes are opportunities to enhance sustainability** (Box 9). In the absence of these fundamentals, including a lack of consideration for responsiveness to market needs, sustainability issues in project implementation will remain. 

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**Box 9: Sustainability of impact requires more participatory processes and VC analysis**

The case studies show that inadequate analysis of VC dynamics has led to investments which are unlikely to be sustained. For example, irrigation systems in Kenya were not being sufficiently maintained; processing equipment in Liberia could not be serviced locally; and plans to build a large-scale processing plant for cashews in Zambia, may not be feasible in relation to market demand. For this reason, closer attention to potential pathways to sustainability at the design stage is likely to yield better and more sustainable results by and beyond project completion.

Responding to VC dynamics requires strong engagement of private sector actors and active linkages between producers, processors and wholesalers/retailers. In the example of tomato production in Kenya, producers were aware that drip irrigation would be most effective, however, the sprinkler irrigation facilities supplied by the project were not compatible with their needs. Similarly, there were clear market concerns among private sector actors that were well known in terms of seasonality and demand fluctuations. If these had been factored into the process earlier on, improved results and a more robust integration with the VC could have been achieved. Greater dialogue between private actors and producers at the design stage and during implementation would have led to stronger results with a greater chance of longer term success.

Similarly, aspects related to institutional strengthening are not addressed with sufficient focus on long term operation. Policy and regulatory work can contribute to long term positive change within a specific sector, for example, the Bank has supported improved standards and certification, such as cocoa in Côte d’Ivoire and diary in Rwanda. Although strengthening of institutions are essential to build sustained access to markets, this aspect has not been well structured during design nor developed during implementation. This was the case for aggregation facilities in Morocco for which a clear business model for ongoing management was not established, leading to uncertainty as to how the facility would continue to operate, whether it would generate intended results and sustain benefits over time.
The nine country case studies were on different commodities in varied contexts. Given the Bank’s emergent focus on AVCD, five key lessons learnt from the evaluation can be of benefit to the Bank as it heightens attention on how to apply an inclusive AVCD approach in the implementation of the Feed Africa Strategy as well as its long-term development of the agricultural sector in Africa.

Comprehensive AVCD Analysis in Project Design and its Subsequent Adaptation During Implementation is Critical

Lesson 1: Insufficient analysis in AVCD project designs constrains achievement of outcomes and impact while comprehensive VC analysis guides implementation and responsiveness to changes in markets and contexts.

Interventions need to be based on sound VC analysis in order to be specific and relevant to local contexts. This requires comprehensive analysis of VC actors, feasibility at different stages of the chain, scenarios for VC interventions and identification of risks and assumptions. The resulting analysis may need adaptation during implementation in line with opportunities, risks and shifts in context.

- Each case study VC operated in different ways and needed specifically designed infrastructure and processes. For example, the design of facilities for slaughterhouses in DRC is very different from cashew processing centers in Zambia or fish processing facilities in Uganda.

- AVCD analysis includes a viability assessment in terms of profits, but other values also need to be considered in the analysis to test the feasibility of interventions such as an improved resource base allowing diversification, efficiency improvements, stronger inclusion in the VC, and safer work practices for VC actors or bringing a new product to market in line with market demand (e.g. cocoa in Côte d’Ivoire or cashew nuts in Zambia).

- AVCD activities generally cannot all be planned at the start of an intervention. During the course of implementation, market factors and actors change (e.g. export price fluctuations for cashew and cocoa). The analysis needs to allow for a dynamism in implementation to respond to opportunities or risks arising from changes in contexts and markets. For instance, positive results achieved in Rwanda’s dairy VC due to subsequent Bank support from gains in animal health and breeding towards market development, product diversification and nutrition.

- Implementation of interventions must respond to market signals, and original analyses need to be regularly reviewed to assess if they are still relevant. For example, in Zambia, project plans were to invest in large scale processing facilities, but during implementation, it was identified that multiple, smaller facilities may be more effective. Adaptation to changing contexts, situations, actors or market demand may require changes in project personnel expertise during implementation as well as robust monitoring and evaluation mechanisms.

Profitability Focus is Essential Throughout the Entire VC

Lesson 2: AVCD interventions that focus heavily on increases in commodity production without sufficiently considering production system efficiency and the value chain as a whole, will incur net financial and economic losses.
The case studies found that interventions tended to focus mostly on increases in commodity production without sufficiently considering market requirements. If VC interventions do not ensure added value along the chain for as many actors as possible, improvement in one link of the chain may not be supported by others, resulting in inefficiencies and net loss. A systematic VC analysis (see Lesson 1) will clearly identify where interventions can strengthen benefits across the whole VC for all VC actors.

In Liberia and Kenya, a production focus without adequate consideration for the market, caused oversupply and did not achieve the expected profitability after the initial increase in supply. The individual businesses supported in meat processing in DRC did not generate net financial gains and consequently, the expected contribution of each enterprise to the overall expected internal project rate of return and a wider overall economic rate of return for the sector was not achieved.

A profitability focus involves technical innovation in production, processing and marketing. This involves moving beyond a focus on product and processing yields to consideration for efficiency of distribution mechanisms and market information, pricing, packaging, quality, and consumer feedback mechanisms to improve responsiveness to market demand. This helps to achieve real profits for targeted VC actors including producers and processors.

In each case study, there were different considerations of market, logistics, infrastructure, and governance, etc., indicating that the scope of interventions needs to be deeply understood before resources are applied. The implementation of AVCD initiatives needed to be configured in the most relevant scope.

- VC need specific timeframes for investments. Rice in Mozambique depended on investment in irrigation but also needed to consider credit for land preparation and technical support to increase yields. If either of these inputs had not been available, results would not have been as robust.
- In the Ugandan fisheries sector, a longer timeframe for the current project would be necessary to address complex governance responsibilities to ensure better resource protection as well as growth of the sector.
- There was a difference in scope and scale when the intervention focused on an independent VC such as cocoa in Côte d’Ivoire (which is a single commodity approach) and tomato farming in Kenya which was strongly linked with other intensive horticulture production and needed a strong market-related responsiveness.
- The necessary chronology of effects is often not adequately taken into account in project planning; e.g. in Liberia where the production focus from the beginning of the project led to increased production but market support was not sufficiently developed to absorb the increased supply.

Appropriate Scope and Scale

Lesson 3: Experience from the case studies shows that effective AVCD interventions require realistic planning that takes into account appropriateness of the scope in terms of time required for contributory activities to mature, the VC actors chosen for support, the scale of activities responsive to the market demand, and sequencing of activities.

Ensuring Inclusiveness in AVCD

Lesson 4: Deliberate, concerted and targeted efforts at all stages of AVCD intervention design and implementation are essential to ensure inclusiveness. Processes that ensure participation and mechanisms for equitable benefit sharing enable meaningful inclusiveness.
In line with the Bank’s mandate, AVCD is expected to benefit poor farmers and ensure benefit is gained on an equitable basis by women, youth and vulnerable populations.

The case studies identified that quotas for target groups are common but were not followed by adequate strategies for inclusion. For instance, although 50% women participation was targeted in Uganda, the case study found that women were largely ‘invisible’ to policy makers in prioritizing fisheries sector development, and considerations regarding their role in marketing of certain fish varieties were not considered in the support.

Benefits for vulnerable groups were not assured. In DRC, the meat VC offers limited opportunities for poor households because they are more likely to be engaged in poultry and small ruminant farming and less likely to benefit from support largely provided to beef producers.

Deliberate targeting helped achievement of positive result in Rwanda through provision of one cow per poor family intervention.

Sustaining the Benefits of AVCD Interventions

Lesson 5: Sustained benefit from AVCD interventions requires a comprehensive package of support that ensures partnerships with the private sector, the government and other development actors.

Sustainability should be considered at the design stage to ensure that a comprehensive package of support is available to the selected VC. This would require a range of strategies, applied and tracked during implementation, to ensure long term impact of investments. The Bank may not directly provide all required support but would need to work with partners so that the VC will continue to function and benefits are sustained.

Sustainability of infrastructure such as irrigation systems was an issue (i.e. Kenya, Morocco) due to unclear responsibilities and lack of resources for maintenance; similarly, rural access via road maintenance was not guaranteed (i.e. Zambia), and fish landing site management modalities were not clearly pre-established before the landing sites were built in Uganda. Without clear management arrangements and implementing partners willing to continue resourcing and support, sustainability of investments is at risk.

The environment should be given importance as a key resource in AVCD and more focus given to green growth opportunities, as well as sustainable agriculture and environmental protection. In Uganda concerns about the sustainability of fisheries resources raises concerns about overall sustainability of project support.

In Kenya, the case study found that the sustainability of the impacts on the AVCD are expected to be unlikely since there is little attention to aspects such as involvement of the private sector and access to finance. As a result, many of the exporters and traders are no longer involved in business transactions with the farmers and households and benefits from the project have been lost.

In Rwanda, the engagement of producers and commercial operators along the chain and sustained support at all links of the chain has resulted in a spread of benefits across VC actors. Building capacity of producers’ organizations, introducing standards and guidelines has contributed to the likelihood of sustainability.
Annexes
Annex 1 — Generic Theory of Change: Bank Support to Agricultural Value Chain Development
Annex 2 — Summary of Case Study AVCD Interventions

The tables below show the commodity of interest and the projects selected (since they have some value chain components) relating to that commodity in each country.

<table>
<thead>
<tr>
<th>Project</th>
<th>Commodity</th>
<th>Approval date</th>
<th>Status</th>
<th>Budget (UA million)</th>
<th>Budget (USD million)</th>
</tr>
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<td><strong>DEMOCRATIC REPUBLIC OF THE CONGO</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>PADIR – Rural infrastructure development support project</td>
<td>Meat</td>
<td>10 Nov 2011</td>
<td>Ongoing</td>
<td>49.46</td>
<td>79.09</td>
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<tr>
<td><strong>CÔTE D’IVOIRE</strong></td>
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</tr>
<tr>
<td>SUCDEN – Agricultural commodities programme</td>
<td>Cocoa</td>
<td>10 Jul 2015</td>
<td>Ongoing</td>
<td>79.96</td>
<td>111.54</td>
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<td>PAIA-ID – Agricultural infrastructure support project in Indéné-Djublin Region</td>
<td></td>
<td>01 Mar 2012</td>
<td>Ongoing</td>
<td>21.60</td>
<td>33.73</td>
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<td><strong>KENYA</strong></td>
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<td>KOSFIP – Kimira-Oluch smallholder farm improvement project</td>
<td>Tomato</td>
<td>31 May 2006</td>
<td>Completed</td>
<td>27.8</td>
<td>35.13</td>
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<tr>
<td>SHDP – Small-Scale Horticulture Development Project</td>
<td></td>
<td>05 Sep 2007</td>
<td>Completed</td>
<td>17.0</td>
<td>25.5</td>
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<td><strong>LIBERIA</strong></td>
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<td>SAPEC – Smallholder agricultural productivity enhancement and commercialization project</td>
<td>Cassava</td>
<td>02 May 2012</td>
<td>Ongoing</td>
<td>33.08</td>
<td>52.89</td>
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<td><strong>MOROCCO</strong></td>
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<td>PA-PNCEE – National irrigation water conservation programme support project</td>
<td>Wheat</td>
<td>14 Dec 2009</td>
<td>Ongoing</td>
<td>49.89</td>
<td>79.32</td>
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<td>PA-PMV – Green Morocco plan support programme</td>
<td></td>
<td>18 Jul 2012</td>
<td>Completed</td>
<td>89.48</td>
<td>138.73</td>
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<tr>
<td>BLICRP – Baixa and Limpopo irrigation and climate resilience project</td>
<td>Rice</td>
<td>26 Sep 2012</td>
<td>Ongoing</td>
<td>16.53</td>
<td>25.79</td>
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<td><strong>RWANDA</strong></td>
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<td>LISP – Rwanda livestock infrastructure support programme</td>
<td>Dairy</td>
<td>20 Nov 2010</td>
<td>Completed</td>
<td>21.81</td>
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<td><strong>UGANDA</strong></td>
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<td>LEAF II – Lakes Edward &amp; Albert integrated fisheries &amp; water resources</td>
<td>Fish</td>
<td>20 May 2015</td>
<td>Ongoing</td>
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<td>27.97</td>
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<td>CIDP – Cashew infrastructure development project</td>
<td>Cashew nut</td>
<td>04 Nov 2015</td>
<td>Ongoing</td>
<td>32</td>
<td>45</td>
</tr>
</tbody>
</table>
Annex 3 — Summary of Outcomes Achieved in Case Study Interventions

Zambia

**Cashew Infrastructure Development Project (CIDP)**

- **Production / productivity**
  The introduction of improved agronomical techniques is likely to both make production more secure and consistent as well as increase cashew tree productivity and nut production. Improvements throughout production, processing and marketing, should ensure greater competitiveness within both the export and local market.

- **Connectivity / marketing**
  Presently not a major preoccupation as focus is on increasing cashew production.

- **Incomes**
  Likely to increase with increased cashew production, processing and marketing.

- **Quality / added-value**
  Processing cashew nuts for consumption within Zambia (versus exported), if done, will clearly increase added value within the country.

- **Political**
  There is a pre-existing political will for developing cashew at the government and provincial level.

- **Environment**
  Positive effects on the environment: trees help limit erosion and also act as carbon sinks. However mono varietal plantations imply land clearance.
### Rwanda

<table>
<thead>
<tr>
<th>Rwanda Livestock Infrastructure Support Programme LISP</th>
<th>Dairy Cattle Development Support Project PADEBL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production / productivity</strong></td>
<td>Increased annual milk production to 355,091 metric tons, 34% above the target of 265,000 MT. The project contributed, to a large extent, to sector development.</td>
</tr>
<tr>
<td>National dairy production increased from 442,337 tons in 2011 to 706,030 tons in 2014 (59.6%), that of meat rose from 73,633 tons to 108,813 tons (47.8%) for the same period. 16,072 poor households received cows in the framework of the &quot;one cow per poor family,&quot; which increased dairy production in the country by 59.6% and contributed to poverty reduction (from 44.9% to 39.1%) in beneficiary families.</td>
<td></td>
</tr>
<tr>
<td>Milk consumption rose from 44.2 liters per person per year to 59 liters per person per year and that of meat rose from 6.69 kg to 7.9 kg per person per year from 2011 to 2014.</td>
<td></td>
</tr>
<tr>
<td>Incomes</td>
<td>Increase of farmer’s annual income to RWF 1,424,000 from a target of RWF 300,000 increase.</td>
</tr>
<tr>
<td>Farmers using Milk Collecting Centres (MCC) have assured incomes and stable prices throughout the year.</td>
<td></td>
</tr>
<tr>
<td>Quality / added-value</td>
<td>The quantity of milk collected by the MCCs increased by 210% and the quality of milk supplied on the market and to the processing factories improved. Greater involvement of the private sector in dairy activities was observed. Inyange dairy factory increased its capacity by 200% and entered into management partnership with some MCCs.</td>
</tr>
<tr>
<td>Political</td>
<td>Policies and platform established.</td>
</tr>
</tbody>
</table>

### Kenya

<table>
<thead>
<tr>
<th>Annexes An IDEV Project Cluster Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zambia</td>
</tr>
<tr>
<td>Rwanda</td>
</tr>
<tr>
<td>Côte d'Ivoire</td>
</tr>
<tr>
<td>Liberia</td>
</tr>
<tr>
<td>Morocco</td>
</tr>
<tr>
<td>Mozambique</td>
</tr>
<tr>
<td>KOSFIP</td>
</tr>
<tr>
<td>PAIA-ID</td>
</tr>
<tr>
<td>SUCDEN</td>
</tr>
<tr>
<td>SAPEC</td>
</tr>
<tr>
<td>PAPNEEI</td>
</tr>
<tr>
<td>PAPMV</td>
</tr>
<tr>
<td>BLICRP</td>
</tr>
<tr>
<td>NO</td>
</tr>
<tr>
<td>Delimited</td>
</tr>
<tr>
<td>6,919 km² (out of 31)</td>
</tr>
<tr>
<td>&gt; 800 households</td>
</tr>
<tr>
<td>Project</td>
</tr>
<tr>
<td>Production/ marketing</td>
</tr>
<tr>
<td>Production/ processing</td>
</tr>
<tr>
<td>Rwanda Livestock Infrastructure Support Programme LISP</td>
</tr>
<tr>
<td>Dairy Cattle Development Support Project PADEBL</td>
</tr>
<tr>
<td>Production / productivity</td>
</tr>
<tr>
<td>Milk consumption rose from 44.2 liters per person per year to 59 liters per person per year and that of meat rose from 6.69 kg to 7.9 kg per person per year from 2011 to 2014.</td>
</tr>
<tr>
<td>Incomes</td>
</tr>
<tr>
<td>Quality / added-value</td>
</tr>
<tr>
<td>Political</td>
</tr>
<tr>
<td>Environment</td>
</tr>
</tbody>
</table>
### DR Congo

**Rural Infrastructure Development Support Project PADIR**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production / productivity</td>
<td>No effect expected on livestock production and input supply.</td>
</tr>
<tr>
<td>Connectivity / marketing</td>
<td>A slight effect can be expected on the connectivity between actors and access for producers to markets (road rehabilitation). Rehabilitated processing facilities (slaughterhouses), if operational, should contribute to a smoother supply chain operation. Marketing facilities (market rehabilitation) also contribute to a smoother supply chain operation.</td>
</tr>
<tr>
<td>Incomes</td>
<td>The project does not seem to lead to a significant improvement in the socio-economic situation of the VC stakeholders.</td>
</tr>
<tr>
<td>Quality / added-value</td>
<td>Over the long term, the slaughterhouses and markets could contribute to an increased value added for products processed following sanitary norms (stamped meat).</td>
</tr>
<tr>
<td>Political</td>
<td>No substantial effect to the regulatory environment. The business climate remains negative (excessive taxation, no protection of local producers, uncontrolled imports).</td>
</tr>
<tr>
<td>Environment</td>
<td>Resilience to climate change of the VC was not identified as critical and has not been addressed. A positive effect is expected on sanitary conditions (slaughterhouses).</td>
</tr>
</tbody>
</table>

### Uganda

**Lakes Edward & Albert Integrated Fisheries & Water Resources LEAF IIF**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production / productivity</td>
<td>Development of the various services needed to enable aquaculture is limited. Establish quality and quantity, access to fingerlings through a hatchery, access to fish feed, access to technical assistance and access to other necessary inputs (cages, phytosanitary products...) within the next 5 years appears very unlikely. The complicated context within which illegal fish farming has thrived may prove difficult to overcome in the course of the action limiting the extent of fish stock recuperation and fisheries sector development.</td>
</tr>
<tr>
<td>Connectivity / marketing</td>
<td>Not a major preoccupation at this stage; focus is largely on managing fish stocks, fighting illegal fishing and, to a lesser degree, supporting small pelagic fish drying at the level of landing sites.</td>
</tr>
<tr>
<td>Incomes</td>
<td>If fish stocks are built up, they are likely to increase significantly but this appears uncertain.</td>
</tr>
<tr>
<td>Quality / added-value</td>
<td>Landing sites will contribute to increased quality of fish but if production is mainly small pelagic fish, added value will be limited. The issue of fish stock management is crucial to this outcome.</td>
</tr>
<tr>
<td>Political</td>
<td>Limitations: illegal fishing, political resistance. If fish stocks pick up quite rapidly, the effect on the Nile Perch and Tilapia export VC will be almost concomitant because the private sector is already prepared to absorb any fish surplus.</td>
</tr>
<tr>
<td>Environment</td>
<td>The success of the project is largely dependent on good fish stock management, environmental outcomes from the project should be positive.</td>
</tr>
</tbody>
</table>

### Kenya

**Kimira and Oluch Smallholder Development Project KOSFIP**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production / productivity</td>
<td>A number of irrigation schemes have been developed with many hectares of irrigated land available for farming. IWUA have been established in order to sustainable manage the schemes.</td>
</tr>
<tr>
<td>Connectivty / marketing</td>
<td>NA</td>
</tr>
<tr>
<td>Incomes</td>
<td>NA</td>
</tr>
<tr>
<td>Quality / added-value</td>
<td>NA</td>
</tr>
<tr>
<td>Political</td>
<td>NA</td>
</tr>
<tr>
<td>Environment</td>
<td>NA</td>
</tr>
</tbody>
</table>
### Côte d'Ivoire

<table>
<thead>
<tr>
<th><strong>Agricultural Infrastructure Support Project in Indénié-Djubalin region PAIA-ID</strong></th>
<th><strong>SUCDEN soft commodity facility</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production / productivity</strong></td>
<td>Improved producer access to finance (credit for the development of plantations).</td>
</tr>
<tr>
<td>Through the distribution of control kits and the distribution of inputs, production increased in the project area.</td>
<td></td>
</tr>
<tr>
<td><strong>Connectivity / marketing</strong></td>
<td>Structuring of cocoa cooperatives by strengthening capacities. The structuring of cooperatives has shortened the supply chain.</td>
</tr>
<tr>
<td>Structuring of cocoa cooperatives by strengthening capacities, thus shortening the supply chain. The re-profiling of the agricultural access roads allows for a better distribution of production at local and national level. Moreover, this re-profiling leads to the penetration of buyers (Pisteurs and Traitants) into the intervention zone. Farmers can now choose to sell to a cooperative or to any other buyer.</td>
<td></td>
</tr>
<tr>
<td><strong>Incomes</strong></td>
<td>Increase in producer incomes is expected due to better cocoa quality.</td>
</tr>
<tr>
<td>Increase in producer incomes is expected due to better cocoa quality.</td>
<td></td>
</tr>
<tr>
<td><strong>Quality / added-value</strong></td>
<td>Development of drying and storage facilities to increase value-add for producers.</td>
</tr>
<tr>
<td>More value added to agricultural production and distribution. The quality of cocoa production in the area is improved significantly reducing the rejection rate. The distribution of control kits to producers allows a quality control based on stated criteria and prior transportation, and significantly reduced the rate of rejection of delivered production to the exporters.</td>
<td></td>
</tr>
<tr>
<td><strong>Political</strong></td>
<td>The cocoa VC remains strongly organized and controlled by the State. No mention of AfDB support to the institutional environment.</td>
</tr>
<tr>
<td>The stakeholder awareness of quality related issues within the VC is increasing.</td>
<td></td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>Not tackled, environmental sustainability remains a challenge. No cocoa varieties resistant and / or adapted to climate change have been developed.</td>
</tr>
<tr>
<td>Environmental sustainability of AfDB support is not considered a risk. AVCD activities have positive environmental and social impacts as the agriculture technologies applied so far promote efficient use of land and water.</td>
<td></td>
</tr>
</tbody>
</table>

### Liberia

<table>
<thead>
<tr>
<th><strong>Smallholder Agricultural Productivity Enhancement and Commercialization Project SAPEC</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production / productivity</strong></td>
</tr>
<tr>
<td>Capacity building is effective in improving capacity knowledge, skills, and practices of VC actors.</td>
</tr>
<tr>
<td><strong>Connectivity / marketing</strong></td>
</tr>
<tr>
<td>Facilitates access to market with the rehabilitation of 270 km feeder road, but limited access to roads and to markets is still considered as a major constraint for the VC.</td>
</tr>
<tr>
<td><strong>Incomes</strong></td>
</tr>
<tr>
<td>Expectation to increase household income by 300%, but no indication if the target will be reached.</td>
</tr>
<tr>
<td><strong>Quality / added-value</strong></td>
</tr>
<tr>
<td>Introducing new planting technologies to farmers. Farmers are now using line planting, mound planting and ridges to improve the quality of production. Farmers are linked to cooperatives or groups that are involved in processing and aggregation to add value to the commodity.</td>
</tr>
<tr>
<td><strong>Political</strong></td>
</tr>
<tr>
<td>The stakeholder awareness of quality related issues within the VC is increasing.</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
</tr>
<tr>
<td>Environmental sustainability of AfDB support is not considered a risk. AVCD activities have positive environmental and social impacts as the agriculture technologies applied so far promote efficient use of land and water.</td>
</tr>
</tbody>
</table>
### Morocco

<table>
<thead>
<tr>
<th><strong>Production / productivity</strong></th>
<th>Projet d’Appui au Programme National d’Économie d’Eau PAPNEEI</th>
<th>Programme d’Appui au Plan Maroc Vert PAPMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results concerning efficiency improvements in the use of agricultural water are limited (needs time to deliver effects). In comparison with the baseline situation, the efficiency of agricultural water use is multiplied by 7. The economy of water was estimated at 40% and additional value added was generated through yield increases.</td>
<td>Setting up of agro poles and promotion of Moroccan agricultural products.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Connectivity / marketing</strong></th>
<th>Not a major preoccupation at this stage.</th>
<th>Not a major preoccupation at this stage, but some effect can be expected through the promotion of Public-private partnerships and agro poles.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Incomes</strong></th>
<th>Not a major preoccupation at this stage.</th>
<th>Not a major preoccupation at this stage.</th>
</tr>
</thead>
</table>

| **Quality / added-value** | The economy of water was estimated at 40% and additional value added was generated through yield increases and higher value-added generation. The quantity of certified seeds of soft wheat has risen from 700,000 quintals to 1,500,000 quintals in 2015. | The quantity of certified seeds of soft wheat has risen from 700,000 quintals to 1,500,000 quintals in 2015. |

<table>
<thead>
<tr>
<th><strong>Political</strong></th>
<th>Not a major preoccupation at this stage.</th>
<th>The PAPMV has contributed to improve the irrigation sector and its governance: - Reinforcement of the agricultural insurance system. - Strengthening of the legal framework and promotion of the Aggregation process.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Environment</strong></th>
<th>Cereal production remains highly dependent of climatic conditions.</th>
</tr>
</thead>
</table>

### Mozambique

<table>
<thead>
<tr>
<th><strong>Production / productivity</strong></th>
<th>Baixa and Limpopo Irrigation and Climate Resilience Project BLICRP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without irrigation, initial yields were situated around 1.2-2.4 t/ha; they are now between 4-6 t/ha (and expect to increase to 7-8t/ha or even more over the long-term). However, the rice variety introduced by Wambao could produce 10t/ha (with inputs and good water management). In addition to this, the area under irrigated rice cultivation has increased by over 1150 ha and should continue doing so.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Connectivity / marketing</strong></th>
<th>This aspect has largely been delegated to Wambao by RBL; the project should have limited effect on such outcomes.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Incomes</strong></th>
<th>Producer income should rise with irrigated rice production but it is unclear by how much.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Quality / added-value</strong></th>
<th>Rice quality and added value should rise in the case of irrigated rice production as long as identical varieties are produced and can be processed by industrial processing plants. However, irrigated rice production is far from the dominant mode of rice production in Mozambique.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Political</strong></th>
<th>There is a strong political will at the government level to increase national rice production so as to limit imports in the context of rising rice consumption, but there is no political outcome from the project.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Environment</strong></th>
<th>The irrigation perimeter is affected by floods and drainage problems persist, hence some level of risk on production.</th>
</tr>
</thead>
</table>
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Endnotes


5. Feed Africa is one of the five top priorities of the Bank’s new strategic approach to Africa’s development for 2016-2025, known as the ‘High 5s’, the other four being ‘Light Up and Power Africa’; ‘Integrate Africa’; Industrialize Africa’; and ‘Improve the quality of life for the people of Africa’.

6. The countries were selected based on: a) Regional representation (at least one country from each of the five Bank regions); b) Support to priority value chains as identified in the Feed Africa Strategy; c) Having multiple value chain interventions to assess; and d) Balance with respect to a range of different types of value chain and target commodities. They cover all African geographical areas and offer a selection of Middle Income Countries (MIC), Low Income Countries (LIC) and fragile states.

7. KOSFIP in Kenya, PAPNEEI and PAPMV in Morocco, PRESAR and PADIR in DRC, PADBEL and LISP in Rwanda do not refer to a VC approach.

8. Calculated from AfDB official exchange rate at the date of the project appraisal report.
About this evaluation

The Independent Development Evaluation of the African Development Bank Group (AfDB) conducted an evaluation of a cluster of nine agricultural value chain interventions of the Bank over the period of 2005-2016. The nine case studies were conducted as inputs to the formative evaluation titled “AfDB Support for Agricultural Value Chains Development: Lessons for the Feed Africa Strategy,” which was completed in December 2017. The purpose of this cluster evaluation is two-fold: a) to assess the performance of the Bank’s project approaches in relation to Agricultural Value Chain Development with respect to relevance, effectiveness, inclusiveness and sustainability; and b) to provide key lessons that can be applied for designing new and improving ongoing Agricultural Value Chain Development interventions.