PROJECT INFORMATION DOCUMENT (PID)
APPRAISAL STAGE

Report No.: PIDA11653

Project Name	Zambia COMACO Landscape Management (P144254)
Region	AFRICA
Country	Zambia
Sector(s)	Forestry (28%), General agriculture, fishing and forestry sector (35%), Agro-industry, marketing, and trade (24%), Animal production (13%)
Theme(s)	Other environment and natural resources management (13%), Biodiversity (15%), Land administration and management (25%), Rural non-fa rm income generation (35%), Rural markets (12%)
Project ID	P144254
Borrower(s)	COMACO
Implementing Agency	COMACO Ltd
Environmental Category	B-Partial Assessment
Date PID Prepared/Updated	28-Oct-2014
Date PID Approved/Disclosed	03-Nov-2014
Estimated Date of Board Approval	12-Jan-2015
Decision	

I. Project Context

Country Context

A. Country Issues

1. Country Context: With strong growth in the last decade, Zambia has reached lower middle income status. However, the economy remains mainly dependent on copper and more than 60 percent of Zambians live below the poverty line. Human development indicators are below the Sub-Saharan Africa average. Over the past decade the Gini coefficient worsened from 0.47 to 0.52, indicating the increasing disparity in income distribution. The potential and the need to increase agricultural productivity and develop the private sector remain huge.

2. Climate vulnerability mitigation in Zambia is critical. Flood and droughts have increased in frequency over the past three decades, costing the nation an estimated 0.4 percent in annual economic growth. These trends are expected to intensify in the future—projected temperatures are expected to increase by 3 to 5 degrees Celsius by 2100, with average precipitation declining during the early rainy season (October to December) and intensifying thereafter. Without adaptation, rainfall variability alone could keep an additional 300,000 people below the poverty line over the next decade, and reduce annual GDP growth by 0.9 percent (World Bank 2013). The proposed project fits with the Sixth National Development Plan stated objectives: (i) to accelerate infrastructure development, economic growth and diversification; (ii) promote rural investment and

accelerate poverty reduction; and (iii) enhance human development, through a low carbon development pathway to meet the twin objectives of mitigation and adaptation.

3. Both deforestation and climate change, if left unaddressed, will exacerbate poverty and curb economic growth and will make it more challenging for Zambia to achieve MDG 7 on environmental sustainability. Nearly 66 percent of Zambia's land area is classified as forests but most of the resource is highly degraded and deforestation is occurring at 0.33 percent a year (WDI 2012). The poorest and most vulnerable tend to live in districts most exposed to frequent droughts and floods. With livelihoods that are highly dependent on climate sensitive agriculture and natural resources, they also have a low capacity to adapt.

4. Despite robust annual growth in the last decade, poverty, particularly in the rural areas remains stubbornly high. The effect of economic growth on overall poverty reduction has been small, as benefits of growth have largely accrued to those already above the poverty line. Growth was driven by industries such as mining, construction and financial services and did little to create jobs and expand opportunities beyond the small labor force already employed in these industries. The urban-centered growth also did not generate better incomes, health, nutrition and key services for the majority of Zambians living in the rural areas and dependent on agriculture. Rural poverty at 74 percent is more than double the urban poverty of 35 percent. Almost 90 percent of Zambians below the extreme poverty line are in rural areas, where the poverty gap ratio is far higher (20 versus 3.7 percent in urban areas) (World Bank 2013).

5. The Government's capacity for undertaking public-private partnerships (PPPs) also needs to be enhanced. The Government has supported PPPs to leverage the strengths of both private and public sectors to deliver and maintain infrastructure investments in the country. Following the approval and adoption of the PPP Policy in 2008 and the enactment of the PPP Act by Parliament in August 2009, the Government has continued to firm up institutional arrangements to implement PPP financed infrastructure projects. In September 2012, the Government announced the merger of the Zambia Development Agency and the PPP Unit in the Ministry of Finance (MOF) to establish an Industrial Development Commission to enhance capacity for implementation of PPPs. An adequate institutional framework, however, to spearhead project identification, appraisal and implementation still remains a constraint.

Sectoral and institutional Context

Sector Issues

1. Agriculture Sectoral and Institutional Context: The project fits within the agriculture sectoral and strategy context to address the challenges in the sector, as well as aligns to World Bank agriculture portfolio. Agricultural development is a high priority area and the proposed project activities on climate smart agriculture intended to offset carbon emissions and promote conservation agriculture are a priority

2. Challenges in the Agriculture Sector:

i. The agriculture sector employs more than 70 percent of the population but contributes about 14 percent to real Gross Domestic Product (GDP). Two-thirds of Zambians live in the rural areas and mostly depend on rain-fed agriculture whose overall productivity remains low even in comparison with Low Income Countries (LICs) (LCMS 2010). The mean size of the land holding is 3.27 hectares and the small-scale farming systems are overwhelmingly dominated by a single

crop—maize. Nearly 83 percent of all households grow maize (LCMS 2010).

ii. The vast majority of the very poor derive their livelihoods from subsistence smallholder agriculture, and are most vulnerable to climate change. Farming is the principal source of income for communities in the Luangwa Valley, a mixed woodland landscape dotted with smallholder farmers. The farmers grow food crops, such as maize and sorghum, and cash crops; cotton, soybeans and tobacco. The families of the Luangwa valley are mostly unable to meet their food security needs for about three months in a year partly because of time spent on commercial crops but also partly because the environment is edaphically dry, reducing the optimum productivity of the crop. In view of this, survival measures for the families are mainly natural resources based, namely, poaching of animals whose meat they exchange with food and/or burning of trees for charcoal which they sell and the money used for food. These measures lead to depletion of wildlife and degradation of forests, respectively. Studies conducted several years ago showed that 20 to 60 percent of Luangwa Valley residents were not food secure up to 3-months, with food security being defined as sufficient food to last from one harvest to the next for a given family.

iii. The Sixth National Development Plan (SNDP) recognizes agriculture as a principle sector for poverty reduction and for promoting economic diversification. The elderly, female-headed households and single or divorced male or single parent headed households are vulnerable as they mostly rely on subsistent cropping, sale of livestock, charcoal and other forest products and other natural resources.

iv. Farmers face numerous constraints that keep productivity low. Inadequate rural infrastructure, particularly feeder roads and irrigation systems, poor access to markets, inadequate research and access to improved inputs, limited advice on their proper use are examples of constraints faced. Women farmers tend to have even lower access to agricultural inputs than men. Government expenditure on agriculture has risen consistently since 2000 but two main subsidy programs the Farmer Input Support Program (FISP) and the Food Reserve Agency (FRA), have absorbed more than 60 percent of the sector's budget and have distorted incentives in favor of maize, and created unpredictability that has hindered private investment in agriculture. Political economy constraints have made reforms of these subsidy programs difficult, but they are critical for ensuring optimum development benefits accrue from public expenditure. Recently, the Government has proposed scaling down and reforming FRA purchase activities and reforming the FISP and undertaking a reform of the land tenure system. The challenge, however, will be in defining the size of the strategic food reserve and employing transparent and competitive processes for procuring the reserve stock. Another challenge is bringing to closure pressing land tenure reform issues in a timely manner.

3. Forest Sectoral and Institutional context: Based on the Integrated Land Use Assessment (ILUA, 2008), Zambia has a total land area of about 75,243,400 hectares and the forests cover approximately 49.968 million ha (about 60% of the total land area). Forest cover in gazetted forest reserves of Zambia accounts for 9.6% of the total land area; with 300 Local Forests (2,175,770 hectares) and 180 National Forests (5,181,503 hectares). Other forested areas occur in National Parks (NP), Game Management Areas (GMA), customary land and Heritage sites. In Zambia, the deforestation rates currently stand at approximately 250,000 to 300,000 hectares per year (ILUA, 2008). Food and Agriculture Organisation (2011) reported that between 1990 and 2010, Zambia lost an average of 166,600 ha or 0.32% per year. In total, between 1990 and 2010, Zambia lost 6.3% of its forest cover or around 3,332,000 haThe main drivers of deforestation have been identified as charcoal and wood fuel production, logging for timber, expansion of small scale agriculture and unsustainable agricultural practices. However, there is some uncertainty as to how much of deforestation is a direct cause of charcoal production and how much is due to agriculture

expansion, as clearing for one is often interlinked with the other. Much of the woodland converted to small-scale agriculture actually shows up as biomass in charcoal statistics, making it difficult to disaggregate the two. The impact of charcoal production on deforestation is closely interlinked with access to/and the nature of the energy supply. Nearly 75 percent of the population lives without access to electricity, and charcoal and wood-fuel constitute the main source of energy for the majority of the population.

4. About 87 percent of the volume of commercially valuable tree species is currently not formally managed. This suggests that commercially valuable species will soon be depleted. Unless concerted of efforts are made, supply cannot be guaranteed in the long-term. In addition, monitoring, enforcement and harvesting guidelines are very weak, creating an environment conducive to illegal logging.

II. Proposed Development Objectives

Project Development Objective

1. The development objective of the COMACO Landscape Project is to reduce emissions of Greenhouse Gases (GHG) through the sustainable management of 270,698 ha of land traditionally devoted to community led agricultural and non-agricultural activities. The delivery of the ERs according to the delivery schedule to be agreed upon in ERPA will be the results indicator that is going to be monitored by the World Bank over the ERPA duration.

2. The project has the following specific technical objectives: (a) Agriculture Land Management including Agroforestry: to increase food production and household income by expanding legume-based agroforestry systems with demonstrated higher sustainable crop yields, and production of important firewood, materials and tradable carbon compared to the baseline of traditional smallholder agriculture; (b) Reduced Emissions from Deforestation and Degradation (REDD): To protect and expand areas under natural forest and conserve biodiversity through the intensification of food production on existing farm plots by adoption of legume-based agroforestry with in-built firewood production and avoidance of fallows, which will replace the need for further forest clearing as part of slash and burn agriculture, firewood and charcoal production. The decisions on land delineation for specific management purposes rest with the chiefs in consultation with the communities. Currently the challenge is one where allocation of forest areas for agricultural purposes to communities is made by the chief, and as a result the forested areas within the chiefdom are shrinking over time. Several chiefdoms have recognized the problem and are willing to set aside forest areas within chiefdoms for conservation use known as community conservation areas (CCAs). The interventions in CCAs will include land use planning, and preparation forest management plans by communities for managing conservation areas through implementing practices that will ensure that the forest areas are sustained. Agreements between chiefdoms and COMACO will include provisions for implementation. The agreement also requires the Chiefs to submit a benefit sharing plan that will ensure fair distribution or usage of revenue channeled through the sale of Emission Reductions generated from the Project.

3. In addition, the project supports important local environmental and social co-benefits and assists small-scale farmers to diversify their source of incomes while contributing to the development of the forestry sector at the regional level. The project activities contribute to the protection of the remaining natural forests and its biodiversity as well as to the control of soil erosion and sediments affecting the Luangwa River. Furthermore, the project produces wood for

domestic and local use from the agroforestry trees. The project also contributes to the adaptation to climate change that is affecting the region.

III. Project Description

Component Name

Sustainable Agricultural Land Management (SALM)

Comments (optional)

This component aims to promote a shift from traditional small-holder shifting agriculture ("chitimene") to improved practices that increase food production and farm-gate export income per unit area by expanding legume-based agroforestry systems with demonstrated higher sustainable crop yields and increased carbon storage. Other management practices rewarded by COMACO will include cessation of post-harvest crop-residue burning and collateral forest fire damage, the full suite of no-till and residue retention agricultural practices and dedicated woodlots and border plantings.

Component Name

Reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of carbon stocks (REDD+)

Comments (optional)

This component aims to protect and expand areas under natural forest and conserve biodiversity. It will build on the first component which will replace the need for further forest clearing as part of slash and burn agriculture, firewood and charcoal production. Supporting these efforts will be the establishment of "Green Zones" which will be used to produce sustainably harvested non-traditional forest products (apiaries for honey and wild mushrooms) as well as alternatives to destructive charcoal production (with attendant forest fire risks). Management of the Green Zones will also include the establishment of fire-breaks to protect forest products harvest. In addition to the Green Zones, COMACO is also working with the chiefdoms on creating "Community Conservation Areas"

Component Name

Project Management

Comments (optional)

In addition to the above mentioned technical components this component aims to provide project development and implementation technical assistance during the project period.
The World Bank support is primarily through purchase of emission reductions generated by the project. The technical support in project preparation is limited to assistance for feasibility assessment for emission reductions, baseline preparation and verification, as indicated in the Letter of Intent and agreed with the COMACO.

IV. Financing *(in USD Million)*

Total Project Cost:	1.33	Total Bank Financing:	0.00
Financing Gap:	0.00		

For Loans/Credits/Others	**Amount**
Borrower	0.00
Carbon Fund	1.33
Total	1.33

V. Implementation

The Zambia Community Markets for Conservation (COMACO Ltd) Landscape Management Project will promote sustainable climate-smart agricultural practices in the Luangwa Valley in Eastern Province of the Republic of Zambia (GRZ). The project will expand the sustainable agricultural land management and forest conservation activities being currently implemented by COMACO Ltd. with a view to linking closely to overall climate resilience of preparedness and adaptability.

COMACO is the project's delegate manager. It is a limited-by-guarantee, non-profit company. Stewarded by Wildlife Conservation Society (WCS) in close consultation with Community Resources Boards of Luangwa Valley, Producer Group Cooperatives, District Council authorities, and key Government institutions, such as Zambia Wildlife Authority and Ministries of Tourism, Environment and Natural Resources, Agriculture, and Local Government, it uses a business approach that finds economic solutions to end poverty among rural small-scale farmers and encourages improved farming technologies to help end hunger.

The Department of Agriculture in the Ministry of Agriculture and Livestock is responsible for the providing agriculture extension services in order to promote adoption of improved farming technology for farmers to achieve high production, productivity, maintain and improve the agriculture resource base. The Forestry Department, which falls under the Ministry of Lands, Natural Resources and Environmental Protection, has the mandate to manage forests both on customary land and protected forests.

During the initial scoping COMACO and the World Bank's BioCarbon Fund (BioCF) agreed to pilot the approach in ten chiefdoms in the Luangwa valley, Eastern province, Zambia where COMACO is operating. The area of ten chiefdoms (Magodi, Zumwanda, Chikomeni, Masemphangwa, Jumbe, Chikuwe, Nyampande, Mwape, Luembe and Nyalugwe) within these districts where activities for sustainable agriculture and for reducing emissions from deforestation and forest degradation (REDD+) are expected to be implemented was estimated at approximately 270,698 ha per preliminary assessments of areas available for the project. The exact area will be known once the mapping of specific sites has been completed by COMACO.

VI. Safeguard Policies (including public consultation)

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	×	
Natural Habitats OP/BP 4.04	×	
Forests OP/BP 4.36	×	
Pest Management OP 4.09	×	
Physical Cultural Resources OP/BP 4.11	×	
Indigenous Peoples OP/BP 4.10		×
Involuntary Resettlement OP/BP 4.12	×	
Safety of Dams OP/BP 4.37		×
Projects on International Waterways OP/BP 7.50		×
Projects in Disputed Areas OP/BP 7.60		×

Comments (optional)

Projects has drafted an Environment and Social Management Framework (ESMF), Pest

management Plan (PMP), and Resettlement Framework (RPF). The safeguards instruments have been reviewed by the Zambia Environmental Management Authority (ZEMA) in compliance with the country laws and were reviewed and cleared by the Bank as per relevant safeguards policies.

VII. Contact point

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