Program Information Documents (PID)

Appraisal Stage | Date Prepared/Updated: 21-Apr-2022 | Report No: PIDA263569

BASIC INFORMATION

A. Basic Program Data

Country	Project ID	Program Name	Parent Project ID (if any)
Zambia	P178372	Zambia Growth Opportunities Program for Results	
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Practice Area (Lead)**
AFRICA EAST	03-May-2022	28-Jun-2022	Agriculture and Food
Financing Instrument	**Borrower(s)**	**Implementing Agency**	
Program-for-Results Financing	Ministry of Finance	Ministry of Agriculture	

Proposed Program Development Objective(s)

The Development Objective of the proposed Program is to promote agricultural diversification, sustainability and jobs in the agri-food sector in Zambia.

COST & FINANCING

SUMMARY (USD Millions)

Government program Cost	1,140.00
Total Operation Cost	250.00
Total Program Cost	250.00
Total Financing	250.00
Financing Gap	0.00

FINANCING (USD Millions)

Total World Bank Group Financing	250.00
World Bank Lending	250.00

Decision

The review did authorize the team to appraise and negotiate

B. Introduction and Context

Country Context

1. **Zambia is a landlocked, resource-rich country with sparsely populated land in the center of Southern Africa**. Its population is estimated at about 18.3 million with 45 percent living in urban areas in 2020, compared to 41 percent of Sub-Saharan Africa (SSA). Its annual population growth rate was 2.9 percent in 2020, which was above SSA population growth rate of 2.6 percent. At this rate the country's population will reach some 27 million by 2035 (Central Statistics Office).

2. **While Zambia had 15 years of significant socio-economic progress and achieved middle-income status in 2011, its economic performance has stalled more recently, and poverty remains high**. Its annual real gross domestic product (GDP) growth rate which averaged 6.8 percent between 2000 and 2014, slowed to 3.1 percent per annum between 2015 and 2019, mainly attributed to falling copper prices and declines in agricultural output due to rainfall variability. The COVID-19 pandemic pushed economy that was already weakened by recent persistent droughts, falling copper prices and unsustainable fiscal policies into contraction. The economy declined by 2.8 percent in 2020, the first recession for Zambia since 1998. Inflation remained in double digits throughout 2020 — averaging 15.6 percent – and reached a high of 22.1 percent in 2021, driven by COVID-related lockdown measures and depreciation of the Kwacha. Currently, the nation's unemployment rate stands at about 38.3 percent, while unemployment among the youth is about 45.5 percent, and even higher among the youth living in rural areas (52.4 percent). Globally, Zambia ranks among the highest in terms of poverty and inequality. More than 58 percent of Zambia's population lives below the international poverty line compared to 41 percent across Sub-Saharan Africa. Rural poverty rose from 73.6 percent in 2010 to 76.7 percent in 2015[1] (82 percent of the country's poor live in rural areas) stemming largely from low levels of agricultural productivity. At the national level, the Gini index rose from 55.6 in 2010 to 57.1 in 2015. The Global Hunger Index of 2018 ranked Zambia as the fifth hungriest country in the world.[2]

3. **The public debt has increased markedly over the 2019 to 2021 period compounded by expansionary fiscal policy**. The stock of domestic debt increased from K58.3 billion at the beginning of 2019 to K193 billion by end of 2021, while its publicly guaranteed external debt was $1.5 billion as of September 2021. At the same time, total expenditures increased from 32.2 percent of GDP in 2019 to 37.2 percent of GDP in 2021. This increase was largely attributed to COVID-19 pandemic response related expenditures, as well as those related to agriculture subsidies and grain marketing interventions. In fact, expenditures related to the Farmer Input Support Program (FISP) made up 50 percent of total transfers or about three percent of the GDP in 2021.

4. **Zambia is in debt distress and has asked for debt treatment under the G-20 Common Framework**. The government accumulated over US$1.8 billion in external arrears between October 2019 and September 2021. Severe liquidity shortages and domestic payment arrears have persisted in the face of increasing fiscal pressures. In September 2020, the Government announced that it would not be servicing any external debt except for multilaterals and some 10 priority projects. This was followed by a default on Eurobond interest payments in mid-November 2020. As a result, Zambia serviced only about $250 million of the $1.7 billion debt service due in 2021. In mid-2020, the authorities hired legal and financial advisors to help them with a comprehensive and

[1] Poverty and Equity Brief. Sub-Saharan Africa – Zambia. World Bank. April 2020
[2] OECD. Transition Finance 2019. Zambia

orderly debt restructuring. Zambia also applied for debt treatment under the G-20 Common Framework in January 2021, with negotiations expected to start soon. Zambia has also been implementing various Performance and Policy Actions (PPAs). Under IDA's Sustainable Development Finance Policy (SDFP), which applies to all IDA-eligible countries that are at a medium risk of debt distress or worse. Zambia's PPAs in the last 2 years have focused on improving fiscal sustainability and strengthening debt management and transparency.

5. **Timely achievement of macroeconomic stability will largely depend on progress on debt restructuring and fiscal consolidation efforts**. High level of debt service and contracting fiscal space have reduced the capacity to make critical investments in health, education, and infrastructure, as well as the ability to service its debt. The ongoing fiscal adjustment would require a combination of revenue mobilization, expenditure rationalization, reforms to strengthen overall fiscal management and tackling inefficient public investment programs and wasteful subsidies (agriculture and fuel).

6. **The Government of the Republic of Zambia (GRZ) has committed to transforming the economy to support growth which will facilitate job creation, especially for the youth.** In December 2021, under the three-year program supported by an arrangement under the IMF's Extended Credit Facility (ECF) in the amount of about US$1.4 billion, the government committed to restoring macroeconomic stability and fostering higher, more resilient, and inclusive growth. Key elements of the government's reform agenda aim to re-establish fiscal sustainability while reorienting public resources towards investment in people. The expected large, upfront fiscal adjustment envisages an important shift in spending, away from inefficient public investment and poorly targeted subsidies, towards greater investment in health and education, the delivery of more social benefits, and job creation, especially for the youth. In view of the economic transformation agenda, the GDP is projected to grow by 3.5 percent in 2022, 3.7 percent in 2023 and 4.4 percent in 2024.

7. **However, the job creation outlook is challenged by the demographic trends and the rapidly expanding expectations of new entrants to the labor market**. Zambia, as many countries in SSA, is experiencing a challenge of employment creation for the growing number of youths in the country. Currently, the nation's unemployment rate stands at about 38.3 percent, while unemployment among the youth is about 45.5 percent, and even higher among the youth living in rural areas (52.4 percent). While the Government has prioritized job creation as one of its primary tasks, it will be challenging when considering that Zambia remains one of Africa's youngest countries by median age, with 65.1 percent (59.2 percent TBC) of the population being less than 25 years of age. The UN population projections provide annual population growth for the country of 3 percent until 2030, with the working age population growing by 3.4 percent. As such, Zambia needs to create at least 375,000 jobs on average each year by 2030, just to keep the labor force participation rate and unemployment levels the same. This almost doubles to 747,000 per year between 2030 and 2050. In other words, employment would have to increase by 3.1 percent per year between now and 2050, for unemployment and labor force participation to remain the same. This is a tall order considering that between 2000-2014, a period of rapid economic growth, employment rose by only 130,000 per year on average, a growth rate of 2.8 percent.

Sectoral and Institutional Context

8. **Zambia has considerable potential for economic diversification through agriculture growth and expansion**. The country is endowed with a large natural resource base for agricultural production. It is relatively land and water abundant – while its population made up 1.6 percent of SSA in 2020, its renewable freshwater and land resources were 2.1 and 3.1 percent from SSA respectively. Domestic production is comprised of crops such as maize, sorghum, millet, and cassava while exports are driven by sugar, soybeans, coffee, groundnuts,

rice, and cotton as well as horticultural produce. Zambia's strategic position bordering eight countries, especially the Democratic Republic of Congo and Angola, who have been traditionally significant importers of agricultural products, is an opportunity for markets for the country's agricultural commodities and value-added products. Zambia has ratified the African Continental Free Trade Agreement (AfCFTA), SADC and COMESA trade protocols, which provide opportunities for an expanded Africa to Zambian exports.

9. **The agriculture and food sector has good potential to create jobs.** Agriculture accounts for the largest share of total employment (e.g., 22.2 percent for formal and 49.6 percent for both formal and informal employment in 2019), compared to only 2.7 percent of the total labor employed in mining industry. Due to its labor-intensive nature and potential for backward linkages, the sector could make a significant contribution to formal and informal employment. For example, there has been a rapid growth in commercial farms operating between 5 and 100 hectares in Zambia, with their area under cultivation increasing from 46 percent to 62 percent between 2008 and 2014 (Jayne et al. 2016). Such small (5-20ha) and medium-sized (20-100ha) commercial farms generate in average 4 and 7 permanent jobs per farm respectively (IAPRI). This excludes jobs created in downstream sectors such as agro-dealers or processors. The Government has also targeted farm block development as an opportunity to generate agro-based jobs. If harnessed properly, farm blocks could create thousands of jobs across the country, accelerate agricultural growth, increase value addition, and generate export earnings by attracting foreign direct investment and business relations that benefit both the local investors and the surrounding communities.

10. **As the majority of the workforce in agriculture, women can be expected to benefit substantially from investments in the sector to close gender gaps in agricultural productivity that stem largely from unequal access to and control over land, equipment, financing, technology and markets.** [3] About 55 percent of Zambian women earn their livelihoods in the agricultural sector, compared to 45 percent of men,[4] and most of their production remains at the subsistence level. Data on agricultural productivity gender gaps in scarce in Zambia, but studies of neighboring countries produce estimates ranging from 23 percent in Tanzania to 66 percent in Niger.[5] Women farmers are less likely to receive training, and tend to make less use of extension services than men. Access to labor-saving technologies is low: according to one study, less than one percent of Zambian women farmers had access to a cultivation instrument like a seeder or weeder, and women received less than 10 percent of credit for smallholder farmers and only about 1 percent of agricultural credit overall.[6] Women are less likely than men to be paid for their labor, a factor underscored by social norms that uphold men as household providers, promote early marriage – one third of women are married before age 18[7] - and prescribe disproportionate care responsibilities to women. Gender gaps in education, literacy also underlie differences in

[3] World Bank and the ONE Campaign. 2014. Leveling the Field: Improving Opportunities for Women Farmers in Africa. Washington DC: World Bank; Sheahan, M., and C. B. Barrett. 2014. "Understanding the Agricultural Input Landscape in Sub-Saharan Africa: Recent Plot, Household, and Community Level Evidence." Policy Research Working Paper 7014, World Bank, Washington, DC.
[4] World Bank 2019. World Development Indicators, data from 2019.
[5] World Bank 2020. Top Policy Lessons in Agriculture. Gender Innovation Lab. March.
[6] Mehra, R. and M Rojas 2008. Women, Food Security and Agriculture in a Global Marketplace. International Center for Research on Women.
[7] UNDP Human Development Indicators 2019 data.

agricultural productivity; women have only 6 years of schooling compared to over 8 for men,[8] and Zambia remains in the bottom 38 countries on the Gender Development Index.[9]

11. **However, despite its potential, the contribution of the agriculture sector to economic growth has remained limited.** Annual average real agricultural growth in Zambia was -1.2 percent (in inflation-adjusted USD terms) over the 2000-2019 period compared to 4.3 percent in SSA. Most farmers are small-scale and engaged in subsistence farming. Agriculture is mainly rain-fed, non-mechanized and undiversified (with maize as the leading crop) and dominated by smallholder farmers that produce 85 percent of the food crops. Productivity challenges in the sector include, *inter alia*, small land holdings (average arable land holding of less than 2 ha), limited knowledge and skills in modern, innovative technologies, lack of an adequate irrigation system, poor rural infrastructure (post-harvest, transport, electricity), weak rural advisory services, limited access to credit and investment capital, and poor market information systems and access. The sector's productivity is extremely low and declined from 2000 to 2018, except for maize. Zambia's national average yield rate for maize increased from only 1.32 metric tons per hectare in 2000 to 2.10 metric tons per hectare in 2017/2018. In the 2018/2019 cropping season, it reached 2.52 tons per hectare, far below Egypt at 8 tons, South Africa at 4 tons or the CAADP target of 5 tons. Value added per worker in agriculture has also declined from US$859.88 in 2000 to US$544.28 in 2018 (World Development Indicators Database). Low levels of agricultural diversification, agro-processing and commercialization have stymied growth in the sector and perpetuated rural poverty.

12. **Climate change poses major challenges to the development of Zambia's agricultural sector.** The country has a highly variable climate, and in the past few decades has experienced climatic extremes in the form of droughts, seasonal and flash floods, and extreme temperatures. Some of these hazards, especially droughts and floods, have increased in frequency and intensity and have adversely impacted food and water security and rural livelihoods. Annual agricultural growth rates have fluctuated widely with the variations in rainfall received during the agricultural seasons caused by climate events such as El Niño and La Nina, especially in 2018 when sector contracted by 21.2 percent. Climate change projections indicate that by 2050, Zambia is expected to experience increases in temperature of up to 2.2^0C with the greatest increases in the southern and eastern parts of the country that are significant crop production areas; rainfall is expected to increase by up to 4 percent in the northern parts but decrease by as much as 5 percent in the southern parts.[10] Over the next 10 to 20 years, climate change-related losses in agriculture are expected to amount to US$2.2–3.1 billion (Braimoh et al. 2018, World Bank 2018a). Zambia's Nationally Determined Contribution (NDC) sets ambitious goals for climate mitigation and adaptation that include the agriculture sector; the country aims to reduce Greenhouse Gas (GHG) emissions by 25 percent and up to as much as 47 percent, depending on the level of international support and financing.

13. **Ineffective and inefficient policies and public spending have hindered agricultural growth in Zambia.** Zambia has a history of inconsistent trade policies in the form of ad hoc import and export bans on commodities, especially on maize and soya, combined with government interventions in maize market prices through the Food Reserve Agency (FRA) purchases, unfavorable tax policies and appreciation of the Kwacha, all of which have made Zambia's agricultural exports in the region uncompetitive. This has disincentivized private sector investments in agricultural production and processing, as evidenced by the exit of several large multi-national grain trading and agribusiness companies in late 2010s. Public spending is heavily skewed towards inefficient fertilizer subsidies;

[8] UNDP Human Development Indicators, 2019 data.
[9] United Nations Development Programme (UNDP). 2018. Human Development Indices and Indicators: 2018 Statistical Update: A Briefing Note for Countries on the 2018 Statistical Update.
[10] CIAT; World Bank. 2017. Climate Smart Agriculture in Zambia. CSA Country Profiles for Africa Series.

in 2019, the budget for the Farm Input Subsidy Program (FISP) was larger than the rest of the total public expenditure on agriculture. Evidence shows that the FISP faces numerous challenges, such as high administrative costs, poor targeting, and non-delivery of inputs, in addition to low response rate due to low soil fertility which reduces yield response to increased fertilizer use. The over-sized commitment of resources to FISP severely limits the government's capacity to invest in other agricultural programs that are known to drive sector growth and job creation, i.e., adaptive agricultural research and technology development, effective advisory services and skills development, rural institutions (i.e., producer organizations, market information systems) as well as rural infrastructure, including irrigation and farm (feeder) roads. Scaling up support in these critical areas is key to harnessing the potential of Zambia's agriculture towards broad-based rural job creation and income growth.

14. **Despite extensive use of trade restrictions and fiscally costly input subsidies and maize price support programs, food insecurity and malnutrition have remained daunting challenges in Zambia**. According to FAO Stat, over 2014-2020, the prevalence of severe food insecurity in the total population has increased from 21.8 to 23.2 percent. The projections and latest data of IPC are even more alarming, as the levels of acute food insecurity (IPC Phase 3 or above) are projected to reach 29 percent in 2021 with COVID-19 further worsening an already dire situation. Some 35 percent of children are reported to have stunted growth due to poor nutrition, above the SSA average (32 percent). Zambia's malnutrition rates remain among the highest in the world, with 48 percent of the population unable to meet their minimum calorie requirements.[11]

15. **Zambian food systems could be further affected by ongoing shocks to the global energy and fertilizer markets.** The war in Ukraine is expected to significantly affect energy and fertilizer prices in Zambia. High fuel prices are expected to increase transport costs throughout food systems in Zambia, while increasing fertilizer prices could have negative impact on crop yields, although in smallholder sector the yields have been historically driven largely by rainfall patters. There is a risk of high inflation due to increase of prices of import commodities and stability of the Kwacha in general, which could increase cost of food. The latter may increase the number of people facing hunger which could further affect the Treasury. Zambia currently imports between 50-90 metric tons of wheat grain per year. While these trends could present additional risks to the macroeconomic stability, they could also work to strengthen the current momentum around agriculture reform package, such as reform of fertilizer support program and re-balancing agriculture budget towards growth and job creating spending programs, which would mitigate downside risks.

16. **Restoring confidence in the growth potential of Zambian agro-food systems will require concerted actions both at the macroeconomic and sectoral levels**. The ratification of the AfCFTA in February 2021, that aims at the elimination of tariff and non-tariff barriers to regional trade, is an important step in this direction, which would assure that borders will remain open to encourage new private sector investments. The COVID-induced fiscal and debt crisis provides opportunities for building more fiscal responsibility through repurposing public agriculture spending programs for job creation, productivity growth and climate resilience, while improving efficiency and effectiveness of such programs. Agro-processing and marketing companies remain the main drivers of growth in agriculture, but they need incentives through an improved policy environment to attract new investments. To successfully address these problems, complementary public and private investments in critical sub-sectors, coupled with policy reforms, are required.

17. **As Zambia pursues economic recovery after the COVID-19 pandemic, under even tighter budget constraints, the Government of the Republic of Zambia (GRZ) has a momentous opportunity to reform its**

[11] WFP, Zambia Country Brief, November 2021

agricultural support programs. The new government is committed to refocusing the agricultural policies and programs, as articulated in the Manifesto, for the sector to become the driver for inclusive economic growth. The 2022-2024 Medium Term Budget Plan calls for implementation of a new comprehensive agriculture support program beginning in the 2022/2023 farming season. This program aims to improve the efficiency and effectiveness of the FISP through electronic agro-input system mechanism which would expand the choice of inputs across wide range of crop and livestock activities and include extension service support, access to finance, support to value addition, storage and logistics. In addition, the government has committed to open trade regime for agricultural exports and imports.

PforR Program Scope

18. **The proposed PforR will be nested in the strategic areas of the NAP and its third Policy Implementation Plan (3PIP)**, which are key elements of the 7NDP (and updated 8NDP) and Zambia Vision 2030. The PforR excludes fisheries and livestock sub-sectors, which have already established a promising growth path despite limited public investments. These sectors are also relatively free from significant policy distortions. As such, the PforR would focus on crop sub-sector which received about 90 percent of the total agriculture sector funding yet is subject to major policy distortions and institutional and service delivery inefficiencies, which makes it suitable for the PforR interventions. Table 1 provides the comparison of the Government agriculture sector program and the PforR boundary.

Table 1. Government Program and PforR Boundary Comparison

	Government programs		Program supported by the PforR	
Objectives	NAP: An efficient, competitive, sustainable agricultural sector which assures food and nutrition security, increased employment and income.		To promote agricultural diversification, sustainability and jobs in the agri-food sector in Zambia	
Duration	NAP 3PIP: 2022-2026		WB FY 2022/23-2025/26	
Geographic coverage	Nationwide		Nationwide	
Result areas	NAP: Actions 1 to 10		NAP: Actions 1 to 10 (except livestock and aquaculture sub-sectors)	
Overall Financing	US$1.39 billion		US$250 million	
	Priorities / sub-priorities for NAP		***Included in PforR***	***Result Areas***
	1	**Increase Agricultural production and productivity**		
	1.1	Crops. Promote improved and certified seeds	Yes	2
	1.2	Crops. Irrigation technologies & infrastructure for smallholders	Yes	3

Program areas	1.3	Crops. Promote efficient water use & high value irrigable crops	Yes	2
	1.4-5	Livestock. Promote re/stocking, production & disease control	No	
	1.6-7	Fisheries. Promote fish re/stocking and access to fish seed	No	
	1.8	Promote farm power and mechanization	Yes	2
	1.9	Promote development of farm blocks	Yes	2
		Plant and disease clinics and surveillance (SPS)		2
	2	**Improve Agricultural Research and Development**		
	2.1	Promote alternative financing for agricultural research	Yes	2
	2.2-3	Strengthen institutional capacity for climate change research and adaptive research		
	3	**Strengthen Capacities of Agricultural Training Institutions**		
	3.1-2	Increase staff levels, efficiency, effectiveness in ATIs	Yes	2
	4	**Improve efficiency of agricultural input and output markets**		
	4.1	Promote private sector participation in input/output markets (FISP)	Yes	1
	4.2	Strengthen farmer groups and co-operatives capacity	Yes	2
	5	**Promote agricultural finance credit facilities and insurance.**		
	5.1	Promote broad based smallholder credit and financial delivery	Yes	2
	5.2	Promote warehouse receipt system	Yes	1
	5.3.	Promote payback culture in ag. credit management	Yes	2
	6	**Increase Private Sector in Agricultural Development**		
	6.1	Strengthen agriculture legal and regulatory framework	Yes	1
	6.2	Strengthen ag. info. management systems and dissemination	Yes	2
	6.3	Strengthen coordination among all stakeholders in the sector	Yes	1
		Feeder roads	Yes	3
	7	**Improve Food and Nutrition Security**		
	7.1	Promote diversification of ag. production and utilization	Yes	2
	7.2-3	Promote on-farm agri-processing, value addition and storage.	Yes	3
		Food reserves (FRA)	Yes	1
	8	**Promote Natural Resources Sustainable Management & Use**		

	8.1	Promote sustainable land management & conservation ag.	Yes	1
	8.2	Promote sustainable and climate resilient animal resources	No	
	8.3	Promote sustainable fishing methods	No	
	9	**Mainstream environment and climate change in ag. sector**		
	9.1	Promote awareness to climate change mitigation and adaptation	Yes	2
	9.2	Strengthen existing early warning systems	Yes	2
	9.3	Build individual capacity for climate change risk assessment	Yes	2
	10	**Mainstream Gender, HIV/AIDS, Governance issues in Ag.**		
	10.1	Promote women and youth participation in agriculture	Yes	1
	10.2	Promote ag. technologies that mitigate HIV/AIDS impact	Yes	1
		Enhance Internal Controls, Risk Management and Governance Processes.	Yes	1

19. **To ensure sharper focus on achieving the Government targets, the Result Areas (RAs) of the proposed PforR cover a subset of the Government program activities**, which are aligned with the government's own targets. The RAs were selected considering that they: (i) have the potential to make strong contribution to achieving the government's own targets; (ii) are linked to specific measurable results; (iii) provide "value added" of the program results in terms of their technical/institutional quality, efficiency and effectiveness; and (iv) incentivize behavioral changes. The Program will support the following three RAs:

20. **Results Area 1: Enhanced policies and institutions for acceleration of more diversified, resilient, and inclusive agricultural growth.** The goal of this RA is to enhance the impact of the government agriculture expenditure programs and the related sector policies. The RA would improve the efficiency and effectiveness of the agricultural inputs (fertilizer) distribution and strategic grain management arrangements and enhance the transparency of agricultural trade decisions. The RA would incentivize the reduction of the government budget allocation to FISP through improved targeting of the genuine eligible farmers using the biometric farm registry. This would enable the government to continue to target the eligible farmers even with the increasing international fertilizer prices. The RA would also support the transition of the FISP from maize-centric DIS delivery modality towards flexible eVouchers modality, which is expected to increase farmer's access to broader choice of inputs while reducing the program administrative costs. It is expected that the fiscal savings from the repurposing of the FISP would provide additional budget resources for the implementation of activities under RAs 2 and 3. The RA would also support strengthening of the FRA operations through improving transparency of its strategic grain stock management and incentivizing adoption of less market distortive grain trading practices. Finally, it would incentivize the improved MoA agricultural budget outturn, which has been historically low for the genuine growth and jobs creating spending programs, such as extension, research and irrigation, while the budget outturns for FISP and FRA has often exceeded the planned allocations. The RA would contribute to climate co-benefits by encouraging more rational use of chemical fertilizers and crop diversification towards more drought resistance crops.

21. **Result Area 2: Improved services for acceleration of more diversified, resilient, and inclusive agricultural growth.** The goal of this RA is to increase the level of institutional capacity for improved service delivery, such as agricultural research and extension; development of modern and climate resilient agricultural technologies (seeds, fertilizers, etc.); improved planning of public sector expenditure programs which would crowd in private investments; all which would contribute to the development of more climate resilient food systems in Zambia. Creating jobs requires better planning which would encourage private sector investments. It would also require improved regulatory environment which would reduce cost of doing business, while developing new and better skills. The RA would contribute to climate co-benefits through supporting adaptive and advisory services for improved climate resilience (technology and knowledge development for both adaptation and mitigation; incorporating climate resilience into agriculture training and extension programs, and improving skills for the job participation in food systems; enhancement of agricultural research facilities and restructuring of applied agricultural research and extension capacities; increasing the production and distribution of improved and more climate resilient seeds while encouraging diversification of crop production systems which would contribute both for better soil management and nutritional outcomes; and enhancing the environmental and social sustainability of the planning of public and private investments in farm blocks and other high potential commercial agriculture cluster development areas.

22. **Result Area 3: Improved infrastructure and assets for acceleration of more diversified, resilient, and inclusive agricultural growth.** The goal of this RA is to support the delivery of targeted productive rural infrastructure in agriculture areas which have highest potential for contribution to growth, exports and job creation, while enhancing climate resilience of food production systems. This RA would support the following strategic areas: (i) scaling up and enhancing the government program on the development of irrigation systems under existing schemes which draw on water user agreements and professional management arrangements to ensure the technical, financial and environmental sustainability of their operations; and (ii) rehabilitation of farm (feeder) roads in high potential agriculture areas and related ancillary infrastructure which would enhance their climate resilience. The RA would contribute to climate co-benefits through encouraging more efficient use of water resources in the targeted irrigation systems through introduction of appropriate technologies and management practices, while enhancing the long-term technical, financial and environmental sustainability (improved environmental flows) of the operation of such schemes.

23. **Program progress will be measured through nine disbursement linked indicators (DLIs)**, each involving one or more specific actions required for agricultural transformation in Zambia. DLIs were selected on the basis of: (a) their "value added" in terms of program quality; (ii) the criticality of the activity, output, or outcome in the results chain; (b) the need to introduce a financial incentive to deliver the activity, outcome, or output; (c) measurability and ease of verification; and (d) the capacity of Zambia to achieve the DLIs over the period of Program implementation. Table 3 summarizes the list of DLIs, and the details are presented in the Technical Assessment Report. Some DLIs entail sub-indicators which increases scalability of disbursements.

Table 2. Disbursement Linked Indicators (DLIs)

Disbursement Linked Indicator (DLI)		DLI (US$ million)
DL# 1	Improving efficiency and effectiveness of the FISP	62
DL# 2	Strengthening of FRA operations	10

DL# 3	Increased exports of maize	20
DL# 4	Improving the MoA budget outturn	17
DL# 5	Facilitation of Private Sector investment in the Farm Block Program	20
DL# 6	Enhancing legal and regulatory environment for input markets	20
DL# 7	Scaling up CSA Technologies	20
DL# 8	Construction, expansion and institutional development of irrigation schemes	60
DL# 9	Rehabilitation of feeder roads in high potential agriculture areas	21
	TOTAL	250.0

C. Proposed Program Development Objective(s)

24. The Development Objective of the proposed Program is to promote agricultural diversification, sustainability and jobs in the agri-food sector in Zambia.

25. The following key indicators will measure progress towards achievement of the PDO:

- Crop diversification index (area planted to xx crops/area planted to maize) (ha)
- Area under climate-resilient technologies and practices for crop production (ha) (also a climate indicator)
- Jobs generated in areas benefiting from irrigation support (Numbers)(disaggregated by women and youth)

D. Environmental and Social Effects

26. The PforR outcomes are intended to increase agricultural productivity in Zambia through the creation of employment opportunities, increased income at household level, improved farming techniques through efficient use of natural resources (especially land and water) utilization, protect the environment and restore degraded landscapes and ecosystems in the selected provinces. The potential environmental and social risks and impacts associated with the PforR activities include: (i) construction-related and site-specific risks and impacts, including occupational health and safety (OHS) issues; (ii) environmental pollution, impact on natural resources and ecosystems (iii) risk of exclusion from participating in the Program, (iv) risk of labor influx with potential increase in gender-based violence and sexual exploitation, including transmission of communicable diseases such as HIV/AIDS and COVID-19, (v) cumulative impacts and associated facilities impacts; (vi) physical and cultural resources disruption (vii) water quality and quantity and (viii) land acquisition and resettlement. Against this background, the environment and social risk is rated **Substantial.** The identified risks and impacts are expected to be site-specific and can be readily avoided, minimized, and mitigated through known and demonstrated technologies and good management practices stipulated in the Draft detailed ESSA report under program action plans.

27. An Environmental and Social System Assessment (ESSA) has been conducted, providing a comprehensive review of the environmental and social legal framework, procedures and capacity of implementing institutions and relevant stakeholders to the PforR. The ESSA used the following methodology: (a) thorough screening of the

potential risks and impacts from the activities to be supported by the PforR; (b) desktop review on existing legal and institutional frameworks relevant to the program; (c) field visits to sites of typical program activities and (d) conducting interviews with key stakeholders at national, provincial, local levels including community representatives. These consultations and field observations provided a good understanding of government's capacity to address risks and impacts likely to arise from implementation of the program. The ESSA recommends that the PforR be used as an opportunity to enhance the capacity for managing environmental and social risks related to agricultural sector expenditure programs as per NAP. The draft ESSA report will be consulted upon with relevant stakeholders and the final report disclosed on both Ministry of Agriculture and World Bank websites.

28. OP 7.50 – *Projects on International Waterways* is triggered as the proposed investments in irrigation systems will be conducted in the basins of the Zambezi River, Congo River, and Lake Tanganyika which are international waterways. This activity could potentially increase water abstraction from the tributaries of the Zambezi, Congo rivers and Lake Tanganyika and could result in increased risk of pollutants entering these international waterways. According to the Bank's preliminary assessment, this activity: (i) will not affect the water quality or flow in the upstream riparian countries; and (ii) will not be adversely affected by the other riparians' possible water use. The Bank has notified the riparian countries in accordance with the stipulations of OP7.50, with all the requirements of the policy to be completed prior to negotiations.

29. Communities and individuals who believe that they are adversely affected as a result of a Bank supported PforR operation, as defined by the applicable policy and procedures, may submit complaints to the existing program grievance redress mechanism or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address pertinent concerns. Affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit http://www.inspectionpanel.org.

E. Financing

Program Financing (Template)

Sources	Amount (USD Million)	% of Total
International Development Association (IDA)	**250.00**	**100.00**
IDA Credit	250.00	100.00
Total Program Financing	**250.00**	

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CONTACT POINT

World Bank

Name :	Meeta Sehgal		
Designation :	Sr Agricultural Spec.	Role :	Team Leader(ADM Responsible)
Telephone No :	473-7782	Email :	msehgal@worldbank.org

Borrower/Client/Recipient

Borrower :	Ministry of Finance		
Contact :	Mulele Mulele	Title :	Director Economic Management
Telephone No :	-	Email :	mmaketom@gmail.com

Implementing Agencies

Implementing Agency :	Ministry of Agriculture		
Contact :	Peggy Mlewa	Title :	Director Policy and Planning
Telephone No :	260973764352	Email :	peggy.mlewa@agriculture.gov.zm

FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: http://www.worldbank.org/projects