



PROJECT DOCUMENT

SECTION 1: PROJECT IDENTIFICATION

1.1	Project title:	Ecosystem conservation and community livelihood enhancement in North Western Zambia			
1.2	Project number:	GEF ID: 10192			
1.3	Project type:	PMS:			
1.4	Trust Fund:	FSP			
1.5	Strategic objectives:	GEF			
	GEF strategic long-term objective:	Biodiversity: Mainstream biodiversity across sectors			
		Land Degradation: Integrated natural resources management			
	Strategic programme for GEF VII:	BD 1-1 LD 1-1 LD 2-2			
1.6	UNEP priority:	Healthy and productive ecosystems			
1.7	Geographical scope:	National			
1.8	Mode of execution:	External			
1.9	Project executing organization:	The Nature Conservancy			
1.10	Duration of project:	60 months			
		Commencing:		September 1, 2021	
		Technical completion:		February 28, 2026	
	Validity of legal instrument:	72 months			
1.11	Cost of project	US\$		%	
	Cost to the GEF Trust Fund	5,338,585		21	
	Co-financing				
	Cash:				
	TNC	1,700,000		7.8	
	Sub-total	1,700,000		7.8	
	In-kind:				
	Ministry on Lands and Natural Resources	7,200,000		33.0	
	Ministry of Agriculture	1,900,000		8.7	
	Ministry of Tourism and Arts	750,000		3.4	
	TNC	1,700,000		7.8	
	WWF	3,780,000		17.3	

Trident Foundation	2,250,000	10.3
First Quantum Minerals	2,500,000	11.4
<i>Sub-total</i>	20,080,000	92.1
Total	21,780,000	100

1.12 Project summary

The Project aims to address the barriers to sustainable land management and to biodiversity conservation at three project sites in three districts in the Northwestern Province (NWP) in the Republic of Zambia. It will carry out activities to develop systems of community management of forests and other natural resources, and to develop and extend sustainable agricultural practices. The leading causes of forest loss in NWP are clearing for agriculture and over-exploitation of wood and non-woody forest products. Coupled with the damage to the soil environment inflicted by unsustainable agricultural practices, the degradation of the natural capital of the area increases the vulnerability of the rural population to climatic shocks and long term climate change.

Project activities have been designed around three inter-related Components:

Component one will support communities with awareness raising on community forest management, a detailed assessment of forest condition, potential and on the socio-economic importance of forest products, delineation of forests for community management, grouping of villages into management units of optimum geographic and economic scale, development of forest management plans, development of plans for equitable sharing of costs and benefits and application for legal recognition by government.

Component two will assist communities to develop business plans and enterprise investment plans, will analyse the profitability of investment options, will provide seed money for investments and for interim hiring of technical and professional staff, will help develop operational, self-financing forest/natural resource management funds and investment funds and will provide training for developing a wide range of capacities for good governance, community-based natural resources management (CBNRM) and enterprise development to ensure sustainability.

Component three is focused on the promotion of smallholder agricultural technologies and practices by small-scale crop farmers and pastoralists living in the project target areas that contribute to the maintenance and enhancement of productivity on existing agricultural lands, thus reducing the need for farmers to extend their agricultural footprint into forests and other natural ecosystems as a result of declining productivity on their traditional lands. Given that the majority of existing smallholder farming practices degrade the soil health that is so critical to the long-term productivity of agricultural lands, the project will place a special focus on the promotion of technologies and practices that both maintain and enhance soil health as a critical factor in wider ecosystem health and increase the resilience of smallholder agricultural communities against climate change.

The Project will generate a range of global environmental benefits and will contribute substantially to revenue generation, employment and rural livelihoods.

ACRONYMS AND ABBREVIATIONS

ANR	Assisted Natural Regeneration
BCP	Bio-Carbon Partners
BD	Biodiversity
BU	Business Unit
CBNRM	Community-Based Natural Resources Management
CBO	Community-Based Organization
CFM	Community Forest Management
CFMA	Community Forest Management Area
CFMG	Community Forest Management Group
CFU	Conservation Farming Unit
CIFOR	The Centre for International Forest Research
COMACO	Community Markets for Conservation
COVID 19	Coronavirus 19
CRB	Community Resource Board
CSA	Climate Smart Agriculture
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
DDCC	District Development Coordinating Committee
DFNRM	Decentralized Forest and Other Natural Resource Management
DIDP	District Integrated Development Plan
DNPW	Department of National Parks and Wildlife
DoA	Department of Agriculture
DoF	Department of Fisheries
EA	Executing Agency
ESERN	Environmental Social and Economic Review
ESA	Ecologically Sensitive Area
FAO	Food and Agriculture Organization of the United Nations
FD	Forestry Department
FIP	Forest Investment Plan
FSC	Forest Stewardship Council
GEF	Global Environment Facility
HCVF	High Conservation Value Forest
FQM	First Quantum Minerals
GEFTF	GEF Trust Fund
GEB	Global Environmental Benefits
GHG	Green House Gas
GIS	Geographic Information System
GPS	Geographic Positioning System
GRZ	Government of the Republic of Zambia
GTZ	German Technical Cooperation Agency
IDP	Integrated Development Plan
IFAD	International Fund for Agricultural Development
ILUP	Integrated Land Use Plan
IP	Impact Programme
IUCN	International Union for the Conservation of Nature
JFM	Joint Forest Management
KCF	Kasempa Community Foundation
KM	Knowledge Management
KMSAG	Knowledge Management for Sustainable Agriculture Group
LDCF	Least Developed Countries Fund

M&E	Monitoring and Evaluation
MNLR	Ministry of Lands and Natural Resources
MoA	Ministry of Agriculture
MOU	Memorandum of Understanding
MRV	Measurement, Reporting and Validation
MTR	Mid-Term Review
MWDSEP	Ministry of Water Development, Sanitation, and Environmental Protection
NBSAP	National Biodiversity Conservation Strategy and Action Plan
NDC	Nationally Determined Contribution
NGO	Non-governmental organization
NPC	National Project Coordinator
NR	Natural Resources
NTFP	Non-Timber Forest Product
NWP	North-western Province
PDCC	Provincial Development Coordinating Committee
PFMA	Participatory Forest Management Area
PIF	Project Identification Form (GEF)
PIR	Project Implementation Review
PIU	Project Implementation Unit
PPG	Project Preparation Grant (GEF)
PSC	Project Steering Committee
REDD+	Reduced Emissions from Deforestation and Forest Degradation (Plus)
SA	Sustainable Agriculture
SFM	Sustainable Forest Management
SI	Statutory Instrument
SLM	Sustainable Land Management
SNR	Sustainable Natural Resources
TBU	Technical And Business Unit
TE	Terminal Evaluation
TNC	The Nature Conservancy
TOC	Theory of Change
TOR	Terms of reference
TSU	Technical Support Unit
UN	United Nations
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAD	United States Agency for International Development
USD	United States Dollars
VAG	Village Action Group
WDC	Ward Development Committee
WLCP	West Lunga Conservation Project
WLMA	West Lunga Management Area
WWF	World Wildlife Fund for Nature
ZNFCA	Zambia National Forest Commodities Association

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SECTION 2: BACKGROUND AND SITUATION ANALYSIS (BASELINE COURSE OF ACTION)

2.1. Background and context

1. The project is designed to address the problems of forest and agricultural land degradation and biodiversity loss in North-western Province (NWP). The most current estimate of the annual deforestation rate for NWP for 2019 is given as 0.34%¹. Forest degradation is much more difficult to monitor and there are no area estimates of it although it is occurring over large areas due primarily to selective harvest of the best species for saw timber and for charcoal. Late dry season fires are another major cause of forest degradation. There are no sustainable, continuous cropping systems developed for the major crops in NWP. A large part of the cropping is slash-and-burn. The cropping cycle can be extended with the use of chemical fertilizers, but then yields drop off substantially after a few years. The main problem for biodiversity is the very widespread poaching of wildlife. Wildlife habitat is largely intact, but wildlife populations, even in the high priority West Lunga Complex, are severely reduced and a number of species have gone locally extinct.

TABLE 1: SUMMARY COUNTRY INFORMATION

	Year	Score
Population, total	2015	16,211,767
Population ages 0-14: 15-64: 65+:	2014	46: 51: 3
Population growth (annual %)	2015	3.1%
Rural population (% of total population)	2015	59
Population density (people per sq. km)	2015	21.8
Literacy rate, adult total (% of people ages 15 and above)	2015	85
Land area: Surface area (sq. km)	2015	752,610.0
Arable land (% of land area)	2013	5
Agricultural land (% of land area)	2013	31.9
Permanent cropland (% of land area)	2013	0
Irrigated land (% of cropland)	2017	not available
Forest area (% of land area)	2013	65.87
Nationally protected areas (% of total land area)	2014	37.9
Renewable internal freshwater resources per capita (cubic meters)	2014	5101
Annual freshwater withdrawals, agriculture: domestic: industry (% of total freshwater withdrawal)	2014	73: 18: 8
Crop production index (2004-2006 = 100)	2013	158.4
Livestock production index (2004-2006 = 100)	2013	216
GDP (current US\$)	2015	21,154,394.55
GDP growth (annual %)	2015	2.9
Agriculture: industry: manufacturing: services, value added (% of GDP)	2015	8.6: 31.3: 60
Ores and metals exports: imports (% of merchandise exports: imports)	2015	77.8: 10.0
Aid (% of GNI)	2014	3.8
Source: World Bank, 2017		

National Context

Socio-Economic Context

2. Zambia is a lower-middle-income country located in Southern Africa and covers an area of 752,614 square kilometres. It shares its borders with the eight (8) countries namely; Democratic Republic of Congo (DRC), Tanzania, Malawi, Mozambique, Namibia, Zimbabwe, Angola and Botswana.
3. Zambia's population was estimated at 15.5 million in 2015 and was projected to reach 23.6 million by 2030 assuming a net population growth rate of 2.8% per year². The population in rural areas is expected to grow from 8.2 million in 2011 to 14.5 million by 2035, while the population in urban areas was expected to grow from 5.6 million in 2011 to 12.4 million by 2035.

¹ Global Forest Watch 2020

² Integrated Land Use Assessment II, 2016C

4. Zambia's economy has for the most recent part been experiencing a positive growth with the country's real Gross Domestic Product (GDP) ranging from US\$ 12.75 billion in 2006 to US\$ 23.06 billion in 2019³. Despite the increase in per capita economic growth, Zambia's national poverty and inequality have remained stubbornly high.

Zambia's Forest Resources

5. The total forest cover for the country is estimated to be 45.9 million ha and represents 61.04% of the country's land surface area.⁴ The largest forest cover is located in North-western province which represents 19.23% of total national forest cover (Table 2). A forest, according to the Forests Act No. 4 of 2015, means any land with a tree canopy cover of more than ten percent and area of more than 0.5 hectares and includes young stands that have not yet reached, but are expected to reach, a crown density of ten percent and tree height of five metres that are temporarily under stocked areas.
6. The land cover map data (Figure 1) for time series 2000, 2010 and 2014, shows that human activities related to land use and land-use change in forests (LULUCF) reduced the forest cover from 47.07 million hectares (ha) in 2000 to 45.94 million hectares (ha) in 2014. Therefore, the total forest cover lost was estimated to be 1.1 million ha (1,110 km²) representing an annualized minimum of forest cover loss (deforestation) of 79,345 ha per annum (0.17%) based on an arithmetic mean analysis, with the weighted annualized loss indicating a maximum of 149,876 ha per annum (0.32%) over the period of 14 years. This forest loss (deforestation rate) was further analysed by use of the Stratified Area Estimator method and generated a weighted deforestation rate of 276,021 ha per annum for Zambia⁵.

TABLE 2: FOREST LAND COVER PER PROVINCE IN ZAMBIA

Name of Province	Total land area (ha)	Forest cover (ha)	% Proportion of forest cover	
			of country forest cover	of provincial area
1. Central	11,002,944	5,701,471	12.41	51.82
2. Copperbelt	3,132,839	1,896,348	4.13	60.53
3. Eastern	5,097,587	3,599,412	7.83	70.61
4. Luapula	5,056,908	3,269,517	7.12	64.65
5. Lusaka	2,550,745	1,409,189	3.07	55.25
6. Muchinga	8,680,596	6,359,200	13.84	73.26
7. Northern	7,682,748	4,277,891	9.31	55.68
8. Northwestern	12,582,637	8,833,712	19.23	70.21
9. Southern	6,835,816	3,756,345	8.18	54.95
10. Western	12,638,580	6,840,231	14.89	54.12
TOTAL	75,261,400	45,943,316	100.0	-

7. Forest income accounts for more than 20 percent of the total household income in Zambia⁶. Some households are more forest dependent than others, a function of factors such as proximity to urban markets and total income levels. It was noted that traders at the markets in urban and rural townships had no licences from the Forestry Department. The Forests Act No. 4 of 2015 provides for free trade in non-wood forest products, while major forest products (saw timber, firewood, charcoal etc.) require a permit.

³ World Bank Data, 2020

⁴ Integrated Land Use Assessment (ILUA) II, 2016

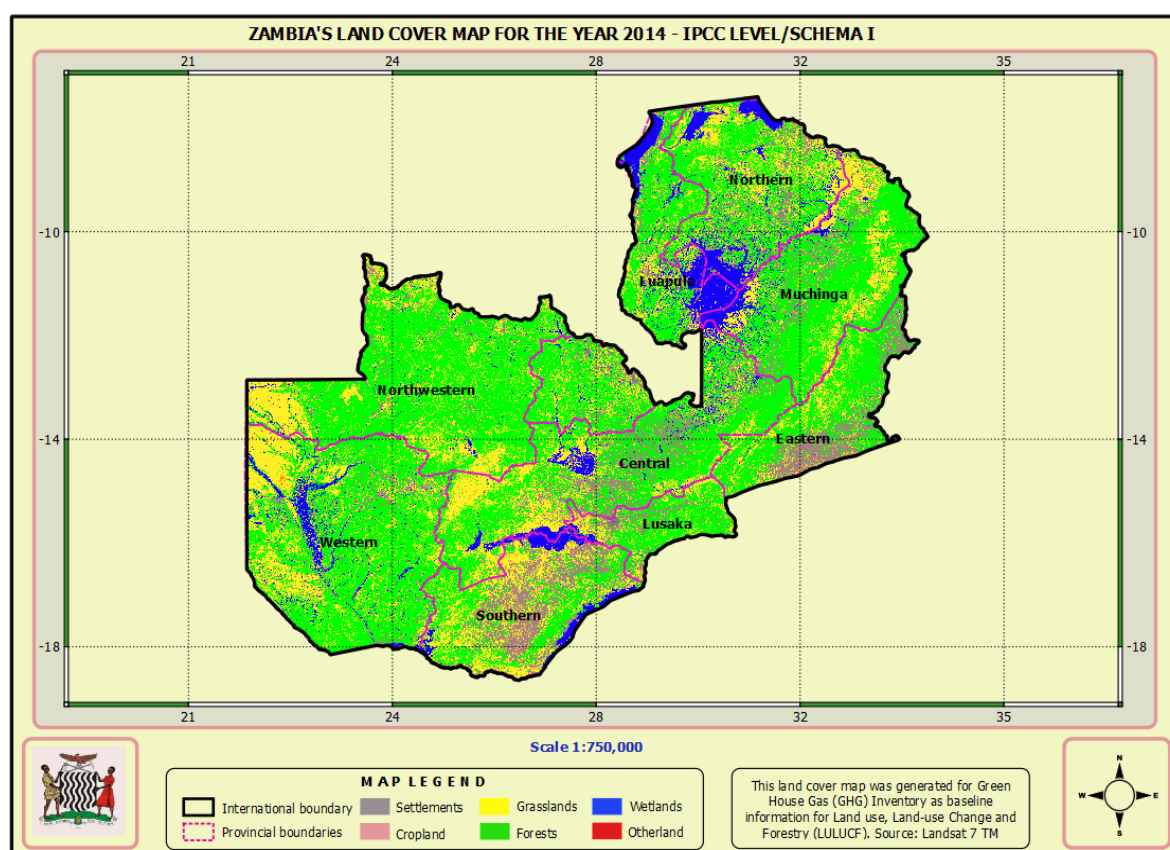
⁵ Integrated Land Use Assessment ILUA, 2016

⁶ Mulenga and Jumbe, 2007. The contribution of dry forests to rural livelihoods and to the national economy in Zambia

The Provincial Context

8. North-western Province covers an area of 125,826 km². The population of the province was 727,044 and a population density of 5.80 per square kilometre as of 2010⁷. It is the most sparsely populated province in the country. Solwezi is the provincial capital. The rural population constituted 77.45%, while the urban population was 22.55%. North-Western Province is bordered along Angola in the west, the Democratic Republic of Congo (DR Congo) in the north, Copperbelt Province in the southeast, Central in the south, and Western Province in the west.

FIGURE 1: FOREST COVER 2014



Forest Resources

9. North-western Province is endowed with a rich natural resource base of which forests form a very important component. 8,833,712 ha of the 12,582,637 ha⁸ of the province are covered by forests (Table 3). This is 19% of Zambia's total forest cover. Two national parks are found in NWP - the north-western part of Zambia's biggest National Park, Kafue National Park (KNP) and West Lunga National Park (WLNP). In addition, there are seven Game Management Areas (GMAs)⁹, 34 National Forests and 27 Local Forests. The National Forests cover an area of 2,080,476 ha while the Local Forests cover an area of 419,842 ha. The province has the most intact forest cover in the country, and the highest concentration of carbon storage. The majority of the people in the province depend on these forests for a significant part of their livelihoods and for supplements to their diet. These forests provide both wood and non-wood forest products. However, deforestation and forest degradation remain major problems in the dryland forests of NWP, with an annual provincial deforestation rate for NWP for 2019 given as

⁷ Central Statistics, 2010

⁸ Integrated Land Use Assessment (ILUA), 2016

⁹ The Kafue National Park, Kansonso Busanga GMA, Lunga-Luswishi GMA and East Lunga National Forest also collectively form an integral part of the trans-national Kavango-Zambezi Transfrontier Conservation Area (KAZA TFCA), an area located in the Kavango and Zambezi river basins where Angola, Botswana, Namibia, Zambia and Zimbabwe converge.

0.34%¹⁰. This is the third highest rate of deforestation for the ten provinces in Zambia. Direct and indirect causes are analysed in section 2.3 and Figure 2 provides an overview of the complex drivers of deforestation and forest degradation in Zambia.

TABLE 3: LAND COVER DISTRIBUTION BY PROVINCE

Name of Province	Settlements (Built-up)	Cropland Area (Ha)	Grassland Area (Ha)	Forest land Area (Ha)	Wetland Area (Ha)	Other land Area (Ha)	Total land Area (Ha)
1. Central	54,642	1,922,366	2,366,248	5,701,471	954,208	4,009	11,002,944
2. Copperbelt	44,720	534,864	573,383	1,896,348	77,208	6,316	3,132,839
3. Eastern	43,343	1,058,636	363,508	3,599,412	24,559	8,129	5,097,587
4. Luapula	46,231	461,644	838,800	3,269,517	434,426	6,290	5,056,908
5. Lusaka	44,651	459,080	611,473	1,409,189	21,023	5,329	2,550,745
6. Muchinga	44,098	592,434	970,021	6,359,200	704,378	10,465	8,680,596
7. Northern	43,955	748,691	1,848,767	4,277,891	756,745	6,699	7,682,748
8. Northwestern	54,701	283,015	2,788,981	8,833,712	589,098	33,130	12,582,637
9. Southern	85,464	930,931	1,423,026	3,756,345	635,322	4,728	6,835,816
10. Western	39,853	191,235	4,605,976	6,840,231	880,659	80,626	12,638,580
TOTAL	501,658	7,182,896	16,390,183	45,943,316	5,077,626	165,721	75,261,400

Livelihoods

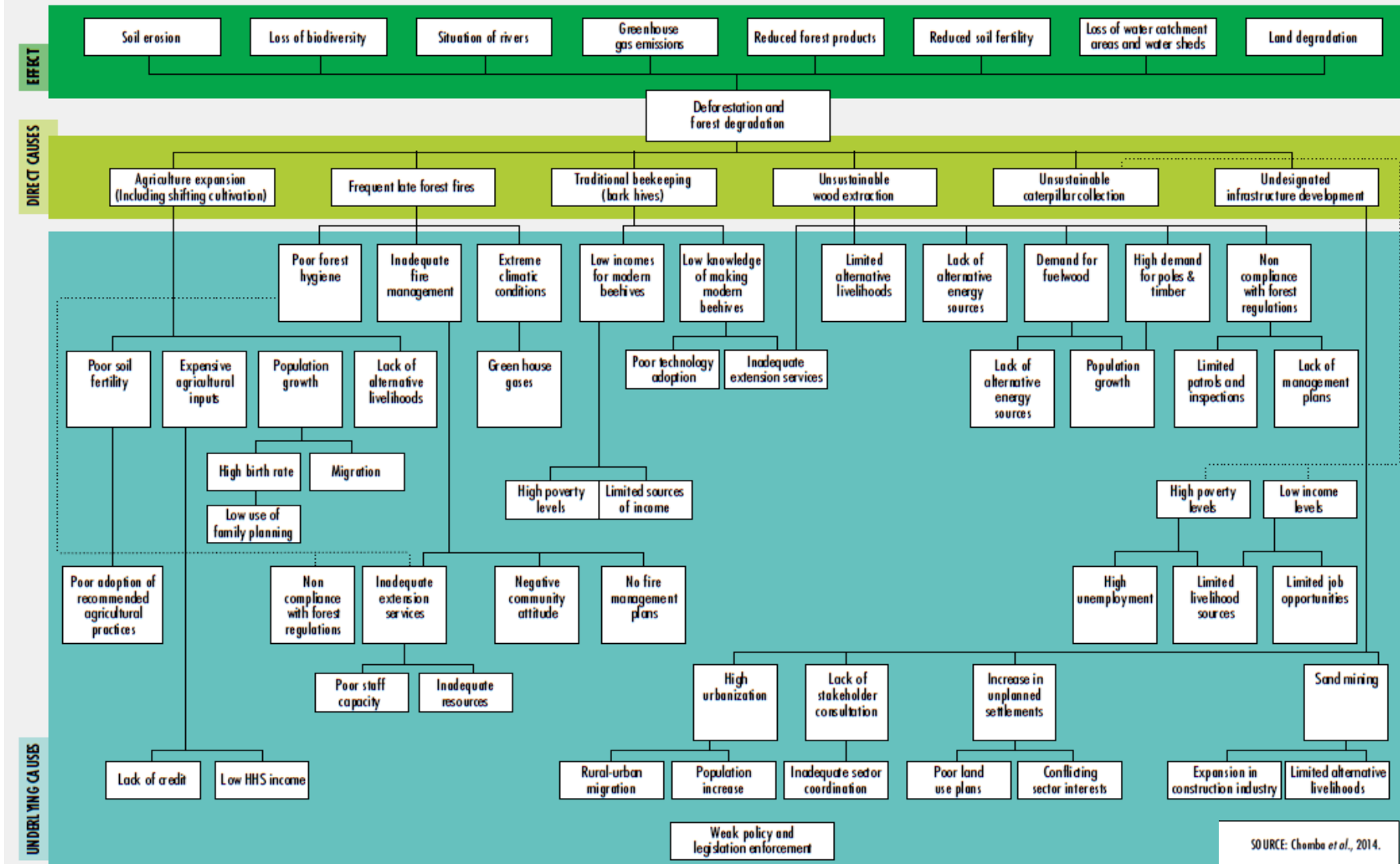
10. Rural communities living in communal areas and adjacent to the GMAs in NWP depend heavily on the dryland forests for their day-to-day subsistence, income generation and ecosystem services. The forest resource also acts as a ‘safety net’ for rural communities when coping with climatic shock and the loss of agricultural livelihoods to drought and flood. About 75% of rural households earn income from the sale of agricultural crops, while more than 50% earn income from the sale of forest-based products. Rain-fed small-scale subsistence agriculture in maize, beans, soya beans, groundnuts, pineapples and cassava production are the main livelihood activities; along with livestock (cattle, goats, pigs and sheep) and poultry farming. There is also a high degree of dependency of these rural households on forest resources for home consumption and income; including firewood, poles, charcoal, honey, mushrooms, roots, grass, wild fruits and caterpillars.
11. Rural poverty is severe. More than 77% of the population of the NWP live in rural areas, with 46% living in ‘extreme poverty’. The majority of all households (90%) in the province do not have access to electricity. Most depend on natural forest resources, which provide an important source of energy for cooking; 72% of households rely on firewood, and more than 22% on charcoal. Households in the NWP reportedly clear on average 0.53 ha of forest per annum. Low domestic earnings, coupled with high demand for fuelwood, have combined to exert pressure on forest resources in rural NWP. Poverty is also limiting the extent to which households in the province can choose more sustainable alternatives to wood fuel and make long-term decisions about land management. The food and income sources for the poor are heavily reliant on subsistence crops, sales of livestock and natural resources, and casual labour (mostly paid for in food), making them vulnerable to climate-induced crop failure during droughts and floods, when excessive and unpredictable rainfall leads to water logging. Further, population growth and internal movements of people into the province (often associated with open pit, artisanal copper and cobalt mining operations and agricultural expansion) has further increased the pressure on previously uninhabited areas of forests both on communal and state land.
12. Compounding the challenges of rural poverty is a changing climate, which models suggest will continue to change dramatically over the coming decades. The country is already experiencing climate-induced hazards. Droughts and floods have increased in frequency and intensity over the past few decades and

¹⁰ Global Forest Watch 2020

have adversely affected food and water security, water quality, energy generation, and livelihoods of people, especially in rural communities. The future trends in the country are toward a higher average temperature, a possible decrease in total rainfall, and some indication of more intense rainfall events. Rural poor communities, living in forest landscapes and dependent largely on agriculture and natural resource use, are increasingly vulnerable to this inherently highly variable climate. With climate change, crop yields are predicted to suffer decreases of at least 20% by 2050 with 40% risks of crop failure for maize. Therefore, investing in making agriculture more resilient is crucial. Conserving forests and woodlands contribute also to agricultural resilience because of the role of forestland in the water regulation and cycling, in the protection of pollinators and in mediating temperature.

FIGURE 2: THE COMPLEX DRIVERS OF DEFORESTATION AND FOREST DEGRADATION IN ZAMBIA

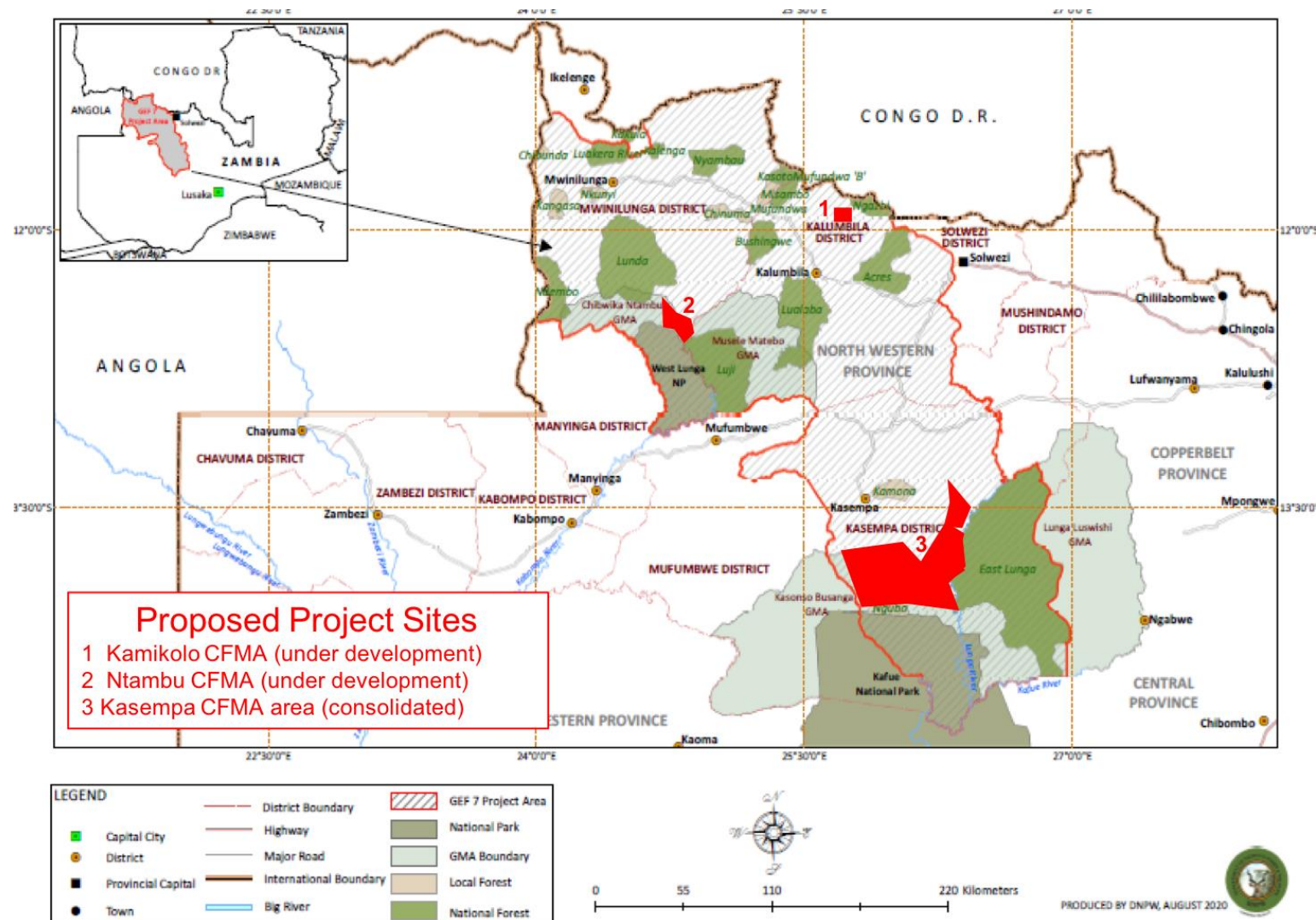
THE COMPLEX DRIVERS OF DEFORESTATION AND FOREST DEGRADATION: PROBLEM TREE FROM AN ANALYSIS IN ZAMBIA



Location of the Project Sites in NWP

13. The following criteria were developed and applied for the selection of the specific districts in NWP that the project will work in: a) the existence of forest and agricultural lands threatened by land degradation; b) forests and waters of suitable categories for participatory management: Game Management Area (GMA), open (communal) lands and local forests and rivers with significant freshwater fisheries; c) biodiversity of global value; d) the potential for co-financing; e) at least one site with forests that can be managed sustainably for charcoal; f) the motivation of communities and other stakeholders; g) preferably, at least one site with existing CFMG making an early start up for the development of improved management systems possible.
14. The districts identified through this screening are Mwinilunga, Kasempa and Kalumbila and each district contains one site (Figure 3).
15. The Mwinilunga District site (the future Ntambu CFMA) focuses on the north central portion of the West Lunga Complex (comprising the West Lunga National Park and its surrounding Game Management Areas (GMAs) with its high biodiversity value and strong co-financing from WWF and the West Lunga Conservation Project.
16. The Kasempa District sites are part of the Greater Kafue Ecosystem comprising the Kafue National Park and its surrounding GMAs. Two large and newly established CFMAs are adjacent to the East Lunga National Forest and are connected to Kafue National Park through the Lunga Luswishi GMA. Of the two, the project will support the development of the Kelongwa Makaba CFMA. The Kasempa site also include five of the six CFMA in Kasempa District that were created by the Finnish-funded project “Decentralised Forest and other Natural Resources Management Programme (DFNRMP)” that concluded in 2019. The five are inside Kasonso Busanga GMA. Although the project ended before viable forest management systems could be developed, the existing community CFMG structures will allow management planning and implementation and enterprise development to develop at an early date.
17. In the Kalumbila District, the future Kamikolo CFMA is found on forests found on communal lands east-northeast of Kalumbila town. Although the forest is relatively undisturbed for now, it is in an area with major influx of migrants attracted by the economic prospects that the mines bring with them. The Kalumbila site also enjoys co-financing from First Quantum Minerals (FQM), and both the Mwinilunga and Kalumbila sites will continue to benefit from FQM’s strong environmental and social investments for at least the life of mine, projected for another 17 years.

FIGURE 3: NORTH WESTERN PROVINCE AND PROJECT AREA IN THE THREE TARGET DISTRICTS



The Three Project Districts

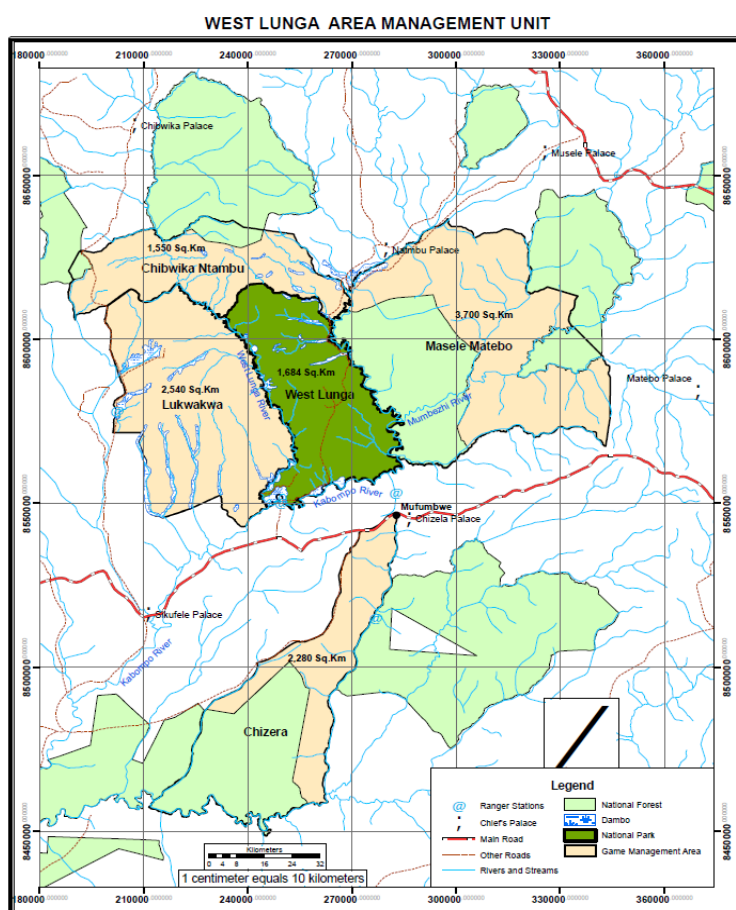
Mwinilunga District – Ntambu CFMA

18. Mwinilunga District is the second largest district in North-western Province, located 286km from the provincial capital (Solwezi) and 872km from the national capital (Lusaka), and covers an area of 18,763sq km. The district has two international borders with D.R. Congo on the north and Angola on the west, and shares boundaries with five districts - Kalumbila in the east, Mufumbwe in the south, Kabompo and Manyinga in the south-west, and Ikelenge in the north-west.
19. The district experiences a Miombo vegetation type with average annual temperatures ranging from 6°C to 15°C in June and 24°C to 32°C in December, and average annual rainfall of 1,386mm, falling between October and April. The district is the source of the Kabompo and Lunga rivers.
20. There are three existing CFMGs in Mwinilunga with a total area of 586 ha namely Kamanengu, Kapundu and Muzhila. A fenced community game reserve has been established in Chief Ntambu's area.

FIGURE 4: WEST LUNGA AREA MANAGEMENT UNIT

The West Lunga Complex

21. The West Lunga Complex (also referred to as the West Lunga Area Management Unit) includes West Lunga National Park, Musele Matebo GMA, Chibwika Ntambu GMA and Lukwakwa GMA and adjoining communal areas (Figure 4 to the right).
22. Biodiversity Value: The West Lunga Complex is of very high biodiversity value, dominated by pristine *Brachystegia* woodland (miombo) and vast tracts of mavunda dry evergreen forests, interspersed with large grass plains and seasonally flooded dambos (grassland depressions). The West Lunga and Kabompo Rivers form the east, west and southern boundaries of the West Lunga National Park and the Shinene and Wisaki Rivers make up the northern boundary. The West Lunga, Mwombeszhi and Kabompo Rivers are substantial perennial water courses that are fed by a number of smaller streams, tributaries and grassland watersheds that converge in the Kabompo and eventually drain into the Zambezi River. The protected areas of the Complex have connectivity to the Kafue ecosystem and there is potential to create a contiguous conservation area from the Kafue, through West Lunga and into Angola.
23. The ecological significance of the Complex is both hydrological, in its contribution to the head waters of the Zambezi and Kafue River systems and geophysical due to the presence of large tracts of mavunda forest (also called muhulu forests). Mavunda is a local term used to describe the understory of shrubs, scramblers and climbers that form a dense thicket and comprise the chief characteristic of



Cryptosepalum forests (Fanshawe 1969). *Cryptosepalum exfoliatum*, sub spp. *pseudotaxus* constitutes the dominant canopy species throughout the majority of the mavunda's range but other canopy species do occur and include *Brachystegia spiciformis*, *Burkea africana*, *Guibourtia coleosperma*, *Marquesia macroura* and *M. acuminate*. Monotypic stands of *Cryptosepalum* are not uncommon in mavunda forests but there are also significant areas where no *Cryptosepalum* occurs and the canopy is dominated by *Marquesia* spp.

24. Rainfall in the region usually exceeds 1,400mm per year which enables forest colonization on poor soils. The soils are predominantly well drained, deep Kalahari sands with limited nutrient retention capability. Mavunda forests have complex mycorrhiza horizon interactions with soil fungi that enable them to populate the soils successfully and maximize nutrient uptakes. The total woody flora is between 900 and 1,000 species which is the highest of any district in the territory and includes over 50 woody species endemic to the district (Fanshawe 1969).
25. These factors make this a unique forest complex in Zambia and emphasize the need for its conservation action. Mavunda occurs in several large blocks in the border regions of Zambia, Angola and the Democratic Republic of Congo but West Lunga is the only sector that has any formally recognized protective status. Most of the miombo forests across southern Africa are secondary forests that started out as mavunda or similar closed canopy forests. They have been degraded by man's repeated use of fire for hunting and agriculture.¹¹ Most of these mavunda forests have long since been converted to miombo, making their conservation a high priority.
26. The geological formations of the Kabompo watershed are ancient. West Lunga National Park is defined on the east and south by the Kabompo River and on the west by the West Lunga River. Numerous rivers, streams and floodplains feed into these waterways and act as regulators, sponges and filters to absorb and release flood waters during the 5 to 6-month rainy season. The area receives between 1,200mm and 2,000mm of rain per year and the geophysical environment of the area regulates the hydrological cycle that feeds into the head waters of the Zambezi and Kafue River systems. This hydrologic configuration is not well understood and negative impacts on the ecology of the area could have detrimental downstream effects. The Zambezi and Kafue Rivers provide millions of people with livelihood sources and both house significant hydro power infrastructure that generates more than 60% of Zambia's electricity.
27. There are a wide variety of habitat types throughout the protected area which was once a refuge for a multitude of wildlife species. Large herds of megafauna populated the park and GMAs and it is believed that nursery herds of elephant used to utilise West Lunga as a breeding sanctuary. There has been sustained hunting pressure throughout the entire system over several decades and this has reduced the wildlife populations to local extinction or critically endangered. Fire has also been prevalent during the dry seasons and these two factors have created negative feedbacks and rendered large expanses of the habitat "biologically barren."
28. Governance and Management: West Lunga National Park (WLNP) is under the jurisdiction of the Department of National Parks and Wildlife (DNPW) which falls under the Ministry of Tourism and Arts. The three adjoining GMAs (Lukwakwa, Chibwika Ntambu, Musele Matebo) and nearby Chizela GMA belong to the local Chieftaincies and their respective communities but are under the jurisdiction of DNPW for all matters relating to wildlife. The GMAs are classified as protected areas where controlled, sustainable utilisation of natural resources is permitted. However, the communities derive little financial benefit from them because of the lack of wildlife.

¹¹ Evans, Monica. 2020. Miombo Forests: the vast southern African drylands forests hiding in plain sight.

<https://news.globallandscapesforum.org/45792/miombo-woodlands-the-vast-southern-african-dryland-forests-hiding-in-plain-sight/>

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29. In the protection and development of the West Lunga Complex, DNPW works in partnership with Trident Foundation, a Zambian company limited by guarantee that was established in 2014. The mission of the Foundation is to support social and ecological development in north-western Zambia through health, education, agriculture, local business development, livelihood support, and wildlife and biodiversity conservation initiatives. The primary donor for the Foundation is Kalumbila Minerals Limited, a subsidiary of First Quantum Minerals (FQM).
30. Trident Foundation has been working closely with DNPW's Area Management Unit for West Lunga which has formed the foundation on which a variety of Public, Private and Community Partnerships are being developed. In 2020 contract terms will be agreed that devolve managerial control of some of the West Lunga Complex's protected areas to the West Lunga Conservation Project Ltd, a wholly owned non-profit Public Benefit subsidiary of FQM, in partnership with DNPW and Community Business Units.
31. The Trident Foundation and Kalumbila Minerals Ltd., through the West Lunga Conservation Project (WLCP), have invested US\$4.3 million in conservation and wildlife activities in the West Lunga Complex since 2014. The project has primarily focussed on supporting DNPW's conservation management activities on the ground - recruiting, training, equipping and paying wildlife rangers, vehicle maintenance and transport support, infrastructure development and communications. A number of conservation related livelihood programmes have been developed in surrounding communities including the creation of a Community Game Reserve in Ntambu Chiefdom, a honey out grower programme and a Community Tourism Camp.

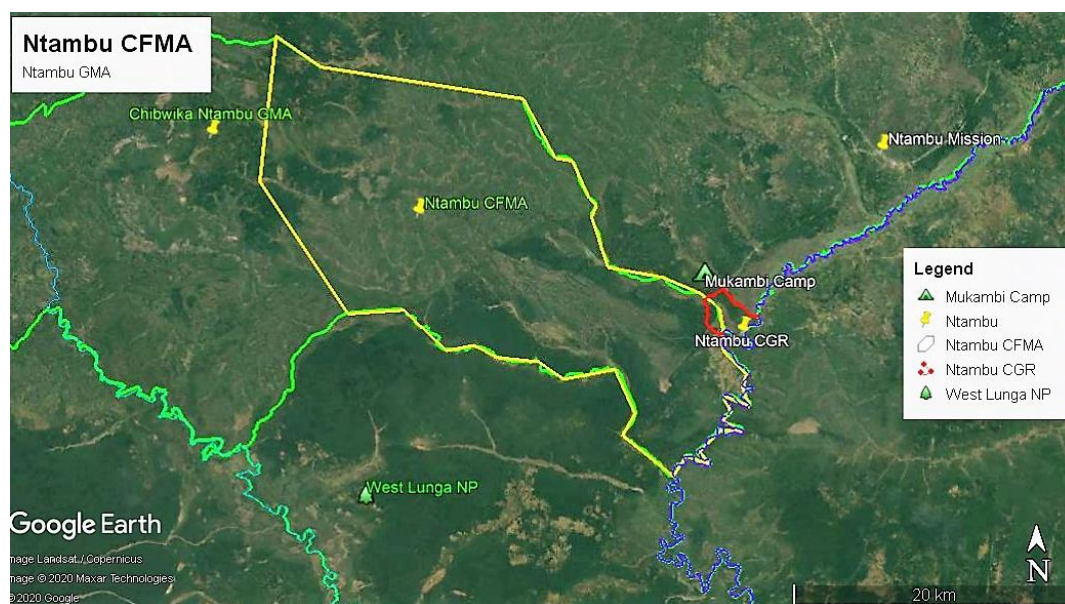
Upper Zambezi Programme

32. The West Lunga Complex and the Kabompo watershed is an important part of WWF's Upper Zambezi Programme that has been operating in the area for the last three years. They have been working with Civil Society Organizations (CSOs) across the Kabompo Catchment to raise the profile of freshwater awareness and highlight the value that freshwater provides in terms of ecosystem goods and services provision, not only locally but also regionally. Training is helping to inform CSOs on how to get involved in the Environmental Impact Assessment process and how they can have a voice with regards to developments in and around their communities.
33. WWF have established a strong baseline with very comprehensive understanding of fish diversity in the catchment and the gaps on this that exist. Currently resource status differs regionally and areas with higher human habitation have a larger impact on the resource than those in more rural, less heavily populated reaches. Fish harvesting is particularly high around the large Ntambu floodplains. The fishing effort needs to be carefully monitored there to avoid a 'tragedy of the commons' situation.
34. In terms of biodiversity threats, a few larger more iconic species have decreased in catches according to anecdotal evidence of their abundance in the 1970s. The Nembwe/Yellowbelly *Serranochromis robustus* is now almost absent and the number of tigerfish *Hydrocynus vittatus* is largely decreased. These could be two very good indicators of change over time as we now have a relatively robust baseline in place.
35. WWF has invested about US\$350,000 per year (2018-2020) and will continue at about the same level for the next four years. The focus will shift in the next phase from fact-finding to more conservation implementation focused work. The partnership with the project will have a particular focus on the aquatic biodiversity in the Ntambu floodplain. In line with the major themes of their next phase, WWF will provide the technical support in two of the project's sites that fall within the Kabompo's watershed. WWF's Programme has discovered a potentially new species of fish at Ntambu and has identified two invasive alien species that threaten the ecosystems -- the Nile Tilapia *Oreochromis niloticus* and Australian redclaw crayfish.

Ntambu CFMA

36. The area provisionally defined as the Ntambu CFMA, which is yet to be formalised and registered with the Department of Forestry, comprises approximately 50,000ha of the eastern side of Chibwika Ntambu GMA (see figure 5). It falls within Chief Ntambu's chiefdom, and is the closest area of GMA to the settled areas of Ntambu and is therefore exposed to the highest level of threat to the integrity of the forest, but also due to its relative accessibility, presents the greatest opportunity for sustainable development under improved management.

FIGURE 5: NTAMBU CFMA



37. The Chibwika Ntambu GMA is dominated by miombo woodland in various forms, primarily *Julbernardia* and *Isobertia* species. *Brachystegia* is ubiquitous throughout all the forms encompassing more than 12 species. Remnant patches of mavunda thicket can be found that have representation of *Cryptosepalum*. There are also sand forest areas dominated by *Hymenocardia*, *Combretum* and *Terminalia* spp.
38. The rivers and streams have riverine forests dominated by *Syzigium* of which there are various species and sub species. *Xylopia* and *Diospyrus* is also common in the riverine forests. There are unique riparian and 'mushitu' forests in flooded dambos and margins which are clay-based and hold water all year round. Flooded grasslands intersperse the area. There are also significant groves of *Uapaca* forests that indicate lateritic soils. A major woodland category present in the area is termitaria, found on the huge and ancient termite mounds of *Macrotermes Falciger* that are centuries old and that are very common in this GMA. They have their own vegetation type unique to the termitaria that contain *Boscia*, *Diospyrus* and *Sterculia* (among others) as well as unique grass species.
39. The proposed Ntambu CFMA is not populated. 85 families farmed in the area until 2019, when, through consultation with the traditional leaders, they voluntarily relocated to farmland outside the GMA provided for them by the chief, supported by farming inputs provided by Trident Foundation. This move paved way for the development of a CFMA, and the farmland previously utilised is now regenerating as forest.
40. The area allocated to CFM is utilised by local residents for the extraction of forest products, with beekeeping a major activity – the area supports some of the 400 beekeepers and 4,000 hives assigned to

them by Trident Foundation in collaboration with a private honey processing company in North Western Province, Natures Nectar. The West Lunga river also hosts a number of small-scale fishers.

41. A 1,000ha Community Game Ranch sits on the northern edge of the area, launched in 2020 and with all establishment costs being met by Trident Foundation. It is intended to provide meat and revenue from both consumptive and photographic tourism over time.
42. DNPW conducts some fire management work in the forest and limited resource protection operations.

Site Specific Threats, Challenges and Opportunities

43. General threats are summarized after this section on site descriptions. Only site-specific threats are listed in each of the site descriptions.
 - **Increased Logging:** External companies, mainly driven by the Asian market for tropical hardwood lumber, have established temporary sawmills across the West Lunga landscape, though the area identified for the CFMA is less vulnerable than more isolated areas to the west. Monitoring of the activities of the logging companies is inadequate and it is unclear as to how thorough the forest inventories that are required before logging permits are issued, have been. These companies do little in the way of local capacity building or community development. The majority of the timber value is realised outside the country by foreign entities.
 - **Uncontrolled Fishing:** The Department of Fisheries issues licences for 9 months at a cost of ZMW50 (ca. US\$2.50) per applicant. The fishermen are not allocated fishing grounds, they are not monitored and they are not bound by any legal conditions for the equipment they use. The fishermen are active along the three major river systems in West Lunga area – Musangezhi, Kabompo and West Lunga, the latter bordering the CFMA. Like all communal fishing areas, an increased number of fishers, the transition from passive netting to active methods of fishing (driving fish into nets), the use of illegal fishing technologies and the routine violation of the bans imposed on fishing to protect breeding, have all led to a widespread reduction in the quantity and quality of fish catches on the West Lunga River.

Challenges

- **Lack of CFMA agreements:** While the traditional leadership and communities have signalled their intention to develop a CFMA, the process has not yet been started. It is anticipated that the process will commence in early 2021.
- **Forest Management Plan:** Since there is not yet a formal process towards the development of a CFMA, there is not a plan for forest management, a detailed forest inventory or an accurate survey diagram.

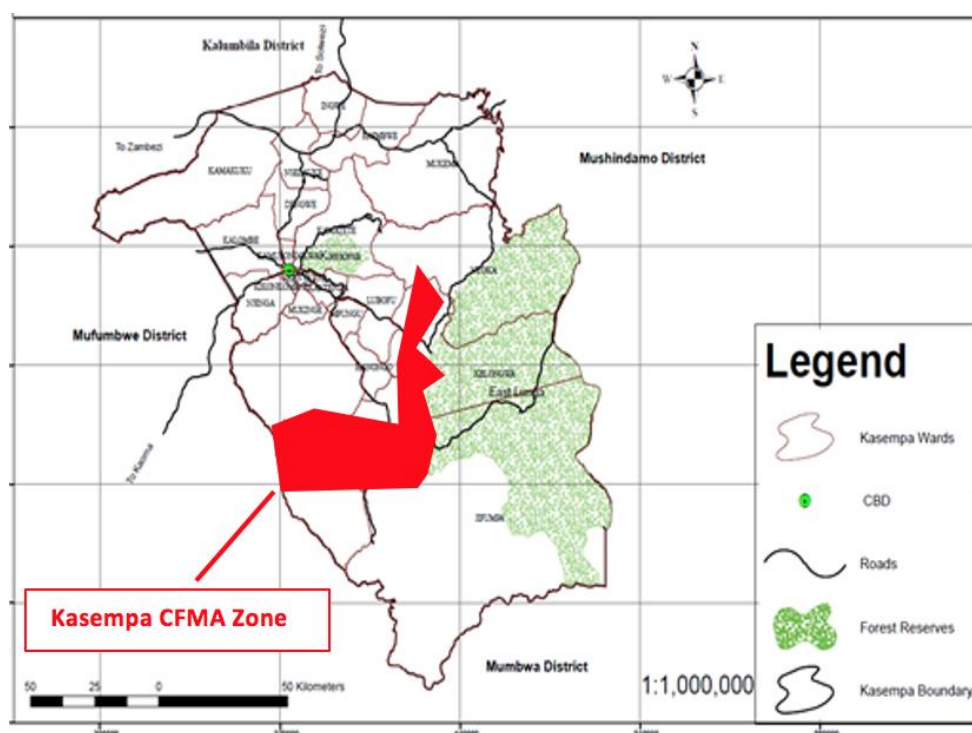
Opportunities

- **Management and Support Entity:** The fact that there is an existing external support entity, Trident Foundation, active in the landscape and in partnership with communities and community structures, ensures that forest conservation and management plans will be well resourced.
- The proposed CFMA is close to settlement**, and within easy reach of the mining town of Kalumbila, presenting opportunity for the development of community tourism initiatives and offers a local market for forest products derived from the forest.

Kasempa District

44. Kasempa District is located on the western bank of the Lufupa River as it flows south into the Kafue National Park and it has a total landmass of 20,821 sq km. The district shares boundaries with five other Districts, namely; Solwezi in the northeast, Mufumbwe in the west, Mpongwe and Kapiri Mposhi in the east, and Mumbwa in the South east (Figure 6).

FIGURE 6: THE KASEMPA DISTRICT SITE



45. The mean annual rainfall is 1,184mm. The wettest month is December while the hottest month is October with the average temperature of 23.5°C and June is the coolest with average temperature at 15.8°C. The southern section of Kasempa District falls within the Kafue National Park, which is buffered in the district by the Kasonso Busanga GMA to the west and Lunga Luswishi GMA in the east. These areas comprise the north western sector of the Greater Kafue Ecosystem, which is Zambia's largest contiguous protected area, spanning approximately 66,000 sq km and contains 70% of Zambia's habitat types, including extensive floodplains and wetlands, papyrus swamps, miombo, mopane and riverine woodlands, and deciduous African teak forest. This landscape alone accounts for 51% of wildlife conservation land in Zambia and supports 158 species of mammals, 515 species of bird, 58 species of fish, and 106 species of reptiles and amphibians. This ecosystem forms the northern end of the five-country Kavango-Zambezi Transfrontier Conservation Area (KAZA) that connects key conservation areas in Zambia, Botswana, and Namibia. The landscape's communal conservation areas cover 44,000 sq km and are essential components of the overall ecosystem.
46. The Greater Kafue Ecosystem provides a stronghold for multiple endangered and threatened species including Zambia's largest cheetah population (*Acinonyx jubatus*) and relatively healthy populations of African lion (*Panthera leo*), leopard (*Panthera pardus*), and African wild dog (*Lycaon pictus*). Its 27 antelope species, including rare species like puku (*Kobus vardonii*), red lechwe (*Kobus leche*), and roan antelope (*Hippotragus equinus*), exceed the number of every other national park in Africa. The majority of the mammal species present across the ecosystem are represented in the north western sector, including in the Kasonso Busanga and Lunga Luswishi GMAs, which are designated as 'secondary hunting areas' in the terminology of DNPW, one classification below 'prime'.
47. From a vegetation aspect, the Kafue ecosystem's expansive forests are comprised of several types of woodland. Important timber species include Mukwa (*Pterocarpus angolensis*), Rosewood (*Guibortia coleosperma*), Pod Mahogany (*Azalia quanzensis*), Mukula (*Pterocarpus chrysothrix*) and Miombo species (especially *Brachystegia* and *Julbernardia* spp). These forests provide crucial wildlife habitat, offer valuable sources of sustainable timber and non-timber income (if the forests are properly managed) for local communities, and deliver vital ecosystem services like carbon sequestration and

watershed protection for the Kafue River, which provides water for the capital. 1,043,300ha of forest are formally protected as national and local forests which overlap with GMAs. The north western sector is dominated by the miombo forest type, which is recognised globally as a unique eco-region with a characteristic set of species, dynamics, and environmental conditions. The eco-region is of outstanding importance to conservation and broadly correlates to the Zambezian Centre of Endemism. Despite its large extent over much of Zambia and other parts of central Southern Africa, it is non-the-less listed as a vulnerable vegetation type because of the impact of human activity.

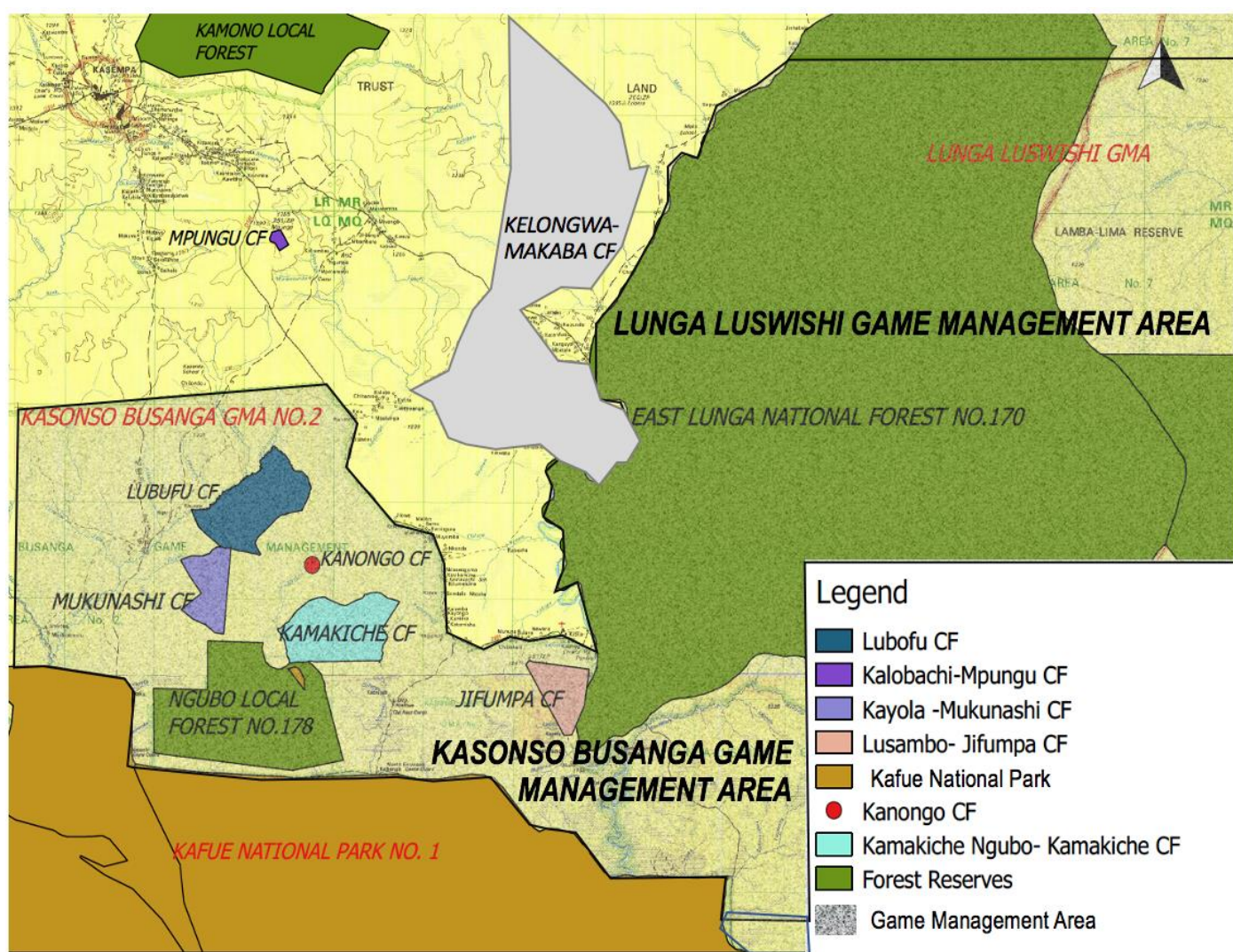
48. The central part of Kasempa District hosts eight CFMAs and is part of the corridor linking the Kafue National Park, East Lunga National Forest and Ngubo Local Forest. The area has high species diversity dominated by Miombo woodland on rocky plateau, with deep clay and sand soils. The dominate genera include *Brachystegia*, *Jubernadia* and *Isoberlinia*. These woodlands are moderately high canopy; semi-evergreen, three-genera-dominated woodland types and are interspersed with more restricted woodland such as *termiteria* and drainage-line grasslands (*dambos*) and swamps. The Miombo is a “high-carbon” landscape, with an abundance of woody biomass and with species highly adapted to fire. The forest has already been markedly impacted by human activity, specifically fire and agriculture encroaching along the riverbanks.
49. The forests play vital roles in people’s livelihood as major sources of timber, traditional medicine, wood fuel, food (honey, mushroom, caterpillar, *chikanda* tubers produced by a diversity of orchid spp., etc.) and building materials. They also act as a livelihood safety net for communities when agricultural livelihoods are impacted by climatic shocks such as drought and flood. Other important roles at a national and international level include the provision of ecosystem services such as the maintenance of carbon and hydrological cycles, and the conservation of watershed and soil environments¹².
50. Eight CFMAs have been created in Kasempa District, including six small CFMAs. Five of them are located within the Kasonso Busanga GMA and the sixth is too small and isolated from the Kafue Complex to be of strategic interest to the Project. They were created by the Finnish-funded project “Decentralised Forest and other Natural Resources Management Programme (DFNRMP)”. The project ended prematurely before any meaningful investments were made in developing forest management systems or in forest-based enterprise development. A more detailed assessment is required to ascertain whether these CFMAs are viable – either individually or as an aggregate – from the point of view of being economically viable.
51. Kelongwa Makaba and Butanda CFMAs have been newly created (and only declared in August 2020) by the Kasempa Community Foundation working with the district FD officers.
52. An outline of the Kasempa CFMAs of direct interest to the Project is provided in the table 4:

TABLE 4: OUTLINE OF KASEMPA CFMAS

No.	Name of CFMA	Hectares (Ha)	Number of Adult Members	Number of Honorary Forest Officers
1.	Lujika Jifumpa	4,406	107	05
2.	Kotobola Kamalumbwe Lubofu	1,692	112	05
3.	Kamakechi Ngubo	7010	90	04
4.	Kanongo-Kalasa Ngubo	6,353	85	03
5.	Mukunashi-Kanyola	4,686	107	04
6.	Kelongwa Makaba	54,200	700	28
Total		78,347	1,201	49

¹² The information for these four paragraphs was supplied by the head forester for NWP, Mr. Maxwell Phiri.

FIGURE 7: THE KASEMPA CFMAS



Kelongwa Makaba CFMA

53. The Kelongwa Makaba and Butanda CFMAs were created on communal lands with the Kasempa Community Foundation (KCF), a company limited by guarantee that aims to reduce poverty through sustainable land use and management of natural resources (among other ventures that are envisaged) that are endowed in the district, including through the promotion of eco-tourism in the district.
54. KCF has a strong governance structure, with a full-time volunteer manager reporting to a Board of Trustees, of which there are seven including His Royal Highnesses Senior Chief Kasempa and Chief Ingwe. It has established the CFMAs, with its own resources and no external support apart from that provided by the Forestry Department, on communal lands outside the East Lunga National Forest and the Lunga Luswishi GMA. The CFMAs, namely Butanda (115,700ha in Sub Chief Nyoka's area) and Kelongwa Makamba (54,200ha in Sub Chief Kisengwe's area), have been surveyed by the Forestry Department and were declared in August 2020. Forest management plans must be prepared and approved before they receive formal recognition from the FD through signed agreements with the CFMGs. KCF has already deployed forestry protection officers and is attempting to monitor and control the cutting of trees and poaching of wildlife left in the area.

55. Butanda CFMA is too large and is beyond the means of the Project to support and is not described further here. Kelongwa Makamba is dominated by Miombo woodland and has good species diversity. The main genera include *Brachystegia*, *Jubernadia* and *Isobertlinia*. There are also tracts of riverine forest along the banks of the Lunga River which forms the eastern boundary of the CFMA. The forest area is ecologically important in that it forms part of a 'buffer' forested conservation zone between communal lands to the west and the East Lunga National Forest and the Lunga Luswishi GMA to the east. In addition to the Butanda CFMA, the Mujimanzovu Chiefdom is also working towards the development of a conservation zone of over 12,000ha with the support of TNC, meaning that, if all efforts are successful, there will be a large and contiguous protected area along the western bank of the Lunga River, with the majority under community management.
56. The CFMA is also important to the maintenance of ecological integrity of the watershed of the Lunga River. The Lunga River is the main tributary of the Kafue River and the Kafue River is essential to the economy of Zambia because of the most of the hydro-power generation stations in Zambia are located on the Kafue River. It is especially important to conserve the watershed of the Lunga because it is in better condition than those of its other tributaries.
57. KCF has a strong emphasis on creating revenue from the sustainable management of its CFMAs, including exploring opportunities for the development of a REDD+ forest carbon project, the development of supply chains for non-timber forest products such as honey, caterpillars and mushrooms and the conservation of aquatic biodiversity and sustainable management of fisheries on the Lunga River.

Challenges and opportunities

58. There are no site-specific threats of note to Kelongwa Makamba. Two challenges are cited:
- **Development Zones** have been designated where communities are currently located. These zones are meant for human settlements and other productive activities, especially agriculture. This is community planning for future development needs and in anticipation of some level of population growth, but such a land use must remain outside of the boundaries of the CFMA.
 - **Formal Recognition:** The formal recognition of Kelongwa Makamba by the Forestry Department is contingent upon the completion and approval of a forest management plans. TNC has awarded a small grant to KCF for development of the forest management plan for Kelongwa Mukamba and they are actively working on developing the plan.
 - **Influx of farmers with destructive cropping practices.** Like so much of NWP, the major threat to the forest is the conversion to cropland. This has been accelerated by an in-migration of farmers from outside the district – farmers whose agricultural practices are ill-adapted to the conditions at Kasempa.

Opportunities

- **Scale:** The size of the Kelongwa Makamba CFMA fits well within the feasibility of the Project to support. The 54,200ha presents substantial opportunity for business modelling, the development of a TSU/BU with professional and technical staff and revenue generation at sufficient scale to create financial sustainability. The development of a sound management system for Kelongwa Makamba can serve well in the future for its sister CFMA, Butanda and KCF has another 100,000ha of forest for scale up/replication. The future professional and technical staff of the Kelongwa Makamba CFMA should be able to play a strong support in scaling up and replication the Kelongwa Makamba CFM system developed with Project investment. role for the CFM development of these areas.
- **Management Entity:** The fact that there is an existing management entity, KCF itself, with robust governance structures and strong support from traditional leadership is a major advantage for

partnership with the project. The fact that KCF has mobilised its own internal resources rather than rely on external support is evidence of community action and participation.

- **Enterprise and value chain potential** There is much undeveloped potential at Kelongwa Makamba. Charcoal production and saw timber harvest are currently banned by the chiefs because of the destructive, unsustainable manner under which they harvested in unmanaged forests. There is very little development of NTFP because of the remote location and the lack of contact with NTFP markets. Value chains identified by KCF that are thought to be of good potential are the following:
 - Honey production – two harvest per year are common;
 - Sustainable fish production, especially from the Lunga River;
 - Mushroom production;
 - Caterpillars;
 - Wildlife management with possibilities of ecotourism, hunting and bush meat sales;
 - Ecotourism;
- Wildlife is heavily depleted but the habitat is in very good shape. Makaba holds good sanctuaries which are home to sitatunga. The CFM also supports a high population of a species of pangolin as well as kudu.

The established CFMAs

59. Five CFMAs were established in the Kasonso Busanga GMA in Kasempa District between 2015 and 2017, through interventions by the Decentralised Forest and Other Natural Resources Programme (DFRMP) Introductory Programme. Due to changes in Finnish development priorities, only the first phase was implemented (€4.38m) of what was planned to be a 12-year project collaborative project between the Government of the Republic of Zambia and the Ministry for Foreign Affairs of Finland. The project worked on three main components:
 - Institutional Development for Natural Resource Sector Devolution;
 - Sustainable Forest and other Natural Resources Management; and
 - Rural Entrepreneurship and Alternative Livelihoods
60. The overall goal of the programme was to contribute to the reduction of poverty and inequality and improvement of environmental conditions through devolved integrated sustainable forest and other natural resources management. The project operated in Muchinga Province and Kasempa, Ikelenge and Mwinilunga Districts in North-Western Province. Lessons from this ambitious program have been integrated across the proposed project's results framework, institutional and governance arrangements, among others.
61. Kamakechi Ngubo, Kanongo-Kalasa Ngubo, Lujika Jifumpa, Kotobola Kamalumbwe Lubofu and Mukunashi-Kanyola CFMA are located within the ecologically sensitive area of Kasonso Busanga GMA, a vast 4,900sq km area bordering the north and north-western edges of Kafue National Park. The Kasonso Busanga GMA protects a wide variety of ecosystem types ranging from lagoons and rivers to miombo and termitaria woodland, thicket and large grassy floodplains, as well as a large part of the Busanga Swamps which was declared a Wetland of International Importance by the Ramsar Convention on Wetlands.
62. The area in which the CFMAs are situated is part of the complex linking the Kafue National Park, East Lunga National Forest and Ngubo Local forest. The area is also part of Zambezi and Kafue water catchment area.

Forest Types and Biodiversity

63. The forests of three of the CFMA (Mukunashi-Kanyola, Kamakechi Ngubo and Lujika Jifumpa) are characterised by high conservation value, intact, closed canopy, semi-evergreen forests with a canopy is that is 25-27 meters high with occasional emergents that rise even higher, a discontinuous evergreen story of 9-15 meters high and a dense evergreen shrub-scrambler thicket of 1.5-6 meters high. This forest type is increasingly rare and threatened in NWP and adjoining countries and they present a of high priority for conservation. As cited earlier, the West Lunga Area Management Unit is one of the only sites in these countries that provides some level of protection. These three CFMA provide another opportunity in the greater Kafue ecosystem.
64. The forests of the rest of the other two CFMA have more typical Miombo woodland with a relatively high canopy dominated by the three genera that typify the miombo. Miombo is interspersed with more restricted ecosystems such as termitaria, drainage-line grasslands (dambos) and swamp forests. The Miombo is a “high-carbon” landscape, with an abundance of woody biomass and with species highly adapted to fire. These secondary forests have been markedly impacted by fire and suffer agricultural encroachment along the riverbanks.

65. Site Specific Challenges and Opportunities

Challenges

- **Scale:** The small and non-contiguous nature of the CFMAs presents a major challenge in terms of viability, as it is unlikely that any one unit is large enough to generate the sort of revenue required to fund professional and technical staff needed for the more intensive forms of forest management and/or business development, let alone provide for the distribution of benefits of CFM to the local communities that may be required to forfeit the opportunity to generate short term economic benefit from the unsustainable utilisation of forest resources.
- **Lack of aggregation:** Related to the above point, in the absence of any unifying management entity, it is hard to envisage how these small CFMAs can be aggregated to form a larger unit that might be able to offer sufficient reward for sustainable forest management.

Opportunities

- **Existence of CFMAs:** The fact that the CFMAs and CFMGs exist means that, should the project determine that one, some or all of the areas are viable, the institutional structures already exist. Their management plans, however, are overly simplistic and would need to be reviewed and revised to ensure the sustainable management of forest and other natural resources.
- **The high canopy closed forests** in three of the CFMA are of high conservation value and should receive special attention for the development of effective strategies for CFM.

Focus of Project Support for CFM in Kasempa District

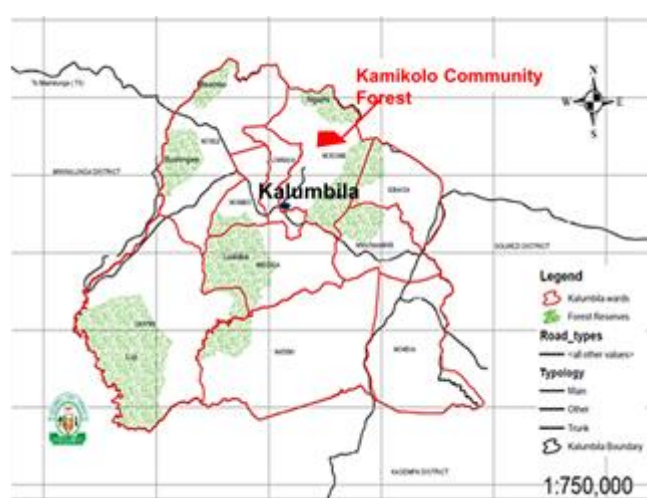
66. The Project is committed to support the development of effective CFM in 50,000ha of the six CFMA described above, namely Kelongwa Makamba, Kamakechi Ngubo, Kanongo-Kalasa Ngubo, Lujika Jifumpa, Kotobola Kamalumbwe Lubofu and Mukunashi-Kanyola CFMA. Kelongwa Makamba is of a size that should permit all the economies of scale needed for a well-developed technical support unit/business unit (TSU/BU) and profitable, forest and natural resource-based enterprises, all of them based on sustainable, community-based forest and natural resource management. Final decisions on which of the smaller CFMA to be supported will be made after project start-up and the assessment of the forest/natural resource and socio-economic potential. It is believed that once the TSU/BU of Kelongwa Makamba is fully operational, their staff should be able to provide strategic support to the Kasempa Community Foundation to assist the Butanda CFMG to develop their own management systems and enterprises, therefore replicating the best practices of the project and improving the management effectiveness for forest conservation and sustainable land management to deliver GEBs. KCF personnel will be included in trainings organized for Kelongwa Makamba CFMA. Furthermore, as

resources permit, limited support may be provided to the remaining smaller CFMA on topics that seem most relevant to them – such as enterprise development for aggregation, quality control, warehousing and bulk marketing of NTFP.

Kalumbila District

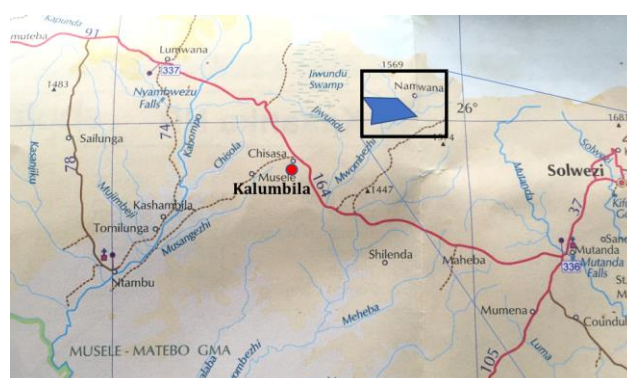
67. Kalumbila District covers an area of 16,419km² representing 4.17 % of North-western Province. The district's topography is characterized by hills, large termite mounds and dambo grass lands. Kalumbila falls in agroecological region III of the country with annual rainfall of above 1000 mm. The main economic activities of Kalumbila District are mining, agriculture, commerce and trade. Kalumbila District is rich in mineral deposits some of which have not yet been exploited. The mining activities in the District are being carried out by two mining companies (Lumwana Mining Company/Barrick and First Quantum Minerals/Kalumbila Minerals Limited).

FIGURE 8: THE FUTURE KAMIKOLO CFMA IN KALUMBILA DISTRICT



68. The Kalumbila site of Kamikolo lies 51 km to the east-southeast of Kalumbila town. Kamikolo covers 20,000ha with its southern boundary being a road track between Mumbezhi and Mulubwa streams. The forest wholly falls in Mukumbi chiefdom and is located in Mukumbi Ward. The estimated population near and around the CFMA is in 22 villages with about 300 households falling under Headman Kiyombo and 220 households under Headman Kyanuka (Mulubwa).

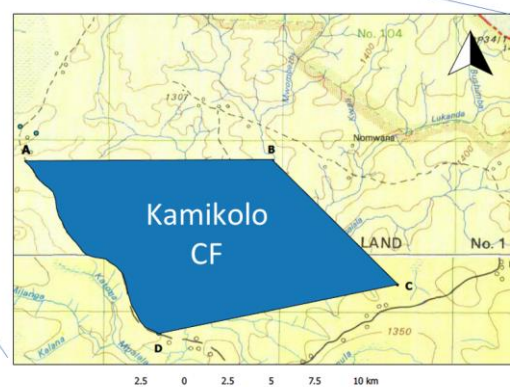
FIGURE 9: MAP OF THE PROPOSED CFMA



Coordinates

A	B	C	D
25.6722	25.8015	25.8678	25.7431
-11.9513	-11.9495	-12.0150	-12.0431

Proposed Community Forest Kalumbila District



Forest type

69. The vegetation in the proposed CFMA is relatively undisturbed except by fire and is dominated by semi-evergreen miombo woodland. Miombo is a vegetation type which is maintained by regular fires. It has a continuous ground cover of grasses and other herbaceous plants which burns in most years. The dominant tree species are *Julbernardia paniculata*, *Isobertinia angio genesis* and *Brachystegia speciformis*. They disperse their seeds by the explosive dehiscence of their pods.
70. Additionally, some portions of the proposed CFMA has a unique vegetation comprising *Uapaca kirkiana* and *U. nitidula* with an undergrowth that is rich in non-timber forest products (NTFP) such as mushrooms. Dambo grasslands are found on the floodplains of perennial streams and rivers. The various rivers and streams found in the proposed CFMA are a source of small fish (kapenta) that are harvested by the local community and are an important source of protein.
71. **Kamikolo Forest is critical to the local community** as it provides a range of products on which they are dependent for their livelihoods.
- Forest foods including a variety of edible mushrooms, honey, fruits and species of edible caterpillars;
 - Thatching grass;
 - Building materials including poles, saw timber and bamboo;
 - Charcoal and fuel wood;
 - Herbal medicines;
 - Water from the numerous rivers and streams that pass through the proposed CFMA;
 - Munkoyo roots used in the production of a local beverage;
72. **Rivers and Streams:** Mumbeshi is a perennial river with its headwaters in the Nkezi National Forest. The Mumbeshi River flows into the Kabompo River, one of the main features of the West Lunga Complex. There are five perennial streams inside the proposed CFMA, namely:
- i) Mulubwa
 - ii) Kamikolo
 - iii) Kamimbwa
 - iv) Kamwela
 - v) Kaseram
73. **Direct threats and their drivers:** Mining companies are actively prospecting in this area. The opening up of a new mine would attract large numbers of new people drawn by the economic prospects that come with the mine. The other main threat is the influx of farmers seeking forest land to convert to cropland.
74. **The following site-specific Threats, Opportunities and Global Benefits have been identified:**
- **Population Growth** is not unique to Kalumbila, but the intensity of in-migration into this mining area is especially acute. A dramatic increase in population has already been recorded in the area due to the influx of people in search for job and business opportunities in and associated with, the mining economy. Kamikolo is located between the Lumwana Mine to the east and the FQM mine to the west. The increase in population has since exerted pressure on the surrounding natural resources with particular emphasis on the protected forest areas, through increase in encroachment (illegal settlements), clearing for agriculture and loss of biodiversity through the over-exploitation of forests. Increase in wood fuel consumption to support productivity both at commercial and domestic levels. The increase in fuel wood demand is largely for the urban market, and this has been a driving force for the rural poor population who are trying to make ends meet.

- **Importance of these forests to local communities:** The communal lands are of high importance for: beekeeping, pit sawing for sawn wood products, mushroom collection, caterpillar collection, fruit collection, medicinal collection, fine grass collection, fibre collection, poles and rafters collection, grazing and fire wood collection. The wild mushrooms and caterpillars are harvested seasonally by around three-quarters of households and are an important natural food resource from the woodland. Wild fruit is harvested by around half of the households and wild vegetables by around a third of households, both seasonally. It is important to note that the majority of natural resource goods and services are used for subsistence and therefore contribution to local livelihoods is larger than the contribution to average monthly household income. It is important to note that the forest resource have the potential to provide more than household subsistence consumption if managed on a sustainable base if investments made in value-added activities such as warehousing, quality control, aggregation, various forms of processing. The ability of these forests to provide non-agricultural foods, resources and incomes that are not wholly reliant on an increasingly unreliable single annual rainy season gives them a critical role to play in climate change adaptation.
- **Opportunities:** First Quantum Minerals (FQM) and Kalumbila Minerals Ltd, have committed \$2,500,000 in co-financing to support the development of CFM and sustainable agriculture in and around Kamikolo Forest over the next five years.
- **Global Benefits:** The global benefits include sustainable land management, sustainable forest management, more sustainable and climate resilient smallholder agriculture, increased carbon sequestration from sustainable agriculture, and reduced loss of CO₂ from fire and forest destruction and degradation.

Summary Information for target Districts

75. The summary for the targeted districts is provided in table 5, with most information coming from the draft District Situation Analysis Reports and Development Plans and forest cover and annual deforestation rates by district taken from Global Forest Watch:

TABLE 5: SUMMARY OF TARGET DISTRICT DATA

Indicator	Districts		
	Mwinilunga	Kasempa	Kalumbila
Size (km ²)	18,763Km ²	20,821Km ²	16, 419km ²
Forest Cover	84%	69%	87% (old Solwezi District)
Annual rate tree cover loss	0.24%	0.29%	0.42% (old Solwezi District)
Number Wards	16	22	10
Constituencies	1	1	1
Chiefdoms	3	2	4
Total Population	104,317	69,608	85, 505
Male	51,267	34,357	42, 548
Female	53,050	35,251	42, 957
Pop. density (person/km ²)	5.6	3.3	5.2
Population growth	1.9%/yr	2.4%/yr	3%/yr
Economic Activities	Agriculture and small-scale artisanal mining	Agriculture, mining, fisheries, livestock	Mining, agriculture, commerce and trade
Main Industries	No major industry except the earmarked Pineapple processing plant by Industrial Development Corporation (IDC)	No major industry except small scale Honey processing plant	Small scale honey processing plant and earmarked Cassava processing plant
Agricultural Crops	Major crops grown include Pineapples, Cassava, Maize and Beans	Major crops grown include maize, Beans, Sweet potatoes, Ground nuts	Major crops include Maize, Rice, Cassava, Beans, Soybeans, Groundnuts, Sweet potatoes, Irish potatoes

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Marketing and value chains of agricultural crops	Limited markets and market linkages	Limited markets and market linkages	Limited markets and market linkages
Forest produce	Timber, poles, Honey and beeswax, Mushroom, Charcoal, Fiber, wild fruits, Thatching grass, poles and herbal medicine	Timber, poles, charcoal, firewood, Mushroom, Caterpillars, <i>Chikanda (Orchids)</i> , Wild fruits, Thatching grass, Honey and beeswax	Timber, Honey and beeswax, firewood, poles, fine grass for roofing houses, fiber, caterpillars, mushroom, herbal medicine

Value Chains to Be Developed

76. During PPG, value chains were identified and analysed for their short and long-term potential for the CFMG at each site. Potential private sector partners for each value chain were identified. The results are presented in Table 6.

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**TABLE 6: ANALYSIS, PRIORITIZATION AND POTENTIAL PRIVATE SECTOR PARTNERS
FOR THE VALUE CHAINS AT EACH OF THE THREE PROJECT SITES**

Value Chain (VC) Potential	Advantages	Potential Disadvantages	Potential Private Sector Partners
<p>Honey:</p> <p>Excellent and immediate opportunity at all three sites</p>	<ul style="list-style-type: none"> • A 500-year old, strong cultural tradition of beekeeping in NWP. • Strong formal national and export markets with actual and potential private sector partners. • The honey industry in Zambia is growing exponentially with a potential for 25,000 tons per annum in NWP. Zambia currently only at 0.2% of its capacity. • The miombo forest in North Western Province can accommodate as much as 500,000 beehives (translating into a low production estimate of 25,000 tons of honeycomb p.a.) • Two seasons of production in much of NW Province (June to July and November to December) increasing revenues and smoothing seasonal income variability. • Investments in honey production create incentives for forest conservation. • Good opportunities for enhanced gender equity. • Good opportunities for CFMG TBU investments in technical staff, beehives, buckets, protective gear, aggregation, bulking centres, processing, quality control, collective marketing and greater revenues for beekeepers and the CFMG. • Good potential for generating funds for NR management and for VC investments. • Honey production can be developed in all CFMA/GMA at all three Project sites. • Much of the revenue goes directly to the households who tend the beehives. • Under the present partnership with Nature's Nectar, beekeepers receive \$1/kg from two harvests per year from 10 hives with about 20 kg/harvest/hive for occupied hives and 70% occupancy of hives. This is about \$280/keeper per year, but hives are supplied free by Trident Foundation. Hives cost \$25 assembled and \$14.50 unassembled. • Short lead time to be made operational • Only small negative environmental impacts when modern hives are used (potential for sustainable production of bark hives) 	<ul style="list-style-type: none"> • Need for seed money to cover capital cost of entry: training, modern beehives, buckets, bulking centres, protective gear such as suits, veils, boots, smokers etc.; • Farmers or beekeepers are price takers in the market • At \$0.4 to \$0.7/kg farm gate price, farmers and beekeepers are receiving a low proportion of the end market price • Bark hives still predominant and their fabrication often necessitates the felling of large trees • Male dominated supply chain • Aggregation and bulk marketing require an organized community structure and investments in capacity development • Profitability as an investment opportunity not quantified 	<ul style="list-style-type: none"> • West Lunga Conservation Project has an active partnership with Nature's Nectar with over 10,000 modern hives. Hives paid for by WLCP • BeeSweet based in Copperbelt Province exports certified organic honey produced by villager partners • Forest Fruits Ltd. is Zambia's leading producer of certified organic honey and beeswax and the largest single exporter of honey on the African Continent. They currently employ 50 full-time staff and 30 seasonal workers in addition to its 7,000 out-growers who use traditional bark hives.

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<p>Carbon:</p> <p>Excellent, long term opportunity for CFM although limited benefits during the life of the GEF 7 Project</p> <p>Excellent potential for West Lunga and Kasempa, but Kalumbila would be unlikely to be of interest to current carbon project developers undertaking work in either the Kafue or the West Lunga landscapes</p> <p>High priority for long term financial viability.</p>	<ul style="list-style-type: none"> • Growing global demand for carbon credits: in the last year, there has been a 300% increase in the number of major global corporates committed to net zero, from 500 recorded in 2019 to 1,500 in 2020. • Excellent opportunity for long term financing for forest management and for value chain investment costs • Precedent in Zambia for forest carbon projects delivering benefit to communities and conservation • Legislative and regulatory environment is conducive to the acquisition and trading of carbon stocks by communities • Supply agreements exist in Zambia that ensure 20-year performance-based revenue streams to communities • Only nature-based ‘supply chain’ in areas without wildlife that can generate sustainable revenue at all geographic locations at landscape and community level and that directly incentivises forest conservation at scale • Revenue potential is high – the 10 CFMGs involving 220,000 people working with BioCarbon Partners in the Luangwa Community Forest Project, received \$2.5m in carbon payments in 2020. Benefits to communities are \$11.90 per ha p.a., or \$43 per person per year • Mid to long term guarantee of revenues -- Contracts typically run for ca 20 yrs. • Opportunities for negotiating higher revenue share for communities over time as the number of carbon project development companies increases • The large majority of investment costs are paid by the carbon project development companies 	<ul style="list-style-type: none"> • Long term opportunity – Long lead time of approximately 5 years (the length of our project) between initial investments and first revenue flows • Highly complex project development process involving multiple FPIC steps with communities as well as complex carbon accounting methodologies • Requires formation of CFMGs, the multiple steps towards which are poorly understood by communities and FD • The sharing of revenue between project developer and communities is not clear, potentially leading to distrust • Limited competition amongst carbon project development companies in Zambia • All revenues go to the CFMG. Strong capacities for good governance are required to ensure equitable distribution down to the household level • Benefits typically flow primarily into ‘public goods’ such as boreholes, clinics, school infrastructure. This has clear community benefit but less clear individual benefit to incentivise behaviour change towards conservation 	<ul style="list-style-type: none"> • BioCarbon Partners has permission from Forestry Department to undertake a forest carbon feasibility study across the Kafue Ecosystem, including West Lunga, in NW Province • West Lunga Conservation Project is undertaking a forest carbon feasibility study in and around the GMAs, in collaboration with TNC and Mirova Natural Capital, an impact investment manager that delivers financial returns that are aligned with conservation and sustainable social development.
<p>Non-timber Forest Products (e.g. Mushrooms, Caterpillars, Fruits, Tubers, Herbal Medicines, Thatching Grass, etc.):</p> <p>Good opportunities to explore across all sites</p>	<ul style="list-style-type: none"> • Harvesting of most NTFP traditionally dominated by women • Caterpillars have two harvesting seasons in the ‘lean months’ (March to May and October to early December) helping to smooth annual household incomes • Benefits accrue primarily to individual households • Large potential for increasing production and revenues if value chains can be structured • Potential for attracting professional actors to the value chains if CFMG can provide 	<ul style="list-style-type: none"> • Mushrooms are highly seasonal and dependent on rainfall • Main barrier to the marketing of mushrooms is their very rapid rate of spoilage in the absence of refrigeration, drying or other means of preserving them • Men recently taking over collection of some lucrative NTFP like caterpillars and 	<ul style="list-style-type: none"> • Numerous informal traders and agents, no ‘formal’ market actors • COMACO is interested in expanding their operations to NWP in partnership with the Project and are interested in the caterpillar, mushroom and honey value

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<p>in concert with improving supply chains, but scale up will be slow and localised initially due to the disorganised supply chain</p>	<p>large scale, dependable supply of NTFP</p> <ul style="list-style-type: none"> Community Markets for Conservation (COMACO) is a social enterprise that seeks to develop assured markets for agricultural and nature-based products. They have recently decided to expand their operations into NWP with a focus on markets for honey, caterpillars and mushrooms and are interested in working with the GEF 7 Project. Most NTFP can be harvested with little or no negative impact on the resource Good biological potential for production of a variety of NTFP in all or most of the CFMA Good opportunities for investments in aggregation and bulk marketing, bulking centres and storage, quality control, equipment (such as driers) and improved processing if value chains can be better structured and made to be more professional. 	<p>using destructive practices (felling of trees to collect them)</p> <ul style="list-style-type: none"> The harvest of some NTFP destroy the plant (tubers) or animal (game meat) they come from, requiring investment in management practices to ensure sustainability No supply chain organisation, aggregation, storage and processing functions mean supply chains are limited to individual actions, thus reducing the opportunity for supplier negotiating power Very little structure to NTFP value chains and very few full-time professional traders with whom CFMG enterprises could establish contacts/partnership. The markets for these products are almost entirely ad hoc, informal and unstructured and operate through a chain of intermediaries whereby the producers and gatherers receive a disproportionately low share of the end price and, therefore, little incentive to invest in their businesses and the conservation of natural resources upon which they depend. 	<p>chains. COMACO received a very positive review for their work on the GEF Community Assisted Natural Regeneration Project in Central Province.</p>
<p>Saw logs and Sawn Timber:</p> <p>Potential for testing the pilot development of CFM management of miombo forests for the sustainable production of sawlogs and saw timber at the Kalumbila site in partnership with Trident Foundation.</p>	<ul style="list-style-type: none"> Preliminary analysis of the profitability of CFM investment in locally made band saws in DRC in similar forest types shows a very positive return on investment that could generate revenues for forest management and investment funds Several companies in Copperbelt Province are producing portable or semi-portable band sawmills at a much lower price than imported models. Several models of portable and semi-portable band saws manufactured in Copperbelt Province provide new, relatively low-cost opportunities for community investments in the production of higher quality lumber. Logs can be dragged or hauled by trailer relatively short distances to portable mills in the forest using farm tractors. NWP has the highest rainfall in Zambia this has produced forests with some of the greatest abundance of saw timber in Zambia. 	<ul style="list-style-type: none"> Operating and managing a sawmill operation is a relatively complex challenge, especially in remote villages. Management of forests for the sustainable production of saw timber requires higher inputs of expertise than management for most NTFP The compatibility of sustainable management for saw timber with the conservation of biodiversity and high conservation value forests is poorly quantified but is generally considered 	<ul style="list-style-type: none"> Project partner Trident Foundation is interested in supporting the development of the capacity of the new Kalumbila CFMG to provide a reliable supply of sustainably produced saw timber. The manufacturers of band mills may be willing to modify their mills to better meet the needs and conditions of the

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<p>West Lunga Conservation Project policy does not allow for timber production in the Chibwika Ntambu GMA.</p> <p>Some potential for saw timber production at Kasempa in forests bordering agricultural and settlement areas.</p>	<ul style="list-style-type: none"> • There are good opportunities for integrating sustainable charcoal production with selective harvest with sustainable saw timber production in ways that restore the abundance of saw timber and other high value species. • The owners of the Kalumbila mine and project partner Trident Foundation, are very interested in a supply of sustainably produced saw logs for the needs of the mine, creating a good opportunity for the pilot development of CFMG management of forests for saw timber. • All tree species of suitable dimensions are usable for the treated lumber demanded by the mining sector. • There are local, urban, regional and international markets for sawn wood • Pit saws are a low-cost investment for the small-scale production of sawn wood products • The legal framework for CFMG exempts them from the payment of production taxes on saw timber, giving them a financial advantage over timber companies 	<p>inappropriate for forests of high conservation value for biodiversity.</p> <ul style="list-style-type: none"> • The saw timber value chain in Zambia has suffered from problems of illegal trade. • There is some level of risk that CFMG equipped with sawmills might use them for unsustainable harvest after the project is completed. • Illegal cutting of saw timber, especially of high value tropical hardwoods, has been a threat to the forests of NWP. • A recent WB-funded study found that the silvicultural systems for the sustainable production of saw timber are lacking in most miombo countries, but states that such systems should be relatively easy to develop. 	<p>CFMA/CFMG</p>
<p>Charcoal:</p> <p>Charcoal production is not an option in the West Lunga GMA.</p> <p>Charcoal might be an option at Kalumbila and in forest margins bordering croplands at Kasempa but further analysis of demand and profitability and community preferences at the site-specific level are needed.</p>	<ul style="list-style-type: none"> • Charcoal can be a sustainable, renewable energy if forests are managed sustainably. • The risk of fire following harvest can be greatly reduced by thinning the forest stands harvested rather than clear cutting them • Sustainable production of charcoal can generate substantial employment and revenue generation for households and for forest management and investment costs. • Charcoal production has the advantage that the bulk of the revenue generated goes directly to the household level as a function of the quantity of charcoal produced • Selective harvest for the production of charcoal removes lower value trees and can be adapted as an excellent tool to ensure adequate or abundant regeneration of higher valued trees for saw timber, preferred NTFP and the conservation of rare and threatened biodiversity. • All, or nearly all miombo species regenerate from stump sprouts if not too old, making it relatively easy to ensure adequate regeneration after harvest. • Methodologies for the sustainable management of miombo forests for charcoal production approved by FD already exist in Zambia (e.g. BioCarbon Partners 'Eco-Charcoal' social enterprise). Key factors include forest thinning using selective 	<ul style="list-style-type: none"> • Most charcoal is harvested destructively, causing severe forest degradation. • Only the species the best suited for charcoal are harvested (high grading) in areas of marginal profitability for charcoal, making it difficult to develop sustainable harvest systems in those areas. • Traditional methods of near clear cutting for charcoal results in abundant growth of grasses creating conditions for much hotter, more destructive forest fires • Traditional earthen kilns have low efficiency. Most high efficiency kilns are stationary brick or metal kilns that require wood to be transported from the forest to the kiln. Village charcoal makers lack the means of transport. 	<ul style="list-style-type: none"> • Attempts by previous projects to develop green label charcoal were thwarted by the lack of sustainable forest management plans. This should not be a constraint for potential marketing partners interested in this market niche. • Explore the potential for partnership with BioCarbon Partners for the marketing of the Eco-Charcoal brand.

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	<p>harvest techniques, 18-yr rotation between thinnings, efficient kilns and enrichment plantings with native spp.</p> <ul style="list-style-type: none"> Charcoal production can be concentrated during the dry season, creating employment during the period when agricultural work is at a minimum. There are investment opportunities for portable metal kilns with greater efficiency than earthen kilns. CFMG TBU can achieve economies of scale through aggregation and marketing charcoal by the truckload 	<ul style="list-style-type: none"> There has been limited success in developing “green label” certification of charcoal marketed in urban African markets. 	
<p>Wildlife-based Enterprises (e.g. Trophy hunting, wildlife-based ecotourism, game meat) through GMA, Game Ranching, Conservancies, CFMG):</p> <p>Remote opportunity to action</p>	<ul style="list-style-type: none"> Direct economic incentive for communities to benefit from faunal biodiversity Habitat on most CFMA forests is in good condition and very suitable for re-establishing wildlife populations; 	<ul style="list-style-type: none"> Legislative and regulatory environment constrains potential for community management. Wildlife ownership by the state (except in fenced environments) limits benefit from consumptive use by communities In GMA, government takes half the revenue and system for sharing revenues has been dysfunctional Severe poaching in unfenced areas and high cost and difficulty of policing Wildlife populations severely depleted on most sites and long lead time required to restore populations and to generate profits Extremely high capital cost of fencing precludes community involvement in commercial game ranching 	<ul style="list-style-type: none"> Trident Foundation has invested in an Ntambu community game ranch, but the high cost of fencing makes it a non-scale able opportunity without large subsidies Possible opportunity for joint ventures with commercial entities in high potential community open areas Relatively little experience in joint ventures between community managers and private sector on communal lands
<p>Fisheries:</p> <p>Once highly productive, now depleted fisheries near Ntambu provide an excellent opportunity for developing effective co-management to restore and sustainably</p>	<ul style="list-style-type: none"> Legislative and regulatory framework is conducive to the development of co-management agreements for fisheries with Department of Fisheries The three districts of Kalumbila, Mwinilunga and Kasempa all have perennial rivers Opportunities for aggregation and bulk marketing, investment in improved processing and conservation of fish. Opportunities for integrating protection of rare and endangered spp, into fisheries management Opportunities for self-policing by fishermen could greatly decrease the costs of 	<ul style="list-style-type: none"> Geographically limited to riverine environments Current fisheries resources are very low in some areas due to unsustainable fishing methods (especially the use of small-meshed nets and baskets) and inadequate monitoring and control by the Department of Fisheries. Very informal and long supply chains and the limit of spoilage mean producers 	<ul style="list-style-type: none"> Numerous informal traders and agents, no ‘formal’ market actors

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manage this resource. The potential for Kalumbila and Kasempa needs further analysis	<p>enforcement</p> <ul style="list-style-type: none"> • Opportunities for integrating measures that contribute to the restoration of depleted populations of species like Nembwe/Yellowbelly (<i>Serranochromis robustus</i>) and tigerfish <i>Hydrocynus vittatus</i> 	receive a low proportion of the end price	
Non-carbon Payment for Ecosystem Services (e.g. Biodiversity Offsets): Low priority	<ul style="list-style-type: none"> • Potential long-term revenue stream to communities to participate in, and benefit directly from, conservation • Potential ‘value add’ to a REDD+ project focusing on biodiversity 	<ul style="list-style-type: none"> • Methodologies are still unformed and there is no formal market mechanism for biodiversity offsets 	<ul style="list-style-type: none"> • In conjunction with WLCP, Mirova Natural Capital will be exploring the opportunity of adding biodiversity offsets to a possible West Lunga carbon project in 2021

2.2. Global significance

77. This GEF project will provide global environmental benefits in terms of the Biodiversity Focal Area BD under Objective 1 of the GEF and BD strategy: *Focal Area Objective 1 - Mainstream biodiversity across sectors as well as within production landscapes and seascapes*. It will also contribute to Sustainable Development Goals (SDGs): SDG 5 (Gender Equality); SDG 10 (Reduced Inequalities); SDG 13 (Climate Action); and SDG 15 (Life on Land).

Provincial Biodiversity of Global Importance

78. The Project will contribute to the conservation of two of the largest complexes of biodiversity rich ecosystems in Zambia – the greater Kafue National Park complex and the West Lunga complex. Elephants and other large, mobile wildlife used to pass from one to another and there is still the possibility that connectivity can one day be restored between the two. If this is possible, it will be because of the success of community-based management of forests and wildlife in GMA, local forests and communal lands. West Lunga National Park can only have limited success as an isolated island. But West Lunga NP as part of a rich complex of parks, national forests, GMA, local forests and sustainably managed communal forests/lands can play a crucial role in the conservation of south-central Africa's biodiversity. Community management of forests and other natural resources is still however in its infancy in Zambia. Components 1 and 2 of this project will “push the envelope” towards the development of CFM as an effective tool for biodiversity conservation over large complex landscapes.
79. The dryland forests of NWP are much wetter than most dryland forests and have, correspondingly, a higher level of carbon sequestration per unit area than other dryland forests. Conserving these forests will have significant positive impacts for climate change mitigation. Deforestation and illegal, uncontrolled harvest of wood products will be stopped inside the CFMA. Destructive, late dry season fires will be greatly reduced. This should result in lower tree mortality, increased canopy coverage and stocking, greater carbon sequestration and lower greenhouse gas emissions from wildfire.
80. The NWP contains biodiversity of global (typified by high levels of endemics with Guineo-Congolian origins) and regional (typified by the biodiversity of the forest-savanna mosaic) importance. The province is home to six Important Bird Areas (IBAs): Hillwood; Source of the Zambezi; Chitunta Plain; West Lunga National Park and Lukwakwa; part of Kafue National Park; and Jimbe Drainage.
81. The province is rich in wildlife species diversity, with notable wildlife species including the African elephant, African buffalo, sitatunga, puku, roan and sable antelopes, lion, cheetah, leopard and African wild dog.
82. Most of the miombo forests across southern Africa are secondary forests that started out as *muvunda* or similar forests, but were degraded by man's repeated use of fire for hunting and agriculture.¹³ Most of these *muvunda* forests have long since been converted to miombo, making their conservation a high priority. *Muvunda* occurs in several large blocks in the border regions of Zambia, Angola and the Democratic Republic of Congo but the WLMA is the only sector that has any formally recognised protective status. *Muvunda* is an important forest type in the West Lunga Complex.
83. The three districts where the Project sites are located are in the zone of highest diversity of flowering plants with an average of 90 to 120/ha¹⁴.
84. The NWP lies in the watershed between DR Congo and Zambezi river systems. It is also the major source of the Kafue river basin. The western extremity of the province includes the Zambezi River, and its wide Barotse Floodplain, representing a vast fish and aquatic wildlife habitat.

¹³ Evans, Monica. 2020. Miombo Forests: the vast southern African drylands forests hiding in plain sight.

<https://news.globallandscapesforum.org/45792/miombo-woodlands-the-vast-southern-african-dryland-forests-hiding-in-plain-sight/>

¹⁴ 2nd National Biodiversity Strategy and Action Plan

2.3. Threats, root causes and barrier analysis

85. Direct threats, and the indirect or root causes, of deforestation, forest degradation, unsustainable agriculture and biodiversity loss are analysed, with the main emphasis on NWP. Indirect causes are analysed separately for each direct cause.

Causes of deforestation and forest degradation

Direct and indirect causes of deforestation

86. Deforestation is caused by conversion to agriculture throughout much of NWP, and more locally by the opening of mines and the clearing of forests for infrastructure development, much of it associated with mines. In areas of high demand for charcoal, forests may be clearcut, but, if they are not converted to agriculture, they immediately regenerate from stump sprouts and seedlings and a new forest begins to grow back. We consider this to be a form for forest degradation.

- *Conversion to agriculture.* This is clearly the most important direct cause of deforestation in NWP, just as it is for Zambia as a whole. Indirect causes in NWP include: a) local population growth (see Table 5 above); b) in-migration of people seeking employment, mainly in the mines, and; c) the extensification of agriculture. This is caused both by local farmers expanding their croplands and, especially the in-migration of people moving from areas in southern Zambia with high population density, small farms and worn out, depleted soils to NWP because of the ease of access to the abundant forests that can be converted to croplands. The freshly cleared fields initially have good fertility, which declines rapidly over three or four seasons.
- *Unsustainable agriculture.* Slash-and-burn agriculture is widespread and prevailing agricultural systems do not maintain soil fertility and crop productivity. As crop yields decline on old fields, this requires clearing of more forests with soils that are still rich. The length of fallows is not sufficient, and soil fertility declines with each cycle.
- *Clearing for mines and associated infrastructure -- pipelines, transmission lines, roads and settlements.* Much of the new infrastructure in NWP is associated with the mines. NWP is often referred to as the new mining frontier for Zambia. Indirect causes are: a) lower grade ores are now being exploited in NWP as the higher grade ores in Copperbelt Province are depleted (this is part of a world-wide trend); b) the Zambian government's need for tax revenues; c) political pressures for economic growth, even though mining is inherently unsustainable.

Direct and indirect causes of forest degradation

87. Forest degradation is caused by unsustainable harvest levels, late dry season fires and by climate change.

- *Unsustainable over-cutting and the destructive harvest of saw timber, charcoal and fuelwood and certain NTFP.* Unsustainable practices for NTFP include the felling of trees to facilitate the harvest of caterpillars, honey and other NTFP and the uncontrolled harvest of NTFP that involves the harvest of roots and tubers or the girdling of trees for their bark. In much of NWP, demand for charcoal is relatively low and only those species with the densest wood (the most suitable for charcoal) are cut. This is a type of high grading that leaves the forest degraded. Prior to 2000, state owned logging companies severely overharvest the saw timber in much of NWP, causes widespread forest degradation. The forests have partially recovered since then, but poorly regulated over-harvest accompanied by local sawmilling is developing again in some areas such as the peripheries of the West Lunga Complex in Mwinilunga District. The indirect causes of unsustainable harvest levels include the desires to maximise short-term gains while minimizing the effort expended.
- *Late dry season fires.* The miombo forest is adapted to relatively light early dry season fires that burn while grasses are still partly green, but late dry season fires can kill even mature trees and have severe impacts on young, small diameter forest regeneration. Indirect causes have not been defined.
- *Climate change.* Higher temperatures and droughts will prevent forests from regenerating properly and increase the risks associated with hot and destructive wildfires. The regenerative capacity of the

miombo forest, which covers 60% of the country and containing a variety of biodiversity components that provide a wide array of ecosystem goods and services, will be impaired. Consequently, this will impact negatively on local livelihoods, biodiversity and the national economy. The mean of climate model predictions for Zambia show a temperature increase of between 2oC and 2.5oC between 1950 and 2050 for Zambia and the Kafue River basin coupled with an increasing variability in rainfall within similar ranges to present means (+3% to -3% by 2011) with an increase in the percentage of rain falling in heavy events during the rain months²². Recent projections for annual maximum temperature show an increase in the range of 1oC – 2oC or even 2oC – 3.5oC.²³ The rainfall in the Southern African region has been decreasing in the last 25 years (Hulme 1996). Recent work on projected future trends in rainfall using various Global Circulation Models differ in their results regarding mean annual precipitation ranging from an overall decrease to significant and widespread increases. Studies have also shown that Zambia's fish stocks are in danger (Kalantary, 2010; Musumali et al. 2012)²⁵. Water levels are predicted to decline in rivers and lakes due to increased evaporation induced by rising temperatures and reduced precipitation, consequently affecting fish productivity and the fishing industry¹⁵

Direct and indirect causes of unsustainable agriculture

88. Miombo woodlands is the dominant forest type in NWP and miombo soils are generally some of the most infertile soils in Africa and amongst the most poorly suited for agriculture. Indirect causes of unsustainable agriculture include; a) the ancient, highly weathered soils have a low cation exchange capacity and frequently have high erosivity; b) this makes soil organic matter crucial to soil fertility, but agricultural practices do not maintain adequate levels of soil organic matter; c) soil testing facilities are not available, making it impossible to calculate appropriate dosing of chemical fertilizers; d) cultivated soils become very acidic, binding up soil phosphate in forms unavailable for crops.

Direct and indirect causes of biodiversity loss

89. The direct causes are poaching, habitat loss and the dispersal of new settlements into previously intact habitat.
- *Poaching*. Numerous species have been poached to local extinction. Indirect causes include: a) the ready availability and low cost of snares and other tools for taking game; b) the revenue to be earned from the sale of game meat, ivory, skins and other body parts; c) the low probability of being caught by DNPW agents in charge of anti-poaching patrols. The CRB could hire their own patrol agents, but wildlife populations are already so low that there is no commercial hunting that would generate the short-term revenues needed to pay the CRB guards. Donor assistance is generally needed to make the investments needed to restore wildlife populations.
 - *Habitat loss* is ongoing. Habitat is lost to agriculture, mines and other infrastructure. Game Management Areas allow cropping inside the GMA within specific 'development zones. Communal areas are not zoned for different land uses. Indirect causes of habitat loss are demographic growth, immigration and unsustainable agricultural technologies.
 - *Dispersal of new settlements into previously intact habitat* is a closely related direct cause. Many wildlife species maintain a set distance away from human habitations. As new habitations are dispersed in previously intact habitat, many wildlife species retreat away from these habitations.

Barriers

90. Barriers are defined in respect to the solutions envisaged. The PIF has defined two general categories of solutions to land degradation and biodiversity loss; a) sustainable community-based forest and integrated natural resource management for forest degradation and for biodiversity conservation, and; b) the promotion of sustainable agricultural technologies for the degradation of agricultural lands.

¹⁵ Republic of Zambia Ministry of Lands, Natural Resources and Environmental Protection. 2015. Zambia's 2nd National Biodiversity Strategy and Action Plan 2015 -- 2025

Barriers to the sustainable management of forests and other natural resources

91. The key barriers identified are a) the lack of tested, proven, profitable, self-sustaining models of community management of forests, wildlife and fisheries; b) legal barriers to community management; c) the non-integration of CFM into district-level development planning; d) poorly developed systems of knowledge management in support of CFM.

- *Barrier 1: Lack of tested, proven, profitable, self-sustaining models of community management of forests and other natural resources.* Interviews with CFMG and their user groups showed that the existing CFM initiatives are especially weak in the following areas: a) For CFM to succeed, benefits of all kinds to communities and community members must be largely superior to costs of all kinds. There has been little or no increase in benefits for pilot CFMG communities in Kasempa and Mwinilunga, but substantial new obligations (costs) have been incurred; b) there has been no integration of wildlife and fisheries management into CFMG pilots in NWP; c) the CFMG have not been organized as profitable community enterprises and little use of business management principles has been made in developing the CFM pilots. No business plans have been developed for CFMG and their user groups; d) there has been little development of community capacities for good governance, NRM, and business management; e) the forest management plans are overly simplistic; f) There are no safeguards in place to avoid unsustainable over harvest of saw timber or wood fuels; g) there is no system for the self-financing of forest management activities. The CFMG are reliant on volunteer labour for forest management including early burning and for honorary forest enforcement officers; h) there is no system in place to provide adequate forms of ongoing support needed by the CFMG and the user groups, i) the CFMG have not been created at a large enough scale for them to invest in profitable forest-based enterprises that require the CFMG to employ specialized professional and technical staff needed to support these enterprises.
- *Barrier 2: Legal barriers.* The subsidiary legislation for forests needs to be reviewed and revised. The existing statutory instrument (SI) was just passed in 2018, but is quite short and does not address the following issues that have been identified through a preliminary analysis of the SI during PPG: a) no safeguard measures to avoid the unsustainable, over-harvest of saw timber, wood fuels and certain NTFP; b) no mention of gender; c) no mention about the integration of wildlife and fisheries management in a CFMA nor how the rights and roles of CFMG created inside a GMA should be made coherent with those of the CRB for the GMA, and d) no mention about how forest management costs will be covered.
- *Barrier 3: CFM not integrated into district level development planning.* CFM generates revenues and employment while generating global benefits, but district councils have not mainstreamed CFM into district integrated development plans (DIDP). Districts could potentially be playing a significant role in providing support to existing CFMG and for the creation of new CFMGs. The mainstreaming of CFM into DIDP would ideally be done during the 2nd half of the project after profitable, viable CFM models have been developed.
- *Barrier 4: There is an inadequate system of knowledge management in support of CFM.* Zambia has an exceptionally rich history of pilot projects for community-management/co-management of forests and other natural resources, but documentation on lessons learned and best practices are hard to come by. This leads to inefficiencies in project design and a tendency to keep reinventing the wheel. There are only minimal capacities for knowledge management in FD and CFM has not been integrated into forestry curricula at Copperbelt University or at Mwekwere Technical College.

Barriers to improved productivity from sustainable agriculture practices

92. The key barriers identified are:

- *Barrier 1: Low adoption rates from sustainable agricultural practices.* Adoption rates remain low, especially those involving technologies for maintaining soil fertility at high productive levels. A recent study shows that if a farmer switches from conventional farming to 'conservation agriculture' (widely defined as a set of basic principles to minimize disturbance of the soil, maximize soil cover and rotate crops), annual net income from agricultural production can increase by 62%. However, in the first three years of switching, there are negative incremental net benefits, due to the transition

period needed for the benefits of new practices on crop yields to become effective. While farmers begin to see benefits in the fourth year, they will incur investment costs in the beginning, which causes a low proportion of farmers to adopt conservation agricultural practices. Low asset (including land and income) levels, limited family size, and opportunity cost of labour also present barriers to the adoption of conservation agricultural technology.¹⁶

- *Barrier 2: Marginal performance of government extension services.* Sustainable agricultural technologies have not been integrated into government agricultural extension programs, agents have not been trained in these technologies and government extension agents frequently lack means of transportation.
- *Barrier 3: Marginally functional agricultural research system* with insufficient budgets to carry out research.
- *Barrier 4: Inadequate knowledge management system* for sustainable agriculture and no knowledge management system for NWP.
- *Barrier 5: Land tenure systems.* Traditional land tenure systems allow for easy access to forest lands for conversion to agriculture. Farmers easily negotiate with traditional leaders for the right to clear forests for croplands. Except for the rare forests that have been put under the control of CFMG, local communities have no right to block the clearing of forests for farming or other land uses if land has been allocated on a discretionary basis by their traditional leaders.
- *Barrier 6: Government subsidies* for chemical fertilizers serve as a disincentive for farmers to adopt more labour intensive, sustainable agriculture technologies, and the input and output subsidies for maize have incentivised a mono-cropping culture that crowds out a more diverse crop mix that can offer rotational benefits to the soil and lower marketing and climate risks.
- *Barriers 7: Lack of sustainable land use planning* at the village level. There is no single institution mandated for land use planning at the community level. It can be supported by FD or DNPW through CFMG or CRB communities and the land use plans can be made legally viable by district government.

Barriers to the conservation of biodiversity

93. Barriers to the conservation of biodiversity include:

- *Barrier 1: Lack of effective institutional framework* for coordinating the conservation of forests/ecosystems of high conservation value for biodiversity but under a complex mix of land categories of varying use restrictions and institutional controls. E.g. the West Lunga complex and the greater Kafue ecosystem complex in southern Kasempa District, each divided into national parks, GMA, national forests, local forests and communal lands under different chieftaincies; West Lunga National Park, the national forest, the GMA and the community lands for the West Lunga Complex.
- *Barrier 2: Insufficient development of viable CFM models and strong incentives for community management* and for sustainable profitable natural resource-based enterprises on communal and GMA lands. A large portion of revenues in GMA goes to the government and the payment of the community's share suffers from long delays. Game management and production of game meat on communal lands is poorly developed.
- *Barrier 3: Lack of sustainable financing* for community-based natural resource management. In particular, there is no system for reinvesting a portion of the profits from nature-based enterprises back into protection and sustainable use of the forest and natural resources.

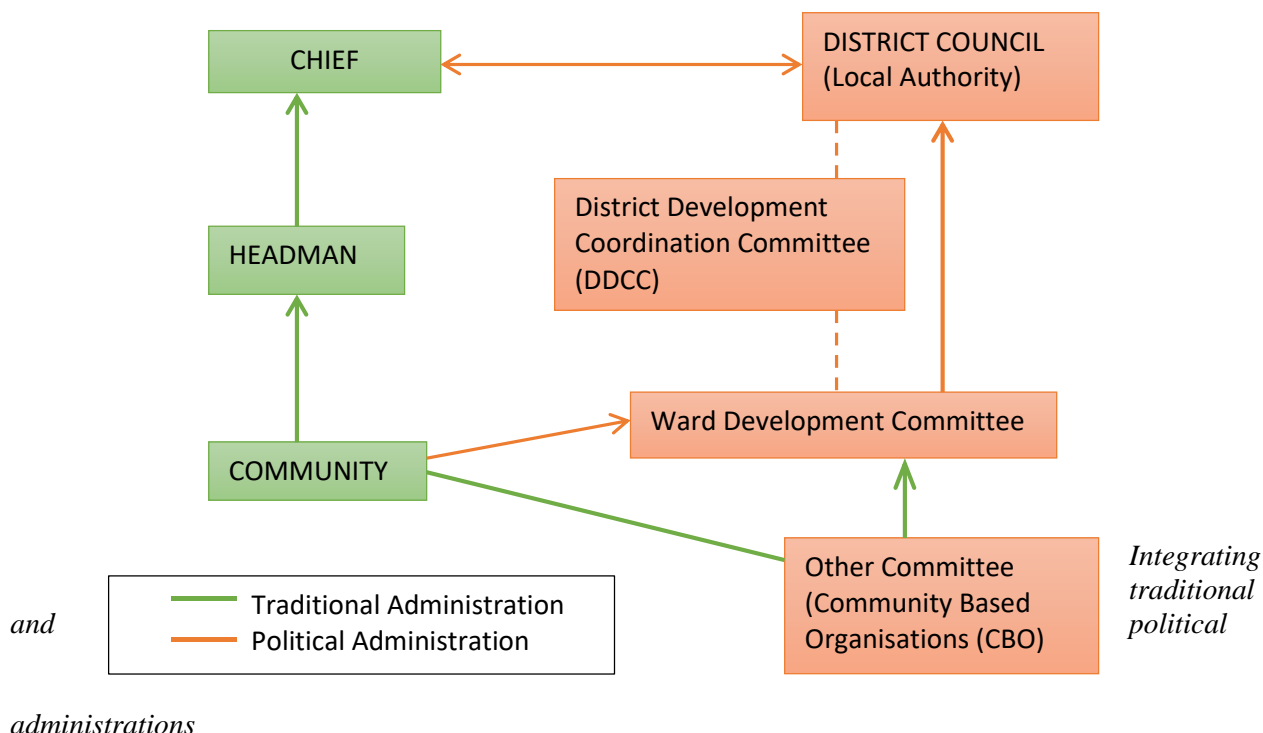
¹⁶ FAO & UNDP. 2020. Conservation agriculture for climate change adaptation in Zambia: A cost-benefit analysis. Rome, FAO.

2.4. Institutional, sectoral and policy context

Provincial and District Governance Structures

94. The structure of planning and coordinating district level activities (Figure 9) by Government line Ministries, NGOs and Private sector is through the District Development Coordinating Committee (DDCC), which is meant to be a technical advisory committee to local Government, with the overall aim of coordinating, implementation and monitoring of district development projects. District councils play a coordinating role within the districts. The District Planning Officer sits on all the council departments as well as the DDCC which comprises the District Commissioner, Government Departments, Non-Governmental Organisations, Private Sector and technical council staff. The office of the District Commissioner (DC) through the District Development Coordinating Committee creates a platform for all the stakeholders in the district to interact and exchange information and plan for the development of the district. The District Development Coordinating Committee through its various committees provides an opportunity for the harmonisation and collaboration of activities for purposes of more efficient management of financial and human resources.
95. A similar structure exists at provincial level where the Provincial Development Coordinating Committee (PDCC) performs the role of coordination between the various government departments and NGOs. The PDCC is headed by the provincial minister
96. The Sub-Committee on Agriculture and Natural Resources or another name given to such a committee provides technical support implementation of projects at district level. A similar structure exists at provincial level where the Provincial Development Coordinating Committee (PDCC) performs the role of coordination between the various government departments and NGOs. The PDCC is headed by the provincial minister.
97. The proposed project can seek to integrate these same structures to seek to enhance sustainability of the project.

Figure 9: District Level Government and Traditional Structure



98. The National policies have been reviewed over the years towards local communities' involvement and participation. The Forestry Policy of 2014 and the Forests Act No. 4 of 2015 promote sustainable forest management through local community participation. Communities can be empowered to management forests through the creation community forest management groups (CFMG). In a similar way, the legal framework for wildlife makes it possible for the chiefs and local communities to be integrated into the management of GMA through the creation of community resource boards (CRB). The legal framework for fisheries makes it possible for communities to be integrated into fisheries management through the creation of community fisheries management committees. Local government and the chiefs have a vital role in the preservation and control of utilization of natural forests since they can facilitate local level rules and regulations or even by-laws.
99. At present the legal frameworks for forest, wildlife and fisheries all require the creation of separate community structures for each sector. The development of a new national policy on community-based natural resources management (CBNRM Policy) has been initiated and a draft policy document prepared. Ideally, this new policy will make it possible for a single community structure to be empowered for the management of all of each community's renewable natural resources.
100. People tend to respect more the advice and decisions of the Chiefs. Therefore, development actions are always passed through the Chiefs for courtesy and to draw advice as well. Strategies to lessen the pressure on forest and Institutions involved in promoting alternative forms of energy including tree planting are supported and encouraged using the same channels.

Sectoral Institutions in NWP

101. The Forestry Department in NWP has a total staff complement of 76 (including 3 forestry officers, 36 forest extension staff and 9 forest guards)¹⁷ and an annual budget of US\$130,337 (US\$651,685 over the 5-year time frame of the project). The FD staff support the existing Community Forest Management Groups, they implement ongoing forest patrols, beacon identification and boundary maintenance, conduct early burning, enrichment planting and assisted natural regeneration, forest inventories, forest research and development. FD supports the planning, management, monitoring and enforcement of protected forest areas and facilitates the development of public-private-community partnerships in the stewardship of protected forests. FD will lead the implementation teams at the district level.
102. The Department of National Parks and Wildlife in NWP is responsible for the management of national parks and Game Management Areas (GMA). DNPW supports Village Action Groups (VAGs) at the village level and Community Resources Boards at the Chiefdom level in GMAs in planning and control of land use in GMAs in partnership with communities; monitoring of wildlife populations; administration of Village Scout programs; negotiation of hunting concessions in partnership with communities; collection of hunting revenues and (partial) allocation to Community Resource Boards (CRBs); and monitoring usage of funds by CRBs. They will be a partner in the implementation of this project.
103. The Department of Fisheries of the Ministry of Fisheries and Livestock in NWP is responsible for the management of fisheries in lakes, streams and wetlands. They support the development of community fisheries management committees.
104. The Department of Agriculture in the Ministry of Agriculture provides extension services in crop and horticultural production, nutrition, crop protection and soil fertility to smallholder farmers.

¹⁷ The approved organogram for the FD in NWP makes provision for 130 staff (i.e. 54 posts are currently unfilled).

National Policy and Legal Framework

105. Over the past few years, Zambia has also made significant progress on developing a conducive policy environment and the requisite legislative instruments¹⁸ at national level that will form the building blocks for the implementation of this project. The *Forest Act (2015)* and the *Wildlife Act (2015)* now provide for the creation and empowerment of local Community Forest Management Groups (CFMG for forest management on communal lands, local forests and Game Management Areas (GMAs) and Community Resource Boards (CRB) and village action groups (VAG) in GMAs. The *Chiefs Act* and *Village Act* now provides for the administration of rural land through customary law by traditional authorities. The *Decentralisation Policy*, *Forest Policy* and *Forests Act* has also established measures to improve land security and forest resource rights for rural communities. The *Community Forest Management Regulations (2018)* now enables the development and implementation of community forest management agreements with rural communities in some protected forests and communal areas. In the management of natural resources (e.g. forests, wildlife, fisheries and the related sector of agriculture), the following policies and legislations apply. The design of the project takes into account the following policies and legislations:

- Seventh National Development Plan of 2017 Seventh National Development Plan (7NDP, 2017):

Emphasises an integrated (multi-sectoral) development planning and implementation approach with a goal to create a diversified and resilient economy for sustained growth and socio-economic transformation driven, among others, by agriculture, natural resource management, climate and low carbon development pathway. This is in support of Smart Zambia Transformation Agenda 2064 in line with the UN 2030 Agenda for Sustainable Development and the African Union Agenda 2063. Local Government Act (1995)

- The 1991 Local Government Act, amended in 1992 and 1995, is the basic law on local Government in Zambia.

This law and the Public Sector Reforms Program launched in 1993, provide the basic regulatory framework for Government Decentralization in Zambia. Under the Local Government Act, local authorities are empowered to make by-laws and to set standards and guidelines for provision of services.

- Zambia's Decentralization Policy which was developed in 2002 and launched in 2004 aims at decentralization of Government responsibilities, functions and resources from the centre through devolution to District Councils and lower level structures.

The Decentralisation Policy aims at empowering local communities by devolving decision-making authority, functions and resources from the centre to the lowest level with matching financial resources in order to improve efficiency and effectiveness in the delivery of services; designing and implementing mechanisms to ensure a "bottom-up" flow of integrated development planning and budgeting from the District to the Central Government. In addition, they can design levies considered beneficial to the Council.

¹⁸ These include: *Vision 2030*; *Sixth National Development Plan (SNDP, 2010)*; *National Policy on Environment (NPE, 2007)*; *National Adaptation Programme of Action on Climate Change (NAPA, 2007)*; *Environmental Management Act (EMA, 2011)*; *National Climate Change Response Strategy (NCCRS, 2012)*; *National Policy on Climate Change (NPCC, 2012)*; *Forest Policy (2014)*; *National Agriculture Policy (2014)*; *National Biodiversity Strategy and Action Plan (NBSAP, 2005)*; *Decentralization Policy (2002)* and *Implementation Plan (2009)*.

- National Climate Change Policy of 2016

The Policy (NCCP) was formulated to provide a framework for coordinated action on climate change and variability towards a climate resilient and low carbon development pathway as envisaged in Zambia's Vision 2030. The Policy addresses both mitigation and adaptation to climate change. Mitigation aims at reducing emissions into the atmosphere, which can be achieved by conservation and management of forests, tree planting, natural regeneration in degraded forest areas, fire management and applying appropriate tillage and livestock management. On the other hand, adaptation to climate change involves changes in agricultural management practices in response to climate change, some of the examples are planting drought resistant crops, crop diversification, changes in cropping pattern and calendar of planting. Furthermore, the conservation of forests and their value to local communities as sources of diverse and climate-resilient livelihoods is also a critical component of any rural climate change adaptation strategy.

- Agricultural Policy of 2015

The policy recognises the significance of climate change adaptation by promoting climate-smart agricultural practices such as conservation agriculture and agroforestry and linkages to other sectors such as forestry, energy, land use and infrastructure development. It also promotes improving productivity per unit area in order to save the forests.

- Climate-Smart Agriculture Investment Plans (CSAIP)

The overarching goals of the CSAIP are to identify and prioritize key policy actions, investments and knowledge gaps and build on existing policies, strategies, and lessons learned through engagement with the agriculture sector to assess how CSA investment can strengthen climate change adaptation and mitigation initiatives and prioritize investments that promise cost-effective CSA approaches to achieving overall sector goals.

- National Forestry Policy of 2014

The vision of the forestry sector is to attain a sustainable forest management of all types of forests to enhance forest products and services, that will contribute to mitigation of climate change, income generation, poverty reduction, job creation and protection, community participation and maintenance of biodiversity.

- The Forest Act of 2015

Provides for sustainable management of forest resources through community and private sector participation and equitable benefit sharing mechanisms between partners in sustainable forest management. Community forest management (CFM), Joint Forest Management (JFM) and private forests are participatory forest management categories provided for in the Forests Act No. 4 of 2015 aimed at ensuring that stakeholders participate in the conservation and management of forests. In addition, it supports the participation of local communities in the management and utilization of forest resources at all levels of decision making, implementation, monitoring and evaluation.

- The Statutory Instrument for the Forest Act was passed in 2018. The Statutory Instrument, however is very brief and does not address many issues related to the application of the Forest Act. A preliminary analysis of the shortcomings of the SI was performed during PPG and the highlights of its potential shortcoming are present in the barriers section below.

- National Strategy to Reduce Deforestation and Forest Degradation (REDD+)

The strategy provides overall guidance on actions to be undertaken in key sectors such as agriculture, energy and land use more broadly, as well as guidance on thematic and core design issues such as incentive payments, financing, benefit sharing, safeguards, carbon rights, conflict management, measurement, reporting and verification (MRV) systems, and Reference Emission Levels/Reference Levels, amongst others.

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- Forest Investment Plan to Reduce Deforestation and Forest Degradation

The Investment Plan provides a combined-three-way aspiration to conserve, recover and restore forest production landscapes supported by an enabling environment. The Investment Plan that takes into account a consultative participatory approach in order to improve local community livelihoods through appropriate benefit sharing mechanism among partners. Benefits can be generated from forest products as well as payment for ecosystem services. These actions will result into reduced Green House Gas (GHG) emissions.

- District-level development planning.

Districts are required to develop District Integrated Development Plans (DIDP). CFM has both environmental and development benefits, but CFM is still in an innovative phase testing the development of appropriate models. CFM has not yet been integrated into DIDP. This is a policy gap that the Project intends to fill in the districts where it works.

2.5 Stakeholder mapping and analysis

106. The GEF project affects a wide range of stakeholders in Zambia, ranging from Government to local communities living in forest areas, alongside endangered wildlife. In addition, the project has a far-reaching impact on stakeholders along the value chain, from source to demand nations overseas. During the Project Preparation Grant (PPG) phase, a stakeholder analysis was carried out to identify the key stakeholders, assess their interest in the project, and define their roles and responsibilities in its implementation. Numerous stakeholders were involved in the Project Preparation phase and have provided key inputs to the development of the baseline and anticipated activities. The FD hosted several meetings during the Project Preparation Phase that brought together many more stakeholders as reflected in the table 7 below; more details are provided in Section 5.

TABLE 7: PROJECT STAKEHOLDERS AND ROLES

Stakeholder Category	Name of Stakeholder	Role
Public Sector	Ministry of Lands and Natural Resources (MLNR) Forestry Department (FD)	<ul style="list-style-type: none"> - Project oversight and implementation. - Supports the planning, management, monitoring and enforcement of protected forest areas. Facilitates the development of public-private-community partnerships in the stewardship of protected forests
	Department of National Parks and Wildlife (DNPW)	<ul style="list-style-type: none"> - Project collaborating partner in implementation. - Supports VAGs in targeted GMAs in planning and control of land use in GMAs in partnership with communities; monitoring of wildlife populations; administration of Village Scout programs; negotiation of hunting concessions in partnership with communities; collection of hunting revenues and (partial) allocation to CRBs; and monitor usage of funds by CRBs
	Ministry of Agriculture and Livestock	<ul style="list-style-type: none"> - Project collaborating partner in implementation - Provides agricultural extension services in crop production, horticultural production, nutrition, crop protection and soil fertility to smallholder farmers
	Department of Fisheries (DoF)	<ul style="list-style-type: none"> - Support to Forest and wildlife management within the context of GMA as multiple use zones
	Ministry of Community Development and Social Services (MCDSS)	<ul style="list-style-type: none"> - Project collaborating partner in implementation - Provides training to District Officers in gender equality in line with gender action plan
	Zambia Environmental Management Agency (ZEMA)	<ul style="list-style-type: none"> - Knowledge sharing - Regulating EI of some developments, Coordination, collaboration and information-exchange
	Citizenship Economic Empowerment Commission (CEEC)	<ul style="list-style-type: none"> - Potential funding and linkages with private sector investors
	Development Bank of Zambia (DBZ)/Banks	
	Zambia Development Agency (ZDA)	
Local Authority	District Leadership (District Commissioner)	<ul style="list-style-type: none"> - Local government support to conservation and sustainable development
	Local Municipality/ Council/ District Councils in relevant districts	<ul style="list-style-type: none"> - Project collaborating partner in implementation. - Integration of SFM into IDPs; delivery of services to target communities
	Chiefs / traditional authorities in project	<ul style="list-style-type: none"> - Project collaborating partners in implementation

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	LFs and GMAs	<ul style="list-style-type: none"> - Approves establishment of CFMAs/ PFMAs; provides support to community-based forest management; oversees VAGs, CRBs and CFM Groups
Private Sector	Corporate Business (Mines, Timber companies, Honey Companies, Out-grower Schemes Micro-finance institutions, Agricultural businesses Forest carbon project development companies)	<ul style="list-style-type: none"> - Prospective project collaborating partners in implementation - Provide access to credit for small businesses; deliver project co-financing; support project implementation; support capacity building and training of CFMGs and SFMCs; mitigate sectoral impacts on the integrity of protected forest areas.
		<ul style="list-style-type: none"> - Narratives for Carbon markets and community beneficiation on carbon schemes, the role of carbon initiatives enhancing conservation and socio-economic outcomes
	Business Associations (Wildlife Producers Association of Zambia Safari Hunters Outfitters Association of Zambia Timber Association of Zambia Zambia Honey Council)	<ul style="list-style-type: none"> - Creating business opportunities for members
	Small businesses (Producer groups) Honey producers, pit sawyers, mushroom gatherers,	<ul style="list-style-type: none"> - Private sector support to business development, market linkages and financing and advocacy
Big International and Non-Governmental Organizations (BINGOs)	The Nature Conservancy (TNC) World Wide Fund for Nature (WWF) African Parks (AP) WeForest,	<ul style="list-style-type: none"> - Project Executing Agency - Implementing project activities in the GMAs adjacent to Kafue NP - Policy and management narratives for CFMA, GMA management, the role of NBE in enhancing conservation outcomes
Civil Society Organizations	Wildlife and Environmental Conservation Society of Zambia National CRB Association CBNRM Forum Grassroots Trust	<ul style="list-style-type: none"> - Prospective project collaborating partners in implementation - Support implementation of sustainable forest and agricultural management activities; support capacity building and training of CFMGs and SFMCs; promote market linkages.

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Community-based Organizations	Village Action Group/ CRB/ PFMC/ CFMG in project LFs, GMAs and communal lands, Local Foundations/Trusts	<ul style="list-style-type: none"> - Role of CBNRM principals in improving community conservation stewardship and beneficiation; Policy and regulatory barriers and opportunities and, proposed best management models for community led conservation - Project beneficiaries and project collaborating partners in implementation - As outlined in the Wildlife Act and Forest Act. develops, monitors and implements forest management plans; allocates and controls income and expenditure from forest resources; employs and manages community forest guards; hosts community meeting; maintain records and reports.
Donors/multilateral institutions	USAID,	<ul style="list-style-type: none"> - Synergy building in project implementation - Knowledge sharing - Coordination, collaboration and information-exchange - Potential financing to community conservation initiatives via the HEARTH programme in the Kafue landscape
	United Nations Development Program, World Bank, FAO, Govt of Finland)	<ul style="list-style-type: none"> - Knowledge sharing - Coordination, collaboration and information-exchange - Potential financing to community initiatives
Research and academic institutions	Mulungushi University Copperbelt University The University of Zambia Mwekwere Technical College Zambia Agriculture Research Institute Kapasa Makasa University Zambia Forestry College	<ul style="list-style-type: none"> - Prospective project collaborating partners in implementation - Support implementation of community, forest and agricultural monitoring and research activities; support mentoring, capacity building and training initiatives. - Provide professional views on interventions within the context of improved conservation outcomes and community beneficiation; policy support required, and other enabling conditions required - Largest agricultural research entity in Zambia with 10 research stations. Seeks to develop and adapt crop soil and plant protection technologies.
Vulnerable groups	Women Youth Physically challenged Elderly men and women Children Unemployed	<ul style="list-style-type: none"> - Knowledge sharing - Targets for participation, economic empowerment and transformation
Others	International networks and initiatives	<ul style="list-style-type: none"> - Knowledge sharing - Coordination, collaboration and information-exchange

2.6. Baseline analysis

107. In the baseline scenario without the GEF-7 project, nearly all work on the creation of CFMA in Zambia is done with donor support. The associated baseline projects are summarized in table 7, in section 2.6 of the project document. The Forestry Department (FD) in NWP has a total staff complement of 76 (including 3 forestry officers, 36 forest extension staff and 9 forest guards)¹⁹ and an annual budget of US\$130,337 (US\$651,685 over the 5-year time frame of the project). Forestry Department staffing levels in NWP are therefore very low at an average of 4 per district – mostly forestry extension agents. They have responsibility for promoting community involvement in forest management, but most have little in terms of guidelines or training on how to go about doing this except for those who were involved in the Finnish-funded Decentralised Forest and other Natural Resources Management Programme. Forestry staff with such experience in Kasempa District have recently completed the first phase of the creation of two new, large CFMA. The second phase of development of forest management plans are still to be done. Department of National Parks and Wildlife staffing in the province is very low and is organised according to regions where National Parks and Game Management Areas are located. The Department of Fisheries staffing levels are low with an average staffing of 3 per district and with limited mobility. The Department of Agriculture is the one institution that is well structured and present in all the districts. At district level, each district is divided into Blocks and further into Camps. Extension Staff at community level (Camps) on average is about 25 per district – Kalumbila District has 30. Most staff lack any means of transport and extension messages have a strong emphasis on the use of chemical fertilizers and little involvement in sustainable agricultural technologies. The only donor-funded project presently working towards the creation and capacity development of CFMA in NWP at present is the FQM support for the West Lunga Conservation Project – and they are in the very early stages of awareness raising.
108. Under this scenario there are no viable examples of established CFM initiatives in NWP that are operational with tested, proven sustainable forest management systems and that are generating substantially more benefits than costs for communities and their members. Similarly, there are no clearly successful sustainable agriculture initiatives that are both effective in maintaining soil fertility and that enjoy high rates of farmer adoption. Without the GEF Project, this is not expected to change substantially as the CFMGs created under the Finnish project have no functioning sustainable forest management systems and have created no new benefits for communities while creating new obligations. There has been an almost total absence of business development expertise applied to the existing CFMG. Very exceptionally, two new and very large CFMA were just created in Kasempa Province in August 2020 with the help of the local forest department staff and without the assistance of any donor project. While this is a very promising development, it has not addressed the fundamental weaknesses of the existing model of CFM, the need to strengthen the capacity of government agencies to provide technical advice to the communities, the need for sustainable financing opportunities, and the need for revising the statutory instrument to better enable CFM to develop at scale.
109. The one promising development towards more effective CFM models comes from the initiative for the West Lunga Complex. The approach there was evolving rapidly during the preparatory phase and was almost certainly influenced by the ideas put forward by the PPG team. The West Lunga Conservation Project plans to take a strongly enterprise-based approach and has recently decided to create new CFMG in the Ntambu Chibwika GMA in the West Lunga Complex. However, their thinking is primarily about business development for individual value chains and not viewing the community management of forest/natural resources itself as a community enterprise that covers natural resource management costs out of profits to secure its sustainability. Without the GEF 7 Project, these limited initiatives would probably increase the profitability of individual value chains, but it is not clear that this would result in tested proven systems of community management of forests and natural resources as indicated in the previous paragraph.

¹⁹ The approved organogram for the FD in NWP makes provision for 130 staff (i.e. 54 posts are currently unfilled).

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110. For sustainable agriculture, the major finding of the preparatory phase was the very low farmer adoption rates for conservation farming. The key challenge to SLM on agricultural lands is that of maintaining soil fertility and agricultural productivity at high levels. The complex of technologies that go under the heading of conservation farming in Zambia is perhaps the most successful at maintaining soil fertility and agricultural productivity at high levels. The barriers to adoption that have led to this have been insufficiently identified and certainly include the increased level of labour required to implement conservation agricultural practice coupled with the long lead time before the benefits of adoption become apparent in crop yields. Food insecure households also face a limited choice set due to the costs and perceived risks of adaptation, imperfect access to input and output markets, and lack of insurance and credit. This has led the project to put a greater emphasis on in-depth surveys of farmers and extension agents to better identify those SLM technologies that are both effective and that have high adoption rates and to better understand the barriers to the adoption of technologies that are technically sound but with low adoption rates. Under the baseline scenario, this barrier will remain poorly defined and only partially addressed.
111. Table 8 below provides a detailed baseline of past and current initiatives related to community based natural resource management (forests and wildlife) and sustainable agriculture.

TABLE 8: BASELINE OF PAST AND CURRENT INITIATIVES

Project Name, Location, Donor and Funding	Period	Objective	Relevance for GEF 7 Project Design
Ongoing GEF Initiatives			
FAO/GEF Climate Change Adaptation in Forest and Agriculture Mosaic Landscapes, GEF ID 10186 with US\$7,019,700 in GEF funding.	2021-2025	Support climate change resilience in productive landscapes through improved coordination, sharing of knowledge, and uptake and diffusion of knowledge through forest and farm producer groups, farmer field schools, cooperatives, schools and CBOs. Their forest component will focus on NTFP.	Project partners have been consulted during preparation demonstrating good opportunities for collaboration on knowledge management (Output 1.4) in the areas of the review of previous experiences in CFM and sustainable agriculture and the sharing of lessons learned and best practices for all three components during the life of the two projects.
UNEP/GEF Building the resilience of local communities in Zambia through the introduction of Ecosystem-based Adaptation (EbA) into priority ecosystems, including	2021-2025	To increase the capacity of government and local communities in Zambia living around wetlands and forests to adapt to climate change using Ecosystem-based Adaptation (EbA).	Maintain a dialogue to explore synergies in terms of community forest management approaches and wetland conservation (Outcomes 1 & 2) and on the extension of technologies for sustainable and climate resilient agriculture (Outcome 3). Since the EbA project implementation is starting in Q1 2021 and is executed by the Department of Climate Change and Natural Resources Management of the MLNR, UNEP, as implementing

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Project Name, Location, Donor and Funding	Period	Objective	Relevance for GEF 7 Project Design
wetlands and forests. Project No. 8034 with US\$6,185,000 in GEF funding.			agency for the EbA project and the proposed project, will promote and facilitate cross-sectoral exchange of best practice and lessons learned between the Departments and their executing partners, including measuring and monitoring improved climate resilience and socio-economic benefits.
FAO, World Bank, IUCN GEF Global Coordination Project for the SFM Dryland Sustainable Landscapes Impact Program. GEF funding \$8,056,881.	2021-2026	Provide strategic support to the Drylands Sustainable Landscapes Impact Program with a strong emphasis on knowledge management amongst the IP projects/countries. Capacity building, monitoring, adaptive management and feeding knowledge and results into regional and global hubs.	The Impact Program will work in several miombo countries (Namibia, Angola, Zimbabwe, Kenya & Tanzania) and the Project looks forward to sharing common challenges, experiences, best practices and lessons learned from Outcomes 1, 2 & 3 through the Global Coordination Project.
Zambia Lake Tanganyika Basin Sustainable Development Project. GEF financing \$ 7,334,247. Implemented by ADB.	2016-2022	To improve natural resources management and the livelihoods of communities in Zambia's Lake Tanganyika Basin through the sustainable and integrated use of lake resources	The project will seek to exchange lessons learned related to Outcomes 1, 2 & 3 on SLM/SFM and on sustainable agriculture. The CFM component had not yet started as of the last PIR available, and forest activities focused on planting exotics.
Completed GEF Initiatives			
Strengthening Management Effectiveness and Generating Multiple Environmental Benefits Within and Around Zambia's Greater Kafue and West Lunga National Parks. The project is a GEF Project implemented through UNDP with funding of US\$16,188,864	2016-2020	The project objective is to protect the biodiversity and carbon sinks of the Greater Kafue and West Lunga National Parks from threats through effective management by local institutions, communities and economic actors using sustainable forest and land management practices.	Lessons from the 2017 MTR pointing at management bottlenecks have informed our implementation modalities (section 4). The Project supported local initiatives like beekeeping and wildlife management which could provide practical lessons for GEF7 Outcomes 1 & 2. No conservancies/ community structures for forest or wildlife management were created as of the 2019 PIR due to delays in making the legal framework for community management operational. Proposed VAG not formalized and carbon financing not initiated as of 2019. CFM plans not done. Lesson: the importance of creating empowered community management structures that can sustain the activities initiated. The Terminal Evaluation is underway and this project will review its lessons learned, including on the ILUP done for each VAG.

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Project Name, Location, Donor and Funding	Period	Objective	Relevance for GEF 7 Project Design
Promoting Climate Resilient Community-based Regeneration of Indigenous Forests in Zambia's Central Province. Implementation UNDP. GEF financing \$3,885,000.	Ca.2015-2020	To increase the rate of forest regeneration and promote climate-resilient adaptation practices among forest-dependent communities in Zambia's Central Province.	The project is relevant to all 3 GEF7 outcomes. The project created 30 VAG and 154 user groups and 15,604 ha of assisted natural regeneration (ANR) forests. The TE states a) the VAG have no legal rights to the ANR; b) The ANR have no legal status and were not converted to CFMA after the 2018 Forest SI was adopted; c) no management plans were done for the ANR - Lesson: Essential that CFMG and their management plans must be approved by MLNR for communities to be empowered for CBNRM; d) capacity of FD staff to support improved community forest management considered less than optimal - Lesson: PIU needs field staff to complement district staff; e) fire management plans are based on firebreaks with no indication on how to pay for the large labour needed to maintain them - Lesson: GEF7 needs to bring in fire management expertise; f) Charcoal could not be licensed as "sustainable" because there were no forest management plans - GEF7 must pay close attention to SFM planning for the sustainable production of wood products; f) Project had no linkage between improved forest protection and improved fuelwood supply - Lesson: forest management should be developed from a business perspective; g) COMACO did a good job on income generating activities with user groups - COMACO has been contacted and is interested in becoming a project partner for honey, mushroom and caterpillar value chains; h) FD has no post-project funds for supporting VAGs - Lesson: Close attention must be paid to financial sustainability. Counting on government post project alone is a high risk; i) the 15,000 ha is too small to have any meaningful impact; j) the project design was weak in its understanding of forestry and NRM; GEF-7 Project should analyse the profitability/relevance of their experience with improved earthen kilns, briquetting machines, food (mushroom and caterpillar) driers using briquettes, early burning regime and agroforestry.

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Project Name, Location, Donor and Funding	Period	Objective	Relevance for GEF 7 Project Design
Ongoing Non-GEF initiatives			
WWF Upper Zambezi Programme. \$1,050,000 over 3 years 2018 – 2020.	2018 - ongoing	Kabompo River in West Lunga Complex is one of 3 focal areas. WWF has established baseline for aquatic biodiversity, fish and fisheries. Two iconic fish species are in serious decline (yellowbelly fish and tier fish). and two serious alien invasive species have been identified – Nile tilapia and a species of crayfish). Over next four years, will shift focus to conservation activities under the following themes: a) conservation and management support to PA b) development and support to nature-based economies; c) ecology, biodiversity, hydrology and natural resource use/livelihoods research with continued collection of long term data; d) advocacy and awareness raising, and; e) influencing the development agenda for the region and monitoring environmental compliance.	WWF has been working closely with Trident Foundation and the West Lunga Conservation Project and has become a co-financier of the GEF-7 project. WWF will provide technical expertise and monitoring for the development of community fisheries management for conservation of aquatic biodiversity at project sites where conditions are suitable and where communities request this assistance – Outcomes 1 & 2.
Strengthening climate resilience of agricultural livelihoods in Agro-Ecological Regions I and II in Zambia (SCRALA). The UNDP, FAO and WFP US\$32m Green Climate Fund (GCF) funded project.	2018 – 2025	Aims to help smallholder farmers across 16 districts within the designated Agro-Economical Regions plan for climate risks that threaten to derail development gains, make their farming more resilient and diversified, and give them better access to markets	Lessons and approaches will be analysed for their pertinence for Outcome 3 of the Project.
Kalumbila Minerals Ltd.-funded Trident support for sustainable agriculture and forest conservation around Kalumbila – 625,000US\$ annually.	2014 – 2025	Trident’s agriculture programme is one of several components of their corporate and social responsibility programme that they implement for Kalumbila Minerals Ltd. Until 2020, they had a strong focus on conservation farming. They also have an MOU with Forest	Trident recently discovered that the farmer adoption rates of their conservation farming demonstrations and extension programme were very low. Trident will work with the GEF-7 Project at the Kalumbila site to discover the causes of low adoption and to develop a programme of trials to overcome the barriers identified. Trident has recently begun testing of

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Project Name, Location, Donor and Funding	Period	Objective	Relevance for GEF 7 Project Design
		Department to enhance the conservation of the two national forests on opposite sides of Kalumbila town.	portable night corrals that are rotated across a field for direct manuring of farmer fields buy cattle. Early results look very promising and will be integrated into Component 3. Trident will help develop CFM on communal lands and will therefore collaborate on all three Project components.
Zambia Integrated Forest Landscape Project' (ZIFLP) is implemented in all the districts of Eastern Province and Supported by the Biocarbon Fund and facilitated by the World bank amounting to US\$32.8 million.	2017-2022	The Project objective is to improve forest and wildlife management in the landscapes of Eastern province and increase environmental and economic benefits from natural resources for targeted rural communities and to improve the Government capacity to respond promptly and effectively to an Eligible Crisis or Emergency.	The project is implementing a landscape approach covering forestry, agriculture and wildlife. The project aims at reducing emissions from deforestation and forest degradation. It supports conservation of forests and tree planting, forest management and sustainable agriculture practices with minimum tillage. The Project is in contact with the ZIFLP team to share lessons learned and best practices concerning all three Project components, although recent PIRs indicate satisfactory progress there seem to be important delays and there is good opportunity to learn important lessons.
Forest and Farm Facility Programme. It is supported by FAO and implemented in Southern and Eastern Provinces amounting to US\$350,000	2018-2022	The project focuses on strengthening forest and farm producer organizations as primary agents of change for climate resilient landscapes and improved livelihoods. If you strengthen producer orgs without forest management, you generally accelerate forest degradation.	The project focuses on building forest-based enterprises aimed at improving livelihood. The project includes information centres, beekeeping and charcoal production, but development of forest management seems to be lacking. The Project has engaged with the team to share lessons learned and best practices for value chain development – relevant to Outcomes 1 & 2. Making value chains like charcoal more profitable without developing SFM runs the risk of increasing pressures on the forest.
The US\$4,000,000 contribution of First Quantum Minerals (FQM) to the West Lunga Management Area Public Private Community Partnership which has now evolved into the West Lunga Conservation Project	2014-2025	Implemented by the Trident Foundation in West Lunga National Park, Luji National Forest and the three surrounding Game Management Areas in the North West Province of Zambia. The overarching objective is to rehabilitate the ecological functions of the West Lunga Management Area, and restore the complex of mammal species that have become locally extinct or endangered, whilst	This project is focused on one of the two main areas of biodiversity of global importance in NWP. FQM has become a co-financing partner for Project components 1 and 2. WLCP has started supporting CFM development in Chibwika Ntambu GMA.

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Project Name, Location, Donor and Funding	Period	Objective	Relevance for GEF 7 Project Design
(WLCP). Funding for 2020 is US\$720,000.		preserving the integrity of the hydrological ecology and indigenous woodlands for the benefit of local communities.	
A privately funded (US\$200,000) TNC project in the Mujimanzovu Chiefdom, adjacent to Kasempa District. Potential extension to 2024 for a total of \$500,000.	2019 – 2021 Potential extension to 2024	Developing a nature-based business model for 44,000ha of communal land, part in and part out of a GMA. Visioning process, development of a business plan, securing customary title to conservation lands, development of a CRB, deployment of scouts, management for wildlife, honey, fisheries, possibly carbon credits, potential creation of a CFMG.	The overall approach is very similar to that of the GEF-7 Project for Outcomes 1 & 2. TNC's experience and lessons learned from this project should be of great value for strengthening the governance of CFMG and CRB at the Project sites and in the development of nature-based community-level enterprises based on forestry, fisheries and other resources. The site is adjacent to the Kasempa Community Foundation site.
HEARTH Project (\$10m, five years Global Development Alliance project funded by USAID -- pending) in the eastern Kafue Ecosystem managed by TNC	2021 - 2026	Strengthening community-based resource protection and management, enhancing community tenure over natural resources strengthening community conservation governance, stimulating private investment and building a nature-based economy in and around Lunga Luswishi, Mumbwa, Namwala and Nkala GMAs	Many of the objectives of the project are similar, including supporting the development of CFMGs and CFMAs and community business development in support of a conservation economy in Kasempa Lunga Hunting Block. Both projects run simultaneously under the same management so symbiosis and the transfer of lessons is assured. Relevant for Outcomes 1 & 2.
Africa Forest Carbon Catalyst (a TNC incubation facility for forest carbon projects across T-NC Africa's priority geographies. The AFCC has pledged \$350,000 to Zambian REDD+ initiatives is 2021, with potentially more added in future years	2021-?	Support to a Biocarbon Partners community forest carbon project feasibility study across the Kafue GMAs, including Kasonso Busanga and Lunga Luswishi and the open areas surrounding these GMAs. Support is primarily directed towards an intensive FPIC process for communities potentially interested in participating. AFCC is also supporting an initial scoping of forest carbon opportunities in the West Lunga landscape, with support channelled through West Lunga Conservation Project	This initiative scopes the opportunity for carbon projects in two of the three GEF-7 focal areas. If communities are willing and able to participate and if forest cover and threat levels are deemed to be 'viable' from a commercial point of view, the full project development will take place, which includes support to the creation and strengthening of CFMGs and ensuring that they are ready to receive, manage and distribute the significant revenues generated by such projects. Relevant for Outcomes 1 & 2.

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Project Name, Location, Donor and Funding	Period	Objective	Relevance for GEF 7 Project Design
Completed Non-GEF Initiatives			
Provincial Forest Action Plan (PFAP) A funding from the Government of Finland amounting to EUR €2 million. It was implemented in Luapula, Central, Copperbelt and Southern Province	1995-2008	To prepare Provincial Forest Action Plans and develop replicable Joint Forest Management (JFM) model to ensure that the participating communities gain user rights and, as a consequence, economic benefits from forest management activities.	The project established and developed local community structure for forest management. It piloted Joint Forest Management and supported forest-based enterprises (Honey, Beeswax, mushrooms, caterpillars etc.). It also generated data through forest resource assessments (inventories) in the provinces. The project was also instrumental in providing lessons for participatory forest management resulting in the revision of the Forestry Policy to include community management and co-management. Of interest for lessons for Outcomes 1 & 2.
Community Forest Management Project The Project was supported by USAID with financing amounting to about US\$14 million and implemented in Eastern Province (Mambwe and Mfuwe areas).	2014-2019	To reduce emissions from deforestation and forest degradation, reduce poverty, and conserve biodiversity values in the Luangwa Valley.	As a carbon offset project, the Project was implemented by Biocarbon Partners (private social enterprise) as a Forest Carbon Project designed on the principles of REDD+. It focused on avoided deforestation and supported local community in various enterprises including sustainable charcoal production and ultimately led to 1m ha of forests being verified as a REDD+ project. Lessons of direct interest to the carbon value chains in Outcomes 1 & 2.
Decentralised Forest and other Natural Resources Management Programme (DFNRMP) in Kasempa and Mwinilunga districts in NWP supported by the Government of Finland with financing of €4.5 million.	2014-2017	To develop the enabling framework and to strengthen and operationalize devolved integrated sustainable forest and other natural resources management systems, including improved livelihoods. It worked in 6 districts and, in NWP, established 6 pilot CFMG in Kasempa District and 2 in Mwinilunga District. DFNRMP was intended to be the first 3-yr phase of a 7 yr programme of support to CFM in Zambia, but programme ended	The Project established local community forest management structures (CFMG) but had marginal impacts on forest management and generation of benefits for communities. The six existing CFMG in Kasempa District provide an opportunity for the GEF-7 project to develop an early focus on enhanced forest management and effective community forest-based enterprises. Lessons: GEF-7 must put a great emphasis on: a) business planning and enterprise development; b) making CFM a self-financing community enterprise financed out of profits; c) must develop community capacities for governance, NRM and

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Project Name, Location, Donor and Funding	Period	Objective	Relevance for GEF 7 Project Design
		prematurely at the end of the first phase.	business management.
The Community Markets for Conservation Landscape Management Project implemented by COMACO	2012-2019	To reduce GHG emissions through the sustainable management of 270,698 hectares (ha) of land. The COMACO works with illegal wildlife poachers to provide alternative livelihood skills and train small-scale farmers in the leading practices of climate-smart, sustainable agriculture. It buys crops from local farmers at premium market prices and turns them into high-value food products that are sold under the brand <i>It's Wild!</i>	Of interest for the sustainable agriculture Component 3 and for value chain development for Components 1 & 2 of the GEF-7 project. The strengths and weaknesses of their climate-smart agriculture initiatives should be analysed for their relevance for the GEF-7 Project. Contact has already been made and COMACO is interested in expanding into NWP in partnership with GEF for the honey, mushroom and caterpillar value chains.
Conservation Agriculture Scaling Project (CASU) was implemented by FAO with 10,963,393 Euro from the European Union. The Project worked in 31 districts in Zambia included Solwezi and Kalumbila in NWP.	2013-2017	The scaling up conservation agriculture in order to increase productivity and production of crops for food security and income generation.	The evaluation of the project found that conservation agriculture led to an increase in yields, but farmers struggled to find suitable markets, particularly for legumes. The evaluation recommended that future projects consider the entirety of the value chain, with more flexibility for locally adapted climate-smart agriculture and sustainable intensification techniques.

2.7. Linkages with other GEF and non-GEF interventions

GEF Projects

112. The GEF-5 Strengthening Management Effectiveness and Generating Multiple Environmental Benefits Within and Around Zambia's Greater Kafue and West Lunga National Parks Project has ended as the new project is starting. Therefore, the main linkage with it will be to integrate the best practices and lessons learned as documented in the final evaluation (currently underway), into the inception of this project. Recommendations from the mid-term review have already informed this project development.
113. FAO is developing the Climate Change Adaptation in Forest and Agriculture Mosaic Landscapes, GEF ID 10186 with US\$7,019,700 in GEF funding. It will also develop climate resilient forest and agriculture systems with a strong emphasis on enterprise development. Their forest component will focus on NTFP. The main area of collaboration has been agreed with project proponents on knowledge management and the sharing of lessons learned and best practices.
114. The FAO, World Bank, IUCN GEF Global Coordination Project for the SFM Dryland Sustainable Landscapes Impact Program. The Impact Program will work in several miombo countries and the Project looks forward to sharing common challenges, experiences, best practices and lessons learned from Components 1 and 2 through the Global Coordination Project. This project has participated in project preparation meetings to share progress and identify opportunities for collaboration.
115. For the UNEP/GEF project Building the resilience of local communities in Zambia through the introduction of Ecosystem-based Adaptation (EbA) into priority ecosystems, including wetlands and forests. Project No. 8034 with US\$6,185,000 in GEF funding. Since the EbA project implementation is starting in Q2 2021, the NWP Project will keep a regular exchange looking at best practices, including measuring and monitoring improved climate resilience and socio-economic benefits. The projects will maintain the ongoing dialogue to explore synergies in terms of community forest management approaches and wetland conservation (Outcomes 1 & 2) and on the extension of technologies for sustainable and climate resilient agriculture (Outcome 3).

Non-GEF Initiatives

116. The current work funded by First Quantum Minerals in the West Lunga Complex in Mwinilunga District has been developed into a co-financing partnership with the GEF-7 Project. The work will concentrate on the development of community forest management in the eastern portion of the Chibwika-Ntambu GMA, including exploring the opportunity to develop a REDD+ project in the area.
117. The HEARTH Project (\$10m, five years Global Development Alliance project funded by USAID – under approval) in the eastern Kafue Ecosystem, is managed by TNC, and will be further developed in a co-financing partnership with the GEF 7 Project. Many of the objectives of Hearth are similar, including supporting the development of CFMGs and CFMCs and community business development in support of a conservation economy. There is geographical overlap in Kasempa Lunga Hunting Block. Both projects run simultaneously under the same management so symbiosis and the transfer of lessons is assured. Relevant for Outcomes 1 & 2.
118. The WWF Upper Zambezi Programme has become a co-financing partner for the development of community-based fisheries at the GEF 7 Project sites.
119. For other non-GEF initiatives, see the column Relevance for GEF-7 Project Design, in the table above.

SECTION 3: INTERVENTION STRATEGY (ALTERNATIVE)

3.1. Project rationale, policy conformity and expected global environmental benefits

Justification of project strategies and approaches

120. The Project design is based on the experiences gained from previous and current sustainable land management and community forest management projects implemented in Zambia and other African countries by GEF, USAID, FAO, UNDP, World Bank, WWF, Government of Finland, The Nature Conservancy, First Quantum Minerals and others to ensure that tangible progress can be made during the project phase to address the direct and indirect causes or drivers of deforestation and of the degradation of forest and agricultural lands in North Western Province. Lessons from the GEF Independent Evaluation Office (IEO) on project design that are the key for the project success have also been incorporated:

- Strong stakeholder participation in project design and/or implementation leads to ownership and a shared vision;
- Flexible project design allows to implement effective adaptive management;
- Project design should be well-aligned with existing needs, capacities, and norms ;
- Capacity building integrated in the project design increases sustainability of its results.

121. Based on the experiences and lessons, there was robust input from stakeholders into the project design. Stakeholders were consulted in the development of the Theory of Change and the development of the project outcomes and outputs based on real need. The concept of adaptive management has been emphasised by all stakeholders as key to project implementation, and thus the specific modes of delivery of the outputs, the choice of partners, etc. remains flexible to ensure that decisions made during project implementation are made based on information gathered during the project and the continued input of stakeholders. Central to the project is the capacity building of government agencies, communities, community-based organisations, farmers and other stakeholders in forest management and governance, forest law, application of technologies that are appropriate to local conditions, business and financial management skills and sustainable agriculture to enable these cohorts to be able to continue to strive towards the objective of the project after its conclusion. A list of capacity building interventions is provided in Appendix 14). One key recommendation from stakeholders consulted was the need to focus interventions in a select number of project areas rather than extend the project scope to a large number of areas that necessarily would dilute project technical and financial resources and reduce the opportunity for impact.

122. The project approach to community management of forests and natural resources is informed by a SWOT analysis of existing CFM initiatives in NWP reflected in the Table 9 below.

TABLE 9: SWOT ANALYSIS OF EXISTING CFM INITIATIVES IN NWP

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Favourable forest policy and legislation enabling community stewardship of and benefit from forest management • Abundance of forest resource in NWP. • Availability of markets for a wide range of forest products. • Availability of organizations providing extension service and markets. • Availability of forest carbon project expertise in Zambia 	<ul style="list-style-type: none"> • Key provisions of Forest Act No. 4 of 2015 not well explained to community members • There is a near total lack of business management expertise applied to CFM pilots in NWP. • CFMG have no business plans; • Reliance on volunteer labour for forest management activities; • Existing forest management plans in target areas extremely simplistic; not really management plans. • CFM pilot initiatives in NWP have created new

<ul style="list-style-type: none"> • Availability and support of traditional leaderships. • Existence of traditional knowledge. • Willingness of local people to participate. 	<p>obligations but little or no increase in benefits.</p> <ul style="list-style-type: none"> • No mechanisms to ensure sustainable charcoal production or woodlots for firewood production. • Lack of coordination between FD and DNPW for CFMG located in GMA • Management structures for JFM do not adequately empower communities • Mechanisms for sharing of benefits from wildlife are dysfunctional • Buyers able to impose very low prices for products coming from villages remote from major roads ; • Inadequate information flow about application of the law in forest resource management. • Unpredictable and inadequate market linkages for forest produce. • Inadequate stakeholder organization and coordination in forest management among community members and technical staff. • Inadequate local level initiative for resource mobilization to support community initiatives. • Inadequate stakeholder community participation and integrated approach to local planning • Conflicts of interest in forest resource utilization and benefits between communities and partners.
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Opportunities for enhanced revenue from value chains through the development of business plans. • Profitable opportunities for investments in honey production and dried mushrooms clearly identified. • Functional benefit sharing mechanism between government and communities as motivator for sustainable forest management. • Broadening of income base for households by diversifying income generation from forest resources. • Production of quality and value-added products that can fetch higher prices on the market. • Infrastructure development potential related to forest management e.g. bulking centres for honey. • Potential for payments from forest carbon credits as a source of funding and as an incentive for community protection of forests. • Sustainable charcoal production can generate employment, income. 	<ul style="list-style-type: none"> • Forests will be destroyed for conversion to cropland if incentives and benefits for communities are insufficient. • The destruction of forests and the degradation of the agroecological environment diminish the ability of local communities to adapt to climate change • Poor governance capacities result in inequitable sharing of costs and benefits • Communities do not develop the skills and capacities needed for productive, profitable forest management • Integrated and participatory planning a slow process and may discourage those in a hurry. • Late dry season fires cause forest degradation and loss of regeneration and value of the forest and are a key source of greenhouse gas emissions. • Elite capture. • Heightened risk of crop failure and forest die-off from climate change.

123. Component 1 will develop the necessary capacity and governance environment for sustainable community forest management through improving tenure and access rights over forests and

establishing the governance structures around those forests to avoid deforestation. Participatory land use planning will be a key tool for assessing land suitability, constraining the clearing of forests for agriculture and for identifying and agreeing on the ecologically sensitive areas and the lands for community forest management (CFM). Sustainable community forest and natural resources management will be mainstreamed into district integrated development plans (DIDP). Ensuring the participation of district councils in embedding CFM into planning is critical to sustainability and the scaling up potential of the projects outcomes and will lead to the development of districts as a more active stakeholder in sustainable natural resource management. This component will leverage the work of other initiatives also raising awareness of CFM, supporting the strengthening of community based natural resource management (CBNRM) over forest resources and facilitating the development of CFM governance structures, including West Lunga Conservation Project, TNC and Trident Foundation. Through these intervention areas, the project advances the objectives of the Forest Act of 2015 and with the statutory instrument of 2018 for the Forest Act and will take advantage of the opportunities for community forest management afforded by these progressive legal instruments. Component 1 of the Project will make significant contributions to the GRZ target of achieving land degradation neutrality by 2030. Component 1 will incorporate a key lesson from USAID's Community Forest Management Project (2014 – 2019) being the need for the establishment of robust and transparent community governance structures in advance of any revenue flow from sustainable forest management (SFM). The UNDP GEF project “Promoting Climate Resilient Community-based Regeneration of Indigenous Forests in Zambia’s Central Province” provided the lesson that capacity building of government field staff is essential to allow them to maximise support to community forest management.

124. Component 2 will place a priority on SFM contribution to decreasing fragility, increasing human resilience and delivering substantial development co-benefits. This component will focus on the identification of natural resource-based products, services and value chain of the greatest potential for new revenue generation, on the identification of the best natural resource-based value-added investment opportunities, on the development of business plans for each CFM unit and on the development of sustainable financing mechanisms for the self-financing of forest management costs and for community development. This component will provide for synergy with the efforts of West Lunga Conservation Project and TNC to facilitate the development of carbon markets in North Western Province. It advances the objectives of the National Forest Investment Plan (FIP 2018 - 2022) for Zambia, specifically the investment areas of the FIP around the conservation and management of High Value Conservation Forests. The UNDP GEF project “Promoting Climate Resilient Community-based Regeneration of Indigenous Forests in Zambia’s Central Province” provided the lesson that size of community forest areas is critical – too small a forest area and the revenue generation potential is insufficient to cover operational costs and to provide for appropriate benefit sharing arrangements.
125. Components 1 and 2 are highly supportive of the GRZ program for achieving land degradation neutrality (LDN). The Ministry of Water Development, Sanitation and Environmental Protection has set the LDN targets and their proposed measures for achieving their targets. Zambia has set the objective of achieving land degradation neutrality by 2030. To achieve this overarching target, they have set 13 other targets, each of them supported by 2 to 15 proposed measures. The GEF 7 Project provides support for 9 of the 13 LDN targets and supports 32 of the 62 proposed measures.
126. Component 3 seeks to address the threat related to agricultural expansion into forests and other natural ecosystems resulting from declining productivity on traditional lands. This work will focus on production landscapes where agricultural management practices underpin the livelihoods of poor rural farmers, to advance the promotion of smallholder agricultural technologies and practices that contribute to the maintenance and enhancement of productivity on existing

agricultural lands and enhancing the resilience of their agricultural systems. This component will therefore focus on innovative approaches to increase access to finance and technical assistance for smallholders and small businesses that can be scaled up to maximize global benefits for the environment while addressing the issues of biodiversity, climate change, and local livelihoods. It will take into account the lessons learned from conservation farming in Zambia and from Trident Foundation's original conservation farming programme in Kalumbila District in which adoption of conservation farming practices was inadvertently incentivized by the offer of subsidized inputs and adoption levels dropped drastically when the input subsidies were scaled back. The UNDP GEF project "Promoting Climate Resilient Community-based Regeneration of Indigenous Forests in Zambia's Central Province" provided the lesson that the combined 'market services' offered by Community Markets for Conservation (COMACO²⁰) of extension and agricultural market access were very effective at supporting the generation of farm income. This component offers collaboration opportunities with honey export companies, carbon project development companies, COMACO and other actors in the nature-based value chains. The measurement and monitoring of climate resilience within the smallholder economy are essential to ensure the project is making progress in advancing resilience and to allow for adaptive implementation measures if progress is not being made. In this regard, the project will explore the use of specific tools such as the "Self-evaluation and Holistic Assessment of Climate Resilience of farmers and Pastoralists" (SHARP) tool developed by FAO which aims to address the need to better understand and incorporate the situations, concerns and interests of farmers relating to climate resilience and agriculture.

127. To ensure that the project can adapt to the changing operating environment created by the COVID-19 pandemic, it will adopt the following measures:

- The COVID-19 situation and any changing regulations associated with it will be monitored at national level and in the project area to ensure conformity to regulation and the safety of all participants in project activities
- Options to conduct large workshops (e.g. Inception Workshops, Project Steering Committee) through remote means will be assessed. Smaller meetings of people at district and community level will be unable to be conducted remotely, so will be managed to ensure limited participants, social distancing, masking and other protective measures.
- The project is designed to have limited and potentially no reliance on external international expertise, with all expertise being sourced from within Zambia, thus almost eliminating the risks associated with international travel
- Options to conduct components of the capacity building work remotely (e.g. online mentoring) will be examined
- It is not anticipated that, should current circumstances continue, the delivery of project activities will be materially impacted by COVID-19, but the PMU will assess whether there is validity in delaying the start of some interventions until public health situation improves. GEF will be informed if this situation appears to change during the life of the project.

²⁰ Community Markets for Conservation (COMACO) is a social enterprise focused on providing assured markets for a range of agricultural and nature-based products to over 170,000 smallholder farmers to whom COMACO provides extension training and opportunities to diversify into new markets and sustainable agricultural practices such as agroforestry. All the farmers and communities with which COMACO works agree on a set of principles (the 'Conservation Pledge') destined to safeguard the health of their soils, forests and wildlife.

3.2. Project goal and objective

128. The project Goal or Strategic Objective is, “sustainable land management and biodiversity conservation are enhanced in NWP through the development of tested, proven systems of community management of forests and natural resource that are ready for mainstreaming”.
129. The Project Objective is to strengthen community-based sustainable management of forest landscapes and provide improved livelihood opportunities for targeted forest-dependent rural communities in Zambia's North West Province.
130. Baseline conditions, targets, monitoring milestones and risks related to the Project Objective are described in the Results Framework (Appendix 4), the Workplan and Timetable (Appendix 5), Key Deliverables and Benchmarks (Appendix 6) and the Costed M&E Plan (Appendix 7). Section 3.3 below provides further details:

3.3. Project components and expected results

131. Project components, outcomes and outputs are summarized in table 9 below:

TABLE 9: OUTPUTS FOR EACH COMPONENT

<p>Component 1: Developing the enabling regulatory and planning frameworks for community-based, sustainable forest management</p> <p>Outcome 1: Sustainable forest management (SFM) mainstreamed in local development plans addressing gender equality</p> <p>Outputs:</p> <ol style="list-style-type: none"> 1.1 Comprehensive assessment of forests and communities in the project area – sex and age disaggregated. 1.2 In-depth awareness raising on inclusive, gender sensitive CFMA creation leading to the declaration by government of the new or modified CFMG 1.3 Sustainable forest and natural resource management promoted in gender responsive District Integrated Development Plans and CFMA management plans 1.4 Knowledge management (KM) system developed in support of gender sensitive community management of forests and natural resources 1.5 Subsidiary legislation for forestry reviewed and revised in support of gender responsive sustainable forest management <p>Component 2: Promoting the conservation and sustainable use of natural resources in community-managed forests</p> <p>Outcome 2: Improved management of forest resources for gender equality and enhanced welfare and livelihoods</p> <p>Outputs:</p> <ol style="list-style-type: none"> 2.1. Gender responsive business plans developed in support of each community forest management group 2.2. Develop gender responsive community-based enterprises based on the business plan 2.3. Capacities developed for gender responsive good governance, NRM and business management. <p>Component 3: Enhancing the sustainability and productivity of agricultural practices in community-managed forests</p> <p>Outcome 3: Improved productivity, gender equality and climate resilience from sustainable agricultural practices on the lands zoned for agriculture adjacent to community-managed forests:</p> <p>Outputs:</p> <ol style="list-style-type: none"> 3.1. Gender responsive network of actors developed and capacity built to deliver sustainable agricultural practices on the lands zoned for agriculture adjacent to community-managed forests; 3.2. Farmers and agricultural supply chain actors trained to encourage the adoption of gender responsive, sustainable agricultural practices in agricultural zones in villages adjacent to community forests 3.3. Crop and livestock male and female farmers adjacent to CFMAs equally trained to sustainably improve their productivity and net income.

132. **Outcome 1: Sustainable forest management (SFM) mainstreamed in local development addressing gender equality.** Outcome 1 is focused on developing and improving the planning tools for sustainable community-based forest and natural resource management in three districts of North Western Province. The outcome has been designed to address lessons and recommendations from previous projects to carefully enhance the positive impacts on forests, biodiversity and on the livelihoods of local communities and vulnerable groups in the project areas. The most important outputs will focus on the creation of the community management structures and on the development of sustainable forest and natural resource management plans for the lands and resources to be managed by the communities. This component will also include the development of knowledge management capacities in support of CBNRM and on the review and revision of the Statutory Instrument to the Forest Act.
133. **Output 1.1 Comprehensive assessment of forests and communities in the project area – sex and age disaggregated.** Output 1.1 will focus on the preliminary analyses needed prior to inform the modification of existing structures such as in Kasempa or the creation of the community management groups/structures at the two other sites (Kalumbila and Mwinilunga) where communities are not already structured for CFM. This output will include a) enhancement of GIS capacities in the FD provincial offices; b) initial awareness raising for communities on their potential benefits and obligations; c) land and natural resources assessment (forests, wildlife, fisheries and water). This will include land suitability and land and resource potential; d) a socioeconomic assessment emphasizing natural resource-based livelihoods disaggregated by gender needs; e) analysis of the optimal geographic/economic scale of operations for the community NR management structure and for business development.
134. **Barriers and Partners:** The Barriers addressed by Output 1.1. are a) Inadequate forest and land use planning at village and district level. The partners in the delivery of the output: FD, DNPW, WWF, TNC, WLCP, Trident Foundation.
135. Activity 1.1.1. Enhance GIS capacity in FD provincial office in Solwezi. This is needed to support CFM management planning at the three Project sites and for the mainstreaming of CFM in district integrated development planning. Equipment provided with include computers, software, printers and plotters. Refresher training will be provided to FD staff and stationery will be provided.
136. Activity 1.1.2. Conduct preliminary awareness raising of communities on potential benefits, obligations and risks of CFM. Before the NR and socio-economic assessment are done, a relatively brief awareness raising will be done by Project Implementation Unit (PIU) and district staff to reconfirm the community's interest in CFM. It will cover the potential benefits, costs and risks of community management of forests, wildlife and fisheries resources and associated gender and climate change issues. In-depth awareness raising will be done after the assessments have been completed. A standard awareness raising training module will be developed and employed by PIU staff. The area targets for the sites are a minimum of at least 50,000ha each for Kasempa and Mwinilunga/West Lunga and 20,000 ha for Kalumbila for a total of 120,000ha.
137. Activity 1.1.3. On the basis of preliminary studies/assessment/consultations, conduct an in-depth assessment of forest and natural resources, value chains and optimal scale of operations for proposed CFMAs. This will be done in-house by the PIU and district technical staff. WWF already has separate funding to analyze fisheries/aquatic biodiversity and to recommend management options for ensuring the conservation of rare or threatened species. Assessment of the site-specific direct threats and drivers, the history, condition and trends of forests, wildlife and fisheries will be based on the preliminary work undertaken during PPG. The potential for both non-timber forest products (NTFP) and wood products will be assessed. Products that are harvested destructively (and therefore requiring management interventions to ensure

sustainability), will be identified. Environmentally sensitive areas will be identified. A full list of all forest/natural resource products and value chains will be identified and analysed, including a gender perspective, and the optimum geographic and economic scale for each enterprise will be assessed. The potential for value-added through aggregation, quality control, storage, processing and group marketing of all NTFP will be analyzed. The optimal geographic size and economic scale of operations for CFMG will be analysed. The need for the CFMG to engage certain technical and/or professional staff in order to realise some of the more profitable options for enterprise development will be identified. Value chains will have optimal scales of operations. Some enterprises are best owned by the CFMG and operated directly by a technical and business unit (TBU) attached directly to the CFMG. Other enterprises may be owned by individuals or user groups.

138. Activity 1.1.4. Conduct socioeconomic assessments of the target communities. The assessment will be disaggregated by gender and age. It will cover governance structures, land and resource tenure and access, gender issues and collect baselines, the identification of affinities and conflicts with other villages (critical for defining the eventual groupings of villages in a CFMG) and the identification of opinion leaders. The analysis of livelihoods will focus primarily on NR-based user groups and production systems from a gender equality perspective. The importance of each NR-based product in household budgets will be quantified and will serve as a baseline for comparison with the situation at the end of the project. This will be done under a contract or an MOU with a local institution and will be repeated before the final evaluation.
139. **Output 1.2. In-depth awareness raising on inclusive, gender sensitive CFMA creation leading to the declaration by government of the new or modified CFMA/CFMG.** The 2018 Statutory Instrument to the 2015 Forest Act requires the declaration of a CFMG first, followed by the elaboration and approval of its forest/natural resource management plan. Output 1.2. culminates in the legal modification or creation of the community management structures – the CFMG. It will include a) awareness raising of communities, presenting the results of the two assessments; b) definition of the optimal geographic and economic scale for each CFMA; c) a gender audit to revise and strengthen the draft strategy for enhancing gender equality in consultation with target communities at project start; d) development of the constitution and the creation or legal modification of each community management structure; e) completion and submission of the applications leading to their formal declaration of the CFMG by government.
140. **Barriers and “Partners”** Barriers being addressed: a) Inadequate forest and land use planning and village and district level; b) Insecure forest resource use rights for communities; c) Limited state forest management, monitoring and enforcement. Partners for delivery: FD, DNPW, TNC, WLCP, Trident Foundation.
141. Activity 1.2.1. Use assessment results for all communities at each site to define the geographic and economic scale of CFMA. The PIU will provide support for an iterative, participatory process leading to key decisions on CFMG creation by each community. Needed capacity building and advisory support will be provided by PIU staff and the district FD, Fisheries and DNPW staff. Integrating lessons learned and recommendations from previous projects, the project will ensure that communities understand that CFM will bring them not only new rights (control of access and rights for the harvest and marketing of forest products), but also new obligations (sustainable use management, equitable sharing of benefits, accountability, gender equality and participation of youth). Participants will include representatives of gender associations, all user groups, traditional leaders and relevant local government officials. The results of the two assessments done under Output 1 will be presented, emphasising key opportunities for enterprise development and the analyses of optimal scale of organisation for each form of enterprise development. This will lead to critical decisions by each community on the geographic and economic scale for the CFMA and CFMG to be created.

142. Activity 1.2.2. Conduct a gender audit to further enhance the gender action plan prepared during PPG. The gender audit will establish the baseline for gender equality issues at each site. It will identify specific gender gaps, barriers to gender equality and priorities. It will cover the communities at each site, the PIU staff and the district level staff for FD, DNPW, Fisheries and Agriculture. The audit will identify the gender training needs of everyone that provides support services to the Project communities. The enhanced gender action plan will define objectives and targets for enhancing gender equality. It will define the actions that will be taken by the Project to begin to overcome the barriers to gender equality identified in the gender audit. It will develop a full program of the trainings needed at the levels of the communities, the PIU and the district staff.
143. Activity 1.2.3. Provide support to each CFMG candidate for the participatory development of their constitution, with a strong emphasis on transparent governance and equitable benefit sharing. Support will be done by PIU staff using a training module they will develop on the elaboration of CFMG constitutions. Each village will elect their representatives for the new CFMG. A plenary meeting of the CFMG will be held to elect CFMG officers and to adopt their constitution. Gender targets will be defined to ensure that identified gender needs and actions are addressed with the project's support.
144. Activity 1.2.4. Support each group in the completion and submission of their application for CFMG status culminating in their formal declaration by government as a CFMG. Support will be provided by PIU staff, with attention to meeting gender requirements in the governance structures as identified at project start.
145. **Output 1.3. Sustainable forest and natural resource management promoted in gender responsive District Integrated Development Plans and CFMA management plans.** Output 1.3 targets the development of sustainable forest and integrated natural resource management plans for CFMA and the promotion of CFM into district integrated development plans (DIDP). This output will involve: a) assistance to CFMG in the participatory definition of natural resource management objectives; b) support for participatory land use zoning and mapping of the communal lands of each CFMG located on communal lands; c) participatory zoning of the CFMA into management units; d) support an intensive series of community stakeholder consultations leading to the development of the collective set of rules governing access, use and harvest that will make up the community forest and natural resource management plans; e) assist communities to complete and submit applications and to become fully empowered by government to manage their natural resources; f) integration of CFM into the DIDP with the definition of the forms and the timing of district support to CFM. The mapping of CFMA land use zones and management blocks and the DIDP priority forests will be done with a geographic information system (GIS) in the FD provincial office in Solwezi. The Project will strengthen the existing system and operational capacity. When CFMA GIS maps need to be updated after the end of this project, either FD can do this with their own resources, or, if necessary, the CFMG may be able to pay FD as a service provider to the CFMG.
146. **Barriers and "Partners"** Barriers addressed: a) Inadequate forest and land use planning and village and district level. Partners for delivery: FD, DNPW, TNC, WLCP, Trident Foundation, District Councils, Ministry of Agriculture
147. Activity 1.3.1. Support the participatory integrated land use planning (ILUP) and mapping of the communal lands of CFMG communities. This will include zones dedicated to CFM, those dedicated to agriculture or settlements and zones permanently set aside for protection. Cropping is not legal inside a CFMA. The PIU will prepare and present a training module on ILUP. ILUP will be a key tool for stopping the conversion of community forests and other natural areas to cropland. Community managed lands will be the focus of Components 1 and 2. The agriculture zone for each community will be the focus of Component 3. The mapping of the CFMAs will include the

division of the managed lands and waters into appropriate management units including annual cutting units in areas to be sustainably managed for charcoal or sawtimber. It will include multiple use zones, the division of rivers and water bodies managed for the conservation of aquatic biodiversity and for fisheries with different types of management restrictions. This will include no-take zones that are critical for conservation and regeneration of fish species or biodiversity conservation. The maps will also include the planned layout of access roads, including both permanent and temporary access. The FD GIS unit in Solwezi will be strongly engaged in the production of maps to support the Community GPS crews to take the necessary GPS readings of map units. The CFMG will be fully engaged in all of these steps.

148. Activity 1.3.2. Given the documented scarcity of silvicultural systems for the sustainable production of wood fuels, poles and saw timber from miombo forests throughout the miombo zone²⁷, a special study by university researchers to review the literature and to test and quantify the results of improved silvicultural systems. The same document just cited states that "...initiatives to create sustainable harvesting are particularly likely to be effective in Miombo woodlands but they need to be adjusted to species silvicultural needs..." Clear cutting will not be an option. The development of silvicultural systems will address the critical questions on the number of years between thinnings, the intensity of thinning and the silvicultural criteria to be used for selective thinnings, especially for the harvest of low value stems for charcoal and/or fuelwood to favour the growth of high valued trees and the regeneration of rare or threatened species.
149. Activity 1.3.3. Assist communities in the participatory definition of NR management objectives and rules. Assistance will be done by the PIU staff using a training module developed for this purpose. The PIU will develop modules and provide training on the participatory definition of management objectives. PIU staff will develop and apply a training module on the participatory development of community rules governing access to the forest, forest/NR management and harvest of forest products. These rules will form the core of the forest management plan for each CFMG. PIU staff will provide technical advice on management options and engage wildlife and fisheries and fire management technical expertise from GRZ. Potential management objectives may include:
 - Sustainable management of the forest, wildlife and fisheries for the production of forest and natural resource products (to be defined on a case-by-case basis);
 - The forest and natural resources will be managed as a self-financing community enterprise with a portion of forest and natural resource revenues to be reinvested in forest/natural resource management costs;
 - Equitable sharing of costs and benefits amongst community members and stakeholder groups;
 - Equal opportunities for men, women, youth and the disabled;
 - Use of adaptive management as a key tool;
 - Respect for forest and natural resource legislation;
 - Minimise reliance on volunteer labour.
150. Activity 1.3.4. Provide support to CFMG communities to finalise their forest/NR management plans and to complete and submit their application and approval by FD. The plan will be accompanied by maps of management units access network, fire management units, etc. With this achieved, each CFMG will become fully empowered by government to manage their forests/NR.
151. Activity 1.3.5. Create a DIDP CFM Planning Sub-Team and work plan. The CFM Planning Sub-Team will lead the planning for the integration of CFM into District Integrated Development Plans

²⁷ Syampungani, S., et al. 2018. Promoting Sustainable Timber Harvest in Miombo through Improved Silviculture: Policy Brief 2. The Miombo Network.

(DIDP). The planning sub-team will receive capacity building training support from the PIU. The integration of CFM may be integrated in the elaboration of the DIDP if the timing works out, or, it may be done as an addendum to an existing DIDP. Preferably, the integration of CFM into the DIDP will be done during the 2nd half of the project after significant lessons learned and best practices have been synthesized to inform this planning exercise. The CFM Planning Sub-Team will have members from the PIU, the Agriculture and Natural Resources Sub-Committee of the District Development Coordinating Committee (DDCC), CFMG, CRB, DNPW (as appropriate) and WWF.

152. Activity 1.3.6. Support participatory processes for integrating community management into the draft district integrated development plan resulting in formal approval of each DIDP. This will be done in at least two of the three districts. Participatory development of criteria for identifying forests of highest conservation value and of highest potential for livelihood enhancement through CFM will be done and SFM objectives, indicators and targets will be defined in line with district development priorities. The plan will define the forms and the timing of district support to community management of NR and the natural resource-based enterprises in each community, the roles of other actors and the sources of funding for district support for CFM. Two stakeholder workshops will be held in each district, the first for stakeholder input and the second for validation of the plan. This activity will culminate in the approval of each DIDP by the district council.
153. **Output 1.4. Knowledge management (KM) system developed in support of gender sensitive community management of forests and natural resources.** Output 1.4 will see the strengthening of the knowledge management system as a means of more efficiently and more rapidly identifying lessons learned and best practices and integrating them into gender responsive community forest and natural resource management systems. It will be done in collaboration with, and under cost sharing with, the GEF-7 Drylands Sustainable Landscapes Project under the SFM Impact Program. This will include: a) support for three participatory reviews to identify, synthesize and disseminate lessons learned and best practices (at start-up and just before mid-term and final evaluations); b) participation in the regional knowledge management exchange through the GEF-funded Sustainable Forest Management Impact Program on Drylands Sustainable Landscapes, and; c) Promote the integration of CFM at the level of universities and technical colleges.
154. **Barriers and “Partners”** Barriers addressed: Inadequate system of knowledge management in support of CFM. Partners for delivery: FD, GEF, institutions of higher education (table 7), FAO.
155. Activity 1.4.1. Conduct three participatory KM reviews to identify, synthesize and disseminate lessons learned and best practices and to identify knowledge gaps that need to be filled. The KM reviews will be funded through a grant to one of the universities offering courses in natural resources management. The grantee will undertake the following: a) An initial KM review at start up with a desk study and field visits to further capture lessons learned from past and ongoing CFM initiatives, especially the non-GEF initiatives that are not well documented. b) Two reviews just before the MTR and TE will concentrate primarily on the two GEF-7 projects (other CFM initiatives will be invited to participate at their own cost); The reviews will also identify regulatory barriers to CFM that can inform the review and revision of the 2018 statutory instrument to the Forests Act under Output 1.5. c) Prepare and disseminate a semi-annual KM newsletter and establish an Internet CFM KM Discussion Group. The implementing units of the two projects will participate actively.
156. Activity 1.4.2. Participate in the regional IP knowledge management exchange. This will be organized by the GEF-funded Sustainable Forest Management Impact Program on Drylands Sustainable Landscapes. A large emphasis will be put on including community stakeholders in these exchanges.

157. Activity 1.4.3. Promote the mainstreaming of CFM courses at tertiary institutions who are interested in integrating CFM into their curricula. The main candidates are Copperbelt University, - School of Natural Resources, Kapasa Makasa University – Department of Natural Resources and Zambia Forestry College. The KM grantee will advise these institutions and will supply CFM materials that can be integrated into CFM courses.
158. **Output 1.5. Subsidiary legislation for forestry reviewed and revised in support of gender responsive sustainable forest management**
159. Activity 1.5.1. Engage legal consultants to synthesize reviews of barriers and to prepare revised drafts of statutory instrument (SI). A legal consultant will be engaged to synthesise problems with existing SI, including from a gender equality perspective and to draft and present SI revisions to stakeholders after the regional and national workshops. The SI review done during PPG will be the first starting point.
160. **Barriers and “Partners”** Barriers addressed: a) Incomplete frameworks for the practical implementation of the Forest Act; b) Limited state forest management, monitoring and enforcement. Partners for delivery: FD.
161. Activity 1.5.2. Two regional stakeholder workshops held on the shortcomings and on proposed changes to the SI. The stakeholders targeted will be actors who have been involved in applying the SI. The legal consultant will prepare a synthesis of the results of the two workshops.
162. Activity 1.5.3 National stakeholder workshop to validate the results of the two regional workshops.
163. **Outcome 2. Improved management of forest resources enhances gender equality and contributes to enhanced welfare and livelihoods of target communities**
164. The focus of this outcome is to enable the environment to advance sustainable land and forest management aiming at avoiding further land degradation and desertification and improving the quality and maintenance of ecosystem services. The integrated landscape management approach of the project with focus on CFM is best placed to generate multiple environmental benefits and enhance local livelihoods. This work will contribute to building the resilience to climate change, sequestering carbon, managing watersheds under increased pressure and protecting biodiversity of global value in the target areas. Building from findings and recommendations from previous projects, it is crucial that benefits (both monetary and non-monetary) of CFM be clearly superior to costs (both monetary and non-monetary). The generation of new revenues is generally the most important benefit of CFM for communities. The development of forest and natural resource-based business plans is a critical tool. All investments must be based on the value chains of products that require sustainable management of forests, wildlife, fisheries or other natural resources for them to thrive. Business plans will be developed in support of each community management group (either a CFMG or a combination of both CFMG and CRB). This will include: a) identification of the best investment opportunities for each community management group based on the resource analysis done under Outcome 1 and a more intensive, and CFMG specific, assessment of the analysis of profitability of the most promising nature-based products/services for each CFMA; b) the participatory synthesis of this into a business plan for each community management group. Each plan will define the type of enterprise best suited for each product, whether the enterprise should be based at the village-level, a group of villages or at the level of the full community management group and whether existing enterprises can be adapted or new enterprises need to be created. It will identify the types of technical and professional help that will be needed, the types of capacity that need to be developed and the potential partnerships that could be developed with private sector actors in each value chain. The business plan will include an investment plan that prioritizes the investment opportunities, that quantifies the investments needed for each, that

identifies the potential sources of funding for each and that lay out how part of the profits from existing community enterprises can be reinvested into new investments identified in the plan. The business plans will identify measures for the promotion of gender equality and will lay out a provision of time-line for the implementation of the business plan; and c) definition of the staffing and responsibilities for a technical and business unit (TBU) for each of the CFMG that operates at a large enough scale that permits them to fund such a unit.

165. Communities will be free to structure themselves as they choose under the assumption that most communities will choose to organize themselves at a large enough scale that will permit them to employ technical and professional staff needed to manage more sophisticated, and more profitable enterprises, that are beyond the means of a single village or a small group of villages. For example, the staff of a CFMG's technical support unit might include a forester, a business manager and an accountant. The best uses identified for the seed money investments seem to be honey production, processing and marketing, the development of forest carbon projects, aggregation and bulk marketing of NTFP, technologies for drying/processing NTFP, silvicultural thinning of forest stands for charcoal production on communal lands, perhaps with efficient, portable charcoal kilns, community management of wildlife on communal lands (refer to table 6 for further detail).
166. **Output 2.1 Gender responsive business plans developed in support of each community forest management group.**
167. **Barriers and “Partners”** Barriers addressed: a) Lack of proven, profitable, self-sustaining models of CFM; b) Lack of strong economic incentives for sustainable management of forest resources by communities; c) Lack of sustainable financing for NRM; d) Lack of mutually beneficial relationships between forest communities and private market actors; e) Limited state forest management, monitoring and enforcement. Partners for delivery: FD, DNPW, TNC, WLCP, Trident Foundation, Dept of Fisheries, private sector.
168. Activity 2.1.1. Undertake the participatory synthesis of the results of the previous analyses of resource abundance and value chains into a business plan for each CFMG. Work with the CFMG to determine if each investment opportunity is best developed as a CFMG-owned business or as an enterprise that is best developed by existing or new, village-level or multi-village level user groups. Organize exchange visits with communities who are operating forest/NR-based enterprises that are relevant to each CFMG. Determine if existing enterprises can be adapted or new enterprises need to be created. Identify measures to make participation in nature-based enterprises open to women and youth. Identify the potential partnerships that could be developed with private sector actors in each value chain. Identify the types of capacity that need to be developed for each enterprise and the best potential supplier for the training needed. The business plan will include an investment plan that prioritizes the investment opportunities, that quantifies the investments needed for each, that identifies the potential sources of funding for each and that calls for the creation of community-managed investment fund that will be at least partially self-financed out of the revenues from established enterprises. The business plan will define how natural resource management costs will be funded out of the revenues from forest/NR-based enterprises. Identify the measures for the promotion of gender equality, opportunities for youth and for handicapped. Develop a provisional timeline for the implementation of each business plan to define which revenue generating activities will be done by enterprises owned by the community management structure.
169. **Output 2.2 Gender responsive community-based enterprises developed based on the business plan**

170. The establishment and/or development of SFM-based enterprises is supported in conformity with the business plans. This will include: a) provision of professional and technical support for the restructuring of existing enterprises or creation of new enterprises for the priority investment identified in the business plans; b) seed capital is provided for key investment opportunities, especially those that have been shown to have the highest return on investment (preliminary analysis indicates that aggregation, storage and bulk marketing of NTFP, certain types of processing of honey and NTFP, the sale of carbon credits from avoided deforestation, honey production and marketing, community bulking centres, community wildlife management on communal lands are amongst the most promising); c) creation and development of the technical support units and business units proposed in the business plans; d) creation of community-managed investment funds self-financed out of profits from established enterprises for the funding of other investment opportunities identified in the business plans. As all forest and natural resource-based enterprises are dependent on the sustainable management of the forest and natural resources, resource management costs are one of the investments that will be financed by this fund. Management costs may include the costs of community forest guards, fire management teams, forest and wildlife inventories, professional and technical staff, support staff, services rendered by traditional leaders and other diverse costs.
171. **Local Sources of Expertise for Forest-Based Enterprise Development.** The Project, and the CFMG, will recruit the enterprise development expertise that is needed. Communities have very low capacities for business management and enterprise development. District forestry, fisheries, wildlife and agricultural officers are also very weak in this area. Enterprise development and business management are critical for the CFMG communities. This is why the Project will provide business management development expertise in line with CFMG needs. Those CFMG that operate as a large enough scale will be encouraged to employ business managers in their Technical and Business Units (TBU). Those CFMG that do not employ business managers directly will have the opportunity to hire business managers from those CFMG that do employ business managers under short term contracts.
172. Our co-financing partners at the West Lunga and Kalumbila project sites are private sector entities with strong enterprise development skills. They will contribute to the analysis of nature-based value chains and their profitability, and to the identification of investment opportunities, business plan development and support for enterprise development. Finally, the Project and its cofinancing partners will assist the CFMG TBU to develop partnerships with private sector enterprises in the forest-based value chains. These value chain partners may be some of the best sources of enterprise development expertise for the CFM managers. Trident/WLCP have already done this with the honey company Nature's Nectar in villages around Ntambu and there is strong potential for this at all three sites. Trident and TNC will build partnerships with carbon project development companies for West Lunga and Kasempa. There is potential for development of partnerships for all the NTFP, fish and wildlife value chains, ecotourism, sustainably produced charcoal and saw timber and for other wood products (refer to table 6 for further detail).
173. **Barriers and "Partners"** Barriers addressed: a) Lack of proven, profitable, self-sustaining models of CFM; b) Lack of strong economic incentives for sustainable management of forest resources by communities; c) Lack of sustainable financing for NRM; d) Lack of mutually beneficial relationships between forest communities and private market actors; e) Limited state forest management, monitoring and enforcement. Partners for delivery: FD, TNC, WLCP, Trident Foundation, private sector.
174. Activity 2.2.1. Provide seed money for the most promising investment opportunities. Seed money will be focused especially on investment opportunities to be managed directly by the TBU and those with a relatively quick turn-around that can generate revenues to fund the NR management costs and other investment opportunities identified in the business plan. For the most profitable

investments, the recipient will be required to pay back the cost of a new investment to the project so the project can provide different CFMG with seed money. See the full value chain analysis in Table 6 in Section 2. Some of the identified opportunities are the following:

- Honey production can be developed in all the project sites and it presents a variety of options including investments in (locally produced) modern hives, bulking centres, quality control, processing and joint marketing. There may be major opportunities for women in this sector.
- There is excellent potential to support communities to explore the opportunities for revenue generation from carbon credits generated by avoided deforestation through the REDD+ mechanism and develop partnerships with private forest carbon project development companies. Not only does REDD+ offer the opportunity for long term, performance based ‘dividends’ to participating communities (an opportunity already being realised in other landscapes in Zambia where REDD+ project operate) but avoided deforestation is a critical component in any climate change mitigation process.
- Aggregation, quality control and group marketing. The CFMG TBU could buy directly from village level collectors, aggregate, store, control quality and do competitive marketing to traders. One estimate is that this may increase the value-added by about 25% and the turn-around time for the return on investment can be quite quick.
- There is potential for value-added in mushrooms, caterpillars and fish through investments in improved smoking/drying technologies, aggregation and bulk marketing.
- Analyse the feasibility of CFM investments in portable metal kilns with improved efficiency. Seek guidance from the Technology Development and Advisory Unit of the University of Zambia. Profits could be split between the TBU and the charcoal makers and the TBU can do aggregation and bulk marketing.

175. Activity 2.2.2. Recruitment, training and onboarding of technical and professional staff and of forest guards. Recruitment of staff must be tied closely to the business plan and its investment plan – it is critical that all staff must be self-financing by the end of the project. Technical and professional staff will generally be recruited when doing so will increase the overall revenues for the CFMG and its members and for the natural resource-based enterprises. Technical and professional staff may include foresters, business managers and accountants. Forest guards will have both governance and technical roles and will be equipped accordingly. Guards will be responsible for the enforcement of CFMG rules governing access, use, management and harvest (e.g. poaching, illegal harvesting, exceeding permit conditions, expansion of crop areas, erection of dwellings, vandalism, illegal burning) and may double as fire crews for early controlled burns and fire suppression. Grants can be made to the CFMG to pay the salaries of the staff, to be gradually scaled down as revenue is generated to graduate towards self-funding. The PIU and district officers will train the CFMG staff, with gender sensitivity integrated into the training.

177. **Output 2.3. Capacities developed for gender responsive good governance, NRM and business management.** This will include: a) an initial assessment of capacity needs for community managers, community members, community forest guards, fire crews, natural resource-based businesses, technical support services (FD, DNPW, Fisheries)/district staff; b) the development of standard training modules for good governance, NRM and business management; c) the training itself. There are two main categories of people to be trained; i) the people in the CFMG communities, and; ii) the people who provide support to the communities. Capacities for good governance are probably the most critical of all. They will include capacities for accountability, transparency and open communication, the equitable sharing of both costs and benefits, gender equity and social safeguards. Governance capacities must broadly target the entire population of youth and adults in the CFMG communities. NRM and enterprise

development training will be more targeted. NRM capacities might include some of the following, depending on NRM opportunities identified: a) training in silvicultural and management tools (inventories, criteria for selective harvest, definition of the period of rotation between harvests, division of management blocks into cutting units, inventories and the development of environmental safeguard measures for the sustainable production of wood products; b) operational tools for cost effective patrolling and enforcement of community/management plan and rules governing access, management, harvest and benefit sharing; c) cost effective systems of fire management including fire prevention, early controlled/prescribed burning and fire suppression); d) tools for participatory management of wildlife for hunting and commercial game meat production or other income streams (e.g. ecotourism); e) techniques for participatory management of riverine fisheries for conservation of aquatic biodiversity and minimisation of the impacts of invasive aliens.

178. Capacity building for business management will include support for the TBU and community enterprises to be able to engage with the market and to negotiate and develop commercial relationships with actors in the value chains. It will include support for business mentorship programs, leadership cohort, career paths development for targeted male and female youths to positively impact leadership succession plans and institutional memory retention (also to succeed the current crop of old and retired leaders in most areas).
179. For CFM to be sustainable, and to enhance revenues and livelihoods, CFMG managers must invest a portion of the revenues generated back into the costs of sustainable forest/NR management and invested in value chains that will increase revenues for the CFMG, community enterprises and community members. Forest and natural resource-based enterprises should contribute to the forest and natural resource management costs. The contributions of each one will be defined in the CFMG's plan for the equitable sharing of costs and benefits. Some enterprises are very dependent on investments in forest management and should make substantial contributions. Many NTFP-based enterprises require little outlays for forest management and should contribute less. A portion of revenues goes to pay for forest management costs – a cost of doing business – and excess revenues are used for new investment in value chains that have been identified in the business plan – investments that will again increase the revenues earned and will contribute to improved livelihoods. To avoid fraud, appropriate investments in good governance and financial safeguards will be critical. These investments will be made in line with the investment plan in the CFMG business plan. In this way, the TBU will be able to continue to make new investments in new enterprises beyond the life of the project. Once again, appropriate safeguards for CFMG financial management will have to be put in place. Safeguard measures for gender equity of investments will be developed.
180. **Barriers and “Partners”** Barriers addressed: a) Lack of proven, profitable, self-sustaining models of CFM; b) Lack of strong economic incentives for sustainable management of forest resources by communities; c) Lack of sustainable financing for NRM; d) Lack of mutually beneficial relationships between forest communities and private market actors; e) Limited state forest management, monitoring and enforcement Partners for delivery: FD, DNPW, TNC, WLCP, Trident Foundation, Dept of Fisheries.
181. Activity 2.3.1. Conduct an initial assessment of capacity development needs. This will be done for community managers, community members, community forest guards, fire management teams, TSU/BU staff, natural resource-based businesses, technical support services (FD, DNPW, Fisheries/district staff). The assessment will be done by the PIU staff.
182. Activity 2.3.2. Develop and implement standard training modules for good governance, NRM and business management based on the capacity needs assessment. The modules will be developed by PIU staff supported by one consultant specialised in training and by the gender consultant. All

training modules will integrate lessons learned and best practices from the Knowledge Management component. All training for CFMG and their members will be done in the villages. Most of the training for those who provide support to CFMG communities will be done in a venue to be procured, but practical training exercises will be done in the villages.

183. Activity 2.3.3. Conduct annual adaptive management reviews in each CFMG to strengthen each year the approach and the CFMG capacities for governance, NRM and enterprise development. Each review will involve PIU staff and others who have provided support to the CFMG during the course of the year. All of the initiatives of the past year will be reviewed together, strengths will be identified and replicated. Weaknesses or failures will be analysed together to determine causes and everyone will brainstorm together on solutions. The selected interventions will be built into the workplan for the coming year. The KM grantee will participate in the mid-term and the final years adaptive management reviews and will integrate findings into their 2nd and 3rd syntheses of lessons learned and best practices.

184. Outcome 3: Improved productivity, gender equality and climate resilience from sustainable agricultural practices on the lands zoned for agriculture adjacent to community-managed forests.

185. The focus of this outcome is to avoid and reduce degradation and deforestation of land and ecosystems in the miombo forest areas through the sustainable management of production landscapes, addressing the complex nexus of local livelihoods, land degradation, climate change, and environmental security. Expansion of agriculture into unsuitable, high-conservation-value areas, combined with unsustainable practices that deplete soil and water health, not only degrade or destroy ecosystems but also contribute to the fact that the yields of food crops across the region are below national average. An over-reliance on a single, nutrient-hungry crop (maize), low levels of agricultural diversification and sub-optimal application of fertilisers further erode the natural capital required to underpin sustainable livelihoods and further increase the vulnerability of subsistence agricultural communities to climate shock and variability. Appropriate planning, incentives, and techniques can help government and community planners and producers reduce the conversion of high-value habitat and better manage and where appropriate, sustainably intensify agriculture in the right places. Increased food and livelihood security can also decrease subsistence poaching of wildlife and other destructive forms of natural resource utilisation. Outcome 3 is focused on the promotion of smallholder agricultural technologies and practices that contribute to the maintenance and enhancement of productivity on existing agricultural lands and enhancing the resilience and diversification of their agricultural systems, thus reducing the need for farmers to extend their agricultural footprint into forests and other natural ecosystems as a result of declining productivity on their traditional lands. Given that the majority of existing smallholder farming practices degrade the soil health and carbon content that is so critical to the long-term productivity of agricultural lands, the project will place a special focus on the promotion of pathways of agricultural intensification in smallholder systems that safeguard natural capital for long-term sustainability through technologies and practices that maintain and enhance soil health as a critical factor in wider ecosystem health and enhance the ability of smallholders to adapt to climate change.
186. The spatial focus of this component will be in the agricultural lands directly adjacent to community managed forests as the sustainability of agriculture is a key component of broader sustainable land management in these areas. Component 3 will be developed at the Kasempa and Kalumbila sites – West Lunga focuses only on the Chibwika Ntambu GMA and there is no agriculture in the GMA. In line with consultations held during PPG indicating that the majority of the community members involved in the governance and management of community forests are also farmers, the agricultural component of the project will dovetail with the forest management component. The land use plan for community lands will also help ensure that the

communities are aware of the holistic nature of sustainable land management (as opposed to simply forest management). Sustainable agriculture and other good agricultural practices will be promoted in the same villages that are members of the CFMG. The objective of this component is not to radically alter the smallholder agricultural economy of the targeted areas, but to limit the horizontal expansion of agriculture and ensure the continued productivity of agricultural production systems. A range of sustainable and 'regenerative' agricultural technologies and practices exist in Zambia and in North Western Province, as does the knowledge of how to apply them, both within traditional agricultural systems and through externally delivered extension messaging in support of 'conservation agriculture' methodologies. The project will initially understand, through a participatory baseline survey, which of these technologies and practices are applicable and practical to take to scale, given the low levels of adoption of certain practices identified in the PPG study on sustainable agriculture. It will then empower multiple channels of agricultural extension provision to disseminate information .. Climate resilient production systems that enhance agrobiodiversity through the incorporation of irrigated vegetables, small livestock, poultry and tree crops will be examined for their relevance and scalability, and recommendations from the socio-economic and gender analyses will be incorporated to ensure an approach that addresses gender equality and social inclusion needs. For example, small livestock and poultry are production systems that tend to be more orientated towards control by women over resources and decision-making, have strong household nutritional benefits and also can contribute to the maintenance of soil health through the production of manure. Small-scale irrigated vegetable production is also orientated towards women, has major household nutrition benefits, utilises land and labour throughout the year, reduces reliance on an increasingly variable rainy season and can substantially increase output and income on small units of land. No single package of actions will be promoted over other possible methods of sustainable, climate-smart agriculture and climate-resilient options. Farmers can implement various combinations of existing improved farm management to ease the transition from conventional farming to sustainable agriculture

187. **Output 3.1. Gender responsive network of actors developed and capacity built to deliver sustainable agricultural practices on the community lands zoned for agriculture adjacent to community-managed forests.** Output 3.1 will focus on understanding the opportunities and limits of various sustainable agricultural practices and identifying those that have the greatest opportunity to reach scale. It will then build the capacity of government extension officers, lead farmers and other points of contact with the farmers such as local agro-dealers and the field officers of NGOs to understand these practices and build them into their extension messaging to farmers around the community forests. Through information dissemination, formal training, field days, facilitating the development of sites demonstrating best practice, exchange visits, etc, the project will ensure that the principles of sustainable agro-ecosystem management are made available to farming communities.
188. **Barriers and Partners** Barriers addressed: a) Low adoption of sustainable agricultural practices; b) Marginal performance of extension and research services. Partners for delivery: Trident Foundation, Ministry of Agriculture, COMACO.
189. Activity 3.1.1. Conduct a participatory, gender sensitive survey of farmers and extension agents to establish a baseline for training and the extent and understanding of sustainable agricultural technologies in target smallholder communities around forested areas. The survey will identify agricultural technologies and practices that contribute to the maintenance and enhancement of the agro-ecological environment and that have or could potentially have high farmer adoption rates during and beyond project end. The survey will also aim to understand the barriers to the adoption of technologies such as conservation farming/conservation agriculture that are technically sound (they maintain soil fertility and productivity at high levels) but that have low farmer adoption rates. The survey will identify the differences in gender perspectives between

men, women and youth. Once identified, the opportunities and barriers will be used to develop a targeted programme of multi-faceted information dissemination to the target agricultural communities.

190. Activity 3.1.2. Develop and implement a programme of capacity building of extension staff and change agents from the agricultural community in target areas, based on the information identified in the participatory baseline survey. The project will identify existing networks of government extension staff, private and NGO extension agents, lead farmers and small agribusiness owners and deliver a comprehensive package of training around sustainable land management and improved agricultural practices that support this principle, on the basis that this cadre of change agents will, over time, be able to influence the behaviour and gender equality of smallholder farmers in ecologically fragile areas to contribute to the sustainable management of these areas. The cadre of change agents will be continually engaged by the project beyond the initial training to ensure that their feedback in terms of the strengths and weaknesses of various sustainable agricultural practices and their acceptability by farmers, which will be information incorporated into subsequent training-of-trainer exercises.
191. **Output 3.2. Capacity building provided to encourage the adoption of gender responsive, sustainable agricultural practices in agricultural zones in villages adjacent to community forests.** Reinforcing the extension messaging that will be delivered to farmers under Output 3.1 by the trained cadre of agricultural change agents, this output will develop on-the-ground ‘evidence’ of the advantages of sustainable agricultural practices in terms of maintained/enhanced productivity, reduction/diversification of production and market risks and increased resilience to climate change. Initially the training will be provided by the project, but the longer term intention is to transfer the ability to provide ongoing technical assistance to farmers to government field officers and also, ultimately, to the CFMGs, on the basis that the CFMG has a strong incentive to ensure that agriculture in areas surrounding the CFMAs is able to sustain local livelihoods and diets without the need to encroach into the forest areas. Ultimately, some CFMGs might employ their own agricultural agents financed out of CFM revenues.
192. **Barriers and “Partners”** Barriers addressed: a) Low adoption of sustainable agricultural practices; b) Marginal performance of extension and research services. Partners for delivery: Trident Foundation, Ministry of Agriculture, COMACO.
193. Activity 3.2.1. In conjunction with local partners (including small local agribusinesses) and the change agents capacitated in Output 3.1, the project will support the development of demonstration ‘sites of best practice’, managed by progressive and influential lead farmers in the target areas that will be the focal points for farmer trainings and information dissemination at community level. The sites – initially developed with inputs subsidised by the project - will support a diverse and ‘climate-smart’ range of production options (including drought-resilient crops, small livestock, poultry, agroforestry systems and tree crops) and local farmers will be able to see first-hand and understand the practices.
194. Activity 3.2.2. The project will conduct annual participatory adaptive management reviews with extension officers, lead farmers, farmers managing demonstration sites and a sampling of male, female and young farmers who are implementing sustainable agriculture practices. The participatory reviews will seek to identify those technologies and approaches that are working the best and will identify problems encountered. For problems encountered, each group will brainstorm on potential solutions to the problems and will make plans for modifications to be tested during the following year. The lessons learned and best practices identified through the adaptive management reviews can be integrated into the training and extension of sustainable agricultural technologies.

195. Output 3.3. Crop and livestock, male and female farmers adjacent to CFMAs equally assisted to sustainably improve their productivity and net income. Through ongoing in-community engagement from the extension agents and change agents empowered in Output 3.1 and through the use of demonstration sites, farmers in villages adjacent to CFMAs will be supported to understand and adopt sustainable agricultural practices and production systems. The key objective in Output 3.3 is to ensure that farmers not only adopt best practice but are able to maximise the benefits from these sustainable production systems in terms of long-term yields and improved incomes. The two-pronged approach is to deliver ongoing, practical support to farmers through the demonstration sites, and to facilitate supply linkages with private agricultural market actors to offer access to relevant inputs, output markets, services and technology.

196. Barriers and “Partners” Barriers addressed: Lack of market services (inputs, output markets, extension associated with sustainable agriculture. Partners for delivery: Trident Foundation, Ministry of Agriculture, COMACO.

197. Activity 3.3.1. Field days will be held at the demonstration sites, ideally arranged and hosted by a local input supplier or other market actor that can offer access to inputs, information and technologies that support these production systems and that are gender responsive (e.g. seed and/or seedling supplier, day-old-chick supplier, irrigation technology supplier).

198. Activity 3.3.2. Using the demonstration sites and change agents as nodes of information dissemination, the project will also facilitate access to the wider agricultural market environment for male, female and young farmers managing diverse and sustainable agricultural systems. Market linkages with viable output market opportunities (buyers, traders and brokers) will be facilitated, as will linkages with support markets such as finance (such as opportunities for input financing provided by local financial institutions) and digital information and transactional services.

3.4. Intervention logic and key assumptions

234. The intervention logic of the project design is based on the principle that project outputs and outcomes must address the key barriers identified in Section 2 and they must be based on sound assumptions, linking outputs to outcomes and linking outcomes to the diminished pressures and to the project’s objective. The intervention logic is reflected in figure 10 Theory of Change (TOC) and that includes key assumptions in table 10.

FIGURE 10: THEORY OF CHANGE

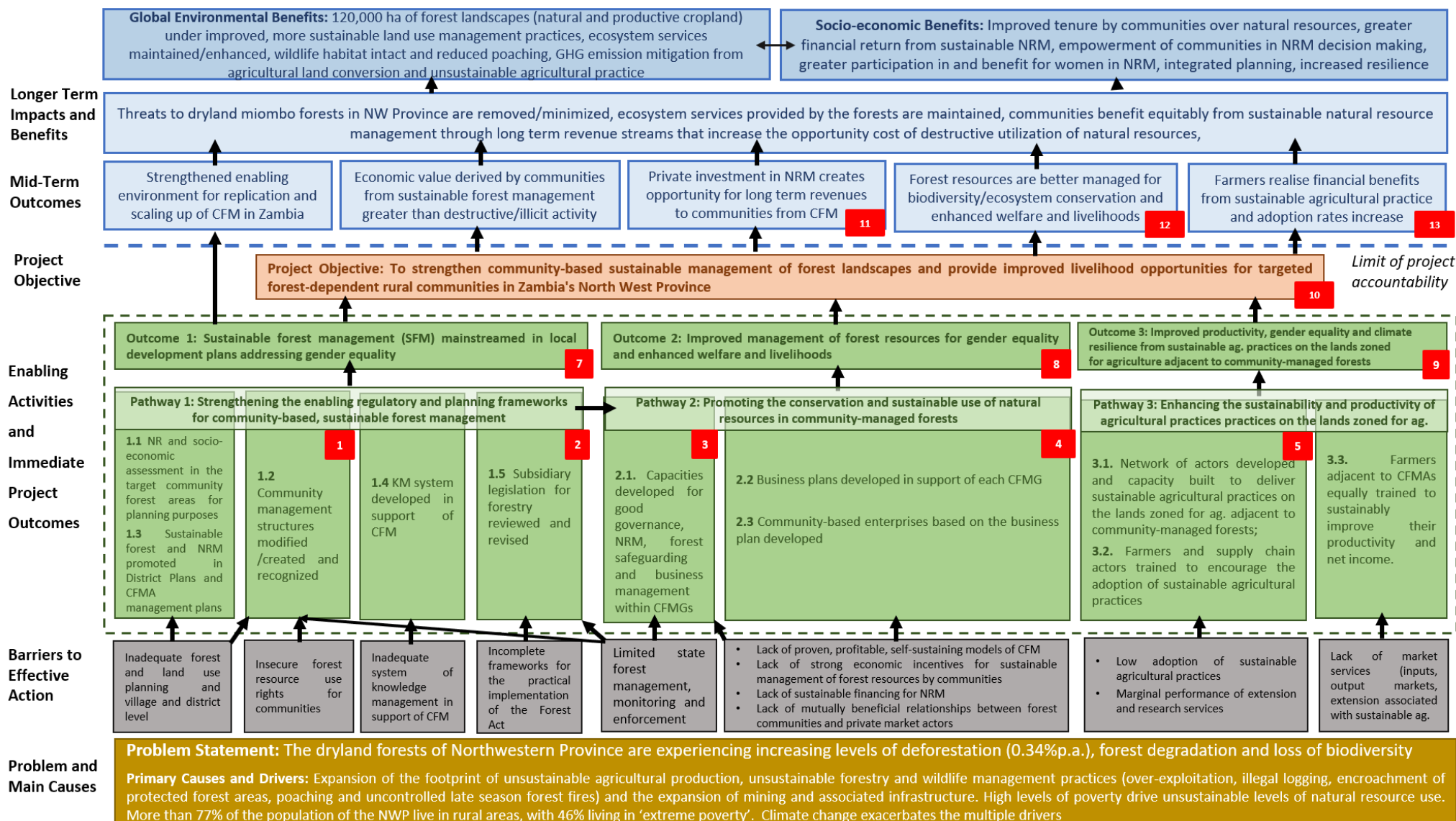


TABLE 10. ASSUMPTIONS THAT ACCOMPANY THE THEORY OF CHANGE

Assumption No.	Assumption/s
1	<ul style="list-style-type: none"> Community participation is voluntary Communities develop representative structures at an appropriate economic scale and with agreed rules for sharing costs and benefits
2	<ul style="list-style-type: none"> Subsidiary regulation to the Forest Act 2015 is revised to strengthen the legal framework and ease of implementation for CFM
3	<ul style="list-style-type: none"> Investments are made in strengthening CFMG governance and management systems Investments are made in capacitating the CFMGs to recruit, train and deploy professional technical and business staff to manage enterprise and provide stewardship and safeguarding to forest and other natural resources within the CFMAs Stewards of the forest resource (forest guards) are suitably motivated, incentivised and supervised to not engage in illicit activity themselves
4	<ul style="list-style-type: none"> Each CFMG has its own business plan based on local market assessment, local forest/NR potential, analysis of profitability, investment and staff needs Seed money is provided for investments in nature-based enterprises Revenues from NRM ultimately cover the costs of forest stewardship and management as well as CFMG staff and operations Communities are not incentivised by greater access to high value markets to increase 'output' from the forest resource to maximise revenue thus threatening sustainability
5	<ul style="list-style-type: none"> Investments are made in understanding the prevalence of a range of sustainable agricultural technologies and practices and barriers to adoption Investments are made in empowering extension agents and change agents within the agricultural market to integrate sustainable agricultural technologies and practices into extension messaging
6	<ul style="list-style-type: none"> Efforts are made to develop market linkages with input, output, service and financial markets to improve farmer yields through sustainable agriculture
7	<ul style="list-style-type: none"> CFM is mainstreamed in district integrated development plans Management plans are drawn up by CFMGs in consultation with all stakeholders and approved by FD
8	<ul style="list-style-type: none"> Structured communities have been empowered to control access to their forests, to sustainably manage these forests and will protect their forests from conversion to agriculture or other land uses as they receive substantial benefits from managing their forests, greater than that from ore destructive practice Benefit sharing from forest management within communities is sufficiently equitable, and capture of benefits by elites does not undermine success
9	<ul style="list-style-type: none"> Conversion of forest to agriculture is greatly reduced as farmers adopt sustainable agriculture technologies that can both maintain soil fertility at high levels of productivity and that are profitable for the farmer
10	<ul style="list-style-type: none"> Self-financing models of community forest management will have been tested and proven The conflict between unsustainable and sustainable agriculture and forest uses will have been reduced Livelihoods will be improved
11	<ul style="list-style-type: none"> The enabling environment for long term private investment in inclusive nature-based supply chains remains as/increases from project inception with minimal disruption from the global pandemic
12	<ul style="list-style-type: none"> Protection and enhancement of forests and other wildlife habitat by communities has a positive effect on the conservation of biodiversity
13	<ul style="list-style-type: none"> Increased production and profitability of sustainable agriculture results in minimal farmer expansion and agricultural footprint into forest areas

3.5. Risk analysis and risk management measures

199. The Project has the full support of the Forestry Department at the Ministry of Lands and Natural Resources and The Nature Conservancy (TNC), together with executing partners DNPW, Department of Agriculture and other local partner agencies, WWF Zambia, Trident Foundation and the West Lunga Conservation Project. Table 11 **Error! Reference source not found.** below highlights the specific risks that are related to the key assumptions that could impact on the successful implementation of project activities, together with the risk mitigation measures to be applied.

Table 11: Risks and Mitigation Measures

Risks	Rating	Mitigation
The benefits of CFM for communities and traditional leaders will not be great enough for them to take on, and maintain, the responsibility for managing forests and forest resources	Medium-High	<p>The project will initially implement a targeted outreach program to raise awareness in all the communities in the planning domain about the potential benefits and risks, and legal obligations associated with, CFM. Benefits and costs are only approximations at this stage. For those communities who express interest, the project will make a much greater effort to identify and to analyze the benefits and enhanced resilience from their participation in the sustainable management of the targeted forest areas. Communities will have the opportunity to develop forest management plans that will be oriented around the production of the products selected. Forest management plans will be complemented by business plans that lay out the main investment opportunities that the communities may develop over time. Seed money will be provided by the project for initial high yielding investments that can generate revenues for implementing the business plan.</p> <p>A portion of revenues must be reinvested to cover forest management costs. One of the key questions to be defined is the optimal scale of operations for community forest management. Small-scale CFMG composed of just one or a few villages will never be able to employ the professional and technical staff needed to optimize the benefits generated by the forest. But CFMG created at a larger scale could develop a technical support unit that could employ, for example, a forester, a business manager and an accountant. The Project will encourage communities to avoid reliance on volunteer labour.</p> <p>Benefits, of course, are not effective incentives if they are not shared equitably. The communities themselves must decide how costs and benefits can be shared equitably. The Project will provide support for the development of the governance capacities for this crucial function.</p>
The key responsible institutions abrogate responsibility for supporting the ongoing management of these community-managed forests once they are declared, and do not provide adequate support to sustain the CFMG and CRB, especially beyond the end of the project.	Medium	<p>The project will develop multiple sources of support for community managers and enterprises to minimize these risks. The strongest option is for the communities to operate at a large enough scale for them to employ their own professional and technical support staff, but it doubtful that all CFMG will be able to, or will chose that option. Small-scale CFMG may be able to hire the services of the technical support units of the larger CFMG or they may be able to employ private companies who offer business support services. In addition to the technical services of the DF, the DNPW, the DoF and the Department of Agriculture, the project will seek to develop strong support from the district councils, through the integration of community management into the integrated district development plans. The Project will also support communities to develop strong and mutually beneficial partnerships with private sector partners. Finally, for the three project sites receiving co-financing from mining companies, the Project will seek commitments that these companies will continue to provide a minimum of support beyond the end of the project. The project will also contribute to strengthening the capabilities (skills and knowledge, equipment, technologies, etc.) of the key responsible institutions to better enable them to support the continued establishment and administration of CFMG.</p>
COVID 19 impacts: A resurgence of COVID 19 could put Project staff, collaborators and	Medium-High	<p>The risks and measures need to address them will be addressed at project inception and every three months after that – and more frequently as needed. Indicators will be identified and monitored and thresholds for implementing increasingly strict security measures will be identified. Measures may include PPE including masks, social distancing, portable hand</p>

communities in danger and could inhibit Project implementation. The mining companies and others who have made cofinancing commitments may find themselves unable to honor them because of the rapidly developing economic impacts of the COVID 19 pandemic that are just now starting to manifest themselves on a world-wide scale. COVID 19 may hinder project execution.		<p>sanitizer stations, limits of crowd size for meetings, etc.</p> <p>Loss of co-financing would primarily affect the scale of operations of the project, causing the project to work with a smaller number of communities and with a smaller hectareage of forest to be brought under CFM. But it would not prevent the project from developing solid SLM models of community forest management and sustainable agriculture that can give satisfaction at the ecological/technical, financial and economic and socio-cultural levels. If co-financing is lost, the entire project could increase its emphasis on developing new partnerships with private sector partners specialized in carbon accounting and the marketing of carbon credits. At this point, it is very difficult to predict how long the pandemic will last and how it will evolve. Social distancing, wearing of masks, contract tracing and other measures will impact the project as long as the pandemic lasts. Electronic or virtual meetings can be used by those who have electricity, but this is not possible in rural areas. COVID 19 may also present new opportunities to integrate green recovery and resilience principles into projects and programs – Project partners should make use of the GEF guidance on this that was issued in August, 2020, titled, “Project Design and Review Considerations in Response to the COVID-19 Crisis and the Mitigation of Future Pandemics”</p> <p>A more thorough analysis of COVID 19 risks and of mitigation measures is presented in Annex 16.</p>
Cultural resistance prevents any significant progress on gender equality and, by suppressing the innovations of women and youth, impedes progress on the economic and environmental fronts	Low to Medium	<p>The project conducted a gender analysis during PPG and developed a gender action plan that is integrated in all of the outputs of the Project. A gender audit will be done at the Project sites during the first six month of the Project and it will be used to revise and strengthen the action plan and to revise indicators and targets. A sizable budget has been allocated for a gender specialist consultant to assist the Project each year for life-of-project. The Project Manager will have primary responsibility for implementing the gender action plan. The Project will adopt a non-confrontational approach to gender, but will seek every opportunity to advance the agenda for gender equality.</p>
The high level of knowledge, skills and capacities needed to establish, manage and maintain viable community-based agricultural and natural resource-based enterprises puts these enterprises at risk.	Medium	<p>The project will make substantial investments to build the capacities of community-based enterprises during the life of the project, but the key challenge will come after the closure of the project. Most of the range of mitigating measures identified for the second risk above, also apply here. The TSU/BU of the larger CFMG will be able to support the community-based enterprises. Small-scale CFMG can hire the services of the large-scale CFMG or of private sector service providers. Private sector partnerships will be an especially effective means of support. District government may be able to provide support. The CSR units of the mining companies will hopefully continue to provide a minimum level of support as long as their mines remain open.</p>
Droughts, fires and floods increase in frequency and intensity and adversely impact on the livelihoods of the targeted rural communities	Low-Medium	<p>Project activities have been designed to explicitly address vulnerabilities to these climate hazards. The project will provide forest guards and fire management skills, diversified livelihood alternatives to enhance adaptation and resilience; reduce over-dependence on natural resources; and mitigate GHG emissions from agriculture, forestry, and other land use. Project support to Good Agricultural Practice - such as agroforestry, Conservation Agriculture, and Integrated Soil Fertility Management practices - will strengthen farmers' capacity to adapt to climate change and risks and mitigate yield loss and variability. Project support to sustainable use of forest-based resources will further improve the management and conservation of natural resources, create a diverse range of income opportunities that are less reliant on a 'good' agricultural season, enhance adaptation and resilience, strengthen food security and generate carbon benefits.</p>

3.6. Consistency with national priorities or plans

200. This project is designed to contribute across the Zambia-UN Sustainable Partnership Framework (2016-2021) outcomes, under three broad pillars: i) Inclusive Social Development, ii) Environmentally Sustainable and Inclusive Economic Development, and iii) Governance and Participation. The project contributes in particular to pillar ii) Outcome 2.2: By 2021, women, youth and other vulnerable groups are empowered to participate in economic opportunities that are decent and promote sustainable livelihoods.
201. The project is nested within the programmatic framework of the National Forest Investment Plan (FIP) for Zambia and will contribute to the implementation of the National REDD+ Strategy. The project has specifically been designed to operationalise the three main investment areas of the FIP (2018-2022): Enabling environment; Conservation and management of High Value Conservation Forests; and Resilient landscapes, sustainable agriculture and energy, in the priority 'Kafue Watershed' landscape.
202. The country's REDD+ ambitions, described and quantified in the Intended Nationally Determined Contribution (INDC) that Zambia proposed at the UNFCCC's COP21 in 2015, establishes a goal of mitigating 38,000 Gg CO₂eq by 2030. Of this amount, about 29,000 Gg CO₂eq is attributed to land use change and forestry. Zambia will achieve its greenhouse gas emissions reductions solely through sustainable forestry, sustainable agriculture, renewable energy and energy efficiency. This project will thus contribute to meeting Zambia's NDC commitments. Zambia also embarked on the establishment of the National Forest Monitoring System (NFMS). In January 2016, the country submitted its Forest Reference Emissions Level to the UNFCCC, and is engaged in the Technical Assessment process. The country is also engaged in the design of the first iteration of a Safeguards Information System (SIS), which seeks to make information readily available on how safeguards are being addressed in REDD+ implementation.
203. The project will also assist the country in meeting the following target identified in the National Biodiversity Strategy and Action Plan (NBSAP, 2015-2025): '25% reduction in deforestation rate'.
204. The project will operationalise elements of the following 'programme areas of intervention' in the National Action Plan under UNCCD (NAP, 2002): Forestry, ecosystems and species conservation; Water catchment and energy conservation; Extension, public awareness and information dissemination; Easy-to-use environmentally friendly technologies including indigenous knowledge; Livelihood improvement; and Food self-sufficiency and food security.
205. The project also supports the implementation of the 7th National Development Plan (NDP, 2017-2021) and its linked national sectoral policies and plans (including policies and plans for the agriculture, mining, water and forestry sectors), specifically as they relate to: environmentally and socially sustainable development; reduction of poverty and vulnerability; and improved agricultural production and productivity.
206. The Integrated Land-Use Assessment Project has established reliable baseline data for the state of Zambia's forests. This includes bio-physical statistics for forest cover, volume of growing stock, tons of biomass and carbon, tree species abundance and regeneration. The Forest *Livelihood* and Economic Survey further provides complementary baseline statistics of the household dependencies on forests and forest resources. The National Forest Monitoring System maintains ongoing information on the status of forests, changes in carbon stock and GHG emissions resulting from deforestation and forest degradation, and from the conservation and enhancement of carbon stocks and SFM practices.
207. The Project is in strong conformity with Forest Act of 2015 and with the statutory instrument of 2018 for the Forest Act, and will take advantage of the opportunities for community forest management afforded by these progressive legal instruments.

208. The GEF-7 Project is highly supportive of the GRZ program for achieving land degradation neutrality (LDN). The Ministry of Water Development, Sanitation and Environmental Protection has set the LDN targets and their proposed measures for achieving them. Zambia has set the objective of achieving land degradation neutrality by 2030. To achieve this overarching target, they have set 13 other targets, each of them supported by 2 to 15 proposed measures. The GEF-7 Project provides support for 9 of the 13 LDN targets and supports 32 of the 62 proposed measures. GEF-7 will have a knowledge management output that will capture and document lessons learned and best practices that should provide useful evidence to the LDN programme. The most relevant project indicators that will provide empirical evidence for the GEF-7 support to Zambia's LDN programme are shown in this table:

Most Relevant GEF-7 Indicators	End of Project Targets
Hectares of dryland forests and lands under improved, more sustainable management	130,000ha
Area covered by recognized CFMAs with operational forest/NR management systems	120,000ha
Area under more sustainable agricultural practices in number of hectares	10,000ha

3.7. Incremental cost reasoning

209. While there have been some projects and initiatives to strengthen community-based sustainable management of forest landscapes, and provide improved and more resilient livelihood opportunities for targeted forest-dependent rural communities in Zambia's North West Province, this is the first time that a suite of investments will be coordinated to respond to a key driver of biodiversity decline, deforestation and forest degradation. Please refer to Appendix 3 for details on the incremental contribution of this project.

**TABLE 12: INCREMENTAL COST REASONING FROM CURRENT SITUATION
TO DELIVERY OF GEBs**

Summary of current situation in NWP	Summary of baseline contributions	Summary of GEF alternative scenario	Global environment benefits
(i) Many rural communities living in dryland forests are locked into a cycle of poverty and resource degradation, increasing their vulnerability to climate change; (ii) Forest fragmentation; (iii) Short-term gains maximized through overutilization of forest resources; (iv) Forests and ecosystem services continue to be lost due to ongoing deforestation annual rate of 29,700ha in NWP. (v) Limited capacity and inadequate resources to reverse this deforestation and forest degradation in target areas; (vi) No incentive for communities living in and adjacent to these areas to invest in the management of forests and forest resources;	(i) The implementation of donor-funded community-based conservation and sustainable resource use projects in NWP; (ii) Donor projects support rural small-scale farmers living in forest landscapes to promote more resilient, sustainable and productive farming practices; (iii) CFM initiatives in NWP have created community structures but lack viable forest management systems and have had little or no impact on community revenues. (iii) FD deploys forestry officers, forest extension	(i) New CFMAs are declared, and governance structures constituted; (ii) Their development, management and use are guided by a formally gazetted Forest Management Plan; (iii) Community representatives are adequately capacitated to fulfil their mandates; (iv) Community forest guards are trained, equipped and deployed; (v) Business and investment planning are used to promote community-based agricultural and natural resource enterprises that support livelihoods and cover NR management costs. (vi) Income from community-based natural resource enterprises provides benefits for communities and	(i) At least 130,000 ha of forest landscapes (natural ecosystems and cropland) under improved, more sustainable land use management practices; (iii) At least 60,000 ha of HCVPs (High Conservation Value Forests) are conserved through the development and implementation CFM with sustainable forest management plans. (v) Sustainable management of at least 120,000 ha of forests in NW Province resulting in stable and/or increasing populations of globally threatened or endemic species in the targeted areas;

<p>(vii) Inefficient and unsustainable slash and burn agricultural practices further exacerbates encroachment pressures;</p> <p>(viii) Lack of stewardship leading to ongoing encroachment, illegal mining, poaching and wood harvesting;</p> <p>(ix) Unless the value of forests and their natural resources is increased and captured by local people, they will continue to be degraded, and;</p> <p>(x) Recent but incomplete progress in developing regulatory framework; and</p> <p>(ix) National REDD+ Strategy provides strategic framework for sustainable management, while National Forest Investment Plan (FIP) provides details on financing and implementation.</p>	<p>staff and forest guards in the target forest protected areas;</p> <p>(iv) TNC sustains strong, collaborative working relationships with the communities living in and around the Lunga Luswishi GMA;</p> <p>(v) The FD, rural local communities and the mining sector (through the Trident Foundation) pilot anti-poaching patrols, honey production and coordination in protected areas of the West Lunga Management Area; and</p> <p>(vi) The Department of Agriculture delivers basic agricultural extension support services to rural crop farmers.</p>	<p>community members.</p> <p>(vii) Opportunities are created for community members - including women and youth – to be directly involved in, and to derive benefit from, the implementation of the Forest Management and Business Plans;</p> <p>(viii) The effectiveness of the extension of sustainable agricultural technologies is expanded to 10,000ha and is enhanced through in-depth farmer and extension agent surveys, on-farm trials/demos and participatory adaptive management reviews.</p> <p>(ix) Capacity building for community structures, community members, nature-based enterprises, CFM support institutions, ag extension agents and local farmers.</p>	<p>(vi) The direct and indirect values of ecosystem services delivered by 120,000 ha of dryland forests is protected;</p> <p>(vii) Inclusive forest conservation and SFM are mainstreamed into at least two district IDPs;</p> <p>(viii) At least 10,000ha of agricultural land put into sustainable agriculture;</p> <p>(ix) More than 10,000 people are beneficiaries of the Project;</p> <p>(x) Reduced emissions of carbon in the amount of 5,837,315t CO₂e through avoided deforestation, improved forest management and more sustainable agricultural land use.</p>
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3.8. Sustainability

210. The sustainability of the GEF investment is premised on the notion that by devolving the control of forests and forest resources to communities, and then supporting community enterprises and households within these communities to sustainably increase their productivity and incomes through net revenues from forest-based value chains and from the sale of their crops, this will provide sufficient incentive for those communities to continue to invest in the long-term stewardship of these forests beyond the term of the project. The sustainability of the community-based forest and natural resource management systems developed by the project need to be at the social, financial, institutional and ecological levels.

211. **Social sustainability** is based on incentives and equitability. Project design is based on the principle that perceived benefits of CFM of all kinds, both monetary and non-monetary, must be greater than perceived costs of all kinds, both monetary and non-monetary. The sharing of costs and benefits must be perceived as fair and equitable by the different stakeholders in the community, especially by men, women and youth. The forests, wildlife and fisheries resources are common resources entrusted to community management and must benefit not just the community-based enterprises, but must also benefit the community as a whole. Community participation will be voluntary and based on a straightforward presentation of potential benefits and risks. The Project places a strong emphasis on support for good governance at all levels, especially for the community management structures, and on the enhancement of gender equality.

212. **Financially sustainability** The main project strategy for financial sustainability is to focus first on developing CFM as a profitable, self-financing community enterprise with a portion of revenues reinvested back into forest/natural resource management costs, including the cost of the CFMG's professional, technical and resource protection staff. To better accomplish this, the project will encourage communities to organize themselves into CFMA of a large enough scale to realize the financial economies of scale needed for profitability. This includes the CFMG investment in professional and technical staff that can only be profitable for the CFMG if they operate at a large enough scale. Another project strategy for increasing the

profitability of the CFMG is the focus on CFM business and investment planning to better realize the economic potential of the forests, fisheries and wildlife.

213. A major private sector partnership of high potential is the partnership between carbon project development companies and our field partners. The major carbon project development company in Zambia is BioCarbon Partners (BCP). They have recently targeted the GMAs around the Kafue National Park as a high potential site for replicating their existing REDD+ Luangwa Community Forests Project, and are starting an in-depth feasibility study and FPIC process in the forests and communities in all of Kafue's GMAs. There are preliminary discussions also with the Kasempa Community Development Foundation. There is a very good potential for negotiating a higher percentage of revenues for the communities, because the proposed project CFMG will already have self-financing mechanism for covering the costs of forest guards/resource protection/enforcement – costs that are typically born by the carbon project development companies in Zambia. As it takes about five years for such a partnership to begin to generate substantial funds for the communities, this is a partnership that will kick-in at that critical point when project funding is coming to an end. The duration of contracts between a carbon project development company and a community 'trading' its carbon rights is typically 20 years, offering communities a long-term performance-based payment for conservation.
214. TNC and West Lunga Conservation Project are also in the early stages of developing a similar forest carbon feasibility study for the West Lunga Complex, in collaboration with Mirova Natural Capital which will also explore the opportunity for layering in to a REDD+ project other innovative conservation financing mechanisms such as biodiversity offsets.
215. First Quantum Minerals, and their subsidiary, Kalumbila Minerals, Ltd have demonstrated their commitment to a strong CSR program, including nature conservation and sustainable agriculture. They are providing co-financing for two of the project sites at West Lunga and Kalumbila. Their mine is estimated to last for at least another 17 years and there is a strong chance that they will maintain some level of support for CFM and for sustainable agriculture over that period. They could potentially fund the replication of CFM beyond the end of the project.
216. Honey has been identified as the highest priority value chain for immediate development at all three sites. Our field partner, Trident Foundation/West Lunga Conservation Project, already has a strong working partnership with Nature's Nectar at the West Lunga site. The project will explore a range of options for new and revised partnerships with the honey companies, with the CFMG business units taking over many of the investments and technical support functions presently filled by the honey companies. This should lead to new partnerships with a significantly larger share of the end market price going to local beekeepers and the CFMG compared to the present partnership.
217. With project support, the CFMG business units will be exploring and analysing opportunities for other partnerships with private sector operators in all of the value chains. There is good potential over the mid to long term to develop partnerships with private actors in what are presently the rather chaotically, unstructured NTFP value chains. To the extent that the CFMG will be able to provide reliable, aggregated, bulk marketing of quality NTFP products, this should lead to the development of professional traders willing to develop partnerships with the CFMG in the medium to long term.
218. **Institutional sustainability.** Community resource managers generally have need of a minimum of ongoing technical and professional support beyond the end of the project that assisted their creation. To avoid reliance on one single source of such support, the Project will pursue multiple additional options for this: a) ongoing institutional support from FD, DNPW, Departments of Agriculture and Fisheries; b) support from private sector partners in the value chains; c) support from private sector service providers engaged by the community managers and paid out of the forest management fund or the investment fund; d) support from districts as defined in the integrated district development plans to be developed; e) support from the corporate social responsibility units of the mining companies providing co-financing, and; f) technical and professional staff employed directly by the community management structures.

219. **Ecological sustainability** is facilitated by the fact that the Miombo woodlands are one of the most robust forest ecosystems in the world and have a very strong capacity for regeneration from stump sprouts and from naturally occurring seedlings following even severe disturbances. Ecologically sensitive ecosystems of all types will be identified and protected or managed accordingly. Great attention to safeguards will be made for any production of food products and for the harvest of the relatively few NTFP whose harvest is currently done destructively and which require management interventions to ensure their regeneration.
220. Through conservation of wildlife habitat, this project will address the most widespread form of degradation of the forest ecosystems of NWP: the loss of most of its wildlife. The integrated natural resource management approach promoted by the project will build on the opportunities provided by the new, draft national policy on community-based natural resources management (CBNRM Policy). Any opportunities offered by reforms achieved during the Project will be analysed and integrated into community business plans.
221. The sustainability of agriculture in Component 3 requires special mention. The key challenge to agricultural sustainability is the development of technologies that will simultaneously sustain soil fertility, provide an economic return to farmers and reduce the risks to the farming enterprise from climate change. Sustainable and 'regenerative' agricultural technologies and practices, including conservation farming technologies widely extended in Zambia, have been found to be successful in maintaining soil fertility but suffer from low adoption rates. These technologies and practices will be promoted and tailored to the project areas so that they both sustain soil fertility and productivity and enjoy high farmer adoption rates.

3.9. Replication

222. At this point, there are no tested, proven models of community forest/natural resources management or sustainable agriculture in NWP for replication. These are the central barriers to SLM and biodiversity conservation that this project will address. The project will deliver by its end date solid community forest/natural resources management systems that have been shown to be viable on the socio-cultural, financial and economic and natural resource management/ecological grounds ready for widespread replication. It will also deliver a basic set of sustainable agricultural practices with high adoption rates ready for widespread extension.
223. Lack of national capacity for replicating community forest management is the key barrier to widespread adoption of community management systems across Africa. National capacities must include both sources of funding and institutional and human resource capacities. One source of funding with a good probability for continued replication is the corporate social responsibility programme of Kalumbila Minerals Limited (The CSR program of Lumwana Mining Company in Kalumbila District could also become a potential source of funding in the future). Another source of funding that could be applied is the growing interest in the development of forest carbon projects generating credits through avoided deforestation in Zambia, specifically for the Kafue ecosystem and the West Lunga Complex. Sources of expertise and institutional support for replication will include FD, DNPW, Department of Agriculture, the three district authorities and private sector services enterprises. The community management structures and the community enterprises will be excellent sources of expertise and targets of exchange visits for future replication, especially those CFM structures that employ professional foresters and business managers. There will be multiple examples of viable community management systems available for exchange visits. Finally, the knowledge management system developed by the project will have captured, synthesized and disseminated the key lessons learned and best practices developed by the Project and other similar relevant efforts, in particular the FAO/GEF Forest and Agriculture Mosaic Landscapes Project and the GEF Global Coordination Project for SFM Drylands Sustainable Landscapes Impact Program.

3.10. Public awareness, communications and mainstreaming strategy

224. Free and open communications form the basis of good governance and will be key to the success of the Project. The primary focus will be on communications with the members of the communities who will be supported to manage their forests and other natural resources and to enhance the sustainability of their agricultural systems. Component 1 (more specifically outputs 1.1 and 1.2) has been designed to ensure public awareness across stakeholders, with emphasis on the target communities. Communication within the

Project will be based on the following principles: a) civility in the conduct of the general assembly and of community committee meetings; b) free and open communication at the community level as the basis of good governance; c) honest presentation to communities by outsiders of both risks and benefits of community management of forests/natural resources; d) emphasis on communications with and from the elders and from recognized community leaders; e) the fairness doctrine – all sides on an issue must have their opportunity to present their views; f) all stakeholder groups will be given their opportunities to speak, including men, women and youth; g) training in public speaking will be provided for those in need. A platform for recognized community leaders from the four project sites will be created and they will be key actors through which communications are made between the Project and the community members.

225. Key messages to be communicated to communities will include: a) community participation in the Project will be voluntary; b) the community must be free to decide how the costs and benefits of community management of natural resources will be done – they will decide, through a participatory process, what they consider to be equitable; c) the community will be assisted to conduct an annual review and revision of their community rules, including rules of sharing of costs and benefits; d) decision making by the community should be done through a participatory process that gives all stakeholders a voice; e) emphasis will be placed on the development of self-financing, profitable community management of natural resources; f) the project will assist the communities and their members to develop their needed capacities for good governance, NRM and business management; g) the Project will promote balanced opportunities for men, women and youth.
226. Key communication events will include the following: a) the Inception Workshop at Project startup. Actors will include FD, DNPW, Fisheries, Agriculture, District authorities, Provincial authorities, Cofinanciers, traditional chiefs, men, women and youth, private sector actors (with coverage by local newspapers, radio and television; b) communication of results of the meetings of the Project's oversight committee; c) communication of results of annual adaptive management reviews; d) communication of results of knowledge management component, including the linkages between the provincial KM with national KM programs and the KM of the GEF-7 FAO Mosaic project and the GEF-7 Sustainable Management of Drylands Landscapes Impact Program; e) communication of results of mid-term and terminal evaluations.

3.11. Environmental and social safeguards

227. The project is expected to generate positive and long-term environmental and social impacts. Progress towards these will be measured through the indicators and targets specified in the Results Framework, applied under the project monitoring and evaluation plan (Section 6).
228. The project environmental and social safeguards are informed by GEF Policies on Environmental and Social Safeguards and Gender Mainstreaming. The main objective of the safeguards is to prevent and mitigate any unintended negative impacts to people and the environment that might arise through the implementation of project activities. These safeguards will particularly be important in the selection of the specific interventions with community resource managers and community-based enterprises at the three project sites. The GEF safeguards will be complemented by the UNEP Environmental Social and Economic Review Note (ESERN) available in Appendix 9 that will be updated as part of ensuring fiduciary standards during the selection of the specific target interventions. A Checklist will be completed during the identification of potential interventions at each project site to help guide in the identification of possible risks. The Checklist and planned mitigation measures will be reviewed annually at PIR stage to ensure that planned mitigation measures are taking place and that previously unanticipated issues are identified and addressed. Checklists and implementation of mitigation measures will be reviewed annually during PIR review, at Mid-term and at Terminal Evaluation stages.
229. UNEP has policies and systems that comply with all environmental and social safeguards as demonstrated by the ESERN. The Project is designed to enhance livelihoods, but if it is found that there could in some cases be negative impacts, the required safeguard procedures will be implemented by the project with the full participation of the affected communities or persons. The key principles are: (i) avoid negative social impacts and, (ii) if avoiding is not possible, take measures to minimise negative social impacts and where necessary

compensate the affected communities. The GEF safeguard policies will mainly be applied in the identification, preparation, and implementation of community measures to control access, use, harvesting, processing and marketing of forest and natural resource based products.

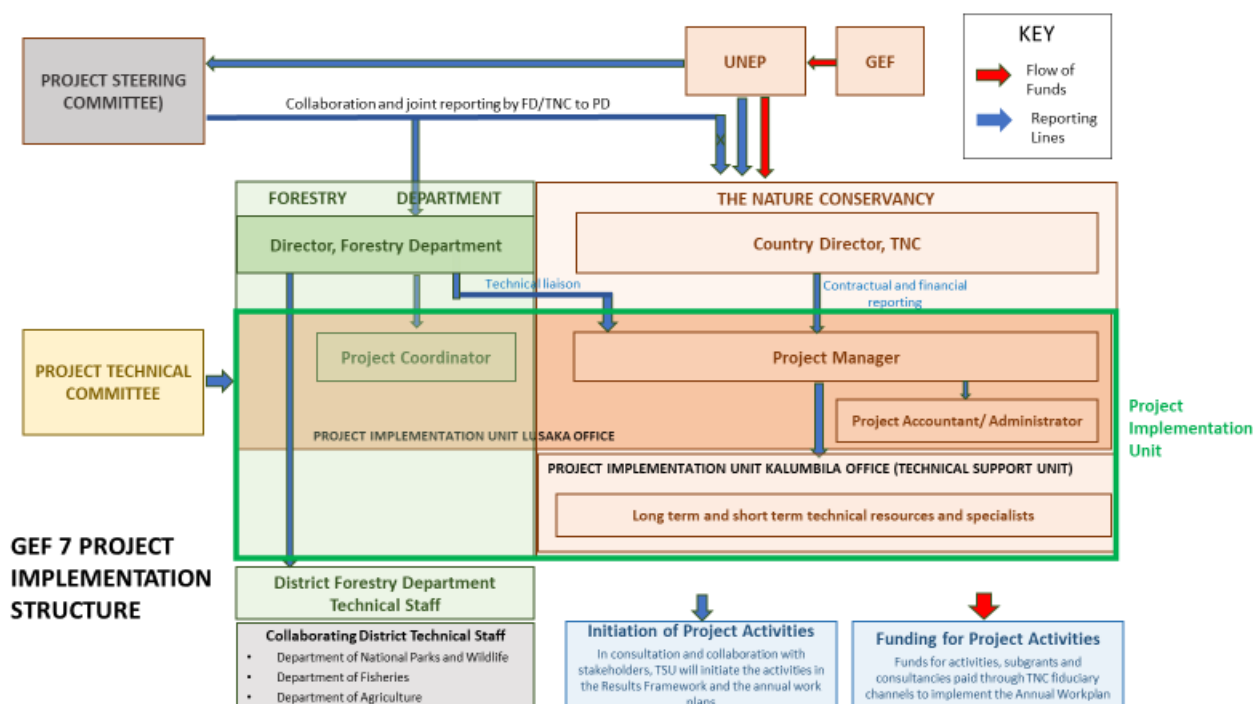
230. The project will ensure full participation of all stakeholders during preparation and implementation of project activities that may generate risks, involve contentious issues, or involve serious and multi-dimensional environmental and/or social concerns. The project will also ensure that all viable alternative project designs are considered in order to avoid, where feasible, or minimise involuntary resettlement.
231. The project will also ensure gender equity in the planning and implementation of project activities. The project will adopt UNEP's commitment to gender equality and women's empowerment and take into account the differences, needs, roles and priorities of men and women. The project will also acknowledge that women are often the most vulnerable to land degradation such as that resulting from poor management of agricultural and forestry sector, and will be proactive in seeking women's input to local innovations for sustainability. Deliberate effort will be made to encourage the participation of women and youth in the implementation of interventions including capacity building activities. Once the project is approved and the project team is in place, project will develop gender guidelines that will apply to the on-the-ground interventions and the project as a whole. They will aim at ensuring gender considerations are always taken into account in the project activities. Further gender sensitivity in the on-the-ground interventions will be a requirement, with particular attention to needs of different groups - e.g. parallel consultation processes at local level to enable women to be heard; to ensure project interventions benefit all groups (in terms of aims and participation).

SECTION 4: INSTITUTIONAL FRAMEWORK AND IMPLEMENTATION ARRANGEMENTS

Overview

232. This project will be executed nationally by The Nature Conservancy in close collaboration with the Department of Forestry of the Ministry of Lands and Natural Resources through a joint Project Implementation Unit. UNEP will be the GEF Implementing Agency.
233. The Project Implementation Unit (PIU) is responsible for the day-to-day implementation of the Project and is headed by the Project Manager. The PIU is co-staffed by Forestry Department and TNC and works under the supervision of the Project Steering Committee (PSC) chaired by the Permanent Secretary of the Ministry of Lands and Natural Resources on the part of the Government of the Republic of Zambia, and the supervision of UNEP as the Implementing Agency for the Global Environment Facility (GEF). The Project Technical Committee will play an advisory support role to the PIU. The overall Project Implementation Structure is shown in Figure 11 below.

FIGURE 11: PROJECT IMPLEMENTATION STRUCTURE



UNEP

234. Overall project supervision will be the responsibility of UNEP's Ecosystem Division, with UNEP's GEF Task Manager providing support and working closely with FD, TNC and the Project Implementation Unit. The GEF Task Manager is located at UNEP headquarters in Nairobi, Kenya. She/he will ensure that the Project remains consistent with GEF and UNEP policies and procedures and will provide regular operational oversight for the project. Operational oversight will include ensuring that the project practices due diligence with regard to Environmental, Social and Economic Review Note (ESERN). UNEP will also have representation on the PSC with regard to general project implementation.
235. UNEP will provide overall coordination and ensure that the project remains in line with UNEP's Medium-Term Strategy and its Programme of Work. Project supervision missions by the Task Manager will be described in the project supervision plan. UNEP will also report to the GEF Secretariat on progress against milestones outlined in the CEO Endorsement Request (CEO ER), as well as inform the GEF Secretariat of

any substantive changes in co-financing that could impact on the project objectives, scope, conformity with GEF criteria, outcome of the project, or likelihood of project success. UNEP will also be responsible for the following:

- Providing consistent and regular Project oversight to ensure that GEF policies and criteria are adhered to and that the project meets its objectives and achieves expected outcomes,
- Performing the liaison function between the project and the GEF Secretariat,
- Application of UNEP policy and criteria to strengthen execution arrangements,
- Ensuring that both GEF and UNEP guidelines and standards are applied and met (technical, fiduciary, M&E),
- Ensuring timely disbursement/sub-allotment to executing agencies, based on agreed legal documents,
- Approve budget revision, certify fund availability and transfer funds,
- Provide technical guidance, as necessary, for project implementation.
- Providing guidance if requested to main TORs/MOUs and subcontracts issued by the project,
- Follow-up with EA for progress, equipment, financial and other reports,
- Certify project operational completion,
- Submission of overall annual Project Implementation Review (PIR) to the GEF Secretariat and Evaluation Office, which will include an annual rating of the project in terms of progress meeting project objectives, project implementation progress, risk, quality of project monitoring and evaluation,
- Review and clearance of reports and other documents prepared by TNC, as Executing Agency, before publication,
- Review and agree any communications on the project prior to publication/dissemination,
- Arrange for independent mid-term evaluation and ensure that UNEP's Evaluation Office arranges a terminal evaluation and submits its report to the GEF Evaluation Office.

TERMS OF REFERENCE FOR THE PROJECT IMPLEMENTATION UNIT (PIU)

Location and Staffing

236. The PIU will be split between two locations – a central PIU located at the offices of the Forestry Department to ensure that policy and regulation-related requirements of the project are quickly and effectively met, and a Technical Support Unit located in Kalumbila, as it is centrally located and with good services and amenities. The central PIU Unit will consist of a full-time staff of:

- Project Manager: Reporting contractually and on all financial and administrative issues to TNC, and reporting to the Director, Forestry Department on technical and operational issues.
- Project Coordinator: Reporting to Director, Forestry Department and working closely with and providing technical support to the Project Manager.
- M&E Specialist: Reporting to the Project Manager, organize and supervise data collection, analysis and reporting of all project indicators.
- Project Accountant: Reporting to the Project Manager, responsible for financial reporting, liaison with the TNC financial management system, local procurement and project administration.

237. The Technical Support Unit in NWP will provide long term and short term provision of expertise through consultancies and contracts with relevant local institutions. Each of the targeted districts in the project area will have implementation units consisting of Forestry Department staff and partner organisation staff, supported by PIU staff and external technical expertise and reporting to the PIU. The exception is Mwinilunga because the district capital is far removed from the Mwinilunga field site over a poor-quality dirt road. The Kalumbila District will have a team that will support the Mwinilunga site.

Responsibilities:

238. The PIU will be responsible for:

- Implementing the Annual Workplan as developed by the PIU with technical input from the Project Technical Committee and approved by the Project Steering Committee;
- Financial management and procurements;
- Facilitating communications, organising meetings and acting as secretariat support for all meetings;
- Providing technical cooperation and coordination between stakeholder agencies and project partners;
- Reviewing technical documents and report compilation;
- Supporting consultants hired to complete project activities.

Financial Management Role of the PIU

239. In line with recommendations from previous GEF projects, the burden of financial management has been removed from the 'parent organisation', being the Forestry Department, recognising the fact that its systems can be stretched by the demands of the activities, especially since this project represents a transitory rather than permanent activity.

240. Therefore, the financial management processes of the project will follow the systems of the Executing Agency, TNC. However, to ensure that the key pillars of co-management, transparency and efficiency are maintained, project financial management will follow a well-codified project-specific management system including a financial management manual including procurement modalities, sign-off limits for key staff and institutions, etc. It is anticipated that such operating procedures will be developed collaboratively at project start.

Technical Management Role of the PIU

- Provide support to communities to become empowered as CFMG, to support them to develop strong forest management systems, forest-based enterprises and sustainable agriculture technologies that will provide both environmental benefits and livelihood enhancement for rural populations;
- coordinate project activities;
- build capacity across CFMG and their members and the institutions providing support to the CFMG;
- build strong positive relationships with stakeholders;
- organize trainings, monitoring activities and site visits;
- follow-up on recommendations and requests of the PSC;
- capture lessons learned and share with national and regional networks;

241. The TOR for each functional unit and the full-time staff are presented in Annex 11.

242. The roles of the cofinancing partners in project execution is presented in Table 13. Their roles are broken down by Outcome, Output and by Site.

TABLE 13 ROLES OF COFINANCING PARTNERS IN PROJECT IMPLEMENTATION

Outcomes and Outputs	Roles of Trident/WLCP and WWF at the West Lunga Site	Role of Trident & WWF at the Kalumbila Site	Role of Government Cofinancing Partners at the Three Sites
Outcome 1: Sustainable forest management (SFM) mainstreamed in local development plans addressing gender equality	General: WLCP intends to develop CFMG in all three GMA around West Lunga NP. They will work closely with GEF 7 on the CFMA/CFMG development in eastern Chibwika Ntambu GMA and will integrate the lessons learned into its replication in the other GMA.	General: Trident is interested in CFM for both forest conservation and livelihoods improvement and are in a position to replicate CFM. Trident has a special interest in securing a sustainable supply of saw timber for the newly privatized sawmill that supplies the FQM mine.	General: FD, DNPW, Fisheries and Agriculture will support the project sites through their district staff. They will provide much of the training of the CFMG communities for all the different outputs and activities of the project.
Output 1.1 Comprehensive assessment of forests and communities in the project area – sex and age disaggregated.	WLCP will play a strong role in assessing wildlife and carbon inventories and in the assessment of value chains. WLCP has a strong enterprise development orientation. WWF will assess fisheries, focusing on the floodplain fisheries around Ntambu.	Trident will provide staff support for the forest/NR assessment and the value chains analysis. WWF will do the assessment of fisheries threats, condition and opportunities.	FD will develop GIS capacities at their provincial office in Solwezi. All district officers will be involved in the forest/NR assessment and the value chains analysis.
1.2 In-depth awareness raising on inclusive, gender sensitive CFMA creation leading to the declaration by government of the new or modified CFMG	WLCP has little experience in the development of community governance structures for CFM and is especially interested in the lessons to be learned at the Project site for replication elsewhere.	Trident staff support.	District staff support.
1.3 Sustainable forest and natural resource management promoted in gender responsive District Integrated Development Plans and CFMA management plans	WLCP will make strong contributions to the wildlife management, ecological monitoring, infrastructure development and enforcement aspects of the management plan. WWF will develop the community fisheries component of the management plan.	Trident staff support. WWF will propose sustainable fisheries management interventions as appropriate	District staff support.
1.4 Knowledge management (KM) system developed in support of gender sensitive community management of forests and natural resources	Staff will participate in both the generation and the diffusion of KM products.	Staff will participate in both the generation and the diffusion of KM products	District staff will participate in both the generation and the diffusion of KM products
1.5 Subsidiary legislation for forestry reviewed and revised in support of gender responsive sustainable forest management	Staff will help identify legal barriers and will propose solutions.	Staff will help identify legal barriers and will propose solutions.	FD Lusaka will play a strong role in SI development
Outcome 2: Improved management of forest resources for gender equality and			

Outcomes and Outputs	Roles of Trident/WLCP and WWF at the West Lunga Site	Role of Trident & WWF at the Kalumbila Site	Role of Government Cofinancing Partners at the Three Sites
enhanced welfare and livelihoods			
Output 2.1. Gender responsive business plans developed in support of each community forest management group	WLCP will make strong contributions to the business and investment planning, especially for the honey, carbon and wildlife value chains. WWF will help develop the fisheries-based value chains.	Trident staff support.	District staff support.
2.2. Develop gender responsive community-based enterprises based on the business plan	WLCP will take the lead on developing the honey, wildlife and carbon value chains, including seed money for each. WWF will help develop the fisheries-based enterprises.	Trident staff support.	District staff support.
2.3. Capacities developed for gender responsive good governance, NRM and business management.	WLCP will continue to play the lead role for recruitment, training and equipping of guards and will maintain DNPW vehicals/ equipment.	Trident staff support who will train CFMG/community actors.	PIU will provide training of district staff will play a strong role in training for capacity development.
Outcome 3: Improved productivity, gender equality and climate resilience from sustainable agricultural practices on the lands zoned for agriculture adjacent to community-managed forests:	West Lunga site is inside the Chibwika Natambu GMA. There is no cropping in this GMA and Outcome 3 will not be developed at West Lunga.		Department of Agriculture (DoA) not involved at West Lunga
Output 3.1. Gender responsive network of actors developed and capacity built to deliver sustainable agricultural practices on the lands zoned for agriculture adjacent to community-managed forests;		Trident will provide technical staff to support all three outputs of Outcome 3.	Department of Agriculture's extension agents make up a key part of the network to be developed at Kalumbila and Kasempa.
3.2. Capacity building provided to encourage the adoption of gender responsive, sustainable agricultural practices in agricultural zones in villages adjacent to community forests		Trident will provide technical staff to support all three outputs of Outcome 3.	DoA's ag extension agents will be actively involved.
3.3. Crop and livestock male and female farmers adjacent to CFMAs equally trained to sustainably improve their productivity and net income.		Trident will provide technical staff to support all three outputs of Outcome 3.	DoA's ag extension agents will be actively involved.

SECTION 5: STAKEHOLDER PARTICIPATION

243. The Stakeholder Engagement Plan presented in Table 14 presents the different stakeholder groups, the ways the groups are expected to participate in the Project, the materials to be used in engaging them, where, the persons responsible and the timing.

TABLE 14: STAKEHOLDER ENGAGEMENT PLAN

Stakeholder group	Engagement Action/focus	Materials to be used	Location/ Timing of engagement	Responsible organisation, person
Councils/ Trad Leadership/ Municipalities	Participate in planned district and provincial development meetings	<ul style="list-style-type: none"> - Reports, presentation - Brochures, fliers, leaflets, factsheets (where available) 	District Administration Offices / Quarterly	PIU
Communities , Traditional Leadership and marginalised groups	<ul style="list-style-type: none"> - Adherence to FPIC and other participatory processes - There is a great deal of detail in the activities for Components 1 & 2 – their involvement in deciding whether or not to invest in CFM, their involvement in participatory land use planning of their village lands, definition of the optimal geographic scale of the CFMG, definition of management objectives, development of the benefit sharing plan, of their constitution, development of the forest management plans, identification of the most promising value chains, development of business plans, etc. - Hold meetings and/or provide written information packages - Provide information and updates on project implementation - Get opinions and concerns during public meetings or other contacts; - Register, analyse and address grievances or comments submitted - Conduct trainings as appropriate 	<ul style="list-style-type: none"> - Presentations; - Booklets and - progress reports - Information leaflets/factsheets/fliers; - Audio and visual equipment 	Project district and sites/ Quarterly	PIU Project Staff/consultants
External Stakeholders ²²	Hold meetings (physical and virtual) or provide written feedback to address the	<ul style="list-style-type: none"> - Electronic equipment for communication 	Annually	PIU Coordinator/manager

²² External stakeholders – stakeholder indirectly involved in project implementation, e.g. BINGOs, CSO, Research/Academia

	following: - Sustaining information exchange; - Share concerns and workout corrective measures; - Address any grievances; - Planning and pulling resources together and avoid possibilities of dividing target audiences during engagements	- Space for physical engagement - Printed materials (reports, leaflets/factsheets/fliers; etc)		
Ministries and government department	- Proactive position on policy review issues, e.g. CBNRM Policy - Prepare and sign data and information sharing and reporting protocol including project data handling responsibility	- Presentation in meetings using electronic and print equipment - Reports, Bulletin, Circulars, Memo	Ministry/Departmental HQs Project Office/ Annually	GEF Focal Point Relevant Directors
Private Sector players	- Information exchange on business opportunities for groups	- Presentations; - Booklets and progress reports - Information leaflets/factsheets/fliers; - Audio and visual equipment	Relevant Provinces Project Districts Project Sites/ Annually	Business Development Expert

SECTION 6: MONITORING AND EVALUATION PLAN

244. The project will follow UNEP standard monitoring, reporting and evaluation processes and procedures. Substantive and financial project reporting requirements are summarized in Appendix 8. Reporting requirements and templates are an integral part of the UNEP legal instrument to be signed by the executing agency and UNEP.
245. The project M&E plan is consistent with the GEF Monitoring and Evaluation policy. The Project Results Framework presented in Appendix 4 includes SMART indicators for each expected outcome as well as mid-term and end-of-project targets. These indicators along with the key deliverables and benchmarks included in Appendix 6 will be the main tools for assessing project implementation progress and whether project results are being achieved. The means of verification and the costs associated with obtaining the information to track the indicators are summarized in Appendix 7. Other M&E related costs are also presented in the Costed M&E Plan and are fully integrated in the overall project budget.
246. The M&E plan will be reviewed and revised as necessary during the project inception workshop to ensure project stakeholders understand their roles and responsibilities vis-à-vis project monitoring and evaluation. Indicators and their means of verification may also be fine-tuned at the inception workshop. Day-to-day project monitoring is the responsibility of the project management team but other project partners will have responsibilities to collect specific information to track the indicators. It is the responsibility of the Project Manager to inform UNEP of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely fashion.
247. The Project Steering Committee will receive periodic reports on progress and will make recommendations to UNEP concerning the need to revise any aspects of the Results Framework or the M&E plan. Project oversight to ensure that the project meets UNEP and GEF policies and procedures is the responsibility to the Task Manager in UNEP-GEF. The Task Manager will also review the quality of draft project outputs, provide feedback to the project partners, and establish peer review procedures to ensure adequate quality of scientific and technical outputs and publications.
248. Core indicators and their end-of-project (EOP) and mid-term targets are shown in the GEF CEO Endorsement Request. The baseline for objective, outcome and input indicators and the EOP and mid-term targets are shown in Appendix 4. Baseline data gaps will be addressed during the first year of project implementation. A plan for collecting the necessary baseline data is presented in Appendix 7. The main aspects for which additional information are needed are nature-based income/livelihoods.
249. Project supervision will take an adaptive management approach. The project supervision plan is provided as Appendix 5 of the CEO Endorsement Request. The emphasis of the Task Manager supervision will be on outcome monitoring but without neglecting project financial management and implementation monitoring. Progress vis-à-vis delivering the agreed project global environmental benefits will be assessed with the Project Steering Committee at agreed intervals. Project risks and assumptions will be regularly monitored both by project partners and UNEP. Risk assessment and rating is an integral part of the Project Implementation Review (PIR). The quality of project monitoring and evaluation will also be reviewed and rated as part of the PIR. Key financial parameters will be monitored quarterly to ensure cost-effective use of financial resources.
250. In-line with the GEF and UNEP Evaluation requirements, the project will be subject to an independent Terminal Evaluation (TE). Additionally, a performance assessment will be conducted at the project's mid-point. The Evaluation Office will decide whether a Mid-Term Review, commissioned and managed by the Project Manager, is sufficient or whether a Mid-Term Evaluation, managed by the Evaluation Office, is required.
251. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. The project performance will be assessed against standard evaluation criteria using a six-point rating scheme. It will have two primary

purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP staff and implementing partners. The direct costs of the evaluation will be charged against the project evaluation budget. The TE will typically be initiated after the project's operational completion. If a follow-on phase of the project is envisaged, the timing of the evaluation will be discussed with the Evaluation Office to feed into the submission of the follow-on proposal.

252. The draft TE report will be sent by the Evaluation Office to project stakeholders for comment. Formal comments on the report will be shared by the Evaluation Office in an open and transparent manner. The final determination of project ratings will be made by the Evaluation Office when the report is finalised.
253. The evaluation report will be publicly disclosed and will be followed by a recommendation compliance process. The evaluation recommendations will be entered into a Recommendations Implementation Plan template by the Evaluation Office. Formal submission of the completed Recommendations Implementation Plan by the project manager is required within one month of its delivery to the project team. The Evaluation Office will monitor compliance with this plan every six months for a total period of 12 months from the finalisation of the Recommendations Implementation Plan.
254. The indicative Monitoring and Evaluation Work Plan is provided in the Appendix 7.

SECTION 7: PROJECT FINANCING AND BUDGET

7.1. Overall project budget

255. The overall project budget over the 5-year project period amounts to US\$ 25,538,585, comprising US\$ 5,338,585 from GEF and US\$ 20,380,000 from co-financing. Details of the budget according to UNEP budget lines are attached as Appendix 1 and Appendix 2.

7.2. Project co-financing

256. A total of US\$ 20,380,000 is committed as co-financing from the Government of the Republic of Zambia, TNC, WWF, First Quantum Minerals and Trident Foundation, as shown in Table 15 below and Appendix 2. Of this US\$19,505,000 is in cash and US\$875,000 is in-kind.

**TABLE 15: SUMMARY OF TOTAL PROJECT CO-FINANCING PARTNERS
AND AMOUNTS COMMITTED**

Co-financier	TOTAL
Ministry on Lands and Natural Resources	7,200,000
Ministry of Agriculture	1,900,000
Ministry of Tourism and Arts	750,000
TNC	2,000,000
WWF	3,780,000
First Quantum Minerals	2,500,000
Trident Foundation	2,250,000
TOTAL	20,380,000

7.3. Project cost-effectiveness

257. The co-financing commitment from the Government of the Republic of Zambia and strategic project partners, shows a clear commitment to achieving the goals of this project (as described in detail above). They key innovation that makes this project more cost effective is its emphasis on forest/and natural resource-based enterprise development and the financial incentives this generates for local communities to conserve their forests. Communities will protect that which is of value to them – that generates revenues and employment. Existing community forests in NWP have created new obligations while generating little or no new benefits. Key elements of the project strategy include identifying the value chains of greatest profitability, adapting the size of the CFMG to the optimal economic and geographic scale of operations, the identification of key staff needs to operate effectively at this scale, the provision of substantial amounts of seed money for investments and initial staffing in enterprise development, the development of forest management funds and investment funds that are self-financed out of revenues generated and a strong emphasis on capacity building. These measures are key to sustainability.

258. The project will work closely with existing national government structures for forests, wildlife, fisheries and agriculture, with the CSR initiatives through the Trident Foundation and the West Lunga Conservation Project that provide cofinancng and with district councils, as well as with the local communities and traditional leaders. The first two components will work in synergy with the third component. Components 1 and 2 will create strong incentives for communities to protect and sustainably manage their forest and to prevent the clearing of the forest for agriculture. Component 3 will extend sustainable agriculture practices that allow for productive, permanent cropping, reducing the need for farmers to clear more forests. This

synergistic approach across the three project Components will generate both global environmental benefits and enhanced livelihoods.

259. Collaborating on knowledge management with the GEF-7 FAO Mosaic Landscapes project and Drylands Sustainable Landscapes Impact Program will also make the project more cost effective. The Project will benefit from lessons learned and best practices identified both regionally and globally by the IP and will share its own lessons learned with the IP partners. The Project emphasis on adaptive management will help it quickly move up the learning curve.

APPENDICES

APPENDIX 1: BUDGET BY PROJECT COMPONENTS AND UNEP BUDGET LINES

Refer to excel file

APPENDIX 2: CO-FINANCING BY SOURCE AND UNEP BUDGET LINES

Refer to excel file

APPENDIX 3: INCREMENTAL COST ANALYSIS

The incremental costs and benefits of the GEF-7 Project are summarized in the following incremental cost matrix. The incremental cost of the project, US\$ 25,718,585 is required to achieve the global environmental benefits from the project activities. Of this amount, US\$ 5,338,585 is requested as cash funding from the GEF Trust Fund. The remaining US\$ 20,380,000 will be provided by the Government of the Republic of Zambia and co-financing implementing partners (TNC, First Quantum Minerals, Trident Foundation Ltd. and WWF) as both in-kind and investment contributions to the total project cost.

BASELINE	ALTERNATIVE	INCREMENT
(A)	(B)	(B) - (A)
COMPONENT 1: Developing the enabling regulatory and planning frameworks for community-based, sustainable forest management		
<p>On two of the three sites, communities have not been structured and empowered to conserve and manage their forests.</p> <p>Only one of the Kasempa sites have any communities that have been structured and recognized as CFMG with the rights to control access and to manage their forests and to harvest and market products from their forests. Six established CFMA in Kasempa District cover an area of 19,439 ha. and two very recently created new CFMA without management plans cover about 170,000ha.</p> <p>There has been no participatory zoning of communal lands at the four Project sites to set aside separate areas for community forests, for farmland and for settlements.</p> <p>CFM has not been mainstreamed into any of the District Integrated Development Plans. There has been no identification of priority forest areas that are best suited, or strategically the most important, for being put under CFM. The importance of CFM for rural development has not been quantified or recognized in district development planning and the role of the districts in the promotion of CFM has not been defined.</p>	<p>Communities at all sites will have been structured and empowered as CFMG with the rights to control access and to manage natural forest lands. A total of at least 120,000 ha will be covered by the CFMG. All participation will have been voluntary and based on awareness raising of the potential benefits, costs and risks. All CFMA/CFMG planning will have been based on a thorough assessment of forest resources and on the socio-economic conditions of the communities. The main opportunities for increased benefits/revenue generation will have been analysed/identified and will have been integrated into forest management objectives and plans. The optimal economic scale of forest enterprise development will have been taken into consideration in the definition of the geographic scale for each CFMG.</p> <p>All CFMG communities on communal lands will have completed participatory zoning to delineate areas for community forestry, agriculture, settlements, etc.</p> <p>All CFMG will have approved management plans that integrate conservation priorities with enterprise development and revenue generation.</p> <p>All CFMG will have developed rules for the sharing of benefits using a participatory methodology.</p> <p>At least two districts will have mainstreamed CFM into their</p>	<p>Communities have been empowered to manage at least 120,000 has of natural forest land, about 60,000 of which are in Protected Areas (GMAs).</p> <p>The institutional framework and planning have been established for the development of strong incentives for forest conservation through SFM.</p> <p>SFM planning is developed with a strong orientation towards forest and natural resource management as a business enterprise.</p> <p>CFM lessons learned and best practices have been greatly strengthened through a dynamic knowledge management component that is active at the local, provincial, national, regional and global levels, with strong linkages to the GEF-7 Drylands Sustainable Landscapes Impact Program.</p> <p>The regulations for CFM have been revised to provide a straight-forward, easily applicable legal framework for CFM</p>

BASELINE	ALTERNATIVE	INCREMENT
(A)	(B)	(B) - (A)
	District Integrated Development Plans, including the identification of priority areas for conservation through CFM and the definition of district responsibilities and support for CFM development.	
COMPONENT 2: Promoting the conservation and sustainable use of natural resources in community-managed forests		
<p>At all sites, there are large incentives for individual households to clear forests on communal lands to convert them into their own <i>de facto</i> privately owned croplands. There are almost no incentives to conserve forest lands on communal lands and little incentive to conserve forest lands in GMA. Rural populations do not have the right to protect their forests from deforestation.</p> <p>There are no tested, proven models of community management of forests in NWP. The six CFMG that were created in the Kasempa District do not have viable forest management systems. Those CFMG communities have new obligations (self-enforcement, early burning, ban on cutting trees for harvest of honey, caterpillars, etc.) but little or nothing for new benefits. People were already collecting timber and NTFP prior to CFMA creation and little or no new revenues have been generated since the creation of the CFMG. Each of the six CFMG have forest management plans, but they are so over-simplified that they have little effectiveness. For example, there are no management rules to avoid the over-exploitation of wood fuels or saw timber. The reliance of the CFMG on volunteer labour for honorary enforcement officers and for early burning is a high-risk strategy. Little has been done for capacity building for good governance, forest and natural resource management and for enterprise development.</p> <p>The six established CFMA in Kasempa District cover 19,439 ha. Although five are located inside a GMA with its own</p>	<p>CFMG have been structured or restructured in order to achieve economies of scale for community level, forest-based enterprises. Forest management plans include detailed rules and measures to ensure abundant regeneration of all trees, wildlife and fisheries species/products that have been harvested destructively and new silvicultural systems have been developed. Forest-based enterprise development in CFMA is generating substantial new revenues and benefits for community members and the community as a whole. They are also contributing to the coverage of forest management costs and are generating revenues for further investments in other forest-based enterprises as defined in each CFMG's business plan. The community forest has been designated as a permanent community forest estate through participatory land use zoning and anyone wishing to convert the community forest into private cropland has a legally recognized and incentivised community institution preventing it. Agricultural development is confined to the agricultural zone in the community's land use zoning plan.</p> <p>Enterprise development in the CFMG is based on a professional business plan that is in turn based on SFM, community-defined forest management objectives and a thorough analysis of costs, benefits and risks. Many CFMG employ technical and professional staff that allows them to operate more sophisticated and profitable businesses than they could manage on their own.</p> <p>Over 120,000 has are under CFM. All of them are covered</p>	<p>There are strong incentives for communities and community members to conserve the forests of their CFMA. Communities are motivated to prevent farmers from clearing their forests for cropland. The benefits of CFM are clearly superior to the costs. The community managed forests are delivering ecosystems services that include biodiversity conservation, hydrological functions, climate change mitigation through carbon sequestration, recycling of nutrients, development and maintenance of fertile soils, greater resilience against climate change while at the same time generating revenues and employment for rural populations. CFM is a largely self-financing strategy for forest conservation and SLM.</p> <p>The development of tested, proven models of CFM removes a major barrier to forest conservation.</p>

BASELINE	ALTERNATIVE	INCREMENT
(A)	(B)	(B) - (A)
<p>CRB, there has been no collaborative system developed to integrate wildlife management with forest management. There are no riverine fisheries management systems at any of the four sites. There is one CRB for each of the four GMA in the West Lunga Complex but there has been no integration of forest or fisheries management.</p>	<p>by approved forest management plans.</p> <p>Communities have developed solid capacities for good governance, NRM and enterprise development. CFMG begin to have some level of economic and political clout.</p>	
COMPONENT 3: Enhancing the sustainability and productivity of agricultural practices in community-managed forests		
<p>Extensification of slash-and-burn agriculture is continuously driving the conversion of more and more forest into croplands. Insufficient tested, proven systems of productive sustainable agriculture practices for smallholders. Maintenance of soil fertility is the most critical challenge for agricultural sustainability, especially on inherently infertile miombo soils. The set of agricultural technologies know as conservation agriculture (CA) has been widely promoted across Zambia and in NWP and has been shown to be effective in maintaining soil fertility and crop productivity at high levels but it has very low farmer adoption rates. Reasons for farmer rejection of the technologies are poorly documented and poorly understood but include the opportunity cost of labour required to implement conservation agriculture and the negative to neutral income benefits that are derived in the first few years of adoption. There is no well-defined set of sustainable agricultural technologies that tested and proven and ready for large scale extension in NWP. Slash-and-burn agriculture quickly leads to soil fertility depletion, requiring that more forest be cleared. The use of chemical fertilizers, as presently employed, eventually has adverse effects on soil fertility.</p>	<p>Sustainable agricultural practices are enhanced. In-depth farmer surveys identify technologies ready for scaling up and barriers to adoption of otherwise effective technologies. Promotion of sustainable agriculture technologies that contribute to maintenance and improvement of productivity, reducing the need for extensification. Accent on soil health and climate resilience. Spatial focus on croplands around CFMA. Multiple channels used for extension of sustainable agricultural technologies that include irrigated vegetables, small livestock, poultry and tree crops. Accent on capacity building for extension agents and lead farmers. Technical assistance, demonstration sites, and involvement of agricultural input suppliers. Annual adaptive management reviews. Better access to markets.</p>	<p>Adoption of sustainable agricultural practices through refining tested, proven sustainable agricultural technologies. More sustainable agricultural technologies practiced on at least 10,000 has. Reduced conversion of forests to agriculture. More carbon sequestered in cropland soils. Reduced emissions of CO₂. Greater food security leads to reduced poaching of wildlife. Greater resilience to climate change for SA adopters</p>

APPENDIX 4: RESULTS FRAMEWORK

Project Objective	Objective level Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks	UNEP MTS reference*
To strengthen community-based sustainable management of forest landscapes, and provide improved livelihood opportunities for targeted forest-dependent rural communities in Zambia's North West Province	a. Hectares of dryland forests and lands under improved, more sustainable management b. % change in the income of women, men and youth from forest-based products and services.	a. 189,339ha transferred to CFMG, but without viable SFM systems b. To be estimated by a socioeconomic survey to be done in the first six months of the Project (disaggregated by gender and product/service)	a. EOP: 130,000 has Mid-Point Target: 50,000 ha b. EOP: 15% increase Mid-Point target: None – no survey	a. Collected by community guards, district DF & DNPW agents, PIU staff. b. Semi-annual and Annual reports Verified by Mid-Term and Final Evaluation teams. Baseline survey redone in Yr 5.	a. Benefits of CFM provide adequate incentives for forest conservation. Low risk of inadequacy b. Profitable enterprises developed. Low to moderate risk enterprises not profitable.	Healthy and productive ecosystems
Project Outcome	Outcome Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	Assumptions & Risks	MTS EA
<u>Outcome 1:</u> Sustainable forest management (SFM) mainstreamed in local development plans in target Community Forest Management Areas (CFMAs)	a. Area covered by recognized CFMAs with operational forest/NR management systems b. Number of District Integrated Development Plans with SFM mainstreamed addressing gender equality	a. 78,347ha covered by existing CFMA in Kasempa District, but w/o viable management systems. b. No. DIDP mainstreaming CFM in the 3 districts	a. End of project Target: 120,000 ha. Mid-Point Target: 120,000 ha. b.EOP: 2 MTT: 1	a) The legal documents creating the CFMA, Mid-term and EOP evaluations b) Copies of approved DIDP. MT & EOP evaluations	a. Community stakeholders develop capacities for accountability, transparency, sound management of funds and equitable sharing of costs and benefits. Low risk they fail to develop capacities b. District councils commit to support for CFM development. Moderate risk of inadequate support.	EA (a) The health and productivity of marine, freshwater and terrestrial ecosystems are institutionalized in education, monitoring and cross-sector and transboundary collaboration frameworks at the national and international levels

<p><u>Outcome 2:</u> Improved management of forest resources enhances gender equality and contributes to enhanced welfare and livelihoods</p>	<p>a. Number of CFMG receiving funds from their investments and dispersing funds in accordance with their benefit sharing plan and investment plan.</p>	<p>a. None</p>	<p>a. EOP: At least 6 MTT: At least 3</p>	<p>a) Semi-annual report</p>	<p>a. Successful development of profitable enterprises and respect for plan for equitable sharing of benefits.</p>	
	<p>b. % of men, women and youth satisfied with the current CFMG plan for equitable sharing of costs and benefits</p>	<p>b. Not applicable</p>	<p>b. EOP: Men: 50% Women: 60% Youth: 50% MTT: Men 50% Women: 40% Youth: 30%</p>	<p>b) CFMG Accounts Evaluation teams Project financial reports; CFMG audit reports</p>	<p>b. Communities choose to organize at a large enough economic/geographic scale. Low risk they go small scale.</p>	
<p><u>Outcome 3:</u> Improved productivity, gender equality and climate resilience from sustainable agricultural practices on the lands zoned for agriculture adjacent to community-managed forests:</p>	<p>c. Amount of investments in community businesses made by Project and by CFMG Beneficiaries disaggregated by gender</p>	<p>c. None</p>	<p>c. EOP US\$ 1,259,000 by Project and \$100,000 by CFMG Gender targets: Men 45% Women 35% Youth 20% MTT: 600,000 by Project and 20,000 by CFMG Men: 55%, Women 30%, Youth 15%</p>	<p>c) Observations by community guards & TNC remote sensing unit</p>	<p>c. CFM benefits provide incentives for enforcement of SFM ban on deforestation; Low risk</p>	
	<p>a. Number of farmers (disaggregated by sex and age) adopting gender sensitive sustainable agricultural practices</p>	<p>a. Baseline survey established within first 6 months</p>	<p>a. EOP: 10,000 additional farmers – 45 % men, 35% women, 20% youth: MTT: 3000 new farmers; 60% men, 30% women, men & 10% youth:</p>	<p>a) Monitoring by PIU, SA experts and collaborators. Annual adaptive management reviews;</p>	<p>a. Full participation of women and youth. Low risk of non-participation.</p>	
	<p>b. Area under more sustainable agricultural practices in number of hectares</p>	<p>b. Baseline established first 6 months.</p>	<p>b. EOP: 10,000ha. MTT: 3,000 ha.</p>	<p>b) Extension agents Monitoring by PIU. Use of SHARP tool for monitoring resilience (relevant baseline/targets TBD)</p>	<p>b. Attractive, varied technologies for SA and climate smart agriculture. Low to moderate risk suitable technologies not adequate.</p>	
<p>Project outputs:</p> <p>1.1. Comprehensive assessment of forests and communities in the project area – sex and age disaggregated.</p> <p>1.2. In-depth awareness raising on inclusive, gender sensitive CFMA creation leading to the declaration by government of the new or modified CFMG</p>						

- 1.3. Sustainable forest and natural resource management promoted in gender responsive District Integrated Development Plans and CFMA management plans
- 1.4. Knowledge management (KM) system developed in support of gender sensitive community management of forests and natural resources
- 1.5. Subsidiary legislation for forestry reviewed and revised in support of gender responsive sustainable forest management
- 2.1. Training and deployment of a corps of gender sensitive community forest guards in targeted CFMAs
- 2.2. Gender responsive business plans developed in support of each community forest management group
- 2.3. Gender responsive community-based enterprises developed based on the business plan
- 2.4. Capacities developed for gender responsive good governance, NRM and business management
- 3.1. Gender responsive network of actors developed and capacity built to deliver sustainable agricultural practices on the lands zoned for agriculture adjacent to community-managed forests
- 3.2. Capacity building provided to encourage the adoption of gender responsive, sustainable agricultural practices in agricultural zones in villages adjacent to community forests
- 3.3. Crop and livestock male, female and young farmers adjacent to CFMAs equally assisted to sustainably improve their productivity and net income

APPENDIX 5: WORKPLAN AND TIMETABLE

Output	Activity	Annual Activity					Quarterly Activity																			
		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Year 1				Year 2				Year 3				Year 4				Year 5			
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Outcome 1																										
Output 1.1	1.1.1																									
	1.1.2.																									
	1.1.3																									
	1.1.4																									
Output 1.2	1.2.1																									
	1.2.2																									
	1.2.3																									
Output 1.3	1.3.1																									
	1.3.2																									
	1.3.3																									
	1.3.4																									
	1.3.5																									
	1.3.6																									
Output 1.4	1.4.1																									
	1.4.2																									
	1.4.3																									
Output 1.5	1.5.1																									
	1.5.2																									
	1.5.3																									
Outcome 2																										
Output 2.1	2.1.1																									
Output 2.2	2.2.1																									
	2.2.2																									
Output 2.3	2.3.1																									
	2.3.2.																									
	2.3.3																									
Outcome 3																										
Output	3.1.1																									

Output	Activity	Annual Activity					Quarterly Activity																			
		Yr	Yr	Yr	Yr	Yr	Year 1				Year 2				Year 3				Year 4				Year 5			
		1	2	3	4	5	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
3.1	3.1.2																									
Output 3.2	3.2.1																									
	3.2.2																									
Output 3.3	3.3.1																									
	3.3.2																									

APPENDIX 6: KEY DELIVERABLES AND BENCHMARKS

Components / Outcomes/Outputs	Summary of Activities	Deliverables	Benchmarks
Project Component 1: Developing the enabling regulatory and planning frameworks for community-based, sustainable forest management			
Outcome 1: Sustainable forest management (SFM) mainstreamed in local development plans in target CFMAs or PFMA:			
Output 1.1 Comprehensive assessment of forests and communities in the project area – sex and age disaggregated.	<ul style="list-style-type: none"> • GIS capacities built. CFMG advisory boards created. Awareness raising of candidate communities. PIU and FD staff and consultants conduct assessments of forests and natural resources. Private sector company conducts detailed socio-economic analysis with focus on forest and natural-resource based livelihoods. Value chains analysed. Options for geographic scale defined. 	<ul style="list-style-type: none"> • Set of GIS maps on forest/natural resource and biophysical conditions. Assessment reports on forest and natural resource conditions and socio-economic conditions at the four project sites. Report on value chains. • Report on analysis of optimal scale of operations for each CFMG. 	<ul style="list-style-type: none"> • Key value chains confirmed for each site. • Optimal economic and geographic scale of operations proposed for each potential CFMG.
Output 1.2. In-depth awareness raising on inclusive, gender sensitive CFMA creation leading to the declaration by government of the new or modified CFMG	<ul style="list-style-type: none"> • Awareness raising on results of assessments. Participatory analysis, debate and choice of options for grouping villages into CFMG. • Constitutions developed for each CFMG • CFMG legally recognized by government 	<ul style="list-style-type: none"> • Maps of CFMG boundaries • Constitutions for each CFMG • Application by each CFMG for government recognition as a CFMG. 	<ul style="list-style-type: none"> • CFMG legally recognized by government
Output 1.3. Sustainable forest and natural resource management promoted in gender responsive District Integrated Development Plans and CFMA management plans	<ul style="list-style-type: none"> • Conduct integrated land use planning (ILUP) for communal lands belonging to CFMG. • Participatory zoning of forest and NR management units. Participatory development of rules governing access, management and harvest of NR products. Finalize forest and NR management plans. Create CFM planning sub-teams for mainstreaming CFM into district integrated development plans (DIDP). Develop and apply criteria for selecting priority forests for CFM development. Integrate CFM into DIDP 	<ul style="list-style-type: none"> • ILUP plans for CFMG lands. • Maps of management units for CFMG forests and natural resources. • Detailed rules governing access, mgt. and harvest for each CFMG. • Forest and NR management plans • DIDP with CFM mainstreamed. 	<ul style="list-style-type: none"> • All CFMG have approved forest management plans • CFM integrated into published DIDP
Output 1.4. Knowledge management (KM) system developed in support of gender sensitive community management of forests and natural resources	<ul style="list-style-type: none"> • Create a KM network and conduct three participatory KM reviews of CFM. Develop KM newsletter and Internet CFM discussion group. Participate in Drylands Sustainable Landscapes IP regional KM exchange. • Develop CFM courses integrated into university and technical college curricula. 	<ul style="list-style-type: none"> • Reports of the 3 participatory reviews. • Semi-annual Newsletters • Website with discussion groups • Reports on regional exchange events • CFM courses listed in curricula of university and technical colleges. 	<ul style="list-style-type: none"> • Published syntheses of lessons learned and best practices. • CFM courses prepared and made available to 2 universities and one technical college. offered to

Components / Outcomes/Outputs	Summary of Activities	Deliverables	Benchmarks
Output 1.5. Subsidiary legislation for forestry reviewed and revised in support of gender responsive sustainable forest management	<ul style="list-style-type: none"> • Legal consultant and two regional stakeholder workshops identify barriers in the existing statutory instrument and propose revisions. • Revisions finalized and submitted to MLNR for adoption. 	<ul style="list-style-type: none"> • Workshop reports. • Revised SI for the Forest Act. 	<ul style="list-style-type: none"> • Revised SI submitted to MLNR for adoption.
Component 2: Promoting the conservation and sustainable use of natural resources in community-managed forests			
Outcome 2: Improved management of forest resources for gender equality and enhanced welfare and livelihoods			
Output 2.2. Gender responsive business plans developed in support of each community forest management group	<ul style="list-style-type: none"> • Confirm investment opportunities identified in Outcome 1. Conduct detailed analysis of investment and operational costs and of profitability. • Synthesis results in a business plan for each CFMG. Define who should own each enterprise. Define staff needs. Assess capacities needed. Identify partnership opportunities. Develop an investment plan that extends well beyond project completion. Define how NRM costs will be covered out of revenues. Define how investment costs will be covered out of revenues. Develop a provisional timeline. 	<ul style="list-style-type: none"> • Reports on the analysis of profitability of various enterprises, of their staffing needs, of the capacities needed, of potential partnerships. • Syntheses of these elements into separate business plans for each CFMG, plans that extend well beyond Project completion. Plans will define the measures for the development and financing of forest/NR management plans and for investment plans for the development of existing and new enterprises. Investment plans will include a provisional and flexible timeline. 	<ul style="list-style-type: none"> • Finalized business plans for each CFMG. • Investment plans for each CFMG.
Output 2.3 Gender responsive community-based enterprises developed based on the business plan	<ul style="list-style-type: none"> • Provide seed money and technical support for creation/development of community level, forest and NR-based enterprises. • Provide interim funding for TBU staff. • Create system for covering NRM and investment costs out of a portion of revenues generated. 	<ul style="list-style-type: none"> • CFMG-owned and locally owned forest and NR-based businesses operational. • Community-based enterprises generating profits and contributing to the CFMG forest/NR management costs and investment costs. 	<ul style="list-style-type: none"> • CFMG invest in enterprise development using money generated from existing enterprises. • Forest guards, professional and technical staff paid out of revenues generated.
Output 2.4. Capacities developed for gender responsive good	<ul style="list-style-type: none"> • Training needs assessment of community members, enterprises, CFMG, district technical staff. • Development of training plans and training modules and 	<ul style="list-style-type: none"> • Training needs assessments • Training plan and modules 	<ul style="list-style-type: none"> • Community managers have the governance,

Components / Outcomes/Outputs	Summary of Activities	Deliverables	Benchmarks
governance, NRM and business management.	<ul style="list-style-type: none"> implement training • Redo training needs assessment in Yr 3. • Revise training plan and modules and continue training. 		technical and business capacities they need to manage their forests and their enterprises
Component 3: Enhancing the sustainability and productivity of agricultural practices in community-managed forests			
<u>Outcome 3:</u> Improved productivity, gender equality and climate resilience from sustainable agricultural practices on the lands zoned for agriculture adjacent to community-managed forests:			
Output 3.1. Gender responsive network of actors developed and capacity built to deliver sustainable agricultural practices on the lands zoned for agriculture adjacent to community-managed forests	<ul style="list-style-type: none"> • Conduct a participatory survey of farmers and extension agents to establish a baseline for training and the extent and understanding of sustainable agricultural technologies in target smallholder communities around forested areas • Develop and implement a programme of capacity building of extension staff and change agents from the agricultural community in target areas, based on the information identified in the participatory baseline survey. 	<ul style="list-style-type: none"> • Report on lessons learned, best practices, technologies ready for scaling up and on barriers to adoption, on differences in gender perspectives from baseline survey. • Document on a targeted programme of information dissemination to the target agricultural communities • Programme on capacity building for extension staff and change agents. Comprehensive package of training. 	<ul style="list-style-type: none"> • SA technologies ready for scaling up identified; • Key barriers to farmer adoption of CA and other SA technologies identified; • Programme of capacity building implemented
Output 3.2. Capacity building provided to encourage the adoption of gender responsive, sustainable agricultural practices in agricultural zones in villages adjacent to community forests	<ul style="list-style-type: none"> • Development of demonstration ‘sites of best practice’, managed by progressive and influential lead farmers in the target areas that will be the focal points for farmer trainings and information dissemination at community level • Annual participatory adaptive management reviews with extension officers, lead farmers, farmers managing demonstration sites and a sampling of male, female and young farmers who are implementing sustainable agriculture practices. 	<ul style="list-style-type: none"> • Demonstration sites on best practices for a diverse range of production options established on farms of progressive lead farmers • Report on findings from annual adaptive management reviews. • Synthesis of the finding from the adaptive management review 	<ul style="list-style-type: none"> • Demo sites established and used for training and awareness raising • Regular analysis for improvement to the extension programme.
Output 3.3. Crop and livestock male, female and young farmers adjacent to CFMAs equally assisted to sustainably improve their productivity and net income	<ul style="list-style-type: none"> • Field days will be held at the demonstration sites, ideally arranged and hosted by a local input supplier or other market actor that can offer access to inputs, information and technologies that support these production systems (e.g. seed and/or seedling supplier, day-old-chick supplier, irrigation technology supplier). • Using the demonstration sites and change agents as nodes of information dissemination, the project will also facilitate access to the wider agricultural market for farmers managing diverse and sustainable agricultural systems. 	<ul style="list-style-type: none"> • Programme of field days integrating market actors implemented • Reports analysing the strengths and weaknesses of the field days and proposing future improvements. • Demo sites and agents of change used to disseminate information of agricultural market. Market linkages established and with market support services (eg finance) 	<ul style="list-style-type: none"> • Markets linkages established • Farmers knowledge of the functioning of the markets improved.

APPENDIX 7: COSTED M&E PLAN

Type of M&E Activity	Responsible Parties	GEF Budget (US\$)	Co-finance (US\$)	Time Frame
Inception Workshop	Project Implementation Unit (PIU) / Project Board	9,480		Within 2 months of project start-up
Inception Report	PIU	Staff time		1 month after project inception meeting
M&E Expert	M&E Specialist	90,000		Full time
Conducting project field monitoring - travel	Project Steering Committee and Project Technical Committee	11,000	2,500	Objective, outcome and output indicators
Conducting project field monitoring - travel	PIU & Technical Specialists	50,000		Objective, outcome and output indicators
Conducting project field monitoring - travel	Monitoring and Evaluation by M&E Specialist	24,765		Objective, outcome and output indicators
Meetings of Project Technical Committee providing strategic and technical oversight in monitoring implementation and performance of the Project	Project Technical Committee, PIU	54,480		Regular meetings of PTC to review progress on achievement of objectives, outcomes and outputs
Measurement of project indicators (outcome, progress and performance indicators, GEF tracking tools) including baseline data collection. The Project Coordinator and Project Manager are responsible for overall measurement of indicators.	M&E Specialist Project Manager PIU Technical Specialists FD GIS units	Staff time	12,000	Outcome indicators: start, mid and end of project Progress/performance indicators: annually
Semi-annual Progress reports to UNEP	Project Manager M&E Specialist PIU	Staff time		Within 1 month of the end of reporting period (i.e. on or before 31 Jan. and 31 Jul.)
Reports of Project Steering Committee and Project Technical Committee meetings	Project Manager (with inputs from PIU staff & partners) UNEP representative	Staff time		PSC will meet twice/y the first 2 years and once/y the last 3 years. PTC will meet 4 times/y the first 2 years and twice/y the last 3 years
Project Implementation Review (PIR)	Project Manager PIU	Staff time		Annually

Type of M&E Activity	Responsible Parties	GEF Budget (US\$)	Co-finance (US\$)	Time Frame
	UNEP Task Manager			
Mid Term Review	UNEP TM/UNEP Evaluation Office	39,000		At mid-point of project implementation
Terminal Evaluation	UNEP TM/UNEP Evaluation Office	39,000		Within 6 months of end of project implementation
Project Final Report	Project Manager PIU Consultants for lessons learnt evaluation	Staff time	5,500	Within 2 months of the project completion date
Synthesis and dissemination of Lessons Learnt and other project documents	Project Manager PIU	Staff time	4,700	Annually - annual reports & Project Final Report & KM reports
Total M&E Plan cost		317,725	24,700	

APPENDIX 8: SUMMARY OF REPORTING REQUIREMENTS AND RESPONSIBILITIES

Reporting requirements	Due date	Responsible Party
Procurement plan (goods and services)	2 weeks before project inception meeting	Project Manager
Inception Report	1 month after project inception meeting	Project Manager
Expenditure report with appropriate notes	Quarterly on or before 30 April, 31 July, 31 October, 31 January	Project Manager
Cash Advance request and details of anticipated disbursements (to be submitted in Anubis along with the expenditure reports)	Quarterly or When required	Project Manager
Progress report	Half-yearly on or before 31 January, 31 July	Project Manager M&E Specialist
Audited report for expenditures for year ending 31 December	Yearly on or before 30 June	Executing partner to contract firm
Inventory of non-expendable equipment	Yearly on or before 31 January	Project Manager or
Co-financing report (to be reported quarterly along with the GEF expenditure in the quarterly expenditure reports)	Yearly on or before 31 July	Project Manager
Project implementation review (PIR) report	Yearly on or before 15 July	Project Manager, Project Board, M&E Specialist
Minutes of Project Board meetings	Twice Yearly first two years, then once/year	Project Manager
Final report	2 months after project closure / technical completion	Project Manager. M&E Specialist
Final inventory of non-expendable equipment	2 months after project closure/ technical completion	Project Manager
Equipment transfer letter	2 months after project closure/ technical completion	Project Manager
Final expenditure statement	3 months from project completion date	Project Manager
Mid-term evaluation	Midway through project	Task & Project Manager
Final audited report for expenditures of project	6 months from project completion date	Executing partner to contract firm
Independent terminal evaluation report	at the end of project or 6 months from project completion date	Evaluation Office

APPENDIX 9: STANDARD TERMINAL EVALUATION TOR

1. Objective and Scope of the Evaluation

The objective of this terminal evaluation is to examine the extent and magnitude of any project impacts to date and determine the likelihood of future impacts. The evaluation will also assess project performance and the implementation of planned project activities and planned outputs against actual outcomes. The evaluation will focus on the following main questions:

1. Did the project help to { } among key target audiences (international conventions and initiatives, national level policy-makers, regional and local policy-makers, resource managers and practitioners).
2. Did the outputs of the project articulate options and recommendations for { }? Were these options and recommendations used? If so by whom?
3. To what extent did the project outputs produced have the weight of scientific authority and credibility necessary to influence policy makers and other key audiences?

Methods

This terminal evaluation will be conducted as an in-depth evaluation using a participatory approach whereby the UNEP/GEF Task Manager, key representatives of the executing agencies and other relevant staff are kept informed and consulted throughout the evaluation. The consultant will liaise with the UNEP/EOU and the UNEP/GEF Task Manager on any logistic and/or methodological issues to properly conduct the review in as independent a way as possible, given the circumstances and resources offered. The draft report will be circulated to UNEP/GEF Task Manager, key representatives of the executing agencies and the UNEP/EOU. Any comments or responses to the draft report will be sent to UNEP/EOU for collation and the consultant will be advised of any necessary or suggested revisions.

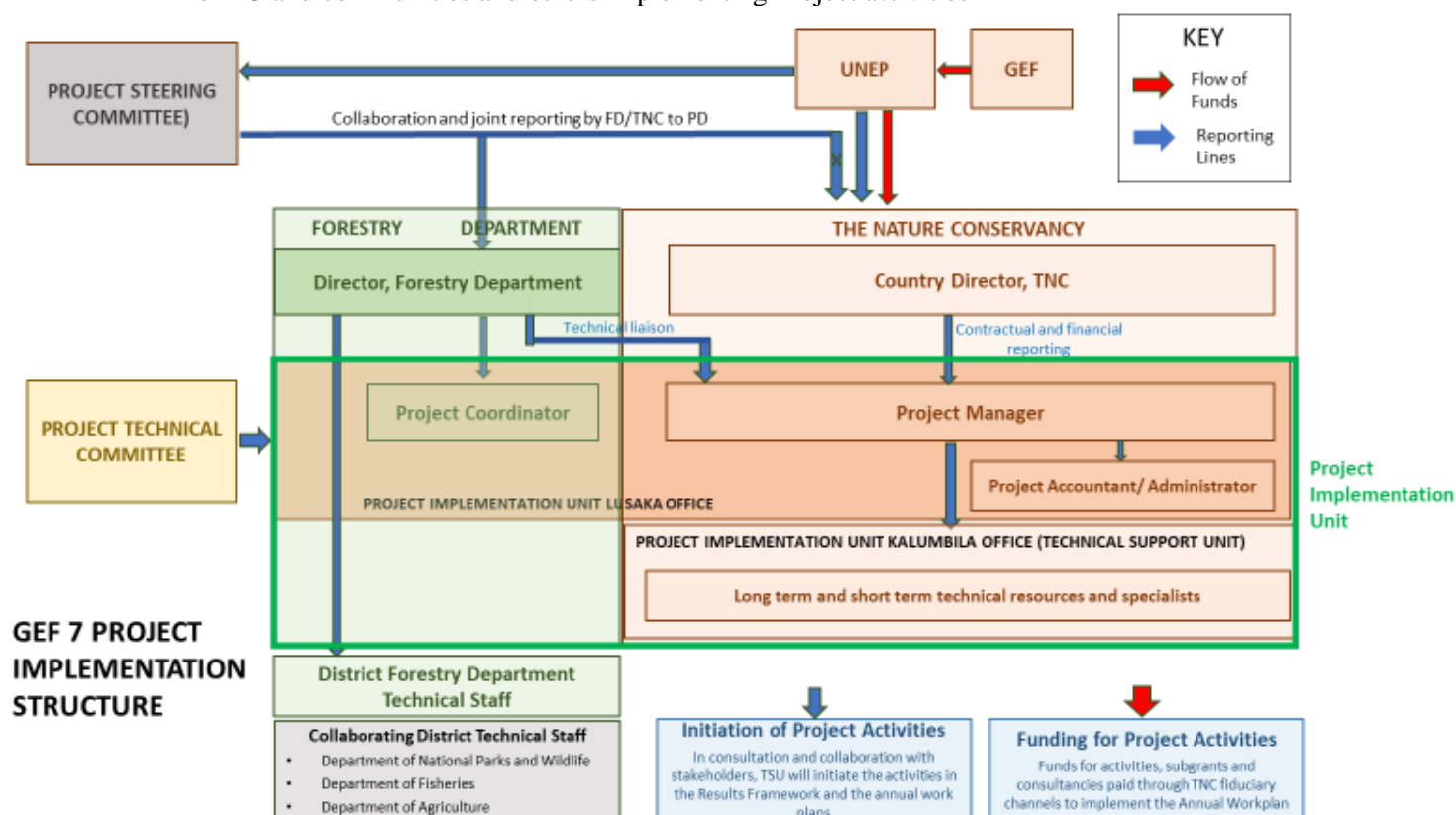
The findings of the evaluation will be based on the following:

1. A desk review of project documents including, but not limited to:
 - (a) The project documents, outputs, monitoring reports (such as progress and financial reports to UNEP and GEF annual Project Implementation Review reports) and relevant correspondence.
 - (b) Notes from the Steering Group meetings.
 - (c) Other project-related material produced by the project staff or partners.
 - (d) Relevant material published on the project web-site
2. Interviews with project management and technical support
3. Interviews and Telephone interviews with intended users for the project outputs and other stakeholders involved with this project, including in the participating countries and international bodies. The Consultant shall determine whether to seek additional information and opinions from representatives of donor agencies and other organizations. As appropriate, these interviews could be combined with an email questionnaire.
4. Interviews with the UNEP/GEF project task manager and Fund Management Officer, and other relevant staff in UNEP dealing with {relevant GEF focal area(s)}-related activities as necessary. The Consultant shall also gain broader perspectives from discussions with relevant GEF Secretariat staff.

APPENDIX 10: DECISION-MAKING FLOWCHART AND ORGANIZATIONAL CHART

This is best illustrated with the diagram for the Project Implementation Structure below. The flow of fund and the reporting line are clearly shown on the diagram, allowing close collaboration between the following entities:

- The Project Steering Committee and UNEP
- The Project Technical Committee and the PIU
- UNEP and the PIU
- The Project Technical Committee and the PIU
- The PIU and communities and others implementing Project activities



APPENDIX 11: TERMS OF REFERENCE

TERMS OF REFERENCE FOR THE PROJECT IMPLEMENTATION UNIT (PIU)

Location and Staffing

The PIU will be split between two locations – a central PIU located at the offices of the Forestry Department, and a Technical Support Unit located in Kalumbila, as it is centrally located and with good services and amenities. The central PIU Unit will consist of a full-time staff of:

Project Manager: Reporting contractually and on all financial and administrative issues to TNC, and reporting to the Director, Forestry Department on technical and operational issues.

Project Coordinator: Reporting to Director, Forestry Department and working closely with and providing technical support to the Project Manager.

M&E Specialist: Reporting to the Project Manager, organize and supervise data collection, analysis and reporting of all project indicators.

Project Accountant: Reporting to the Project Manager, responsible for financial reporting, liaison with the TNC financial management system, local procurement and project administration.

The Technical Support Unit in NWP will provide long term and short term provision of expertise through consultancies and contracts with relevant local institutions. Each of the targeted districts in the project area will have implementation units consisting of Forestry Department staff and partner organisation staff, supported by PIU staff and external technical expertise and reporting to the PIU. The exception is Mwinilunga because the district capital is far removed from the Mwinilunga field site over a poor-quality dirt road. The Kalumbila District will have a team that will support the Mwinilunga site.

Responsibilities:

The PIU will be responsible for:

- Implementing the Annual Workplan as developed by the PIU with technical input from the Project Technical Committee and approved by the Project Steering Committee;
- Financial management and procurement;
- Facilitating communications, organising meetings and acting as secretariat support for all meetings;
- Providing technical cooperation and coordination between stakeholder agencies and project partners;
- Reviewing technical documents and report compilation;
- Supporting consultants hired to complete project activities.

Financial Management Role of the PIU

In line with recommendations from previous GEF projects, the burden of financial management has been removed from the ‘parent organisation’, being the Forestry Department, recognising the fact that its systems can be stretched by the demands of the activities, especially since this project represents a transitory rather than permanent activity.

Therefore, the financial management processes of the project will follow the systems of the Executing Agency, TNC. However, to ensure that the key pillars of co-management, transparency and efficiency are maintained, project financial management will follow a well-codified project-specific management system including a financial management manual including procurement modalities, sign-off limits for

key staff and institutions, etc. It is anticipated that such operating procedures will be developed collaboratively at project start.

Technical Management Role of the PIU

Provide support to communities to become empowered as CFMG, to support them to develop strong forest management systems, forest-based enterprises and sustainable agriculture technologies that will provide both environmental benefits and livelihood enhancement for rural populations;

- coordinate project activities;
- build capacity across CFMG and their members and the institutions providing support to the CFMG;
- build strong positive relationships with stakeholders;
- organize trainings, monitoring activities and site visits;
- follow-up on recommendations and requests of the PSC;
- capture lessons learned and share with national and regional networks;

TERMS OF REFERENCE FOR PROJECT MANAGER (PM)

Project: Ecosystem conservation and community livelihood enhancement in North Western Zambia

Post title: Project Manager (PM)

Location: Project Implementation Unit, Forestry Department, Lusaka

Duration: 5 years, full time (50% on technical tasks, 50% on administrative/project management tasks)

Background

The Project will address the barriers to sustainable land management and to biodiversity conservation at four project sites in three districts in the Northwestern Province in the Republic of Zambia. Two of the Project components will develop systems of community management of forests and one component will develop and extend sustainable agricultural technologies. The leading causes of forest loss are clearing for agriculture and over-exploitation of wood and non-woody forest products. The key barrier to sustainable agriculture is the shortage of tested, proven sustainable agricultural technologies with high rates of farmer adoption.

Component one will support communities with awareness raising on CFM, assessment of forest condition and potential and on the socio-economic importance of forest products, delineation of forests for community management, grouping of villages into units of optimum geographic and economic scale, development of forest management plans targeting the forest products of highest value, development of plans for equitable sharing of costs and benefits and application for legal recognition by government.

Component two will assist communities to develop business plans and enterprise investment plans, will analyse the profitability of investment options, will provide seed money for investments and for interim hiring of technical and professional staff, will help develop operational, self-financing forest/natural resource management funds and investment funds and will provide training for developing a wide range of capacities for good governance, NRM and enterprise development.

Component three is focused on the promotion of smallholder agricultural technologies and practices by small-scale crop farmers and pastoralists living in the project target areas that contribute to the maintenance and enhancement of productivity on existing agricultural lands, thus reducing the need

for farmers to extend their agricultural footprint into forests and other natural ecosystems as a result of declining productivity on their traditional lands. Given that the majority of existing smallholder farming practices degrade the soil health that is so critical to the long term productivity of agricultural lands, the project will place a special focus on the promotion of technologies and practices that maintain and enhance soil health as a critical factor in wider ecosystem health.

The Project will generate a range of global environmental benefits and will contribute substantially to revenue generation, employment and rural livelihoods.

Duties and Responsibilities

Administrative/project management tasks (50%)

- Supervise and coordinate all aspects of the day-to-day work of the PIU, its staff, and Project Partners as necessary;
- Supervise and coordinate the production of project outputs, as per the project document;
- Supervise and coordinate the work of all project staff, consultants and sub-contractors;
- Ensure the smooth financial management of the project. Within limits and financial thresholds approved by the PSC, the PM will make operational and fiduciary decisions that promote smooth implementation of project activities.
- Liaise with UNEP, relevant government agencies, and all project partners, including private sector, donor organizations and NGOs for effective coordination of all project activities;
- Serve as Executive Secretary and provide support to the PSC in coordinating policy-related project implementation at the national level where technical advice will be generated to advance the project;
- Disseminate project reports and respond to queries from stakeholders.

Technical tasks (50%)

- Ensure the timely and effective implementation of all components of the project;
- Assist relevant government agencies and project partners with development of essential skills through training workshops and on the job training thereby upgrading their institutional capabilities;
- Provide technical advice, training-of-trainer capacity and technical support to the project implementing team and project partners in the field including but not limited to
 - Training of trainer activities in CFM opportunities, benefits, obligations and risks
 - Business and investment planning
 - Land and resource use planning
 - Organisation governance capacity building
 - Business and financial management;
- Lead the development of strategies and approaches for the support for CFM and SA in the communities;
- Lead the mainstreaming of gender into all project component;

- Lead annual adaptive management reviews to strengthen capacities for governance, NRM and enterprise development;
- Coordinate the work in the communities of the PIU staff;
- Play a lead role in KM activities and communications for the project.

Reporting Structure

The Project Manager will:

- Be accountable to the Executing Agency, TNC, for financial management and contractual issues. He/she will also be accountable to FD for technical and operational issues.
- Maintain regular communication with the PSC and the PTC;
- Maintain regular communication with the UNEP-GEF Project Management Officer
- Supervise the work of the PIU staff;

Educational Qualifications

Postgraduate degree (Masters or PhD) in environmental management, environmental sciences, natural resources management, biodiversity conservation, or a related field.

Experience

At least six years of experience in cross-cultural project management (design and implementation), with a proven track record of achieving results;

Hands-on experience in managing national and/or international natural resources projects, in particular concerning natural resources management, environmental information management, capacity development etc., preferably in the project target area;

Prior UN projects management experience, and particularly UN/GEF project experience and knowledge of UN and GEF procedures and guidelines;

Extensive experience in managing a diverse and multi-cultural team, and in personnel management (contracting, recruitment, performance monitoring);

Demonstrated understanding of community based natural resource management and gender equality issues, preferably in a Zambian context.

Required Skills

- Strong leadership, negotiation and communication skills;
- Solid background in project management, including finance;
- Sensitive to different cultural backgrounds and gender dynamics;
- Aware of and sensitive to government and civil society interactions/politics;
- Attention to detail and strong organizational skills;
- Able to establish priorities and to plan and coordinate work between different partners and stakeholder groups;
- Able to manage a complex workload and work within tight deadlines;
- Able to lead, manage and motivate project teams as well as international and local consultants and other stakeholders to achieve results;

- Able to build strong relationships at all levels with conservation partners, media contacts, private sector partners, potential project sponsors and other stakeholders;
- Able to react to project adjustments and/or alterations (if any) in an efficient and prompt manner;
- Able to work in a multicultural and multifunctional environment;
- Excellent oral, written, mass and interpersonal communication skills in English at a minimum, knowledge of any of the other languages in the project target region beneficial.
- Fully computer literate;
- Well-developed knowledge about protected area management and pertaining requirements is desirable.
- Willingness and ability to travel frequently within Zambia and to relevant countries

TERMS OF REFERENCE FOR PROJECT COORDINATOR (PC)

Project: Ecosystem conservation and community livelihood enhancement in North Western Zambia

Post title: Project Coordinator (PC)

Location: Project Implementation Unit, Forestry Department, Lusaka

Duration: 5 years, full time (75% on technical tasks, 25% on administrative/project management tasks)

Background

The Project will address the barriers to sustainable land management and to biodiversity conservation at four project sites in three districts in the Northwestern Province in the Republic of Zambia. Two of the Project components will develop systems of community management of forests and one component will develop and extend sustainable agricultural technologies. The leading causes of forest loss are clearing for agriculture and over-exploitation of wood and non-woody forest products. The key barrier to sustainable agriculture is the shortage of tested, proven sustainable agricultural technologies with high rates of farmer adoption.

Component one will support communities with awareness raising on CFM, assessment of forest condition and potential and on the socio-economic importance of forest products, delineation of forests for community management, grouping of villages into units of optimum geographic and economic scale, development of forest management plans targeting the forest products of highest value, development of plans for equitable sharing of costs and benefits and application for legal recognition by government.

Component two will assist communities to develop business plans and enterprise investment plans, will analyse the profitability of investment options, will provide seed money for investments and for interim hiring of technical and professional staff, will help develop operational, self-financing forest/natural resource management funds and investment funds and will provide training for developing a wide range of capacities for good governance, NRM and enterprise development.

Component three is focused on the promotion of smallholder agricultural technologies and practices by small-scale crop farmers and pastoralists living in the project target areas that contribute to the maintenance and enhancement of productivity on existing agricultural lands, thus reducing the need for farmers to extend their agricultural footprint into forests and other natural ecosystems as a result of declining productivity on their traditional lands. Given that the majority of existing smallholder

farming practices degrade the soil health that is so critical to the long term productivity of agricultural lands, the project will place a special focus on the promotion of technologies and practices that maintain and enhance soil health as a critical factor in wider ecosystem health.

The Project will generate a range of global environmental benefits and will contribute substantially to revenue generation, employment and rural livelihoods.

Duties and Responsibilities

Technical tasks (75%)

- Work as a team member of the PIU and with all project partners to coordinate and implement project activities, particularly with regard to inclusive natural resource management assessment, community forest management planning and evaluation, as well as relevant capacity development measures and gender equality;
- Provide specific technical input into the execution of Components 1, 2 &3

Administrative/project management tasks (25%)

- Coordinate daily duties with the Project Manager (PM) and provide support in steering project implementation;
- Coordinate and put systems in place for the timely and accurate technical, progress and financial reporting to the PM from all project partners, sub-contractors and consultants;
- Liaise with government institutions, targeted district councils, traditional leadership, non-governmental organizations and other relevant stakeholder on the project's behalf;
- Provide administrative support to the project partners;
- Provide secretariat support to the Project Steering Committee (PSC), including organization, communication and preparation of all meeting documentation;
- Actively promote the project and its components in all relevant media and fora;
- Assist with coordination and implementation of the project monitoring and evaluation plan, as outlined in the project document.
- Perform any other duty relevant to the assignment.

Reporting Structure

The Project Coordinator will report to the PM on a day-to-day basis and submit standard project reports (progress reports, financial reports, etc.) to the PM within set deadlines. He/She will also report contractually and technically to the Director, Forestry Department.

Educational Qualifications

Postgraduate degree (Masters or PhD) in environmental management, environmental sciences, natural resources management, biodiversity conservation, or a related field.

Required Skills

- Specific working experience in forestry management and/or community based natural resource management
- Knowledge of laws, government regulations, executive orders, and other bylaws related to natural resources and forest management;

- Leadership, negotiation, communication and trouble-shooting;
- Project management and gender equality;
- Self-motivated and able to work remotely with minimum supervision;
- Sensitive to different cultural backgrounds;
- Aware of and sensitive to government and civil society interactions/politics;
- Able to prioritize, plan and coordinate work remotely and with various partners;
- Able to lead, manage, support and motivate diverse teams of stakeholders to achieve results;
- Able to work as part of a team;
- Able to work in diverse and multicultural environments;
- Demonstrable sound working ethics;
- Excellent oral, written, mass and interpersonal communication skills;
- Fully computer literate;
- Specific knowledge of protected area management is desirable.

Experience

- Minimum of five years' experience in natural resource management and related project implementation and/or project management, with a proven track record of achieving results;
- Experience working with UN or other international organization is beneficial;
- Proof of successful accomplishment of contract/s with similar nature;
- Strong managerial background; an administrative track record is desirable.

TERMS OF REFERENCE FOR M&E SPECIALIST

Project: Ecosystem conservation and community livelihood enhancement in North Western Zambia

Post title: Monitoring and Evaluation Specialist

Location: Project Implementation Unit/Technical Field Office, Kalumbila

Duration: 5 years, full time

Duties and Responsibilities

- Work as a team member of the PIU and with all project partners to monitor and evaluate project activities, outputs and outcomes
- Work with data collection partners and has ability to motivate, lead, and set objectives
- Develop and manage monitoring work plans and the monitoring budget.
- Oversee the collection of field data by project partners (including CFMGs and other community groups)
- Oversee local-to-global GIS and other enterprise-scale spatial and relational databases.
- Ensure integrity of both data collection and data management relating to project progress reporting.

- Under limited supervision, act independently, resolve complex issues within the program area and act as a resource to others.
- Input the data into the monitoring database, analyze the monitoring data, find the explanation for variations in the data, produce quarterly monitoring reports, provide summary reports on progress towards targets, and update progress in the project's progress tracking system
- Document success stories and lessons learned from project work and share these with donors and partners.
- Organize and support data collection for project evaluations, and assess and use relevant methodologies for the measurement of conservation and resilience indicators

Reporting Structure

The M&E Specialist will report to the PM on a day-to-day basis and submit standard project reports (progress reports, monitoring reports, evaluations etc.) to the PM within set deadlines.

Educational Qualifications

- MS degree in a relevant field and 5-10 years related experience, or equivalent combination of education and experience.
- Fluent in English (speaking, reading and writing).
- Experience writing project progress reports.
- Experience working on monitoring and evaluation in Zambia.
- Experience managing and supervising data collection.

Required Skills

- Experience in interpretation of data.
- Experience in donor reporting requirements.
- Knowledge of current trends and practices in project monitoring.
- Experience collaborating with other parties to obtain data.
- Knowledge of GIS.
- Self-motivated and able to work remotely with minimum supervision;
- Sensitive to different cultural backgrounds;
- Able to prioritize, plan and coordinate work remotely and with various partners;
- Able to work as part of a team;
- Able to work in diverse and multicultural environments;
- Demonstrable sound working ethics;
- Excellent oral, written, mass and interpersonal communication skills;
- Fully computer literate;

TERMS OF REFERENCE FOR THE PROJECT STEERING COMMITTEE (PSC)

Project: Ecosystem conservation and community livelihood enhancement in North Western Zambia

Post title: Project Steering Committee

Duration: 5 years

Duties and Responsibilities

PSC will provide overall guidance and strategic direction and oversight to project management and will approve all final outputs and deliverables of the project. The PSC will be multi-disciplinary and multi-sectoral in fields related to nature protection, forestry, agriculture and land use planning. At project start and to ensure continuity, consistency and the preservation of institutional memory, the PSC will define its ‘charter’ which will define:

- The composition and criteria for membership
- The identification and acceptable ranks for proxies
- Roles and accountabilities for the committee
- Regulations to govern conduct of meetings
- Specific functions of the Steering Committee will include:
- Review of Project Status Reports;
- Endorsement of the final reports from project management, experts and consultants;
- Approval of the Annual Project Work plan and budget respectively and any changes thereto, in accordance with GEF and UNEP guidelines;
- Annual review of project Component activities to assess project development and progress on advancing issues of social inclusion and gender equality;
- Any other business brought before the PSC by one of its members.

As the PSC will provide overall guidance to the project it will not be expected to deal with day-to-day management and administration of the project. This will be handled by the PIU, in coordination with the Executing Agencies, and under guidance from the Project Manager. The PSC is especially responsible for evaluation and monitoring of project outputs and achievements. The PSC should be consulted for supporting any changes to the work plan or budget, and is responsible for ensuring that the project remains on target with respect to its outputs. Where necessary, the PSC will support definition of new targets in coordination with, and approval from, the Executing/Implementing Agencies.

The PSC will hold its meetings twice per year for the first two years and once per year thereafter.

Composition

The PSC will be composed of:

- The Permanent Secretary of the Ministry of Lands and Natural Resources (Chair)
- DGs of other relevant Ministries
- Project Manager
- A representative of UNEP
- A private sector representative from one of the co-financiers

TERMS OF REFERENCE OF PROJECT TECHNICAL COMMITTEE (PTC)

Project: Ecosystem conservation and community livelihood enhancement in North Western Zambia

Post title: Project Steering Committee

Duration: 5 years

Duties and Responsibilities

The Project Technical Committee (PTC) is the primary oversight organ providing regular technical oversight of the Project manager and the PIU and technical advice to the implementation of the project. It also responsible for joint decisions on operational and financial matters above the threshold of the Project Manager.

It will provide advice and technical guidance to the PIU, including, *inter alia*, by:

- Advising on technical issues faced by the Project
- Approving concept notes or expenditures above Project Manager's threshold
- Approving expenditures above budgetary provisions that may arise due to inflation
- Approving matters to be recommended to the PSC
- Reviewing TORs for procurement
- Assisting with technical evaluations of proposals
- Carrying out peer reviews of documents and reports
- Assisting with planning and participating in training/workshop activities

The PTC will meet quarterly for the first two years and twice a year thereafter.

Composition

The PTC will comprise technical specialists of government agencies and the private sector and NGOs as relevant. Government agencies will include:

- Department of Forestry
- Department of National Parks and Wildlife
- Department of Agriculture
- Department of Climate Change
- Zambia Environmental Management Agency
- Department of Environment Management

The PTC will be Chaired by the Director of the Forestry Department. PTC members are responsible for reporting to the institutions and organisations that they represent with regard to the project activities being carried out.

The proposed joint decision-making platform does not lead to any surrender of critical decision making powers of the key players but provides a forum for pooling their expertise and powers to facilitate "integrated delivery approach". The Technical Committee conforms to the principles of equitable and effective representation and an appropriate skills mix. Equitable representation of the key players i.e. UNEP, FD and TNC as EA means the size of the committee should be such that the three critical players are not unduly outnumbered by other members of the committee. This will mean the total number of committee members is 5 – 6. This is also a practical number for smooth decision processes. Effective representation would mean the Directors of Forest Department and TNC and the designated UNEP GEF Task Manager, who can authoritatively represent their institutions. The second corporate governance principle is appropriate skills mix. This is a body that will make major decisions on wide ranging issues. If for instance there is over concentration of skills in core technical areas, the decisions of the committee may not do justice to non-technical issues that have a bearing on the performance of the project. Therefore, beyond the key players, other essential skills could come from

other stakeholders or independent members appointed on the basis of the required skills. Other skills could include rural sociology, business management, financial management etc.

APPENDIX 12: SUMMARY OF GENDER ANALYSIS REPORT AND ACTION PLAN

Refer to separate file and note a summary of country context, findings, conclusions and recommendations below:

Context of gender issues in Zambia

Zambia's estimated population in 2019 was 17.4 million, of which 56.9 percent is rural and 43.1 percent urban. The population is youthful, with children (under 18) representing 54.4 percent – a total of 9.4 million. 80 percent of the population are below the age of 35. This represents an opportunity for economic development, but also presents challenges due to the demand for social services and employment (CSO 2019).

The GRZ is committed to gender equality and the empowerment of women to promote socio-economic transformation. Zambia is a signatory to various international commitments, including the: i) Convention on the Elimination of All Forms of Discrimination against Women (CEDAW); ii) African Charter on Human and Peoples' Rights (ACHPR); and iii) SADC Declaration on Gender and Development and Protocol (SADC Declaration). These and other commitments are domesticated through Articles 11, 51, 53(b) and 60-61 of Zambia's 2016 Constitution which guarantee equality between women and men and includes affirmative action measures to increase women's roles in decision-making and participation in the development process²³. The Parliament of Zambia also passed the Gender Equity and Equality Law in 2015 that gives effect to the CEDAW, ACHPR and SADC Declaration. The GRZ has also set up a dedicated Ministry of Gender that is mandated to ensure greater gender equality in the country. In addition, several CSOs in Zambia are undertaken activities – including advocacy, lobbying and training – to increase legal literacy/awareness and access to services especially for poor women.

However, despite the GRZ's commitment to gender equality, Zambia lags behind many other countries in gender equality. The country was ranked 125th among 159 countries in the Gender Inequality Index²⁴ and categorized as Group 3 in the Gender Development Index²⁵ by the United Nations Development Programme in 2018. Poverty in Zambia has a distinctive rural and female face, while sociocultural norms undermine livelihood strategies and resource access in a gendered manner. Despite consistent economic growth in Zambia, rural poverty is on the rise (from 72% in 2010 to 75% in 2015) and a majority of households work in low-productivity, informal jobs²⁶. The rural poverty baseline is tempered with the gendered access, tenure and management rights to resources women tenuously wield on the basis of cultural norms and practices. According to the Zambia Vulnerability Assessment by the International Monetary Fund, ~56% of households in Zambia are classified poor – ~60% of whom are female-headed households (FHHs) as compared to ~51% that are male-headed (MHHs)²⁷. Additionally, FHHs also tend to be more food-insecure and show greater incidence of stunting and wasting²⁸.

²³ USAID. 2018. Zambia: Land tenure and property rights. *USAID Country Profile*.

²⁴ This index, showing inequality in achievement between men and women in three aspects (reproductive health, empowerment and labour market), provides a useful gender baseline in terms of health equity, economic capital and financial access, speaking to the gender opportunities of men and women in the countries. It provides a primary understanding of the different levels of achievements on basic development indicators between men and women.

²⁵ The Gender Development Index shows the ratio of female to male Human Development Index values. The index expresses values in deviation, hence, in order to facilitate understanding GDI grouped categories have been used (as grouped by UNDP) to show the absolute deviation from gender parity in Human Development Index values.

²⁶ World Bank. 2018. Qualitative study of household livelihood strategies and constraints in Zambia.

²⁷ International Monetary Fund. 2005. Poverty and vulnerability assessment report. Zambia.

²⁸ Ibid.

Findings

Key policy documents used by the Forest Department Officers do not acknowledge the importance of gender, nor do they outline what gender issues or concerns they are supposed to address. Thus, gender is not included in the daily operations at the Forest Department. The study reveals that two (2) Officers were trained in gender in 2017, whereas eight (8) have not received training. It was established the 2 officers were trained during the Decentralised Forest and other Natural Resources Management Programme (DFNRMP) in Mwinilunga.

Women were not actively participating in high value forest products like timber, honey and charcoal. Traditional/cultural beliefs hinder women from accessing and participating in natural resources management. Youths, both girls and boys are not actively involved in forest matters. It was found that in Mwinilunga and Kasempa women are involved in the community groups but do not hold key positions in the Community Forest Management Groups, therefore this is dominated by the males.

In Kapundu area, in Mwinilunga the community members were trained in gender as a result of the Decentralised Forest and other Natural Resources Management Programme (DFNRMP); but in Shalamba (Kalumbila) and Muchila (Mwinilunga) and Lubofu (Kasempa) community have not been trained.

Conclusions

- Policy and project documents are gender blind. Most documents are gender neutral.
- Key staff and community members have not received any formal gender training.
- Previous projects had strong gender component and this helped both officers and the community members.
- Women do not actively participate in high value chain products like timber, honey, charcoal etc.
- Women and young girls are negatively affected by traditional/cultural beliefs.
- Women and young girls are illiterate compared to men.
- Men dominate Community Forest Management groups executive committee members.
- Youths both girls and boys are not included in forest projects.
- Participatory Forest Management initiatives from the previous project DFNRMP still benefiting women.

Recommendations/ Implications for the project document

- Policy and the new project document need to explicitly include gender issues/concerns.
- Key project implementing staff and Forest Department officers and community members should be trained on gender issues/ concerns.
- A gender training manual should be developed to assist implementing Officers in their day to day execution of duties,
- Project document needs to provide guidelines on equal participation of women and men in decision making positions at community level. This should be strengthened by providing written guidelines such as provision of a quota system for leadership positions.
- Project document needs to explicitly include youth in project activities.

- Gender actions should be included as key result area for assessing staff in performance appraisal so that each staff is assessed on progress in addressing gender issues in the work. This will also be a good tool to identify staff training needs that have to be met.
- Project should formulate a gender profile which shows gender issues, such as common livelihood sources and social practices for women/girls and men/boys, sex composition in committees etc, in each project site at inception stage of its gender program. The gender profile should be updated periodically as a monitoring tool indicating progress being made or lack of it.
- Project should develop a gender sensitive Monitoring and Evaluation, and Reporting system to track progress the programs are making or lack of it in promoting gender equality.

APPENDIX 13: GENDER MAINSTREAMING AND ACTION PLAN

Project title: Ecosystem conservation and community livelihood enhancement in North Western Zambia

The **Gender Mainstreaming and Action Plan** has been developed on the basis of the findings and recommendations from the Gender Analysis (see Appendix 12), undertaken as part of the preparation of this project, which also draws on lessons from similar interventions. It describes how the project plans to address gender gaps identified in the Gender Analysis and promote the empowerment of men, women and the youth as a consequence of project interventions. The GEF's 2018 Policy on Gender Equality as well as the minimum standards on environmental and social safeguards of 2018 require that gender issues be clearly addressed in all GEF-funded projects.

In line with the mentioned recommendations, the project results framework and gender action plan reflect:

- the integration of gender issues/concerns in policy work.
- gender training for key project implementing staff and Forest Department officers and community members.
- gender training manuals to assist implementing Officers in their day to day execution of duties.
- guidelines on equal participation of women and men in decision making positions at community level.
- explicitly include youths in project activities.
- gender audit addressing specific gender issues in each project site at inception stage.
- gender sensitive M&E, and reporting system to track progress in promoting gender equality.

The sections that follow provide further detail.

SECTION I: GENDER MAINSTREAMING IN PROJECT RESULTS FRAMEWORK

The Project will seek to institutionalize gender mainstreaming at all levels of intervention and operation of the project by promoting gender equity. In its efforts to fully integrate gender mainstreaming, the Project will be guided by the principles that gender elements are important drivers and incentives for achieving global environmental and adaptation benefits, and in ensuring gender equity and social inclusion. The Project also embraces the fact that the needs, interest, and capabilities of women are habitually structurally different from those of men, in relation to the access, use, and management of biodiversity resources within project intervention areas, and thus, must be given special consideration in ensuring equal access to the resources and services of the Project. The project's gender mainstreaming objectives address the following action areas of the GEF: closing gender gaps in access and control of resources; improving women's participation in decision-making and conservation management; and contributing to social and economic benefits or services for women.

In the context of overall training and capacity building programmes, both women, men and the youth will be involved in a balanced way, ensuring that the selection criteria for training include gender-

specific characteristics that will ensure meaningful and significant participation by women in all trainings offered by the project (up to 50% where feasible), with the intention of ensuring that at least 4,000 women benefit overall from the project interventions, consistent with the GEF-7 Core Indicator No. 11. The gender aspect will also be taken into account in the information and communication strategy of the project, by formulating messages specifically tailored to women and men independently, whenever relevant, and by taking into account gender aspects and the representation of both genders in all project implementation activities, and particularly in all communication and information materials.

Gender equality has been considered from the initial design phase and will be monitored, through the implementation, and impact evaluation. The Project will ensure that all socio-economic analyses, training needs assessment, training program, forest management plans, business development and investment plans, district integrated development plans, revisions to statutory instruments, etc., include gender-sensitive approaches and participation, while ensuring that local women's groups are at the forefront of all mainstreaming efforts. The project will call on the services of a gender expert as reflected in the gender action plan. Additionally, the project will guarantee women membership and participation in the CFMG and other structures facilitated by the Project.

In consideration of the above, the Project Results Framework contains gender-sensitive indicators designed to monitor and measure the extent to which gender is being mainstreamed in the project. Specific project components and outcomes where gender-sensitive indicators have been included are presented below, as an excerpt from the overall Project Results Framework.

Gender Sensitive Indicators in Project Results Framework

Outcomes	Indicators ²⁹	Baseline	Mid-term Targets	End of Project Targets	Means of Verification	Assumptions
Project Objective: To strengthen community-based sustainable management of forest landscapes, and provide improved livelihood opportunities for targeted forest-dependent rural communities in Zambia's North West Province						
Component 1: Developing the enabling regulatory and planning frameworks for community-based, sustainable forest management						
Outcome 1: Sustainable forest management (SFM) mainstreamed in local development plans in target Community Forest Management Areas (CFMAs) addressing gender equality	<i>Number of District Integrated Development Plans SFM mainstreamed addressing gender equality</i>	0	1	2	Copies of approved DIDP. MTR & terminal evaluation	District Council is concerned with gender equity
Component 2: Promoting the conservation and sustainable use of natural resources in community-managed forests						

²⁹ Collection of data to be not only sex but age disaggregated

Outcomes	Indicators ²⁹	Baseline	Mid-term Targets	End of Project Targets	Means of Verification	Assumptions
Outcome 2: Improved management of forest resources enhances gender equality and contributes to enhanced welfare and livelihoods of target communities	<i>% of men, women and youth satisfied³⁰ with the current CFMG plan for equitable sharing of costs and benefits and for access to land and natural resources.</i>	0	Women: 40% Youth: 30% Men 50%	Women: 60% Youth: 50% Men 50%	Semi-annual report CFMG Accounts Project financial reports; CFMG audit reports	Project measures to enhance gender equality are done in a sensitive, diplomatic and low-key manner.
	<i>Amount of investments in community businesses - members disaggregated by sex and age made by Project and by CFMG</i>	0	\$600,000 by Project and \$20,000 by CFMG Gender targets Men: 55% Women 30% Youth 15%	US\$ 1,259,000 by Project and \$100,000 by CFMG Gender Men 45% Women 35% Youth 20%	CFMG Accounts Evaluation teams Project financial reports; CFMG audit reports	Community and enterprise members are fully sensitised on gender issues by the Project.
Component 3: Enhancing the sustainability and productivity of agricultural practices in community-managed forests						
Outcome 3: Improved productivity, gender equality and climate resilience from sustainable agricultural practices on the lands zoned for agriculture adjacent to community-managed forests:	<i>Number of farmers (disaggregated by sex and age) adopting gender sensitive sustainable agricultural practices</i>	Baseline survey done in first 6 months	5000 additional farmers 60% men, 30% women, men & youth:	10,000 additional farmers. 45 % men, 35% women, 20% youth:	Semi-annual report Monitoring by PIU, SA experts and collaborators	Government agents and project staff conduct gender equity awareness raising

³⁰ Through mini-surveys during the annual adaptive management reviews

SECTION II: GENDER ACTION PLAN

Relevant Project Output	Project Due Diligence Activities	Disaggregated Target ³¹	Required Resources	Estimated Budget (excluding staff time) (USD)
Output 1.1 Comprehensive assessment of forests and communities in the project area – sex and age disaggregated.	The socioeconomic assessment will include a gender analysis to cover governance structures, land and resource tenure and access to natural resources. The analysis of tenure will include the identification of the landowners (lands owned by traditional authorities, heads of family, other...) and development of maps showing this land ownership. The analysis of livelihoods will focus primarily on NR-based and agricultural production systems – disaggregated by sex and age. The importance of each value chain for each gender group will be analysed.	Sex and age disaggregated assessment completed. (It will be used to revise/refine the gender targets in this action plan) Maps of land ownership prepared for each CFMA.	The project will be sensitive to the specific needs of male and female community members, including from early stages of implementation, collecting project site specific data to inform detailed interventions required to advance gender equality. GPS readings need to be taken on boundaries of land ownership and FD GIS specialist needs to prepare maps.	\$1,000 consultation materials \$3,000 Gender specialist
Output 1.2. In-depth awareness raising on inclusive, gender sensitive CFMA creation leading to the declaration by government of the new or modified CFMG	Conduct a gender audit that will include the identification of barriers to access to forests, natural resources and agricultural lands that are found at the base of each value chain. This will be used to: a) revise the gender mainstreaming and action plan, including the measures needed to overcome the barriers identified, and; b) establish site specific baselines. Conduct awareness raising of their new rights and obligations (control of access, management and use of NR), results of the assessments, the need to develop their own rules governing access to lands and resources for all gender groups, and for enhanced equity in the sharing of costs, benefits and access. Support the participatory	Targeted percentages for participation in awareness raising: Men: 40% Women: 40% Youth: 20%	Gender expert to prepare and conduct gender audit to ensure a gender-balanced, participatory process for the communities as they define governance structures, including their constitutions. Awareness raising training manuals and materials. Gender expert to	\$1,000 for materials \$3,000 Gender specialist

³¹ Where youth is indicated the Project, the Project will aim for 50% male and female targets.

	<p>development of a gender-sensitive constitution for each CFMA, especially the plan for the sharing of costs and benefits. Basic principles for the equitable access to lands and natural resources for men, women and youth will be a key part of each benefit sharing plan.</p> <p>Support the creation of a mentorship program for gender equality. Identify natural women leaders that have stood out during Outputs 1.1 and 1.2. Create Gender Equality Platforms at each site and one for the three project sites. Site level groups will meet quarterly. The Project level group will meet annually. These women will receive leadership training, will share experiences and lessons learned and will serve as mentors to the women entrepreneurs and women's groups in the three Project sites.</p>		<p>provide training and support for the Gender Equality Mentors.</p> <p>Travel costs for site-based and Project based gender equality platforms.</p>	
Output 1.3. Sustainable forest and natural resource management promoted in gender responsive District Integrated Development Plans and CFMA management plans	<p>Provision of training on the participatory definition of management objectives with attention to equal opportunities for men, women, youth.</p> <p>Use the integrated land use planning for community lands to improve the access for women and youth to natural resources and to agricultural lands.</p>	<p>Targeted percentages for participation in definition of management objectives and the equitable sharing of costs and benefits:</p> <p>Men: 50%</p> <p>Women: 30%</p> <p>Youth: 20%</p>	<p>Dedicated training manuals and materials</p> <p>Technical expertise to ensure delivery of gender responsive management plans and district integrated development plans.</p> <p>SFM/CFMA plans with gender-inclusive governance structures</p>	<p>\$1,000 materials</p> <p>\$3,000 Gender specialist</p>
Output 1.4. Knowledge management (KM) system developed in support of gender sensitive community management of forests and natural resources	<p>Ensure that gender equality and equitable access to land and resources is included in the participatory KM reviews on lessons learned and best practices; equal participation in knowledge management exchanges, and in the integration of CFM into the curricula at the university and technical college. Involve the Women's Gender Equality mentoring groups in the KM reviews.</p>	<p>Each of the three KM synthesis of lessons learned and best practices include a section on gender equity. Participation in KM exchanges:</p> <p>Men: 45%</p> <p>Women: 35%</p> <p>Youth: 20%</p> <p>The curricula will include</p>	<p>Training manuals and materials</p> <p>Technical expertise to reflect gender integration</p>	<p>\$1,000 materials</p> <p>\$3,000 Gender specialist</p>

		gender equity in enterprise development, management structures and governance		
Output 1.5. Subsidiary legislation for forestry reviewed and revised in support of gender responsive sustainable forest management	Ensure that the removal of barriers to gender equality and to access to lands and resources is included in the review and revision of the subsidiary legislation for CFM	Draft legislation submitted for adopted fully integrates gender equity.	Technical expertise to reflect gender integration	\$1,000 for materials \$3,000 Gender Specialist
Output 2.1. Gender responsive business plans developed in support of each community forest management group	Identify, analyse and integrate investment opportunities that enhance gender equality and access to resources for men, women and youth into the business plans. Identify, analyse and develop mitigation measures to overcome barriers to effective participation of women and youths in value chains traditionally dominated by men.	By EOP, 80% of women and 60% of youth state that their access to value chains historically controlled by men has improved.	Technical expertise to ensure delivery of gender responsive opportunities	\$1,500 Training materials \$3,750 Gender Specialist
Output 2.2 Gender responsive community-based enterprises developed based on the business plan	Ensure that staffing needs assessment and investment opportunities are gender responsive. Seed capital for enterprise development is allocated to favour women and youth.	By EOP, 45% of beneficiaries of community enterprises are men, 35% are women and 20% are youth. Allocation of seed capital is 40% for men, 40% for women and 20% for youth.	Technical expertise	\$1,500 Training materials \$3,750 Gender specialist
Output 2.3. Capacities developed for gender responsive good governance, NRM and business management.	Ensure that the assessment of capacity needs and the development of standard training modules is gender responsive. The strengths and weaknesses of CFMG guidelines for participation, and for the sharing of costs and benefits and for equitable access to lands and resources by men, women and youth are analysed during each annual adaptive management review and are revised as needed.	Gender composition of those trained: 40% men 40% women 20% youth	Dedicated training manuals and materials Technical expertise	\$3,000 Training materials \$3,750,500 Gender specialist
Output 3.1. Gender	Ensure that the baseline survey of farmers and extension agents	80% of actors	Technical expertise to	\$1,000 Training

responsive network of actors developed and capacity built to deliver sustainable agricultural practices on the lands zoned for agriculture adjacent to community-managed forests	involved in sustainable agriculture is disaggregated by gender (men, women and youth) and defines the different needs of male, female and young farmers.	benefit from gender sensitivity training (Gender sensitive baseline survey results used to revise and refine gender indicators for the rest of Outcome 3)	ensure delivery of gender responsive opportunities Dedicated training manuals and materials for sustainable agricultural technologies	materials \$6,666.67 Gender specialist
Output 3.2. Farmers and agricultural supply chain actors trained to encourage the adoption of gender responsive, sustainable agricultural practices in agricultural zones in villages adjacent to community forests	Ensure that demonstration 'Sites of best practice' and annual participatory adaptive management reviews include and respond to differentiated needs of male, female and young farmers who are implementing sustainable agriculture practices. Demonstration sites are established on farms managed by men, women and youth.	Percentage of women and youth who feel that demo sites of best practice respond to their needs: Women: 70% Youth: 70% Men % 70% Demonstration sites on farms managed by: Men – 50% Women – 30% Youth – 20%	Technical expertise to ensure delivery of gender responsive opportunities Dedicated materials for sustainable agricultural technologies	\$1,000 Training materials \$6,666.67 Gender specialist
Output 3.3. Crop and livestock male, female farmers adjacent to CFMAs equally assisted to sustainably improve their productivity and net income	Facilitate supply linkages with private agricultural market actors to offer access to gender sensitive inputs, output markets, services and technology.	Percentage of men, women and youth who feel that market linkages fulfil their needs: Men: 20% above baseline Women and youth: 40% above baseline	Technical expertise to ensure delivery of gender responsive opportunities Dedicated materials for sustainable agricultural technologies	\$1,000 Training materials \$6,666.67 Gender specialist

SECTION III: MONITORING AND REPORTING

The GEF Policy on Gender Equality requires the collection and analysis of sex- disaggregated data and gender information to inform project design, implementation and monitoring and evaluation. As part of its reporting requirements, the project will report on the extent to which gender is being mainstreamed in project implementation. The indicators below are relevant

for reporting on compliance with gender targets at any time during implementation, but in particular in the Project Implementation Reviews (PIRs), the Mid-Term Review and the Terminal Evaluation.

Age and sex- Disaggregated Indicators and Reporting Responsibilities

Indicator	Baseline			Target		
	Men	Women	Youth	Men	Women	Youth
Gender Action Plan Level						
% of men, women and youth participating in community consultations for the design and validation of plans	0	0		40%	30%	20%
% of men, women and youth trained in sustainable agriculture	tbd	tbd		50%	50%	20%
% of men and women engaged in community awareness raising about women's role in sustainability and ecological practices	0	0		30%	50%	
% of men, women and youths trained in CFM business plans	0	0		20%	20%	10%
% of district government officers and project staff trained in gender equality	tbd	tbd		90%	90%	NA
% of trained forest guards that are women, men and youths	tbd	tbd		50%	30%	20%
% of CFM decision-making positions held by women, men and youths	tbd tbd	tbd		45%	35	20%
% of all knowledge resources with gender-sensitive content	tbd			70%		
number of gender responsive community-based enterprises	tbd			80%		

Responsible for Implementing the Gender Mainstreaming Plan	Project Manager with the Director of Forestry Department and supervision of UNEP
When/Where will the Gender Mainstreaming Plan will be disclosed	At Project Inception Workshop, to the Project Steering Committee and Technical Advisory Committee, to the Mid-Term Review Consultant, the Terminal Evaluation Consultant, and on the websites of the Forestry Department at MNRT and TNC.

APPENDIX 14: CAPACITY BUILDING

Output #	Stakeholder to be provided capacity building	Subject of capacity building	Potential entity/ resource providing capacity building
1.1	Provincial and District FD staff	GIS system management	FD expertise with support from PIU
1.2	Forest communities, traditional authorities	Initial training on potential benefits, obligations and risks of CFM (Assuming willingness to invest in CFMG creation) training on roles, responsibilities, opportunities, risks of CFM, leading to geographic and economic definition of CFMA	PIU, FD, Fisheries, DNPW, WWF
1.3		CFMG constitution development, introduction to accountability, transparency, communications, conduct of general assembly and other meetings, benefit sharing, gender equality and governance capacity building	
1.3		Participatory integrated land use planning (ILUP) and mapping of the communal lands of CFMG communities. Participatory definition of natural resource management objectives and rules	
1.4	Students of academic and research institutions (table 7)	Strengthening of the knowledge management system through lessons learned and best practices on gender responsive community forest and NRM systems. Promotion of CFM courses at tertiary institutions interested in integrating CFM into their curricula.	KM grantee in collaboration with the target academic and research institutions
1.5	FD and CFMGs	Subsidiary legislation and regulation for Forest Act 2015 and its implementation	Legal consultant and PIU
2.1	CFMG	NR business plan development	PIU
2.2	CFMG technical and professional managers	Business and financial management	PIU, FD, Fisheries, DNPW & WWF
2.3.	Forest guards	Natural resource management, legal framework, law enforcement, optimal patrolling regime, fire management	
	CFMA communities	Good governance: In-depth benefit sharing, accountability, roles and responsibilities, open communications, transparency, gender equality	
	CFMG and TBU	NRM and business management and conduct of adaptive management reviews based on the capacity needs assessment, good governance	
3.1	Smallholder farmers, MoA staff, NGO staff and private market actors	Training around sustainable land management and improved agricultural practices (focused on 'training the trainers')	Academia/research institutions in collaboration with other experts in sustainable agriculture ³²
3.2	Smallholder farmers	Training around sustainable land management and improved agricultural practices based on demonstration plots for 'best practice'	Lead farmers, local 'change agents', small rural agribusiness, MoA staff, COMACO.
3.3		Income and livelihoods improvement from sustainable agriculture and market linkages	

³² Provisionally COMACO, a local non-profit entity as part of a market development partnership.

APPENDIX 15: STUDIES AND ASSESSMENTS FOR IMPLEMENTATION

Output #	Proposed Study/Assessment	Purpose of study	Potential entity/ source undertaking study
1.1	Assessment of forest, natural resources (including identification of the key factors and opportunities for developing viable nature-based businesses) and socio-economic factors, including an FPIC-based assessment of community willingness and ability to participate in CFM	Gather necessary foundational information about specific proposed CFMAs to inform future zoning and management plans and business opportunities	PIU and FD, with input from DNPW, District Fisheries, WWF in collaboration with communities
	Analyse NR-based value chains and opportunities for increasing revenues for CFM communities.		
1.2	Gender audit of barriers to gender equality and priorities covering the communities at each site, the PIU staff and the district level GRZ staff	To strengthen measures needed to enhance gender equality. Understand site specific capacity building needs, selection and training of “gender ambassadors”, awareness raising and development of training and monitoring materials	External local consultant and ‘gender ambassadors’
1.3	Assessment of silvicultural systems for the sustainable production of wood fuels, poles and saw timber and for NTFP that are harvested destructively from miombo forests	Development of practical guidelines for the conservation and sustainable management of the miombo forests	Zambian university expertise
1.4	Participatory knowledge management reviews	Identify, synthesize and disseminate CFM lessons learned and best practices, identify knowledge gap and develop plans for filling these gaps.	
1.5	Review of Forest Act 2015 subsidiary legislation and regulations	Identify bottleneck and lacunas in the process of CFMA and CFMG creation and oversight and draft revised regulations	External legal consultant
2.4	Assessment of capacity needs of CFMGs and staff and technical support services (e.g. GRZ staff)	Identification of capacity needs to be addressed	PIU
	Development of training materials	Develop training plan and materials to meet the needs identified above	External training consultant
3.1	Assessment of farmers, extension agents and agricultural market actors in the farming areas around CFMAs	Establish a baseline for training and the extent and understanding of sustainable agricultural technologies, including reasons for low adoption rates of biophysically sound technologies, in target smallholder communities around forested areas.	Sustainable agricultural expertise (COMACO?)
M&E	Annual assessment of ecological and socio-economic impact of the project	Ongoing monitoring of changing dynamics in land use, deforestation and fire through remote sensing	TNC global expertise
		Sample size socio-economic surveys to assess attitude to conservation and forest/land management, changing behaviour, income streams and resilience	External local research entity

APPENDIX 16 COVID RISKS AND MITIGATION MEASURES

COVID 19 Situation Analysis

Zambia's first reported case of COVID-19 was on 15th March 2020. By the beginning of March 2021, over 1,100,000 tests had been conducted and 80,000 cases confirmed. There have been just over 600 confirmed deaths from COVID-19, and another 500 deaths associated with COVID-19. However, a new School of Public Health study in Lusaka indicates that over 15% of deceased people arriving at Lusaka's main morgue over June/July/August tested positive for the coronavirus, peaking at 31 percent in July. Despite most having had COVID symptoms, few were tested before death and therefore, it is certain that the true number of deaths from COVID is significantly under-reported.

There was a substantial spike in infections in the post-Christmas period, largely attributed to the spread of the more infectious 'South African strain' and an increase in the number of gatherings. This spike is now receding.

Two statutory instruments (SIs) have been issued in response to the Covid-19 pandemic. The first, SI No. 21 of 2020, declared the Coronavirus Disease 2019 as a notifiable infectious disease in line with Section 9 of the Public Health Act. The second, SI No. 22 of 2020, set out measures aimed at controlling the spread of Covid-19. This includes mandatory quarantine measures for patients and those suspected of suffering from Covid-19. However, other measures, such as restrictions on



movement of people, mandatory wearing of face masks, and the prohibition of gatherings of more than 50 people, are not backed up by any legal instrument.

In the early stages of the pandemic, churches, schools, bars, restaurants and places of leisure were closed, and temporary lockdowns were imposed on towns with suspected high case loads (e.g. Nakonde and Kafue). A working-at-home recommendation was made, and civil servants were placed on an office rotation system. Internal travel restrictions were never imposed.

The president gave a fourth national address on Covid-19 on 8 May, in which he announced the re-opening of churches restaurants, cinemas, gyms, tour operators and casinos, among others, although bars remained closed. This move towards a 'new normal' through the easing of some restrictions reflected the delicate balance that all countries are seeking between reviving the economy and

avoiding a public health crisis. President Lungu claims that it might be possible to achieve the best of both worlds – ‘We have to choose life or livelihood or both’.

The Covid-19 pandemic has negatively affected Zambia, contributing to international loan defaults, a contracting economy, and lost revenues from tourism and other sectors. Across Southern Africa, funds for pandemic health and food security take priority over resource protection and NRM. This makes for an unpredictable environment for GRZ and the private sector in years to come, including through the 2021 election cycle. For Zambia to stay on track towards its Vision 2030 goals, rural development and conservation efforts will require inclusive public and private sector collaboration.

In the early stages of Covid-19 in Zambia, a coalition of Ministry of Health officials and health partners, including the World Health Organisation (WHO) and Center for Disease Control and Prevention (CDC), appeared to be at the forefront of the response. The key role of such national-level coalitions, bringing together political leaders and technical experts provided some hope that the technocrats would be given more space. However, while the Ministry of Health in particular has largely retained control of the flow of public information, the influence of the coalition over government directives is more limited

Zambia’s response to Covid-19 has been limited by underlying economic and structural constraints. Financial challenges include low economic growth rates (2 percent in 2019), depreciation of the local currency and unsustainable debt – with central government debt standing at 91.6 percent of GDP at the end of 2019 (IMF, 2019). Limited state capacity and long-term under-investment in healthcare also undermine the response.

There has been a mostly positive reaction from the public towards the government’s actions, although there was some discontent about foreigners being allowed to enter the country without enforced quarantine, which was seen as a high risk to the Zambian population (this has now been changed to mandatory quarantine of 14 days for anyone entering Zambia, including returning residents). However, enforcement of regulations and restrictions is not easy, due to limited state capacity. There were some incidents of violence as social distancing is enforced

The overall effects of COVID 19 on PPG activities have been moderate. Most of the PPG activities took place during the COVID pandemic. The biggest impact was on the Project Development Expert and local consultants with planned missions and consultations with local communities and leaders cancelled, minimized and/or delayed. As a result, much greater use was made of different forms of electronic media for communications, but this was only a partially successful solution and led to considerable delays. The recent, major surge in COVID 19 infections is now falling rapidly -- assuming no new spikes, travel will be unrestricted and the operations of the project itself will be relatively unaffected.

However, the future course of the pandemic cannot be predicted with any accuracy. The number of new COVID 19 variants with increased transmissibility are multiplying and variants with increased mortality rates could also evolve. The vaccination rates in Zambia are very low and this is not expected to change soon - the country is very far from developing herd immunity. The Project must be prepared for a resurgence of the pandemic during project implementation. This is dealt with in the following table.

Table 1: COVID-19 Risks and mitigation measures

COVID-19 Related Risk	Mitigation Actions
<i>Risks to Health and Safe Working Conditions</i>	
A future surge in COVID-19 infections may disrupt	<ul style="list-style-type: none"> The project will ensure that staff are prepared and trained to carry out their work safely in the Project office(s) and with partners and

<p>project implementation and ability to carry out field-based work and stakeholder engagements, especially in vulnerable communities, due to risks to health (of stakeholders or project implementers)</p>	<p>communities, including provision of equipment where it can reduce risks, increasing opportunities for remote work where required; ensuring national quarantine and isolation recommendations are adhered to (where still applicable); and ensuring capacity to monitor COVID-19 risks in the project domain.</p> <ul style="list-style-type: none"> • Consulting with national, provincial and district health officials, an assessment of the status of the pandemic as it affects the capital and project sites, will be made at project inception. • The project will develop at inception the following measures to track and anticipate health risks associated with COVID-19 and implement avoidance measures to ensure that all engagement curtails risks to health and safety, especially in the most vulnerable communities: • A simple set of COVID-19 indicators to monitor: the incidence of COVID-19 in the project landscapes, and among project staff and other implementers; partner capacity (availability of human resources, capacity to meet co-finance commitments); evidence of direct, indirect and induced impacts (that may influence implementation and give an indication of vulnerability within target communities). The COVID monitoring system will set a series of thresholds at which different protocols/measures should be followed to reduce COVID-19 related health risks associated with implementation. The monitoring of these indicators will be updated quarterly unless there are health alerts that indicate it should be done more frequently. • A set of protocols for minimising COVID 19 risks, including use of PPE (where relevant), hand hygiene (mobile handwashing stations or sanitizers), procedures for stakeholder engagement (simple screening measures in hotspots, restrictions on numbers of people in meetings, social distancing measures); reducing travel and direct contact in high-risk situations, with increased remote-work arrangements, and so on. The costs for implementation of these protocols will be met under budget lines for workshops, trainings etc. in the project budget. Options to conduct large workshops (e.g. Inception Workshops, Project Steering Committee) through remote means will be assessed. Smaller meetings of people at district and community level will be unable to be conducted remotely, so will be managed to ensure limited participants, social distancing, masking and other protective measures. As needed, the PIU will assess the need for delaying the start of some interventions until public health situation improves. Options to conduct components of the capacity building work remotely (e.g. online mentoring) will be examined • The project is designed to have limited and potentially no reliance on external international expertise, with all expertise being sourced from within Zambia, thus almost eliminating the risks associated with international travel
<p><i>Risks to implementation due to restrictions on engagement and availability of technical capacity</i></p>	
<p>In the event of a future upsurge in COVID-19 infections and reintroduction of travel and social distancing restrictions, the weakly-developed communications infrastructure, may reduce the effectiveness of project</p>	<ul style="list-style-type: none"> • At inception, the project will carry out a rapid assessment of communications capacity/infrastructure in each of the two district offices and in the three field sites and will ensure that adequate budget co-financing is allocated. Trident Foundation has invested in a digital radio communications network for West Lunga. Communications work well with the Kasempa Community Development Foundation and Kalumbila.

interventions and limit options for engaging communities, leading to disrupted information flows and delays in implementation	
<i>Financial risks from a prolonged economic downturn</i>	
The possibility of a prolonged economic slowdown could lead to certain co-financiers being unable to meet their commitments and could lead to increased costs and availability of outsourced services and equipment.	<p>The main source of income for the government, and important sources of cofinancing for two of the Project sites, comes from the mining sector. The impacts of COVID 19 on the mining industry are not yet clear, and may very well be linked to specific commodities. If there is a prolonged economic downturn, it is expected that government will be able to maintain their core staff at district offices, but their operational costs, such vehicle maintenance, would probably suffer. A loss of mining company co-financing for the West Lunga and Kalumbila sites would have more substantial impacts, and would probably result in a reduction of project targets. Other sources of co-financing and private sector partners less likely to be affected such as COMACO and the honey companies will continue to be approached to help with risk mitigation.</p> <p>The project relies almost totally on national expertise – if anything, the cost of national expertise might fall during an economic slowdown. Also, nationals are not subject to the travel restriction that international specialists are confronted with.</p>

APPENDIX 17: STUDIES, ASSESSMENTS AND TECHNICAL DOCUMENTS GENERATED DURING PPG

List of PPG Studies done by National Consultants

- Kasaro, Deuteronomy. 2020. Situation Analysis Report (for Participatory Forest Management).
- Mwima, Henry K. 2020. Value Chain Analysis of Charcoal, Fuelwood, Sawn Wood Products, Other Wood Products, and Non-Timber Forest Products to Support Project Development under the Global Environment Facility (GEF 7) Entitled “Ecosystem Conservation and Community Livelihood Enhancement in Northwestern Zambia”.
- Kanema, Harrington R. April 2020. Report of Findings on Sustainable Agriculture and Proposed Interventions.
- Mulunga, Monde Matakala. June 2020. Gender Report.
- Mulunga, Monde Matakala. December 2020. Draft Gender Strategy and Gender Action Plan.

Table on PPG Docs Prepared by Project Partners and Co-financiers

Title	Content
Summary of Fisheries Research in the Upper Zambezi Landscape. Bruce Ellender of WWF	Sampling framework, Includes Kabompo River Catchment in West Lunga Complex, fisheries catch assessment, baseline fish diversity, NR use surveys, links between hydrology and fisheries productivity
Untitled document on the WWF Zambezi Programme	Contains responses to detailed questions from the PPG team on: Focal areas, depletion of iconic species, invasive species, funding, future priorities, proposals for collaboration, etc.
Technical Information West Lunga National Park, Chibwika Ntambu and Lukwakwa Game Management Areas and Luji National Forest prepared by West Lunga Conservation Project.	Threats, ecological and administrative context, current activities, opportunities for collaboration.
Rapid Forest Assessments and Consultative Meetings with Traditional Leaders and their respective subjects around target forest areas for Community Forest Management in Kasempa and Kalumbila Districts of North-Western Zambia.	Proposed methodology for rapid site assessments in Kasempa and Kalumbila Districts and proposed data to be collected by Project Development Expert. Team composed of TNC and Forest Department Staff.
Report of the Technical Working Group Field Trip to Kasempa and Kalumbila Proposed Pilot Sites for the Ecosystem Conservation and Community Livelihood Enhancement Project in Northwestern Zambia. Forest Department	Visits with officials, site specific information, conclusions, attendance registers.

PPG Docs generated by the Project Development Expert (PDE) with TNC

Title	Content
Notes on Meeting with Nature's Nectar in Mompolombo on January 19, 2020	Description, Issues, Ideas and Follow-up question of the Trident/Nature's Nectar/ community partnership for honey production in Mwinilunga District near Natambu
Key Information on Honey Company Bee Sweet. February 2021	Summarizes information needed for analysis of potential partnership with Bee Sweet
Draft Criteria and Strategies for Site Selection in North West Province, early 2020	As described in title
Project Overview Ppt presented at Inception Meeting in Solwezi Jan 22, 2020	Summary of high level field visits to Kasempa, Kalumbila and Mwinilunga Districts. Preliminary diagnostics of threats, barriers, value chains and potential interventions by component
Forest Management Plan Guidelines and Products and Value Chains of High Potential January 23 2020	Lays out proposed content of forest management plans to be developed and an early analysis of the most promising value chains
Notes on meeting with WLCP Feb 14, 2020	Summary of discussion on CFMG two-tiered structures, value chains for potential development, safeguards for timber production, self-financing of CFM and status of co-financing
Meeting of the TWG, National Consultants & PDE January 13, 2020	Presentation and discussion of the list of principles of successful CFM
Urban Demand, Improved Wood and Charcoal Stoves, "Sustainable Charcoal" and SFM. July 6, 2020	A summary of technical issues on the topics resulting in an argument for the project to drop the output on improved stoves included in the PIF
Analysis on Forest Act 2015 for Zambia	Forest Act analyzed in line with principles for successful CFM
Comments on the 2018 Statutory Instrument (SI) to the Forest Act June 2020	Statutory instrument is analyzed vis a vis the author's life list of principles for successful CFM
Proposed Collaboration with the West Lunga Conservation Project (WLCP) Sept 15, 2020	See title
Results of a talk with Director of Fisheries and Results of a talk with WorldFish Country Director in Lusaka. March 2020	Discussion on potential scope of a fisheries management component with the Director. Discussion of a potential partnership with World Fish with their Country Director.
Adoptions Rates for Conservation Agriculture in Northwestern Province in Zambia. November, 2020	Review of the literature.
Forest Product Value Chain Investment Opportunities November 16 2020	
Data for Bushingwe, Lualaba National Forests GEF7 Project Document	Context, justification, forest resources, forest use, details for each reserve. The two reserves were under consideration as project sites but were rejected following the field assessment.