



Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 07-Mar-2018 | Report No: PIDISDSC23363

**BASIC INFORMATION****A. Basic Project Data**

Country Africa	Project ID P164486	Parent Project ID (if any)	Project Name Agricultural Productivity Program for Southern Africa - Angola & Lesotho (P164486)
Region AFRICA	Estimated Appraisal Date Jun 01, 2018	Estimated Board Date Jul 26, 2018	Practice Area (Lead) Agriculture
Financing Instrument Investment Project Financing	Borrower(s) Lesotho Ministry of Finance, Angola Ministry of Finance	Implementing Agency Angola Ministry of Agriculture, Lesotho Ministry of Agriculture and Food Security	

Proposed Development Objective(s)

To increase the availability of improved agricultural technologies in participating countries in the Southern Africa Development Community (SADC) region.

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	45.00
Total Financing	45.00
of which IBRD/IDA	45.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	25.00
International Development Association (IDA)	20.00
IDA Credit	20.00



Environmental Assessment Category

B - Partial Assessment

Concept Review Decision

Track I-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

Southern Africa's increasingly integrated regional market presents opportunities for greater economic growth and poverty reduction. Southern Africa is a diverse region of both low income and middle-income countries and is home to over 330 million people connected through an increasingly dynamic regional market. The region hosts two well-established pan-African institutions covering agriculture and commerce—the Southern African Development Community (SADC) and the Common Market for Eastern and Southern Africa (COMESA), which are actively pursuing a regional integration agenda.

Agriculture varies in importance from country to country within the region but is the primary source of subsistence, employment, and income for most of the population. Particularly in the lower income countries, agriculture is the largest contributor to GDP, and the performance of the agricultural sector has a strong influence on growth, employment, food security, and poverty. In Angola, while the agriculture sector contributes only on average 5.5 percent to GDP, 44 percent of the employed population works in the sector. More than half of Angola's poor are in rural areas and depend almost exclusively on agriculture for their livelihood. Within Lesotho, agriculture contributes around 6 per cent to the GDP, employs almost 60 per cent of the labor force (on subsistence farms) and provides livelihood sustenance for 90 per cent of the rural population. In Lesotho, more than half the population – 57 percent – live below the poverty line, many of whom reliant on agricultural activities.

Both Angola and Lesotho have experienced development challenges common to the Southern Africa region: economies heavily reliant on natural resource exports with high levels unemployment and food and nutrition insecurity in rural areas. For many countries in Southern Africa over-reliance on oil and mineral resource driven growth has led to increased focus on economic diversification and more inclusive growth.

Within Angola the 2015/2016 oil price shock highlighted the need to more forcefully address vulnerabilities and dependence on oil, and diversify the economy and better manage oil revenue volatility. The shock prompted the Government of Angola to accelerate efforts to diversify the economy and reduce dependence on food imports. The Government's strategy in the face of the crisis placed a strong emphasis on agriculture as an immediate way to increase domestic production and reduce imports. Increased agricultural production (particularly cereals and vegetables) and productivity have the potential to ease the current account pressures and the foreign exchange scarcity.

Lesotho's economic growth has been driven by natural resource based exports – water and diamonds – and is strongly



linked to trade with South Africa, where Lesotho also struggles to compete with South Africa's more efficient firms or farms. Lesotho's National Strategic Development Plan prioritized development of several sectors – agriculture and rural economy, manufacturing, tourism and mining. Measures to develop processing and manufacturing capacity – including agro-based – are important to diversification efforts and address rural unemployment.

The region's rich land and water resources have potential but the agriculture sector has not yet been fully developed to contribute to economic transformation. Southern Africa region falls within the so-called Guinea Savannah zone, which has significant potential for highly productive commercial agriculture as with similar agro-ecologies in other parts of the world such as Brazil and Thailand. Angola is the third largest country in sub-Saharan Africa in terms of geographic size and much of its agricultural land is within the underexploited Guinea Savannah zone. A major agricultural producer before the civil war, Angola's agricultural performance remains a fraction of its potential.

In the past 50 years, Lesotho has gone from a position of virtual self-sufficiency in grain production to being highly dependent on imports of grain. A mountainous country with limited amounts of arable land, Lesotho nonetheless has areas of high agricultural potential and the possibility to exploit its extensive water resources and unique highland growing environment – particularly for higher value crops.

Sectoral and Institutional Context

Raising agricultural productivity is necessary if agriculture is to contribute to growth and poverty reduction. Agricultural productivity has increased in southern Africa, but remains well below potential. This remains the case in Angola and Lesotho where even average yields are below southern Africa regional averages. Most of the growth in productivity in Africa has come from bringing previously uncultivated land into production, rather than from intensification made possible by technical change. Comparisons of total factor productivity growth have shown technical change accounted for a large share of agricultural productivity growth in Asia and Latin America, but a very small share of agricultural productivity growth in Africa in recent decades. Southern Africa has experienced more technology-driven productivity growth than other regions in Africa, but the gains have occurred mainly in middle income countries. Analysis has identified several yield gaps (the difference between actual and potential yields) that could be narrowed with additional investments in technology adaptation and dissemination.

Regional approaches to technology generation and dissemination are a more effective and strategic than national efforts alone. Regional integration has proven to be an effective strategy that can allow groups of countries facing common research challenges to increase the efficiency of their investments in agricultural R&D. Adoption of a regional approach to research based on the concentration of resources within a reduced number of large, specialized research institutes serving an expansive shared technology space can deliver many benefits. First, it can reduce duplication by allowing a single regional research institute to undertake work that otherwise would be done in parallel within multiple national research institutes. Second, it can help capture economies of scale by concentrating resources within a single institute, where they can achieve a critical mass. Third, it can increase the payoffs to research by facilitating dissemination of improved technologies across national borders, thereby vastly increasing the number of beneficiaries. Fourth, it can mitigate the isolation that frequently occurs in small, fragmented research institutes by creating effective mechanisms for facilitating knowledge exchange and technology transfer.

Southern Africa continues to offer attractive opportunities for regional research. Groups of countries within southern Africa share similar agro-ecological zones and farming systems, suggesting that there is potential for finding shared solutions to common problems. Technology spillover is already occurring within the sub-region, and several high-



yielding crop varieties and improved crop and livestock management practices have been successfully disseminated across borders. Significant unrealized potential remains, however, for expanding spillovers. Southern Africa is also vulnerable to climate shocks and many countries are likely to face greater variability and more pronounced extremes of temperature and rainfall. Adaptation measures—particularly the adoption of climate-smart agricultural practices—will be needed to maintain productivity and ensure resilience in the face of more frequent and more severe shocks.

National systems for generating and disseminating agricultural technology are operating well below their potential, constrained by inadequate facilities, shortages of qualified staff, and low levels of overall investment and budget support. These factors, in turn, are linked to the high degree of fragmentation in the deployment of resources within the sector, as limited financing is spread over a range of priorities. Given the small size of many countries and economies in the sub-region, few can afford fully elaborated technology development systems capable of addressing all of the crops and livestock breeds in their highly diversified production systems. This is particularly true in the case of Angola and Lesotho, which have a small number of PhD scientists (particularly for Lesotho) and infrastructure that has largely been devastated by the civil war.

The regional productivity program model has demonstrated satisfactory outcomes. The Agricultural Productivity Program for Southern Africa (APPSA) was approved in March 2013 with IDA financing to Malawi, Mozambique and Zambia. APPSA is part of the Bank's larger portfolio of regional agricultural productivity programs and was third regional operation in a series that followed the successful implementation of the West Africa Agricultural Productivity Program (WAAPP) and the East Africa Agricultural Productivity Program (EAAPP). Like the first two programs, it was expected that APPSA would expand to include additional countries as they expressed interest and if financing was available.

In terms of results, to date APPSA has launched 74 R&D sub-projects which are currently making 156 technologies available to farmers (new and "on the shelf" technologies). This includes 47 technologies in Malawi (37 seed varieties; 10 agronomic practices); 63 technologies in Mozambique (11 seed varieties; 28 agronomic practices, 16 pest and diseases management practices, 3 water management practices, and 5 post-harvest technologies); and 46 technologies in Zambia (31 seed varieties; 15 agronomic practices). Additional results include improving cross border movement of technology through the introduction of new plant material and varieties; scaling up extension and dissemination of improved technologies to reach more farmers; improved seed production; building a larger pipeline of qualified agricultural scientists – particularly women scientists; and upgrading of laboratory and fields to modern standards.

Relationship to CPF

APPSA is consistent with the emerging priorities of the new Regional Integration Strategy and the Africa Region priorities. Africa Region has prioritized IBRD and IDA funding around macroeconomic stability, improving competitiveness and economic diversification, improving human capital and access to basic services; and resilience to shocks. APPSA touches closely on the latter three areas with a focus on increasing.

The Angola CPF is currently under review, but agriculture remains a high priority and APPSA aligns to Pillar I of the outgoing CPF, which is focused on supporting integrated national economic diversification and regionally balanced development. Productivity is central with a focus on increasing yields and developing post-harvest processing technologies. APPSA is also consistent with Lesotho's FY16 – 20 CPF Focus Area II: Promoting Private Sector Jobs Creation, which will direct support towards improving smallholder and MSME agriculture productivity. The CPF specifically prioritizes raising productivity, strengthening farmers' capacity, fostering stronger marketing linkage, substituting imports from South Africa, create job opportunities, and promote women's status in rural communities.



C. Proposed Development Objective(s)

To increase the availability of improved agricultural technologies in participating countries in the Southern Africa Development Community (SADC) region.

Key Results (From PCN)

Results would be measured using the APPSA results – which include the following PDO indicators:

- Number of technologies that are being made available to farmers and other end users
- Percentage of Lead Farmers in targeted areas who are aware of an improved technology promoted by the Project
- Number of technologies generated or promoted by the Project in one participating country that are released in another participating country
- Direct Project beneficiaries (number)
- of which female (percentage)

D. Concept Description

APPSA's regional design. APPSA is currently supporting agricultural research, technology dissemination, and capacity building activities associated within a regional collaborative framework around priority farming systems/commodities value chains. These have been identified on the basis of a regional priority-setting study that identified leading R&D priorities for the SADC region, as well as the priorities indicated by each country. To date APPSA is actively supporting research and dissemination activities around maize, sorghum, legumes (beans, soybean, cowpea, pigeon pea), rice, cassava, and cross cutting climate smart agriculture practices. Regional Centers of Leadership have been established in in legumes (Zambia), maize based farming systems (Malawi) and rice based farming systems (Mozambique).

The proposed expansion would allow the addition of horticulture and roots and tubers (cassava and potato) to APPSA activities with Angola taking a lead on cassava and Lesotho taking a lead on horticulture. This adds a valuable dimension to APPSA with a stronger focus on higher value production (fruits, vegetables, potatoes) and processing.

Component 1: Technology Generation and Dissemination. The first component will finance technology generation and dissemination activities associated with the commodity or commodity groups being targeted by APPSA. Regional R&D activities for the initial targeted commodities have been developed in the initial set of APPSA participating countries and additional activities proposed by Angola and Lesotho as part of as part of the preparation of each country's RCoL proposal. R&D activities include technology generation (research), but also technology dissemination activities (extension, strengthening of innovation systems).

All activities financed under Component 1 are undertaken through collaborative R&D projects involving the participation of at least two countries. To date 74 R&D projects have been developed through the following process: (i) for each commodity being targeted by APPSA, priorities are identified and endorsed at national level; (ii) draft concept notes are developed through communication with other regional partners; (iii) for each commodity being targeted by APPSA, regional planning meetings will be convened by CCARDESA to facilitate the finalization of regional research and dissemination priorities and associated R&D project proposals; (iv) a peer review process facilitated by CCARDESA provides feedback on the relevance and quality of R&D project proposals; and (v) R&D project proposals will be



confirmed and agreed at national level.

Participating countries will participate in R&D projects relating to the commodity farming system being targeted by the RCoL that they are hosting, as well as in R&D projects relating to the commodity farming systems being targeted by RCoLs in other countries; or additional R&D priorities that are agreed collectively by all participating countries. Therefore, each country is expected to devote a share of its Component 1 funding to R&D projects related to the commodity farming system being targeted by the RCoL that it is hosting, but a portion of its Component 1 funds will also go to support R&D projects related to the commodity farming systems being targeted by RCoLs hosted by other countries or any other regional priorities.

Technology dissemination priorities: APPSA will support the dissemination of improved technologies by providing resources for RCoLs to engage with a range of partners in scaling up the use of promising innovations of relevance to the targeted commodities. APPSA will help to strengthen the links between researchers, extension agents, input distributors, and farmers and other end users, but lead responsibility for technology dissemination will remain with the national extension system.

Component 2: Strengthening the Institutional and Enabling Environment for Technology Adoption. Component 2 will support activities to strengthen institutional capacity of RCoLs and to facilitate the movement of improved technology. The choice of activities to be financed will be driven primarily by the specific needs of each country, as identified at national level. In general APPSA will support: (i) upgrading of research infrastructure including rehabilitation and construction of physical infrastructure; farm, laboratory, and office equipment; and information technology and knowledge management systems; (ii) upgrading of infrastructure for sanitary and phytoanitary (SPS) management; (iii) improving institutional administration and performance management systems within RCoLs or SPS systems; (iv) developing human capital including by providing scientific or technical training at the post graduate level; by upgrading skills through short courses or targeted training, and scientific exchanges; and (iv) strengthening seed production capacity, seed regulatory functions, and related services.

Component 3: Coordination and Facilitation. Component 3 will finance three main categories of activities:

National level research coordination and management: At national level, APPSA will finance project coordination activities, including planning and budgeting, management and administration, monitoring and evaluation, safeguards compliance, and regional engagement. If necessary, APPSA could finance consultants to ensure that all essential project coordination activities are carried out effectively. Government counterpart resources will be used to pay staff-related costs not eligible for IDA or IBRD funding.

Regional facilitation by CCARDESA: At the regional level, APPSA will finance regional facilitation activities including: (i) planning, monitoring and evaluation activities related to regional collaboration; (ii) regional exchange of information, knowledge and technologies; and (iii) technical assistance and capacity building. Many of these activities will be carried out by CCARDESA, which will play an important role in facilitating the development of R&D projects, including organizing the peer review process and providing quality control. The regional facilitation activities to be performed by CCARDESA will be supported using funds from a subsidiary agreement between the APPSA participating countries.

R&D policy analysis and dialogue: APPSA financing will support analytical work, needs assessments, and policy dialogue or policy harmonization activities in key areas that affect R&D at national and regional level. Work will focus on analysis of relevant policies and legislation for intellectual property rights, operationalization of the SADC harmonized seed regulatory system, implementation of biosafety regulations, and similar topics. Discussions will take place during



implementation to determine whether Project resources could be used productively to advance the regional seed agenda. If the participating countries agree that APPSA could play a useful role by supporting key players other than the RCoLs, support for these key players could be channeled through CCARDESA.

SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

Project activities will take place on research stations and farmer fields (on farm trials and demonstrations). The activities will all take place on land that is already part of existing agricultural research stations in the respective countries. However, as not all land is currently in active use by the client and the exact location of all project activities are not known, OP4.12 has been triggered as a precautionary measure.

Indigenous Peoples (IPs) in Angola are dispersed through small communities in southern Angola border regions and their exact location is difficult to identify. Therefore, once potential project locations are confirmed, OP4.10 may be triggered to provide clear guidance if IP groups are encountered during the course of implementation.

B. Borrower's Institutional Capacity for Safeguard Policies

Both Angola and Lesotho have some experience in implementing Bank safeguards requirements through other projects but capacities remain limited in the specific implementing agencies. In Angola the implementing agency is the Ministry of Agriculture through its Institute of Agriculture (Instituto de Investigação Agrícola (IIA)). In Lesotho the implementing agency is the Ministry of Agriculture through its Department for Agricultural Research (DAR). In each agency, incremental staff and consultants will be recruited to ensure implementation of safeguards instruments and monitoring compliance of all components. In addition, the World Bank will provide guidance and training to ensure that the client will have the adequate capacity to implement, monitor and report on environmental and social issues. Both Angola and Lesotho, have established project implementation units for other World Bank agriculture projects that will be utilized for shared services, and fiduciary and safeguards issues.

C. Environmental and Social Safeguards Specialists on the Team

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D. Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
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Environmental Assessment OP/BP 4.01	Yes	<p>The policy is triggered as a result of: (i) proposed research activities under component 1 which could include breeding, germplasm, and on farm technology testing that can involve the application of agro-chemicals including chemical pesticides; and (ii) capacity building for Regional Centers of Leadership under component 2, which would include financing for civil works investment in field rehabilitation, office and lab infrastructure and irrigation related upgrading or construction. Angola and Lesotho will prepare an Environment and Social Management Framework (ESMF) as the safeguard instruments which will provide mitigation measures and a uniform approach for addressing identified potential negative environmental impacts as well as screening procedures and monitoring plans for compliance management.</p> <p>The project is proposed to be classified as an EA category B.</p>
Performance Standards for Private Sector Activities OP/BP 4.03	No	
Natural Habitats OP/BP 4.04	No	<p>The policy is not triggered as the program would not involve significant conversion of natural habitats through its direct or indirect activities. APPSA support under component 1 activities are intended to improve the productivity of agriculture through the adoption of improved technologies (intensification) rather than expansion of agricultural production (extensification). Technologies developed, tested and released under the project would not specifically target natural habitats but would aim to improve the productivity of existing agricultural practices. Under Component 2 the project is expected to finance infrastructure upgrading on already existing agricultural research stations and fields. No new land would be acquired and natural habitats are not known to be inside or adjacent to research stations.</p>
Forests OP/BP 4.36	No	<p>The policy is not triggered as program activities do not have any direct impacts on the health and quality of forests, people who depend on forests, nor is there an aim to change the management, protection, or utilization of forests.</p>
Pest Management OP 4.09	Yes	<p>The program may purchase pesticides or agrochemicals at very low volumes as part of project supported research activities. No pesticides or</p>



		agrochemicals will be purchased and supplied to farmers outside of their participation in research trials or demonstrations activities. Adoption of improved agricultural technology generated by APPSA could indirectly result in increased use of pesticides and agrochemicals by farmers, but the scale of this indirect impact is not known. For this reason, each participating country will prepare a Pest Management Plan (PMP) which incorporates Integrated Pest Management (IPM) procedures.
Physical Cultural Resources OP/BP 4.11	Yes	The policy is not triggered as implementation is not expected to involve any known physical cultural resources and will take place on land already actively in use for agricultural purposes either within agricultural research stations or farmer fields. Nonetheless, lessons learned from other projects in Lesotho have shown that in some of the districts where the project will be implemented, such as Leribe and Butha Buthe, artefacts from historical cultural resources have been found at some places. Therefore, the Chance Find Procedures will be included in the ESMF in case of chance finds during implementation project.
Indigenous Peoples OP/BP 4.10	TBD	This Policy may be triggered for Angola, given the possibility of IP communities being present in the project areas. Based on the review of potential project locations, an IPPF will be prepared in order determine and provide measures to avoid and mitigate potential negative impacts. The framework will be specific for each group identified and will as well be focused on providing positive benefit for this vulnerable population. OP4.10 is not triggered in Lesotho as there are no indigenous people within the project area of influence.
Involuntary Resettlement OP/BP 4.12	Yes	The policy is triggered in Angola and to be determined in Lesotho. Although no land acquisition is expected under the project and activities will take place on land already under the management of agricultural research stations or farmers, in some cases land is currently fallow or not actively used and local communities may have encroached into fields for their own farming. While all land which is required for project activities belongs to the respective clients, there is a risk that informal occupation or use may occur during project implementation. OP4.12 is therefore triggered as a precautionary measure to



		guide implementation and mitigation measures to avoid resettlement impact. An RPF will be prepared in Angola and a determination made whether it is required for Lesotho during the course of preparation.
Safety of Dams OP/BP 4.37	Yes	The policy is triggered. Although the project would not invest in large scale dam construction the project would invest in small productive rural infrastructure, such as the establishment or rehabilitation and improvement of small-scale irrigation and drainage works for research stations under the RCoLs, and possibly include small-scale earth dams to harvest and store water. These structures, however these would generally be far less than 10 m in height. The FAO manual on small dams will guide implementation and be incorporated into the relevant safeguards instruments. The small dams would be designed and the construction supervised by a qualified engineer.
Projects on International Waterways OP/BP 7.50	No	The policy is not triggered as the project would not invest in any large scale irrigation works that would adversely affect the quality or quantity of water flow within shared waterways. Small scale irrigation within the context of technology demonstration or research could be financed by the program but would be within the context of research facilities and would not exceed more than 50 hectares per station/center.
Projects in Disputed Areas OP/BP 7.60	No	The policy is not triggered as the area where the program will be implemented is not known to include any disputed areas

E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Feb 28, 2018

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

An ESMF with PMP will be prepared for each country. An additional RPF will be prepared in Angola and if required in Lesotho. If OP 4.10 is triggered an IPPF will be prepared for Angola. Both Angola and Lesotho ESMFs will also have a screening process for sub-projects under component 1.



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APPROVAL

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