



Sustainable Forest Management Impact Program on Dryland Sustainable Landscapes

Part I: Program Information

GEF ID

10206

Program Type

PFD

Type of Trust Fund

GET

Program Title

Sustainable Forest Management Impact Program on Dryland Sustainable Landscapes

Countries

Global, Angola, Botswana, Burkina Faso, Kazakhstan, Kenya, Malawi, Mongolia, Mozambique, Namibia, Tanzania, Zimbabwe

Agency(ies)

FAO, World Bank, IUCN, WWF-US

Other Executing Partner(s)

Executing Partner Type

Public and Private institutions, research institutes, CSO Organizations

Others

GEF Focal Area

Multi Focal Area**Taxonomy**

Focal Areas, Forest, Drylands, Land Degradation, Land Degradation Neutrality, Land Cover and Land cover change, Land Productivity, Carbon stocks above or below ground, Sustainable Land Management, Sustainable Forest, Drought Mitigation, Integrated and Cross-sectoral approach, Sustainable Agriculture, Sustainable Livelihoods, Sustainable Pasture Management, Restoration and Rehabilitation of Degraded Lands, Community-Based Natural Resource Management, Ecosystem Approach, Income Generating Activities, Improved Soil and Water Management Techniques, Sustainable Fire Management, Biodiversity, Biomes, Grasslands, Tropical Dry Forests, Desert, Payment for Ecosystem Services, Financial and Accounting, Conservation Finance, Natural Capital Assessment and Accounting, Agriculture and agrobiodiversity, Mainstreaming, Forestry - Including HCVF and REDD+, Protected Areas and Landscapes, Community Based Natural Resource Mngt, Productive Landscapes, Terrestrial Protected Areas, Climate Change, Climate Change Mitigation, Financing, Agriculture, Forestry, and Other Land Use, Technology Transfer, Sustainable Development Goals, Influencing models, Convene multi-stakeholder alliances, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Demonstrate innovative approach, Deploy innovative financial instruments, Stakeholders, Local Communities, Private Sector, Large corporations, Capital providers, SMEs, Individuals/Entrepreneurs, Financial intermediaries and market facilitators, Civil Society, Community Based Organization, Non-Governmental Organization, Academia, Type of Engagement, Information Dissemination, Participation, Partnership, Consultation, Indigenous Peoples, Beneficiaries, Communications, Education, Awareness Raising, Strategic Communications, Behavior change, Gender Equality, Gender results areas, Access to benefits and services, Knowledge Generation and Exchange, Participation and leadership, Access and control over natural resources, Capacity Development, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Women groups, Integrated Programs, Diversified Farming, Food Security in Sub-Sahara Africa, Resilience to climate and shocks, Smallholder Farming, Land and Soil Health, Gender Dimensions, Multi-stakeholder Platforms, Agroecosystems, Small and Medium Enterprises, Sustainable Production Systems, Comprehensive Land Use Planning, Food Systems, Land Use and Restoration, Landscape Restoration, Integrated Landscapes, Capacity, Knowledge and Research, Knowledge Generation, Training, Workshop, Targeted Research, Learning, Theory of change, Indicators to measure change, Adaptive management, Knowledge Exchange, North-South, Field Visit, South-South, Conference, Peer-to-Peer, Innovation

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 1

Climate Change Adaptation

Climate Change Adaptation 1

Duration

60 In Months

Agency Fee(\$)

8,626,021

Program Commitment DeadlineSubmission Date

12/14/2020

4/5/2019

Impact Program

IP-Food-Land-Restoration **No**

IP-Sustainable Cities **No**

IP-Sustainable Forest Management Amazon **No**

IP-Sustainable Forest Management Congo **No**

IP-Sustainable Forest Management Drylands **Yes**

Other Program **No**

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Expected Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
IP SFM Drylands	Dryland Landscapes Sustainably managed	GET	95,844,674	809,137,990
Total Program Cost (\$)			95,844,674	809,137,990

B. Indicative Project description summary

Program Objective

To avoid, reduce, and reverse further degradation, desertification, and deforestation of land and ecosystems in drylands through the sustainable management of production landscapes

Program Component	Financing Type	Program Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Strengthening the enabling environment for the sustainable and inclusive management of drylands	Technical Assistance	<p>1.1 Key sector actors collaborating, coordinating and harmonising policies, plans, actions and investments in relation to sustainable and inclusive dryland management through intersectoral (national or regional) platforms and mechanisms in 11 countries</p> <p>1.2 Management decisions in target landscapes in 11 countries are guided by comprehensive land use planning and decision support mechanisms that take into account landscape configurations and dynamics, global environmental values and multiple stakeholder needs in a participatory manner</p> <p>1.3 Governance, tenure and access conditions are improved sufficiently to meet the requirements for effective and sustainable dryland management, in the target landscapes</p> <p>1.4 All relevant actors throughout the target regions are collaborating across borders on the definition, establishment and management of transboundary management units for improved land management, production and restoration, connectivity (corridors) and conservation (protected areas)</p>	GET	24,864,676	180,595,650

2. Implementing and scaling up sustainable dryland management	Investment	<p>2.1 Resource managers and users in the target landscapes have access to services or mechanisms for generation, communication and application of practices for the sustainable management and restoration of drylands</p> <p>2.2 Resource managers and users, government and private sector actors are collaborating in strengthening green value chains in support of sustainable and equitable dryland management</p> <p>2.3 Financial institutions and other investors (public and private) offer finance to support sustainable production, management and restoration of drylands, tailored to the needs and conditions of resource managers and users</p> <p>2.4 Direct investment in dryland rehabilitation and restoration</p>	GET	54,781,496	550,613,087
Programmatic coordination, monitoring and scaling out	Technical Assistance	<p>3.1 Effective prioritisation, coordination and capacity development optimizes the relevance, social and environmental impact and cost-effectiveness of actions and investments in support of the sustainable management of drylands</p> <p>3.2 M&E systems at programmatic level and at project level in all 11 countries, supports learning and adaptive management</p> <p>3.3 Knowledge on dryland management experiences is systematized, managed and capitalized on</p>	GET	11,727,943	57,319,570
			Sub Total (\$)	91,374,115	788,528,307
Program Management Cost (PMC) ⓘ					
			GET	4,470,559	20,609,683
			Sub Total(\$)	4,470,559	20,609,683
			Total Program Cost(\$)	95,844,674	809,137,990

C. Co-Financing for the Program by Source, by Name and by Type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Government	National Development Plan ministries - ANGOLA	Grant	Recurrent expenditures	30,000,000
GEF Agency	IFAD- ANGOLA	Loans	Investment mobilized	2,000,000
GEF Agency	IUCN - BURKINA FASO	In-kind	Recurrent expenditures	2,500,000
Government	Permanent Secretariat, National Council for Sustainable Development - BURKINA FASO	In-kind	Recurrent expenditures	500,000
Government	Ministry of Environment, Green Economy and Climate Change (FIE) - BURKINA FASO	In-kind	Recurrent expenditures	16,000,000
Government	Ministry of Environment, Green Economy and Climate Change (Great Green Wall Coordination)- BURKINA FASO	In-kind	Recurrent expenditures	8,900,000
Government	Ministry of Environment, Green Economy and Climate Change (DGEF)- BURKINA FASO	Grant	Recurrent expenditures	3,000,000
Government	Ministry of Animal Resources and Fish- BURKINA FASO	Grant	Investment mobilized	2,400,000
CSO	Naturama - BURKINA FASO	In-kind	Recurrent expenditures	100,000
CSO	APROS - BURKINA FASO	In-kind	Recurrent expenditures	100,000
Private Sector	Bioprotect - BURKINA FASO	In-kind	Recurrent expenditures	100,000

GEF Agency	World Bank - KAZAKHSTAN	Loans	Investment mobilized	200,000,000
GEF Agency	IUCN - KENYA	Grant	Investment mobilized	2,500,000
Government	National Environment Management Authority - KENYA	Public Investment	Recurrent expenditures	500,000
Government	Kenya Forest Service - KENYA	Public Investment	Recurrent expenditures	500,000
Government	Kenya Agricultural Research and Livestock Organization - KENYA	In-kind	Recurrent expenditures	500,000
Government	Kajiado County Government - KENYA	In-kind	Recurrent expenditures	500,000
Government	Narok County Government - KENYA	In-kind	Recurrent expenditures	500,000
CSO	WWF KENYA	Grant	Investment mobilized	500,000
CSO	African Conservation Centre - KENYA	Grant	Recurrent expenditures	500,000
Private Sector	Tata Chemicals Lake Magadi Limited - KENYA	Equity	Recurrent expenditures	2,000,000
Private Sector	Mara Beef Limited - KENYA	Equity	Investment mobilized	1,000,000
Private Sector	UAP Insurance - KENYA	Equity	Investment mobilized	1,000,000
Donor Agency	Green Climate Fund - KENYA	Grant	Investment mobilized	3,000,000
Government	Malawi Ministry of Natural Resources, Energy, and Mining- MALAWI	Public Investment	Recurrent expenditures	2,000,000

Donor Agency	German Ministry of Economic Cooperation and Development (BMU) - MALAWI	Grant	Recurrent expenditures	2,278,740
Donor Agency	USAID - MALAWI	Grant	Investment mobilized	20,971,260
Donor Agency	Irish Aid and DFID- MALAWI	Grant	Investment mobilized	4,750,000
Government	Ministry of Agriculture, Irrigation and Water - MALAWI	Public Investment	Recurrent expenditures	1,000,000
Government	District budgets - MALAWI	Public Investment	Recurrent expenditures	9,000,000
Government	Ministry of Environment and Tourism - MONGOLIA	In-kind	Recurrent expenditures	4,000,000
Government	Ministry of Food, Agriculture and Light Industry - MONGOLIA	In-kind	Recurrent expenditures	4,000,000
Government	Ministry of Construction and Urban Planning - MONGOLIA	In-kind	Recurrent expenditures	1,000,000
Government	Three Provincial Governments - MONGOLIA	In-kind	Recurrent expenditures	9,000,000
CSO	WWF MONGOLIA	Grant	Recurrent expenditures	1,250,000
Others	Toson Khulstai and Khar Yamaat Nature Reserve Management Boards - MONGOLIA	Grant	Investment mobilized	770,000
GEF Agency	UNDP (GCF) - MONGOLIA	Grant	Investment mobilized	10,000,000
GEF Agency	World Bank/ADB/IFAD - MONGOLIA	Grant	Investment mobilized	6,000,000
GEF Agency	FAO MONGOLIA	In-kind	Recurrent expenditures	1,635,000

GEF Agency	World Wildlife Fund, Inc (WWF)- MONGOLIA	In-kind	Recurrent expenditures	345,000
Private Sector	XacBank/WBCSD members/local private sector - MONGOLIA	Grant	Investment mobilized	3,000,000
GEF Agency	World Bank (Mozbio II) - MOZAMBIQUE	Grant	Investment mobilized	45,000,000
GEF Agency	World Bank (MozFIP, Susenta, MozLand) - MOZAMBIQUE	Grant	Investment mobilized	40,000,000
Private Sector	Peace Parks Foundation and other CA co-managers - MOZAMBIQUE	Unknown at this stage	Investment mobilized	20,000,000
Beneficiaries	Local entrepreneurs, households and SMEs that are beneficiaries of the Matching Grant Scheme - MOZAMBIQUE	In-kind	Recurrent expenditures	5,000,000
Government	FNDS and ANAC - MOZAMBIQUE	In-kind	Recurrent expenditures	3,000,000
Government	Ministry of Agriculture Water and Forestry - NAMSIP project- NAMIBIA	Grant	Recurrent expenditures	109,000,000
Government	Environmental Investment Fund of Namibia CRAVE project	Grant	Recurrent expenditures	10,000,000
Government	Ministry of Agriculture Water and Forests - Dryland Crop Production Program - NAMIBIA	Grant	Recurrent expenditures	2,700,000
Donor Agency	KFW - NAMIBIA	Grant	Investment mobilized	17,000,000
Government	Government of Tanzania (Ministry of Agriculture) (ASDP II)	Grant	Recurrent expenditures	40,000,000
Government	Government of Tanzania (Ministry of Water and Irrigation) (WSDP II)	Grant	Investment mobilized	1,035,350
Government	Government of Tanzania (TFS) tree planting	Grant	Recurrent expenditures	600,000

Government	Government of Tanzania	In-kind	Recurrent expenditures	2,000,000
Private Sector	NMB Foundation - TANZANIA	Grant	Investment mobilized	1,000,000
Private Sector	SAGCOT - TANZANIA	Grant	Investment mobilized	3,150,000
GEF Agency	FAO TANZANIA	Grant	Recurrent expenditures	750,000
Donor Agency	EU - ZIMBABWE	Grant	Investment mobilized	13,488,000
GEF Agency	FAO- ZIMBABWE	Grant	Recurrent expenditures	3,500,000
GEF Agency	IFAD - ZIMBABWE	Grant	Investment mobilized	20,000,000
Others	Gonarezhou Conservation Trust - ZIMBABWE	Grant	Recurrent expenditures	8,000,000
Donor Agency	DFID - ZIMBABWE	Grant	Investment mobilized	12,000,000
Donor Agency	UNESCO - ZIMBABWE	Grant	Recurrent expenditures	7,200,000
GEF Agency	FAO - Global Coordination Program	Grant	Recurrent expenditures	18,000,000
Government	Ministry of Agriculture, Development and Food Security - BOTSWANA	Grant	Recurrent expenditures	29,500,000
Government	Ministry of Agriculture, Development and Food Security-BOTSWANA	Grant	Investment mobilized	10,000,000
Government	Ministry of Environment, Natural Resources, Conservation and Tourism - BOTSWANA	Grant	Recurrent expenditures	2,179,000

Donor Agency	SADC Regional Agricultural Policy- BOTSWANA	Grant	Recurrent expenditures	7,050,640
Donor Agency	KFW – Ka-Za Phase III- BOTSWANA	Grant	Investment mobilized	15,500,000
Donor Agency	Savanna Fire Management Organization- BOTSWANA	Grant	Recurrent expenditures	2,885,000
			Total Program Cost(\$)	809,137,990

Describe how any "Investment Mobilized" was identified

The Program will mobilize investments from a wide range of different private and public sources. A description of how the investment mobilized was identified in each country is provided in each country child project description.

D. Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Angola	Land Degradation	LD STAR Allocation	1,813,077	163,177	1,976,254
FAO	GET	Angola	Climate Change	CC STAR Allocation	1,777,700	159,993	1,937,693
FAO	GET	Angola	Multi Focal Area	IP SFM Drylands Set-Aside	1,768,856	159,197	1,928,053
FAO	GET	Botswana	Land Degradation	LD STAR Allocation	3,569,725	321,275	3,891,000
FAO	GET	Botswana	Multi Focal Area	IP SFM Drylands Set-Aside	1,784,862	160,638	1,945,500
IUCN	GET	Burkina Faso	Land Degradation	LD STAR Allocation	2,672,294	240,506	2,912,800
IUCN	GET	Burkina Faso	Biodiversity	BD STAR Allocation	1,336,147	120,253	1,456,400
IUCN	GET	Burkina Faso	Climate Change	CC STAR Allocation	445,382	40,084	485,466
IUCN	GET	Burkina Faso	Multi Focal Area	IP SFM Drylands Set-Aside	2,226,911	200,422	2,427,333
FAO	GET	Kazakhstan	Land Degradation	LD STAR Allocation	192,661	17,339	210,000
FAO	GET	Kazakhstan	Climate Change	CC STAR Allocation	1,100,917	99,083	1,200,000
FAO	GET	Kazakhstan	Multi Focal Area	IP SFM Drylands Set-Aside	646,790	58,211	705,001
World Bank	GET	Kazakhstan	Land Degradation	LD STAR Allocation	449,541	40,459	490,000
World Bank	GET	Kazakhstan	Climate Change	CC STAR Allocation	2,385,321	214,679	2,600,000
World Bank	GET	Kazakhstan	Multi Focal Area	IP SFM Drylands Set-Aside	1,509,174	135,826	1,645,000
IUCN	GET	Kenya	Land Degradation	LD STAR Allocation	892,431	80,319	972,750

IUCN	GET	Kenya	Biodiversity	BD STAR Allocation	2,231,078	200,797	2,431,875
IUCN	GET	Kenya	Climate Change	CC STAR Allocation	446,216	40,159	486,375
IUCN	GET	Kenya	Multi Focal Area	IP SFM Drylands Set-Aside	1,784,862	160,638	1,945,500
FAO	GET	Malawi	Land Degradation	LD STAR Allocation	1,423,072	128,076	1,551,148
FAO	GET	Malawi	Biodiversity	BD STAR Allocation	2,810,567	252,951	3,063,518
FAO	GET	Malawi	Multi Focal Area	IP SFM Drylands Set-Aside	2,116,820	190,514	2,307,334
FAO	GET	Mongolia	Land Degradation	LD STAR Allocation	1,784,862	160,638	1,945,500
FAO	GET	Mongolia	Multi Focal Area	IP SFM Drylands Set-Aside	892,431	80,319	972,750
WWF-US	GET	Mongolia	Biodiversity	BD STAR Allocation	1,784,862	160,638	1,945,500
WWF-US	GET	Mongolia	Multi Focal Area	IP SFM Drylands Set-Aside	892,431	80,319	972,750
World Bank	GET	Mozambique	Land Degradation	LD STAR Allocation	4,100,917	369,083	4,470,000
World Bank	GET	Mozambique	Biodiversity	BD STAR Allocation	9,941,464	894,732	10,836,196
World Bank	GET	Mozambique	Climate Change	CC STAR Allocation	1,908,257	171,743	2,080,000
World Bank	GET	Mozambique	Multi Focal Area	IP SFM Drylands Set-Aside	7,165,138	644,862	7,810,000
FAO	GET	Namibia	Land Degradation	LD STAR Allocation	3,642,627	327,837	3,970,464
FAO	GET	Namibia	Climate Change	CC STAR Allocation	444,223	39,980	484,203
FAO	GET	Namibia	Multi Focal Area	IP SFM Drylands Set-Aside	2,043,425	183,908	2,227,333
FAO	GET	Tanzania	Land Degradation	LD STAR Allocation	4,019,349	361,741	4,381,090

FAO	GET	Tanzania	Biodiversity	BD STAR Allocation	893,189	80,387	973,576
FAO	GET	Tanzania	Multi Focal Area	IP SFM Drylands Set-Aside	2,456,269	221,064	2,677,333
FAO	GET	Zimbabwe	Land Degradation	LD STAR Allocation	5,350,741	481,567	5,832,308
FAO	GET	Zimbabwe	Biodiversity	BD STAR Allocation	891,790	80,261	972,051
FAO	GET	Zimbabwe	Climate Change	CC STAR Allocation	713,432	64,209	777,641
FAO	GET	Zimbabwe	Multi Focal Area	IP SFM Drylands Set-Aside	3,477,982	313,018	3,791,000
FAO	GET	Global	Multi Focal Area	IP SFM Drylands Set-Aside	8,056,881	725,119	8,782,000
Total GEF Resources(\$)					95,844,674	8,626,021	104,470,695

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management for conservation and sustainable use ⓘ

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
1,584,162.00	0.00	0.00	0.00

Indicator 1.1 Terrestrial Protected Areas Newly created ⓘ

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

Indicator 1.2 Terrestrial Protected Areas Under improved Management effectiveness ⓘ

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
1,584,162.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF) ⓘ	Ha (Expected at CEO Endorsement) ⓘ	Total Ha (Achieved at MTR) ⓘ	Total Ha (Achieved at TE) ⓘ	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Kenia Masai Mara reserve national reserve			20,000.00						
Maputo Special Reserve/ Ponta de Ouro Marine Reserve		Habitat/Species Management Area	171,800.00						

<p>MONGOLIA 'Ulziin ekh', 'Jaran togoony tal A&B' and 'Menengiin tsagaan khooloi' Nature Reserves (submitted to Parliament for gazetting)</p>		<p>Habitat/Species Management Area</p>	<p>336,884.00</p>
<p>MONGOLIA Toson Khulstai', 'Khar Yamaat' and 'Bayatsagaany tal' Nature Reserves</p>	<p>166794, 166795, 555576555</p>	<p>Habitat/Species Management Area</p>	<p>839,978.00</p>
<p>MOZAMBIQUE Chimanimani National Reserve</p>	<p>National Park</p>	<p>65,500.00</p>	

MOZAMBIQUE Marromeu National Reserve	National Park	150,000.00
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Indicator 3 Area of land restored ⓘ

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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1150267.00	0.00	0.00	0.00
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Indicator 3.1 Area of degraded agricultural land restored ⓘ

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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80,548.00			
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Indicator 3.2 Area of Forest and Forest Land restored ⓘ

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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370,259.00

Indicator 3.3 Area of natural grass and shrublands restored ⓘ

Ha (Expected at PIF)

Ha (Expected at CEO Endorsement)

Ha (Achieved at MTR)

Ha (Achieved at TE)

671,850.00

Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored ⓘ

Ha (Expected at PIF)

Ha (Expected at CEO Endorsement)

Ha (Achieved at MTR)

Ha (Achieved at TE)

27,610.00

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas) ⓘ

Ha (Expected at PIF)

Ha (Expected at CEO Endorsement)

Ha (Achieved at MTR)

Ha (Achieved at TE)

12033914.00	0.00	0.00	0.00
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Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified) ⓘ

Ha (Expected at PIF)

Ha (Expected at CEO Endorsement)

Ha (Achieved at MTR)

Ha (Achieved at TE)

1,221,000.00

Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares) ⓘ

Ha (Expected at PIF)

Ha (Expected at CEO Endorsement)

Ha (Achieved at MTR)

Ha (Achieved at TE)

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems ⓘ

Ha (Expected at PIF)

Ha (Expected at CEO Endorsement)

Ha (Achieved at MTR)

Ha (Achieved at TE)

10,573,114.00

Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided ⓘ

Ha (Expected at PIF)

Ha (Expected at CEO Endorsement)

Ha (Achieved at MTR)

Ha (Achieved at TE)

239,800.00

Documents (Please upload document(s) that justifies the HCVF)

Title

Submitted

Indicator 6 Greenhouse Gas Emissions Mitigated ⓘ

Total Target Benefit

(At PIF)

(At CEO Endorsement)

(Achieved at MTR)

(Achieved at TE)

Expected metric tons of CO₂e (direct)

80865121.00

0.00

0.00

0.00

Expected metric tons of CO₂e (indirect)

228250.00

0.00

0.00

0.00

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector ⓘ

Total Target Benefit

(At PIF)

(At CEO Endorsement)

(Achieved at MTR)

(Achieved at TE)

Expected metric tons of CO ₂ e (direct)	68,750,011.00
Expected metric tons of CO ₂ e (indirect)	228,250.00
Anticipated start year of accounting	
Duration of accounting	20

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector ⓘ

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	12,115,110.00			
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting				
Duration of accounting	20			

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable) ⓘ

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
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**Target Energy Saved
(MJ)**

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable) ⓘ

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment ⓘ

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	508,703			
Male	552,082			
Total	1060785	0	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Part II. Programmatic Justification

1a. Program Description

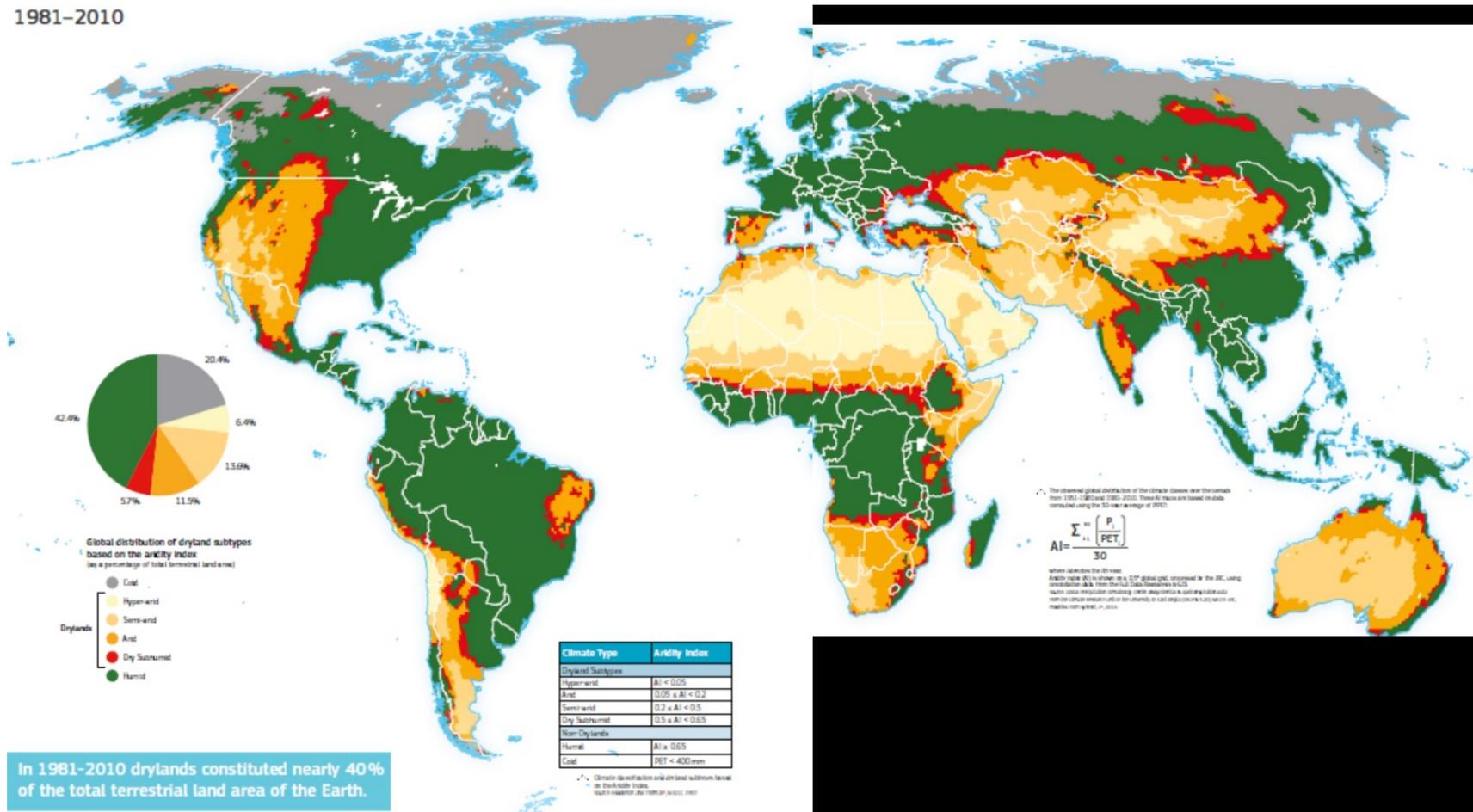
1.a Program Description.

The global importance of drylands

The Dryland Sustainable Landscapes Impact Program (DSL IP) will transform the management of drylands in selected regions and countries, establishing the basis for the scaling out of sustainable dryland management to regional and global levels. This will be of major global significance given that drylands extend over more than 40% of the Earth's landmass^[1] (Figure 1), and are affected by some of the world's most pressing environmental and development challenges.

Figure 1. The global extent of drylands, as defined by aridity (World Atlas of Desertification, 2018)

1981-2010



The Program will focus specifically on three dryland regions, in Africa and Central Asia: the Miombo and Mopane ecosystems of southern Africa, the savannas of west Africa and the temperate grasslands, savannas and shrublands of Central Asia (Box 1 and Figure 2).

Box 1. Target dryland ecoregions and biomes

1) *Miombo and Mopane ecosystems of Southern Africa* (participating countries: Angola, Botswana, Kenya, Malawi, Mozambique, Namibia, Tanzania, Zimbabwe):

Miombo and mopane woodlands are central to the livelihoods of 2.6 million people, providing valuable products such as NTFPs, energy and food. In Angola, for example, around 54% of small-scale farmers were found in the Miombo ecoregion in 2014 and 10% in the Mopane ecoregion. Crops are important for livelihoods and are mostly grown in rain-fed areas with low productivity associated with poor soils. In Mopane regions, small scale farmers are mainly agro-pastoralists, raising cattle (and also goats) as their main livelihood. Millet, sorghum and maize are cultivated in the short rainy season but with a high risk of failure due to the unreliability of rainfall.

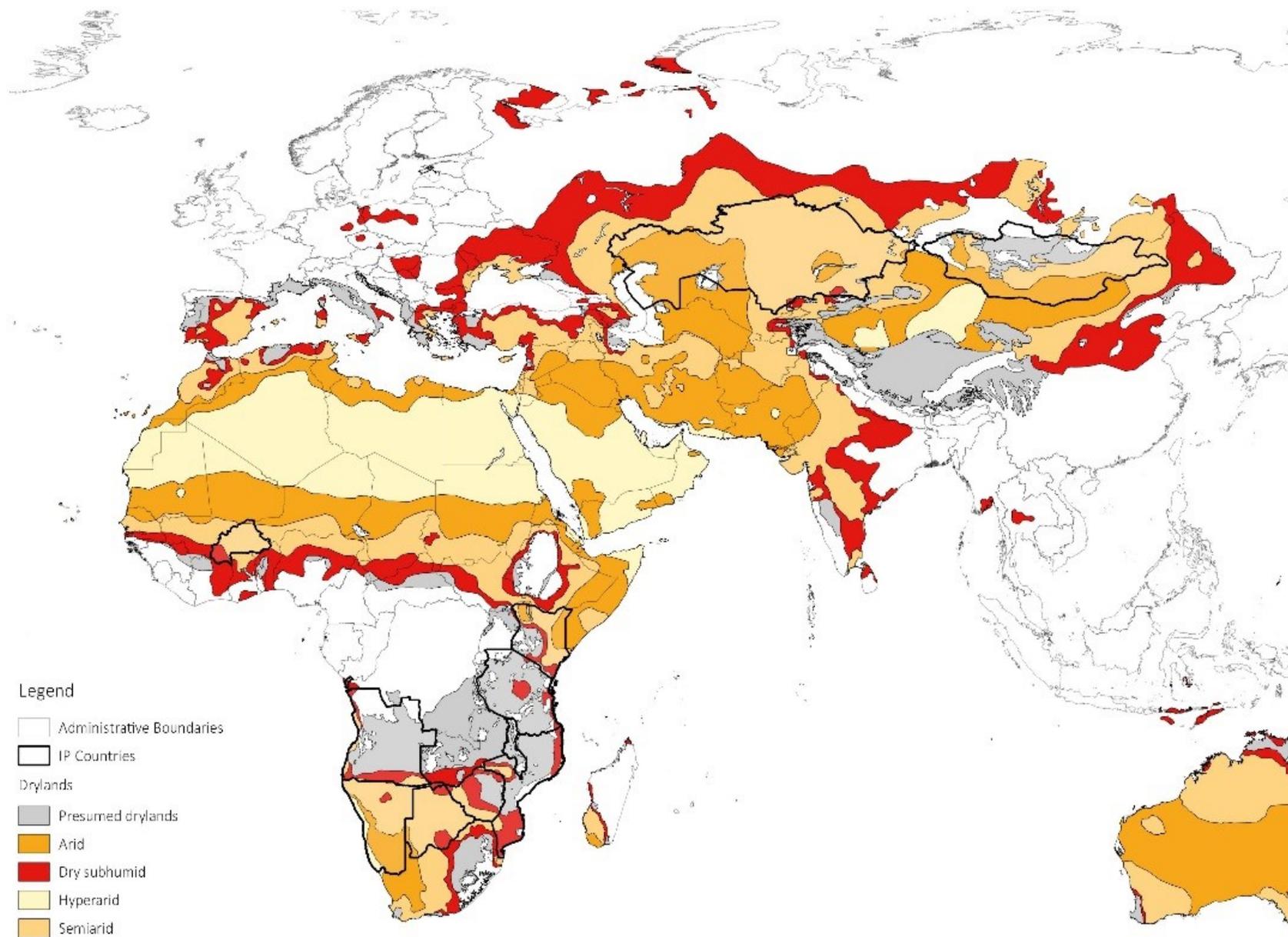
2) *Savannas of west Africa* (participating country: Burkina Faso)

Burkina Faso is dominated by the West Sudanian Savanna ecoregion, a hot, dry, wooded savanna composed mainly of large tree species and long "elephant" grass. The habitat has been greatly reduced, degraded and fragmented by agricultural activities, fire, and clearance for wood and charcoal, while populations of most of the larger mammal species have been decimated by over-hunting. This ecoregion extends westwards to Senegal and eastwards to Niger. To the north, it blends into the Sahelian Acacia Savanna ecoregion, which stretches across the entire width of north Africa from Mauritania in the west to Sudan in the east. Both of these ecoregions form part of the Tropical & Subtropical Grasslands, Savannas & Shrublands Biome.

3) *Temperate grasslands, savannas and shrublands of Central Asia* (Kazakhstan and Mongolia)

This biome includes a large number of ecoregions, such as the Eastern European forest steppe, the Pontic steppe, the Kazakh forest steppe, the Kazakh steppe and the Mongolian-Manchurian grasslands; to the north, steppes generally give way to forest ecoregions (boreal forests, conifer forests, mixed forests and taiga) and to the south to deserts and semi-deserts.

Figure 2. The extent of drylands in Africa and Asia, including "presumed drylands" (grey areas)



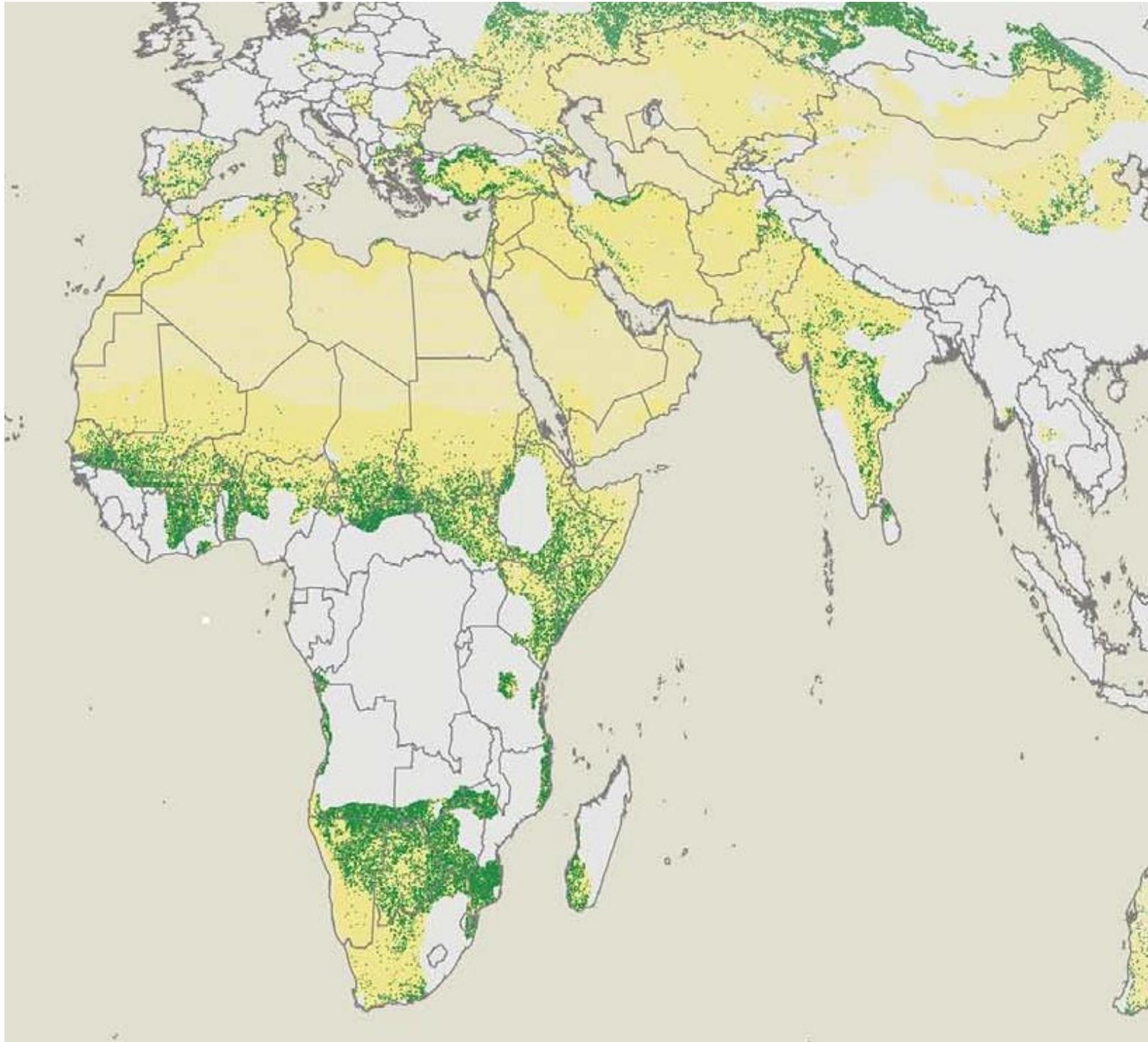
Drylands are home to around two billion people (over 25% of the world's population), contain 44% of the world's agricultural land (58.4% of that in Africa) and supply about 60% of the world's food production. Worldwide, more than 30% of urban areas and 34% of the urban population are located in dryland regions (including dry sub-humid, semi-arid, arid and hyper-arid climates).

As a result of climate change, the proportion of the world's land mass covered by drylands will increase even further: under a high greenhouse gas emission scenario, by the end of the 21st century global drylands are predicted to expand by about 10% (or $5.8 \times 10^6 \text{ km}^2$): most of this expansion will occur in developing countries. This will include changes in some areas from semi-arid to arid or hyper-arid, leading to declines in biodiversity, ecosystem function, and degradation of carbon stocks as well as significant increases in social stress due in large part to production pressures and food insecurity. Major expansions of drylands are predicted in areas including the Sahel in Africa, southern Africa, and Central Asia. Over the northern fringe of Africa, the arid and hyper-arid climate is projected to expand into semi-arid ones; and in southern Africa, semi-arid regions may expand northward and eastward.

Drylands contain some of the most fragile and threatened ecosystems on the planet, including over one quarter of global biodiversity hotspots and many threatened and endemic species. Drylands contain around 10,000 mammal, bird and amphibian species, including 64% of all birds, 55% of mammals and 25% of amphibians. They are home to 35% of the global hotspot areas and 28% of the total area of World Heritage Sites. One third of all Endemic Bird Areas (33%) and Important Bird Areas (31%) are also found in drylands[3]. Water scarcity has led to unique physiological and behavioural adaptations in many plant and animal species in drylands. Variations in 'dry' climate regimes (summer, fog, winter-rainfall) topography, geology, soil type and quality, fire regimes, herbivory and the influence of human management have also been important factors in driving dryland species diversity.

Forests in drylands have recently been found to be much more extensive than previously reported, covering close to 11 million km^2 , which is similar to the area of tropical rainforests or boreal forests: they consequently make a massive, and previously unreported, global contribution to biodiversity conservation, livelihood support and carbon sequestration.

Figure 3. The extent of forests in dryland areas in Africa and Central/South Asia



Drylands also provide much of the world's grain and livestock, many tree products and vegetable species, as well as globally important agro-biodiversity. They coincide with some of the world's important Vavilov centres of crop diversity and the centres of origin of at least 30% of the world's cultivated plants and many livestock breeds, including globally-important food crops such as wheat, millet, maize, barley, lentils, chickpeas, broad beans, date palms and numerous vegetables, as well as globally-important multi-purpose trees such as *Leucaena* and *Acacia*. As such, they are an important genetic reservoir, which is of increasing value for climate change adaptation.

The contribution of the Program

The objective of the Dryland Sustainable Landscapes Program (DSL IP) is to avoid, reduce, and reverse further degradation, desertification, and deforestation of land and ecosystems in drylands, through the sustainable management of production landscapes.

The DSL IP will mark a transformation in how drylands are managed and how global environmental issues in drylands are addressed, particularly in relation to the environment/livelihoods nexus. The programmatic approach of the DSL IP will take into account the similar and transboundary nature of many of the challenges facing drylands. Each of the main dryland regions across the world that will be addressed (such as the miombo and mopane woodlands of southern Africa, the savanna tropical grasslands and open woodlands of the Sahel, and the rangelands and steppe forests of Central Asia) cover multiple countries, the boundaries between which are highly porous to environmental processes such as land degradation, and demographic processes such as environment- and conflict-related migration or cross-border pastoralism.

The Program will transform how drylands are managed in the following ways:

- It will replace sector-specific, top down approaches with innovative, integrated approaches featuring coordination and collaboration between multiple sectors to address trade-offs and promote synergies; comprehensive landscape-wide land planning and decision-making incorporating multiple social and environmental variables; integrated consideration of the social determinants of landscape sustainability including governance, access and tenure rights; and transboundary collaboration on management and conservation;
- It will specifically focus on removing the barriers currently preventing sustainable dryland management being scaled up to landscape, national and regional levels: to maximize the sustainability and scale of results, a country-driven and bottom-up capacity enhancement approach will be applied at programmatic and individual child project level to maximize country ownership, commitment and mutual accountability.
- It will go beyond current nationally-limited approaches, developing capacities and mechanisms to ensure that investments in sustainable dryland management are effectively targeted from a region-wide perspective in order to maximize impact and cost-effectiveness, that they build on and contribute to regional and global knowledge of best practices in dryland management, and that they are subject to effective monitoring and adaptive management at regional level, thereby avoiding transboundary leakages of impacts.

The challenges, threats, root causes and barriers that need to be addressed

Investing in the sustainable management of drylands is becoming ever more urgent given the convergence of a number of trends: high population growth rates; demographic "bulges" of younger people entering job markets; increasing water scarcity, often exacerbated by climate change; out-migrations; increasing food insecurity; and land and water grabbing by foreign investors. A consistently low level of private sector investment is also a key challenge. The majority of dryland areas are remote with low productivity levels and widely dispersed production systems and mainly subsistence farming systems. Globally, the most important emerging issues are: climate change, food security, biodiversity and human security, including water scarcity. Such forces are highlighting the value of healthy drylands to the world, and their role in a secure global future.

The nature of drylands, and the challenges facing them, are diverse, between for example the steppes of central Asia and the miombo woodlands of southern Africa. The threats affecting each of the 11 countries participating in the Impact Program are described in their respective PIFs, and will be analyzed and presented in more detail by the time of CEO Endorsement.

Climate change: water scarcity is a defining characteristic of drylands, to which their biodiversity, crops and production systems are inherently adapted. Exceptionally intense or prolonged dry periods (droughts) can, however, exceed these adapted tolerance limits: drought occurs in all climatic regions, but when it occurs in drylands its impacts are more severe as it is easier to exceed tipping points where total crop failure and significant impacts to biodiversity are possible. Climate change is exacerbating this situation and generating additional stresses: dryland areas are expected to become more vulnerable to desertification under climate change due to the increasing number, frequency and intensity of extreme climatic events including droughts and heat waves, with significant impacts on livelihoods and ecosystems.

Between 2000 and 2009, land degradation was responsible for annual global emissions of 3.6–4.4 billion tonnes of CO₂. The main processes include deforestation and forest degradation and the decline of carbon content in many cultivated soils and rangelands as a result of excessive disturbance and insufficient return of organic matter to the soil. Climate change will be an increasingly important driver of land degradation throughout the 21st century. Changes in temperature and rainfall patterns will result in range shifts and in some cases extinction of species, causing a modification in the composition and functioning of ecosystems.

Climate change will exacerbate the extent and severity of current trends, and reduce the effectiveness and sustainability of restoration options. It can directly affect agricultural yields, by changing means and extremes of temperature as well as precipitation, and also affect the distributions and population dynamics of pest species. The greatest effects of climate change on land are likely to come from interactions with other degradation drivers. Long-established sustainable land management (SLM) and restoration practices may no longer be viable under future climatic regimes in the places where they were developed, undermining the resilience of these complex social-ecological systems. This may require rapid adaptation and innovation, but may also potentially open new opportunities, where transformation to new states of equilibrium are undertaken.

Biodiversity and ecosystem integrity: one out of every three dryland species that has been assessed is classified as threatened, and one of six is classified as endangered or critically endangered. The Millennium Ecosystem Assessment revealed that 15 of the 24 ecosystem services studied in drylands are in decline.

Poverty/degradation linkages in drylands: the degradation of drylands, and their ability to generate ecosystem services and support livelihoods and agricultural production, predominantly affects the poor, and can contribute to poverty-related migration. In 2001, it was estimated that dryland degradation costs developing countries an estimated 4–8% of their national gross domestic product (GDP) each year^[5]. Desertification currently affects more than 2.7 billion people; inhabited drylands are home to 38% of the world's population; 90% of dryland inhabitants live in developing countries; and in sub-Saharan Africa, half of the total population, but three quarters of the poor, live in drylands. The majority of these people depend directly on forests, grasslands, and rain-fed agriculture for subsistence, shelter, fodder, heating and cooking, and incomes, and as a consequence are highly vulnerable to the effects of the degradation of natural resources in drylands. Pastoralists and smallholder farmers in drylands tend to be disproportionately poor and vulnerable to changes in the natural resource base. Populations in drylands are projected to increase by 43% - from 2.7 billion in 2010 to 4.0 billion in 2050 - amplifying these socio-economic trends and the impact of people on dryland landscapes.

Drylands are particularly susceptible to land degradation when one or more of the following features are present: low-productivity ecosystems; easily degradable soils; highly variable temperature and rainfall; and dense and rapidly growing populations of economically marginalized populations. These interrelated characteristics contribute to high rates of poverty and limit the capacity of populations to develop local mechanisms for coping with increasingly severe episodic or chronic deficits of food, water, energy and physical security.

Land degradation acts in concert with other socioeconomic stressors to result in increased local or regional violent conflict and out-migration from severely degraded areas. When rainfall is less than a tenth of its expected value, an increase of up to 45% in communal conflict has been observed, while a 5% decline in gross domestic product has been associated with a 12% increase in violent conflict. By 2050, 50 to 700 million people are projected to migrate due to the combination of climate change and land degradation. Migrants can come into conflict with prior residents of the areas into which they move, especially if the destinations also have a fully used or degraded resource base.

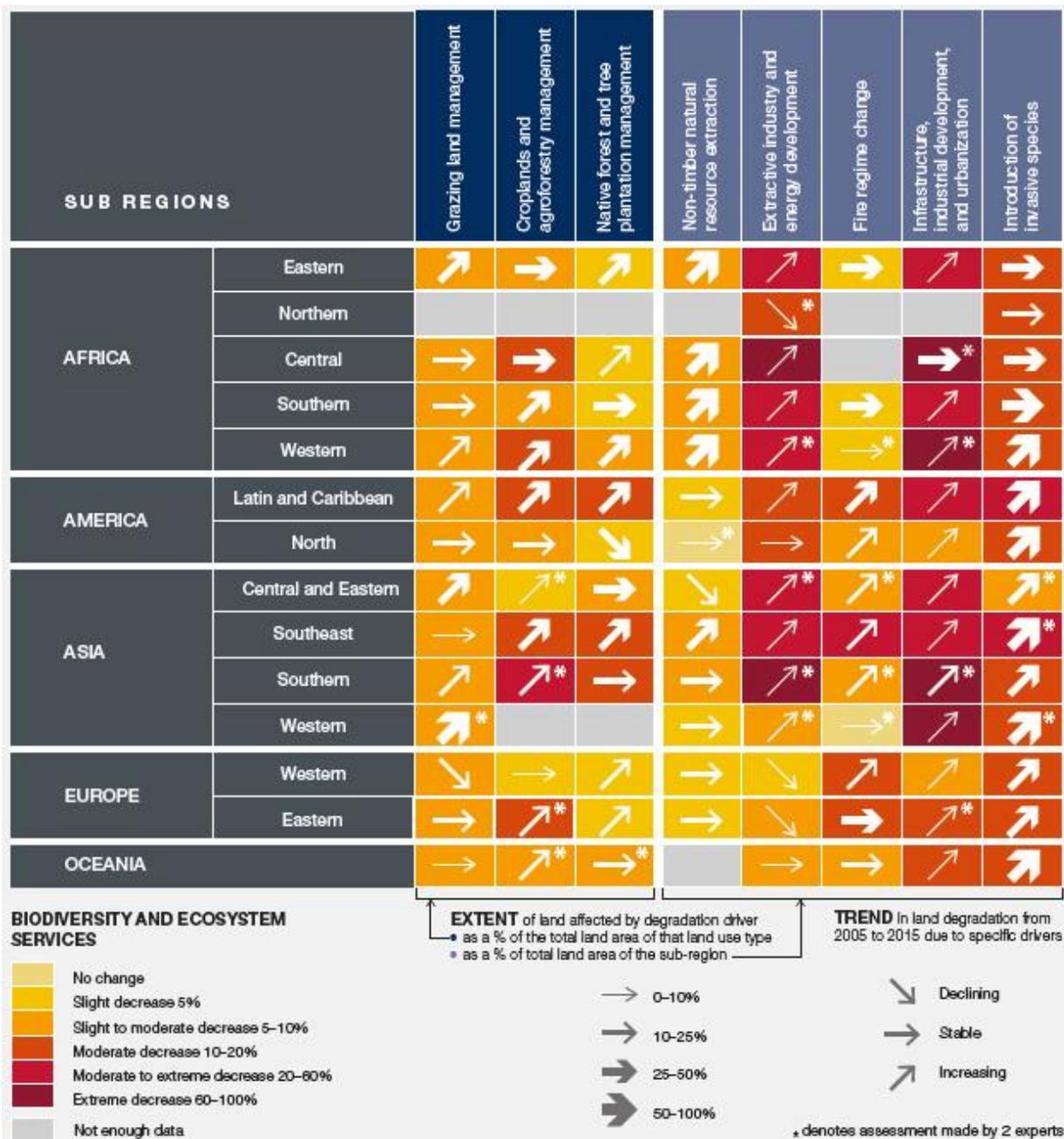
Gender aspects: women are strategic agents of change and play a central role in the use and care of land resources in drylands, in particular in land-dependent communities. They rely on land resources to provide the household needs for food, water and energy, which makes them more dependent on natural resources than men; yet most women neither own nor have control over these resources. Less than 20% of land holders worldwide are women and only 13% of the land users who make the major decisions on agricultural land are women. Women are a significant labour force and are guardians of valuable traditional and indigenous knowledge on land use. Limited landownership and tenure security can constrain cropping and livestock practices that can help in adapting to declining land quality, and access to credit and other services that ease investments in improved technology, natural resource management in the face of climate change. The situation is particularly dire in certain rapidly changing contexts, where environmental stresses linked to climate change, or social changes such as male migration, are adding to the burden of women in attaining food security for their households. Available data on the agricultural labour force in Africa already show that women in many countries contribute to well over 50% of total labour. Recent data illustrate that in a number of regions including Central Asia, the female labour force is noticeably increasing, a trend defined as the “feminization” of agriculture.

Women and children in particular are most vulnerable to the impacts of land degradation and drought. Drought shocks have gender-differentiated impact; in the case of high climate variability, women involved in agriculture are much less able to cope with such shocks.

Causes and drivers of dryland degradation:

Twelve million ha of drylands are being degraded by desertification annually. Desertification^[1] is caused by a relatively large number of factors that vary from region to region, and often act in concert with one another in varying degrees. The detailed nature of the causes and drivers of degradation in each of the 11 countries participating in the IP will be presented in more detail by the time of CEO Endorsement: the Global Coordination Project (during both its formulation and early implementation phases) will support analyses of the regional and global dimensions of these causes and drivers. Figure 4 shows how the status, trend and extent of the direct drivers of land degradation vary globally across subregions.

Figure 4. Status, trend and extent of direct drivers of land degradation across subregions globally



A worldwide review of the causes of desertification, based on 132 case studies, identified four major categories of proximal causal agents: (1) increased aridity; (2) agricultural impacts, including livestock production and crop production; (3) wood extraction, and other economic plant removal; and (4) infrastructure extension, which could be separated into irrigation, roads, settlements, and extractive industry (e.g., mining, oil, gas). Only about 10% of the case studies were driven by a single cause (with about 5% due to increased aridity and 5% to agricultural impacts). About 30% of the case studies were attributable to a combination of two causes (primarily increased aridity and agricultural impacts), while the remaining cases were combinations of three or all four proximal causal factors.

Although highly context-dependent, it is the interaction between multiple “global change issues” in any given cropping or land-use system that may increase the likelihood of land degradation. This suggests that a fully integrated and cross-sectoral approach is called for, which addresses multiple issues and the interactions between them in a comprehensive fashion, rather than focusing for example on only agronomic, climate-related, or social issues in any given case.

Figure 5 shows that in drylands, greater proportions of smallholder croplands and rangelands are affected by multiple global change issues than in non-drylands: this interaction between multiple global change issues is likely to be associated with increased levels of land degradation. Figure 6 shows that the most significant biophysical global change issue in dryland smallholder croplands are aridity and water stress, and the most significant socioeconomic issues are population density, population change, livestock density and income levels. In the case of rangelands, the most significant biophysical issues are aridity and water stress, followed by declining land productivity, climate-vegetation trends, fires and tree loss; the main socioeconomic issues are livestock densities, population density and change, low nitrogen balance and income levels.

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Figure 5. Proportions of global areas of smallholder croplands and rangelands affected by multiple global change issues (GCIs)

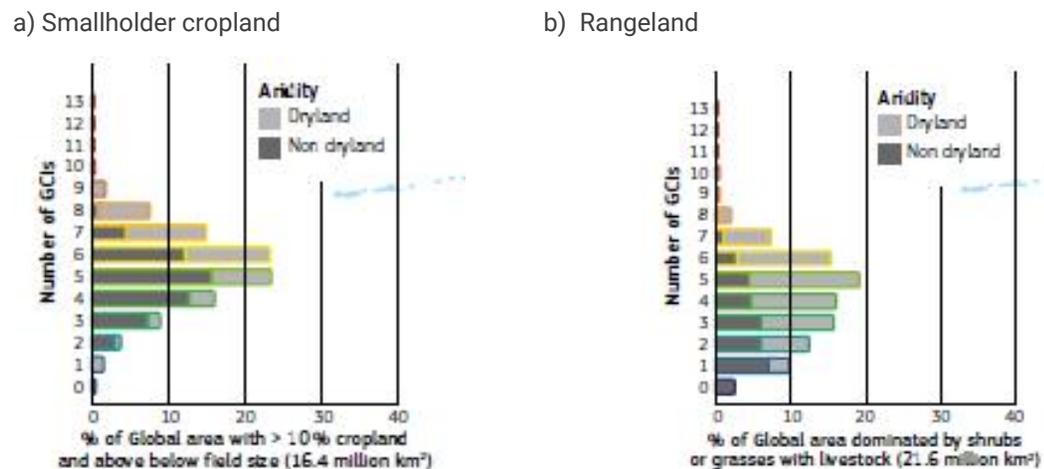
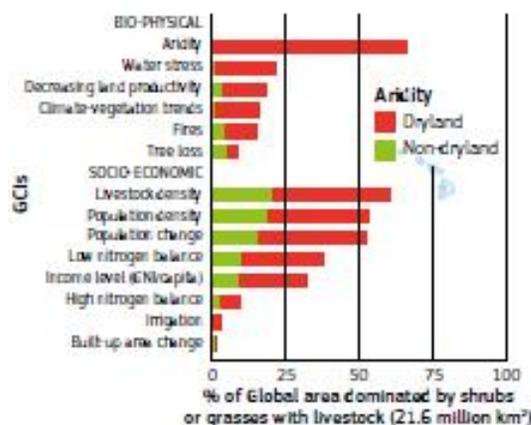
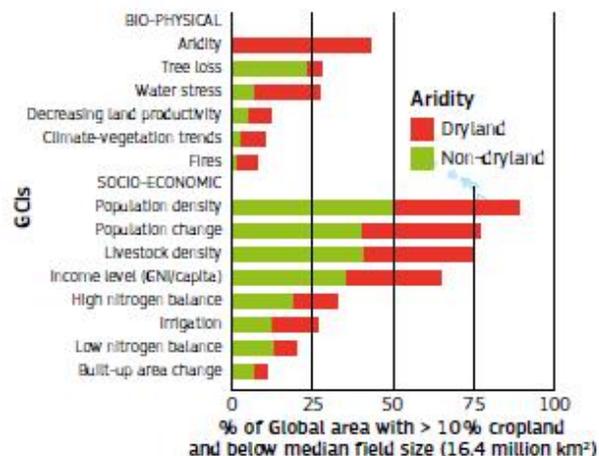


Figure 6. Global change issues (GCIs) in smallholder croplands and rangelands worldwide

a) Smallholder cropland b) rangeland



The capacity of rangelands to support livestock will continue to diminish in the future, due to both land degradation and loss of rangeland area. The increased use of intensive livestock production systems with high off-site impacts increases the risk of degradation in other ecosystems. Global demand for livestock products is projected to double between 2000 and 2050, while competition for land between livestock grazing and other land uses, such as cropping, mining and human settlements, continues to increase. In many of the world's rangelands, livestock stocking levels are at or above the land's capacity to sustain animal production in the long term, leading to overgrazing and long-term declines in plant and animal production. In extreme cases, changing land condition has led to a reduction of up to 90% in the ability of rangelands to support large herbivores. The impacts have been particularly pronounced in drylands, where 69% of global livestock production occurs and livestock production is often the only viable agricultural activity. Reduction in the productivity of the livestock sector negatively impacts the livelihoods of 1.3 billion people, including 600 million poor smallholder farmers.

The nature and relative importance of different drivers of dryland degradation vary between IP target countries. The dryland degradation issues to be addressed in each target country are summarized in Box 2

Box 2. Dryland degradation issues to be addressed in the target regions and countries (please refer to Child Project PI Fs for more detail)

1) ***Miombo and Mopane ecosystems of southern Africa***

- ***Angola:*** expansion of agriculture, charcoal production, overgrazing accelerated by population pressure and the associated demand for food and other services, and the expansion of settlements and climate change.
- ***Botswana:*** expansion of crop land, overstocking and overgrazing, overharvesting of non-wood forest products (N WFP), uncontrolled fires and expansion of settlements. The increase in population and effects of CC are expected to aggravate land degradation.
- ***Malawi:*** unsustainable harvesting for firewood and charcoal production, commercial timber production, agricultural expansion into forest land, urban expansion, brick and tobacco production, and overgrazing. Degradation is accelerated by climate change, rapid urbanization, and increased demand for services (including water, food and energy supply).
- ***Mozambique:*** rapid deforestation and ecosystem degradation, associated with species invasion linked to poor ma

Mozambique: rapid deforestation and ecosystem degradation, associated with species invasion linked to poor management, slash-and-burn agriculture, wood extraction, fires, population growth, encroachment and land tenure conflicts.

- **Namibia**: conversion from grassland to cropland, and declining productivity. The direct drivers for land degradation are agricultural expansion, charcoal production and overgrazing. In particular, overgrazing and mono-cropping have contributed to soil organic carbon degradation.

- **Tanzania**: shifting cultivation with inadequate rotational fallow periods, overgrazing, charcoal production and uncontrolled fires. Irregular rainfalls are further increasing the negative effects of these practices. Land productivity is therefore decreasing while the population is rapidly increasing.

- **Zimbabwe**: ecosystem services are suffering high levels of degradation, the main direct causes of which are the expansion of agriculture, charcoal production, overgrazing, fires and illegal mining. Increased flooding and droughts are further increasing the negative effects of these practices. Unsustainable practices are resulting in reduced land productivity, biodiversity loss, invasion of alien species, pollution, and an overall decline in ecosystem services.

2) Savannas of west Africa

- **Burkina Faso**: inappropriate technologies or techniques, including expansion of farmland, fuel-wood harvesting, human settlement expansion and bush fire, affecting whole ecosystems and the entire landscape, and compounded by climate-related risks.

3) Savannas of east Africa

- **Kenya**: changes in land tenure, breakdown of traditional governance, sedentarization and rapid privatization of rangelands is resulting in overstocking, forest encroachment, poaching, conflicts and loss of wildlife habitat. Forests have been impacted by extensive agricultural expansion.

4) Temperate grasslands, savannas and shrublands of Central Asia

- **Kazakhstan**: conversion from natural steppe and fallow land to agricultural and industrial use, overgrazing and inefficient pasture management.

- **Mongolia**: in the Eastern Steppe, land degradation severely influences livelihoods in the steppes, limiting availability of vital functioning ecosystem services and driving local poverty, migration and user conflict. Livestock overstocking, increasing impacts from mining operations, and climate change pose pronounced threats to Eastern Steppe.

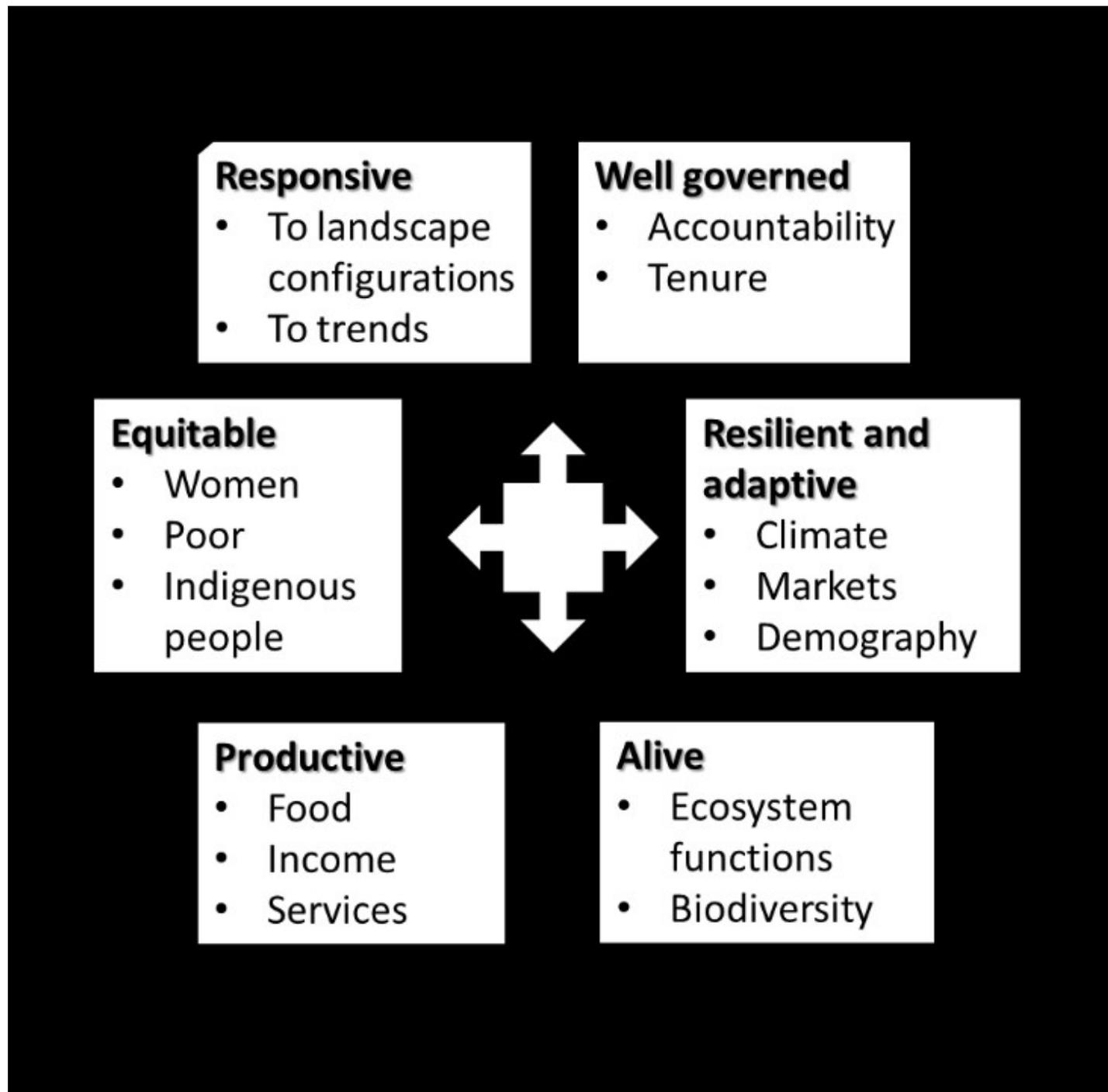
The situation sought

The vision of the program, and its constituent child projects, is that dryland landscapes will be sustainably managed, in such a way that the threats described above will be effectively and permanently addressed. The criteria used here to define a sustainably managed dryland landscape are explained in Box 3 and Figure 7:

Box 3. Key conditions of sustainability in dryland landscapes

- **Resilience and adaptiveness:** the ecosystems within the landscape, as well as its human population and their livelihood support systems, are able to withstand and adapt to external shocks and trends, such as climate change, natural disasters, market variability and demographic change (due for example to emigration) without losing their functionality.
- **Responsiveness:** the management practices and governance approaches applied in the landscape respond to spatial variations in conditions (such as productive potential, environmental vulnerability and the existence of globally important environmental values), and to current or anticipated trends over time (such as evolving economic and demographic conditions) in such a way as to maximise their relevance and effectiveness.
- **Equity:** the landscape is managed to optimise the distribution of benefits between different stakeholder groups and avoid contributing to the marginalisation of any group, especially those who are already more vulnerable (typically women, the poor and indigenous people). Such equity is not only desirable from a perspective of social justice, but is a prerequisite for the long-term social sustainability of the landscapes in question, and of the broader national and regional contexts within which they are located.
- **Productivity:** given the high levels of human intervention in many dryland landscapes and the high levels of dependence of dryland inhabitants (especially the poor) on their natural resources, the preservation of natural ecosystems by excluding local people and prohibiting productive activities is rarely an option. Sustainability in dryland landscapes more normally depends on natural capital being managed by local populations in such a way as to allow it to continue to provide them with goods and services in the long term.
- **Ecological functioning and multifunctionality:** sustainability depends on maintaining the biological functioning of dryland ecosystems (including modified landscapes subject to active use). Biodiversity and biological processes are vital for the sustainability of production systems, for example through the natural predation of pest species and nutrient cycling. Dryland landscapes, even when significantly modified, also often provide vital habitat and connectivity for globally important and threatened biodiversity, and so constitute crucial elements of national, regional and global conservation strategies: this includes agricultural biodiversity (crops and their wild relatives) which is vital for global crop breeding programs.
- **Governance:** governance conditions must exist to ensure that landscapes are managed in the best interests of different (current and future) stakeholder groups. One dimension of governance is accountability: this refers to the degree that local people (groups and individuals) are willing and able to take ownership of the management of their natural resources; this ownership and as a consequence accountability will only be assumed when they perceive the benefits, and have access and control over resources, knowledge, capacities and organizational strength to realize these activities, and the claim-making-power to make sure these conditions can be fulfilled/maintained. Another aspect is tenure and access rights, including not only legal title on land and natural resources, but also other arrangements (including usufruct rights and customary tenure) which provide people with the motivation to manage resources sustainably, resulting from the security that they will be able to enjoy the “fruits” of their investments^[1].

Figure 7. The situation sought: key characteristics of sustainable dryland landscapes



Barriers to the sustainable management of drylands:

There are currently a number of significant “barriers” which have to date prevented the target countries from achieving this ideal situation of sustainable dryland landscapes. There is a growing recognition that addressing barriers and designing solutions to complex environmental problems, such as deforestation and land degradation, requires awareness of the larger system into which the problems and solutions are embedded. A more comprehensive, multi-sectoral approach to the sustainable management and restoration of drylands, based on understanding of the processes leading to deforestation and land degradation, and that can understand and address multiple drivers, pressures and impacts, is necessary. Many dryland management practices, technologies and approaches are already available that can enhance the resilience of drylands, along with the ecosystem services they deliver, and support livelihoods. However, there are a number of commonly-occurring systemic barriers and bottlenecks to their adoption and scaling up, described below.

These barriers represent common management challenges which will be addressed by each of the child projects: they vary in relevance and relative significance between participating countries, and will be validated and analysed in more detail during the preparation phases of each child project, with support from the Global Coordination Project.

1) Narrowly-focused approaches:

As described above, dryland degradation is the result of the complex interplay of a wide diversity of climatic, biophysical, sociocultural, economic and other factors, and interactions between actors including Government institutions (engaged in policy-making, planning, governance and technical functions), private sector interests, civil society organisations and, most significantly, the local inhabitants and users of drylands (including smallholders, grazers, commercial farmers, urban populations and others). Approaches to dryland management and restoration have too often failed to take into account this complexity, and as a consequence have had limited impact and sustainability.

Institutional, policy and governance responses to address land degradation have in many cases proven inadequate, since they are often insufficiently comprehensive (i.e. sector-specific) or fail to address ultimate causes. National policy responses to land degradation are typically focused on short-term and local-level drivers and are often accompanied by insufficient resources, including skills, knowledge, technology, finance and institutional capacity. Attempted solutions are often incremental and reactive, focused on mitigating damage rather than proactively focused on avoiding initial harm. They are frequently poorly coordinated across the various sectors and ministries that share responsibility for the use of land and natural resources, and are often regionally uncoordinated and not sustained between different political dynamics such as electoral cycles

Specific deficiencies which constitute barriers to the social and environmental effectiveness and sustainability of dryland management include:

Inadequate coordination and integration between sectors:

Drylands are typically subject to pressures and demands from a range of sectors, between which there is often competition and the need for negotiated trade-offs, but also at times opportunities for synergies. Policy decisions specifically to promote one given sector may have negative impacts on another: for example, the promotion of commercial agriculture may increase pressures on available water resources, reducing water availability for domestic consumption, or resulting in the construction of dams and other irrigation infrastructure, which may have negative effects on socially- and economically-important fisheries; the promotion of the livestock sector may reduce land availability for agricultural production, or result in the degradation of watersheds on which irrigated agriculture depends; while measures to protect watersheds and biodiversity may reduce farmers’ access to lands on which they depend for their livelihoods. There may also be tensions between public and private sector actors in relation to the implications of productive sector activities for public goods; conversely, inadequate relations between public and private sectors may result in the potential for the private sector to make positive contributions to sustainable dryland management to be realised.

At the farm level, the livelihoods and farm economies of dryland inhabitants, and consequently their natural resource management (NRM) decisions with implications for dryland conditions, are typically determined by the interplay of numerous factors and sectors: farm families' decisions typically balance, for example, considerations of agriculture, livestock, fisheries, forestry, product processing, marketing, water supply, health, education and finance.

Dryland management strategies that address these sectors and issues in isolation from each other, or that fail to bring together public and private sector actors, are therefore unlikely to be effective or sustainable. Making the transition from sector-specific to integrated approaches, however, may be hindered by factors including: the sector-specific nature of institutional structures and decision-making processes, which may lack specific and institutionalized channels for interactions between sector actors; the lack of formalized policies and established procedures requiring institutional actors to pursue inter-sector integration; sector-specific cultures in educational institutions; resistance to perceived threats to the potential of productive sectors to generate income; and limited awareness of how in practice to achieve inter-sector integration, or of the potential benefits of doing so.

Inadequate consideration of landscape dynamics in drylands NRM

The pressures facing drylands often operate at landscape, rather than site-specific, levels. Typically, however, natural resource management (NRM) measures in drylands are defined and implemented solely at farm level, and as a result their sustainability is undermined by unaddressed processes and pressures originating outside of the farm (such as the degradation of water sources on which agriculture may depend, competing demands for labour with other productive activities in the landscape, and concentration of farming pressure due to land use changes in the wider landscape); at community level, failing to take into account landscape-wide trends; or at national level, failing to take into account supranational trends and the transboundary nature of many processes and pressures (such as migration, flows of water and sediments, biological connectivity and value chains).

Spatially-limited visions hinder objective priority setting regionwide, and therefore the cost-effectiveness of the investment of available resources. Prioritising locations for biodiversity conservation at solely national level, for example, may result in funds being invested in sites which are not the most important and needy at regional level, in terms of the globally-important biodiversity they contain

This narrowness of focus typically results from a combination of: limited awareness of regional dynamics on the part of decision-makers; limited access to objective, reliable and comparable information on regional priorities and dynamics; limited access to and capacities to use tools for macro-level planning, and the limited development of platforms for taking decisions and planning at a broader level, among multiple actors crossing sectors and jurisdictions.

Inadequate policy and regulatory provisions for security of tenure, access and use rights:

The linkages between smallholders, degradation and sustainability are profoundly influenced by rights of access to and benefits from the use of natural resources, especially land, fodder, trees and water. These rights were held historically by local custom, but under new laws or processes, they are vulnerable to appropriation by governments, corporations and powerful individuals, for commercial or other purposes. Customary claims of individuals, families, village groups or cooperatives still affect the greater part of most dryland countries. Formal or legislated ('statutory') rights, while extensive and increasing, may threaten title security. They may not be recognised, still less implemented, by ancestral users. Furthermore, in many countries, divisible inheritance diminishes the rights enjoyed by succeeding generations. New legal tools as well as informal adaptations of custom are needed, as fundamental changes are taking place in the availability of natural resources, driven by population growth. Thus the necessary condition of sustainable private investments in natural resources - security of tenure - is frequently absent.

Grazing systems are not an exception. Growing livestock herds have to be subdivided or grazing areas extended, while appropriations of rangeland and sometimes of water access reduce the available resources of common or open access for livestock. Hence, although they are responding to a host of external pressures, culpability for rangeland 'degradation' has been assigned to overgrazing by users.

Underpriced arable land, weak institutional safeguards and governmental complicity are currently driving an agricultural 'land grab' in many countries, especially in Africa, in which smallholders and those without tenure rights are critically disadvantaged. Wealthy citizens (including foreigners) not only have better access to investment capital, but can buy allocations and in some cases work to undermine local land rights through political connections. However, neither the pace nor the redistributive impact of the 'land grab' are fully understood.

Unequal land rights can lead to management decisions which accelerate land degradation. Without secure land rights, farmers and pastoralists have few incentives, limited decision-making, and little or no access to credit, rural development organizations and other agricultural inputs and services. These challenges contribute to land degradation by reducing management options and inducing poor women and men in agricultural lands to exploit the natural resource base in an unsustainable manner. In many countries, men have greater decision-making power over access to and control over land and they are the only ones who can transfer property to their children. In some countries, women who become head of households after their husband's death can be more vulnerable if their access to land has been established through their husbands. The same situation might occur in the case of divorce or repudiation.

Ineffective resource governance

Effective and sustainable dryland management presupposes the existence of effective governance structures that maximize the compatibility between the actions and interests of different stakeholder groups. This is particularly crucial in common access resources on which multiple actors depend, in order to avoid "tragedy of the commons" scenarios where resources are degraded by individual users or external actors. Effective governance is also necessary to optimize equity in the outcomes of dryland management for different stakeholder groups, and so may necessarily require mechanisms for the representation of their respective interests, for the inter-stakeholder negotiation of rules, actions and outcomes, and for the equitable distribution of benefits.

Currently, the effectiveness of governance structures in these situations is often limited by a combination of weak capacities of State entities in their oversight, enforcement and facilitation roles, due often to inadequate prioritization of resource allocation by policy makers and limited knowledge and capacities among staff members; failure to value and support traditional governance mechanisms, or their active and intentional marginalization, due to lack of awareness or active rejection; and the inability of traditional governance mechanisms to adapt to changes in the nature and magnitude of threats to natural resources or to changes in demographic and cultural conditions, often associated with the breakdown of social capital resulting from emigration or external cultural influences.

Inadequate conditions for upscaling

The World Atlas of Desertification (2018) details a number of successful examples of sustainable management with potential for wider application to address dryland degradation issues. The need is now to move such examples to another level, leading to sustainable change not only landscape-wide, but region-wide. In order to achieve this, a number of challenges as outlined below need to be overcome.

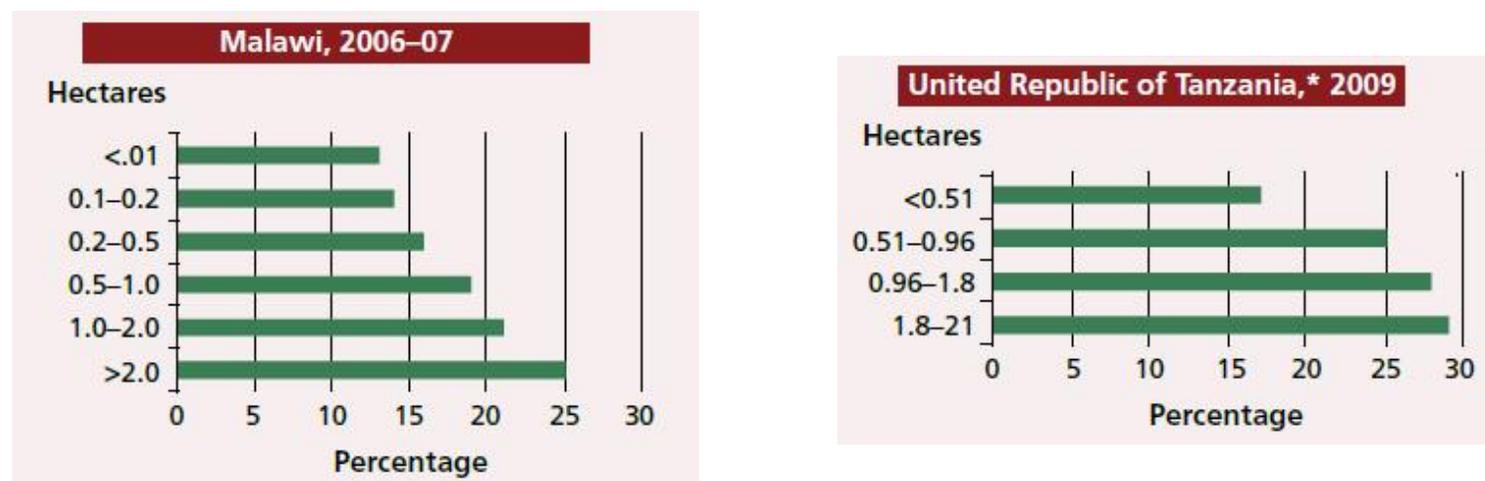
Inadequate capacities and penetration of technology transfer systems

The limited data available from agricultural censuses in some low- and middle-income countries suggest that only a small share of farms may interact with government extension agents. In a sample of ten countries with available evidence, the share did not exceed 25% in any country.

There are also indications that smaller farms are less likely to engage with agricultural extension agents than are larger ones (Figure 8). This likely reflects the poverty of many small farms and the cost of reaching them, but may be because farm income is only a small share of total household income for many small

farmers.

Figure 8. Shares of farms accessing information through agricultural extension, by farm size, in Malawi and Tanzania



Women farmers typically have even less access to extension services than men. There are differences between men and women farmers in the numbers of contacts with extension agents, the percentages of farmers visited by extension agents, and access to community meetings or meetings held by extension agents. Extension agents often engage male farmers more than women, often partly because social norms restrict women's contacts with male extension agents. Failure to reach women at home can seriously limit their access to extension services. Time constraints and lower levels of education also prevent women from participating in certain types of extension activities unless these are specifically oriented to women. Reduced delivery of extension services to women largely reflects the lack of appropriate policies such as gender-sensitive staffing policies in extension services.

Other impediments to the impact of extension systems, in achieving large scale adoption of sustainable dryland management practices, are the way in which they operate and the nature of the messages that they communicate. There has been widespread recognition since the 1980s of the validity of the bottom-up "Farmer First" approach, as a means of improving the relevance of technology development and transfer to the needs and realities of farmers, especially the poorest: however, extension services in many countries continue to be dominated by top-down, technology-driven, and sector-specific approaches, that focus narrowly on short-term productivity goals in a given sector (or crop) and often fail to recognize adequately the validity of farm families' knowledge and experience, the complexity of their livelihood systems, and their needs to balance productivity gains against other considerations such as savings, resilience and social or cultural obligations.

In some countries and regions, alternative approaches such as Farmer Field Schools (FFS) have been applied, which focus on farmer-led learning and so help farmers to identify or develop management and production practices which are relevant and appropriate to their needs and conditions. The scale of the application of the FFS approach is still limited, however, in many areas, relative to more conventional approaches, due in part to inertia and ingrained top-down culture on the part of many extension agents, and in part due to the still incipient capacities in non-State organizations, (such as producer cooperatives, for applying the approach (which, despite being farmer-led, requires external facilitation, at least initially). The scale of application of farmer-led approaches is also constrained by the limited development of channels for horizontal farmer to farmer or "south-south" exchanges of information and approaches. Another

constraint is the disjunct between farmer-led and technology-driven approaches: the latter still have an important role to play in offering new, exogenous technologies and crop varieties as a complement to those currently accessible to farmers, but these two approaches are often considered to be opposing and it may be challenging to bring them together.

Perpetuation of unsustainability by value chains for dryland products

Value chains can have either negative or positive effects on sustainability in drylands. Examples of negative effects include value chains for firewood or charcoal, which may motivate localized over-exploitation of tree and forest resources; for livestock, which may motivate localized over-grazing; or for agricultural cash crops, which may motivate the application of unsustainable production practices or lead to the increased sedentarisation of agriculture with negative effects on traditional migratory livelihood support systems such as transhumance. The principal problem in all of these cases is that the cost of the environmental degradation is not factored into the value chain; nor do value chain actors adequately take into consideration the implications of the environmental degradation for the long-term sustainability of the value chain itself. This is due in turn to limited communication and integration among actors, inadequate “signals” moving in either direction along the length of the value chains, and limited effective governance of how these value chains function.

Conversely, value chains commonly fail to favour production systems that contribute to environmental sustainability, and/or provide sustainable alternatives to environmentally-damaging practices. These may include, for example, the sustainable collection of dryland products (such as non-timber forest products), using non-damaging practices and subject to limitations to ensure that extraction rates do not undermine ecosystem functioning. Communities in drylands may lack the technical, organizational, business management and marketing capacities required to operate successfully in the value chains for these products, with the result that they are obliged to continue to depend on more familiar and accessible, yet environmentally unsustainable, value chains.

Limited access to finance

Some forms of transition from unsustainable to sustainable forms of management and production may require financial investment in the short term, such as the introduction of measures for productive intensification, environmental mitigation or value adding. Finance providers, especially in the private sector, are typically conservative and risk-averse, however, focusing mainly on small-scale industries producing well-known products in well-proven value chains: they are commonly reluctant to invest in the agricultural sector, especially in small farmers in remote dryland areas who may have a limited track record of creditworthiness or financial management and with limited ability to provide conventional forms of loan guarantees.

3) Fragmented approaches to combating land degradation across dryland regions

Inadequate region-wide coordination and prioritisation of dryland management initiatives

Many dryland landscapes and ecoregions transcend national borders. The effectiveness of country-specific approaches to addressing dryland issues may be limited as they fail to take into account social or biophysical processes that cross borders, such as transhumance systems, the movement of human populations due to drought, resource degradation or conflict, or the migration of wildlife. The definition at national level of priorities for investment in land degradation and biodiversity conservation may also result in sub-optimal impacts from the limited resources available, particularly if the land resources and biodiversity values of a given ecoregion, for example, are not evenly distributed between the countries where the ecoregion occurs.

Inadequate tailoring and targeting of dryland management approaches

The economic benefits of SLM practices and/or restoration actions to avoid, reduce and reverse land degradation have been shown to exceed their costs in many places, but their overall effectiveness is dependent on the degree to which they address the nature, extent and severity of underlying drivers and processes of degradation, and the biophysical, social, economic and political settings in which they are implemented. Some activities aimed at climate mitigation, when not appropriately implemented, can have the unintended consequence of increasing the risk of land degradation and biodiversity loss, either directly or indirectly,

through, for instance: increased herbicides and pesticides use; afforestation by monoculture plantation on previously non-forest habitats; expansion of bioenergy crops into lands formerly under natural vegetation; net displacement of croplands into natural vegetation as a result of increasing competition for land between food and bioenergy crops; and excessive fire protection in landscapes with an evolutionary history of periodic fire events.

Inadequate provisions for learning and adaptive management

Although there are significant numbers of successful experiences with strategies for the sustainable management of drylands, failure adequately to share and learn from these (and from the mistakes of unsuccessful initiatives) means that new initiatives too often “reinvent the wheel”, resulting in the wasteful use of the limited resources available. Initiatives that fail adequately to monitor and respond to their own impacts may also end up going off course and failing to optimize their results. Of particular concern in drylands, given their social and biophysical complexity and their transboundary nature, is a narrow focus on the monitoring of a limited range of social, productive or environmental variables, without considering their cumulative (including region-wide), synergistic and/or indirect effects.

2) The baseline scenario and any associated baseline program/ projects

Baseline scenario:

Under the baseline scenario:

Relations between sector institutions are likely to fail adequately to address the nature and implications of the fundamental interdependences that exist among sectors and among social, demographic, economic and productive factors. For instance:

- Spatial planning is likely to continue to be fragmented and geographically limited in nature, and fail to incorporate the full range of variables on which the sustainability of dryland management and the delivery of global environmental benefits depend;
- Governance, tenure and access mechanisms are unlikely to take adequately into account the complex ways in which they determine the social and environmental outcomes of dryland management;
- The effectiveness of interactions between institutional and local stakeholders in relation to dryland management is likely to continue to be limited, meaning that opportunities for synergy are missed and the equity of participation and benefit distribution is compromised; and
- Investments in sustainable dryland management, biodiversity connectivity and conservation are likely to be constrained by national boundaries and so fail to take into account social, environmental and biological processes operating at transboundary levels.

- pa There is a risk that production and management activities will actively undermine the sustainability of dryland management. The promotion of value chains has the potential to stimulate unsustainable forms and levels of resource exploitation unless planned and executed in accordance with integrated analyses of potential direct and indirect effects, such as ecosystem specialization in favour of the marketed products at the expense of overall ecological and productive diversity, and safeguard mechanisms including the application of sustainability criteria by purchasers. Similarly, a narrow emphasis on increasing productivity risks undermining the ecological functioning of productive ecosystems and encouraging the sedentarisation of agriculture, and the consequent marginalization of migratory management systems and associated livelihoods, such as transhumance in rangelands.

Technical support under stand-alone projects will fail to take into account opportunities for regional and global “south-south” knowledge exchange, such as intercountry exchange field visits by farmers; farmers and their organizations in individual countries would lack the critical mass necessary to be able to negotiate favourable terms with value chain actors, to develop market influence (such as environmentally-based brands with wide recognition) or to meet their supply requirements reliably; and farmers access to finance would largely be limited to national mechanisms.

There would be limited systematization or sharing of information on approaches to dryland management that adequately integrate environmental, productive, social, demographic and economic factors or consider region-wide dynamics, and investments in dryland management would not respond effectively to regional or global priorities.

3) The proposed alternative scenario with a brief description of expected outcomes and components of the program

Enabling frameworks: in all of the participating countries there are strong baselines of policies, strategies and plans in the participating countries, that provide enabling environments for sustainable natural resource management, agricultural production and environmental protection (Box 4: please see country-specific child project PIFs for more detail).

Box 4. Enabling frameworks for sustainable dryland management in target countries

1) *Miombo and Mopane ecosystems of southern Africa*

- **Angola:** the National Development Plan includes provisions for climate change, combating desertification, promotion of SLM and SFM, and promotion of agriculture production Supportive sectoral policies include the Land Law, the Territorial Planning Law, the Agrarian Development Law, the Environmental Law, the Law on Forest, the Presidential Decree on the Master Plan for the Cubango Basin Water Resources, the Cunene Generic Plan (2001), the Sustainable Environment Policy and the Production, Promotion, Import Substitution and Export Diversification Policy.

- **Botswana** is committed to the LDN Target Setting Program and produced a LDN country profile in 2018. The government has requested the UNCCD Global Mechanism (GM) and FAO to support in the finalization of the LDN target setting and has allocated 1 M USD for this. The country is also committed to the SADC Action Plan to Combat Desertification, which will promote joint actions on trans-boundary natural resource protection.

- **Malawi** released the world's first cross-sector national land restoration strategy in 2017, calling for collaboration across ministries and private sector and civil society engagement. Restoration efforts are integrated into the strategies and policies of numerous sectors, including the Land Degradation Neutrality (LDN) process and also the National Biodiversity Strategies and Action Plans (NBSAPs).

- **Mozambique:** the Government has in recent years shown unprecedented commitment to avoiding and reducing deforestation and forest degradation. Mozambique is the only miombo country engaged in Emissions Reductions payments; its National REDD+ Strategy aims to reduce deforestation by 40%; and it is committed to restoring 1 million ha of degraded landscapes under the AFR100 initiative. The NDC also has significant commitments to drylands: GHG reduction targets are mostly related to addressing land-use change and deforestation. Sustainable forest management is a core part of the National Sustainable Development Program (Sustenta); at the regional level, Mozambique is actively engaged in the Mimobo Network and is working to revitalize and strengthen key TFCA to preserve transboundary eco systems.

- **Namibia:** the national LDN target setting process is completed, aligned with the UNCCD NAP3 Implementation Strategy 2014-2024, has political support at the highest level, and benefits from multi-institutional support via the National Sustainable Land Management Committee. The national LDN targets are aligned with and directly contribute to Namibia's Nationally Determined Contribution (NDC) under the UNFCCC.

- **Tanzania:** Tanzania's commitment to comprehensively address the country's increasing degradation of land is reflected in the cross-sectoral National Five Year Development Plan (FYDP II) 2016/17-2020/21 which aims at 'protecting, restoring and promoting sustainable use of terrestrial ecosystems; sustainably managing forests, combating desertification, as well as halting and reversing land degradation and loss of biodiversity.' The recently completed LDN process complements this vision and supports the alignment of relevant sector policies towards LDN.

- **Zimbabwe:** the Environment and NRM policy and institutional framework provides an integrated multi-sector framework for joint implementation of multi-lateral, national and community level interventions, and addresses common targets related to environmental protection, restoration, enhancement, and sustainable ecosystem use; SFM; combating, halting, reversing land degradation; and securing biodiversity. FAO is supporting the Government with the "National and Gender Sensitive Land Policy According to the VGGT Principles (2019 2020) – for improved land policy and governance of tenure of land and natural resources contributing to improved food security, livelihoods and poverty alleviation in Zimbabwe".

2) Savannas of west Africa

- **Burkina Faso:** has put in place several policies and strategies which are supportive to the restoration and participatory sustainable management of land, including forest and dryland, including the National Plan for Social and Economic Development (PNDES), the National Programme for Rural Sector (PNSR II), the Forest and Environment codes, the Codes of Local Authorities, the Law on Agrarian and Land Reorganization, the National Adaptation Plan (NAP), the INDC and LDN targets and national strategy for eco-villages. The Government is very active in defining appropriate land management policy, and setting up adequate institutions, such as the national coordination of the Great Green Wall Initiative (GGWI).

3) Savannas of east Africa

- **Kenya:** the national strategic framework for SLM guides investment in land management issues through effective multi-sectoral, multi-stakeholder partnerships and collaboration, alongside Kenya's Vision 2030, Big Four Agenda, Medium Term Plan (MTP) 3 and SDGs 2, 14, 15. Kenya's NDC includes actions to adapt to climate change and realize its abatement potential through implementation of the NCCAP (2013-2017), and subsequent action plans beyond this period including increasing tree cover, climate smart agriculture, and drought management. Kenya has committed to restoring 5.1 million ha under the AFR100; it is signatory to the East Africa Community Protocol on Environment and Natural Resources Management in support of SLM/SFM, and the IGAD regional Biodiversity Protocol on implementing BD conservation through SLM/SFM.

4) Temperate grasslands, savannas and shrublands of Central Asia

- **Kazakhstan:** the Concept for Conservation and Sustainable Use of Biological Diversity aims to increase forest cover from 4.7 to 5% of the national area by 2030. The 2017 "On pastures" Law aimed to generate an enabling environment for the development of sustainable pasture managements. Other key national instruments include (a) the "Program for the Development of the Forestry Sector until 2020"; (b) the Strategic Plan of the Ministry of Agriculture for 2018-2021; (c) the national livestock program for 2018-2028; (d) the "Green Bridge" initiative introduced at the Rio+20 UN Confer

ence on Sustainable Development, which represents a framework for a shift to a sustainable green energy economy; and (e) the 2050 Strategy on water resource management as a key component of the country's "green revolution".

- **Mongolia:** existing laws and policies (in particular, the Law on Soil Conservation and Desertification Prevention, Draft Pasture Law, Sustainable Livestock Action Plan, National Agriculture Development Policy) and international commitments (e.g. LDN targets, NDC, NBSAP, and Bonn Challenge) provide a strong enabling framework for working with SLM/SFM, productive sectors, biodiversity conservation, and reversal/avoidance of land degradation. Provinces and counties have immediate and growing roles in NRM, land-use, access/tenure, and finance following the decentralized governance practices.

***Baseline investments:** there are also major levels of investments in projects and programs and other initiatives in the target countries, in support of resource management and production systems, including climate change resilience and the development and strengthening of value chains. These will provide a solid base on which the program will build: the combination of this baseline with incremental GEF funding will allow the management of drylands to be transformed and impacts to be leveraged, sustained and scaled out at landscape, national and regional levels.*

Box 5. Baseline investments in drylands in the target countries

1) *Miombo and Mopane ecosystems of southern Africa*

- **Angola:** programs defined in the National Development Plan include the Promotion of Agriculture Production, Sustainable Forest Management and Sustainable aquaculture. International cooperation projects include "Strengthening Resilience and Food and Nutrition Security in Angola" covering Namibe, Huila and Cunene provinces (European Union); Support to farmers associations, to produce and trade their products, covering Benguela, Bié and Huambo provinces (World Bank MOSAPII project) and the ARP/IFAD Agriculture Recovery project in the provinces of Benguela, Huila and Cunene.

- **Botswana:** the Zambezi Agro-Commercial Development Program (ZADP); the National Land Degradation Assessment, Monitoring and Restoration Project; Operationalization of the SADC Regional Agricultural Policy (RAP) funded by the European Commission; Ka-Za Phase III (commitment by the German Government through KfW to SADC); Wildlife Borehole Drilling and Water Reticulation project (WBDWR) Assistance in promoting the Savanna Fire Management in Botswana.

- **Malawi:** investments include the US\$2 million domestic budget allocation from the Government – the Youth Forest Landscape Restoration Program – and investments from donors including: the US\$70 million DFID and Irish Aid project "Building resilience and adaptation to climate change"; two US\$25 million USAID programs in development ("Sustainable land management in Malawi" and "Malawi Biodiversity") and the ongoing US\$15 million USAID project "NJIRA Sustainable Land Management"; a €20 million BMU International Climate Initiative Project to "Scale up Forest Landscape Restoration in 4 African Countries" including Malawi; and a US\$100 million World Bank "Malawi Resilient Productive Landscapes" investment focused on tree planting and forest co-management plans.

- **Mozambique:** the primary baseline investment is Mozbio 2 (\$45 million IDA); in addition the Project will benefit from up to \$40 million from the WB financed Integrated Landscape Management (ILM) Program. implemented by GoM: i

n particular from MozLand US\$100 million; Sustenta US\$80 million; MozFIP US\$37 million. In addition, the project will benefit from: technical and financial resources of up to US\$20 million from co-managers of PAs; up to US\$5 million will be leveraged from beneficiaries of the Matching Grant Scheme and US\$3 million in GoM in-kind contribution.

- **Namibia:** investments include the ADB-funded NAMSIP (Namibia Agriculture Mechanisation and Seed Improvement Project); the GCF-funded CRAVE (Climate Resilient Agriculture in northern regions) and CBNRM-EDA (Community Based NRM); the Dryland Crop Production Program (MAWF); and the MAWF Comprehensive Conservation Agriculture Program-Country Climate-Smart Agriculture (CSA) programme 2015-2025.

- **Tanzania:** investments include the Water Sector Development Programme II (2006-2025, US\$ 3,235 million); the Agricultural Sector Development Programme II (2015/2016-2024/2025, US\$2,457 million); the National Tree Planting Strategy (2016-2022, US\$2.4 billion); the Southern Agricultural Growth Corridor of Tanzania Initiative (US\$456 million until 2030); the Water and Irrigation Project in Tabora District Investment (2017-2023 US\$390 million); the JICA irrigation project in Uyui District of Tabora Region (2018-2021, US\$16 million); the Water project for domestic use from Lake Victoria to Tabora region (2018-2022), US\$107.8 million); Establishment of an international market for agriculture crops in Songwe district (2019-2023, US\$2 million); Construction of cattle dips/charcoal dam in Songwe District (2019-2023, US\$ 521,195) and Improvement of agricultural crops storage facilities by the government in Katavi (2019-2022, US\$651,494)

- **Zimbabwe:** investments include the IFAD “Smallholder Irrigation Revitalization Programme” (2016-2023, USD 52,000,000), the DFID “Livelihoods and Food Security Program” (2018-2020, USD 65,000,000) and the pipeline projects “Building Climate Resilience of Vulnerable Agriculture Livelihoods Nzingwane, Runde and Save River Basins in Southern Zimbabwe” (GCF, 2020-2027, USD 65,000,000).

2) Savannas of west Africa

- **Burkina Faso:** IUCN has been leading initiatives with financial support from World Bank, Sida, Austria, Luxembourg and the CGIAR centers to address land and biodiversity degradation and climate change through the promotion of SLM in production and conservation landscapes; and the Government is implementing field projects/programmes aiming at reversing land degradation, strengthening resilience to climate change and conserving biodiversity with a view to greening the national economy, including the recently launched Luxembourg-funded sustainable forest management project and several investments from the GEF.

3) Savannas of east Africa

- **Kenya:** the “Mainstreaming SLM in Agropastoral Systems in Kenya” project aims to provide land users and managers with financial incentives, enabling policy, institutional and capacity for effective adoption of SLM in Narok. Previous SLM-related interventions included UNDP/GEF-FAO project which initiated the FFS approach to SLM, and GEF-funded Kenya Adaptation to Climate Change in Arid Lands (KACCAL), with focus on policy level interventions and on the ground testing and trials of SLM approaches. IUCN is supporting GoK to mobilize GCF financing for an NRM project at Kajiado county while NEMA, jointly with public and private stakeholders through the Adaptation Fund, have plans to invest in some NRM project.

4) Temperate grasslands, savannas and shrublands of Central Asia

- **Kazakhstan:** a previous World Bank/GEF investment in SLM/SFM is the Forest Protection and Reforestation Project (closed in 2015) rehabilitated forest lands and associated rangelands through reforestation and planting of the Irtysh Pine forest and DAS and improved resource management in saxaul rangelands. Planned World Bank investments are a North Aral Sea Regional Development Project and a Livestock Management Project.
- **Mongolia:** investments include the IFAD Project for Market and Pasture Management Development, the ADB pipeline project on Vegetable Production, Irrigated Agriculture and Sustainable Tourism, the Swiss Green Gold Project, the FAO/EU project “Employment Creation in Agriculture Value Chains” and WB pipeline investment on commercialization of the livestock sector.

Theory of change

The theory of change of the program is shown in Figure 9. This presupposes that by developing capacities, systems and incentives at global, regional, national, local and farm levels, and by promoting regional and global coordination of efforts and exchange of knowledge, it will be possible to bring dryland landscapes in all of the target countries to the “situation sought” portrayed in Figure 7 above, in which the threats to drylands and their globally important environmental values are effectively addressed, resulting in land degradation neutrality (LDN), livelihood sustainability, climate change resilience and improved conservation outcomes for biodiversity.

A key assumption (as explained in detail in paragraph 28 above) is that, for dryland landscapes to be sustainable:

- They must be resilient, adaptive and biologically functional;
- Their management must be responsive to landscape configurations and trends over time and capable of generating food, income and services in a sustainable manner, and
- Conditions must exist for the goods and services that they generate to be distributed equitably among different stakeholder groups.

Another key supposition implicit in the theory of change is that the target countries have not been able to bring about this “situation sought”, or to achieve impact at scale across the target regions as a whole, due to the existence of three main barriers:

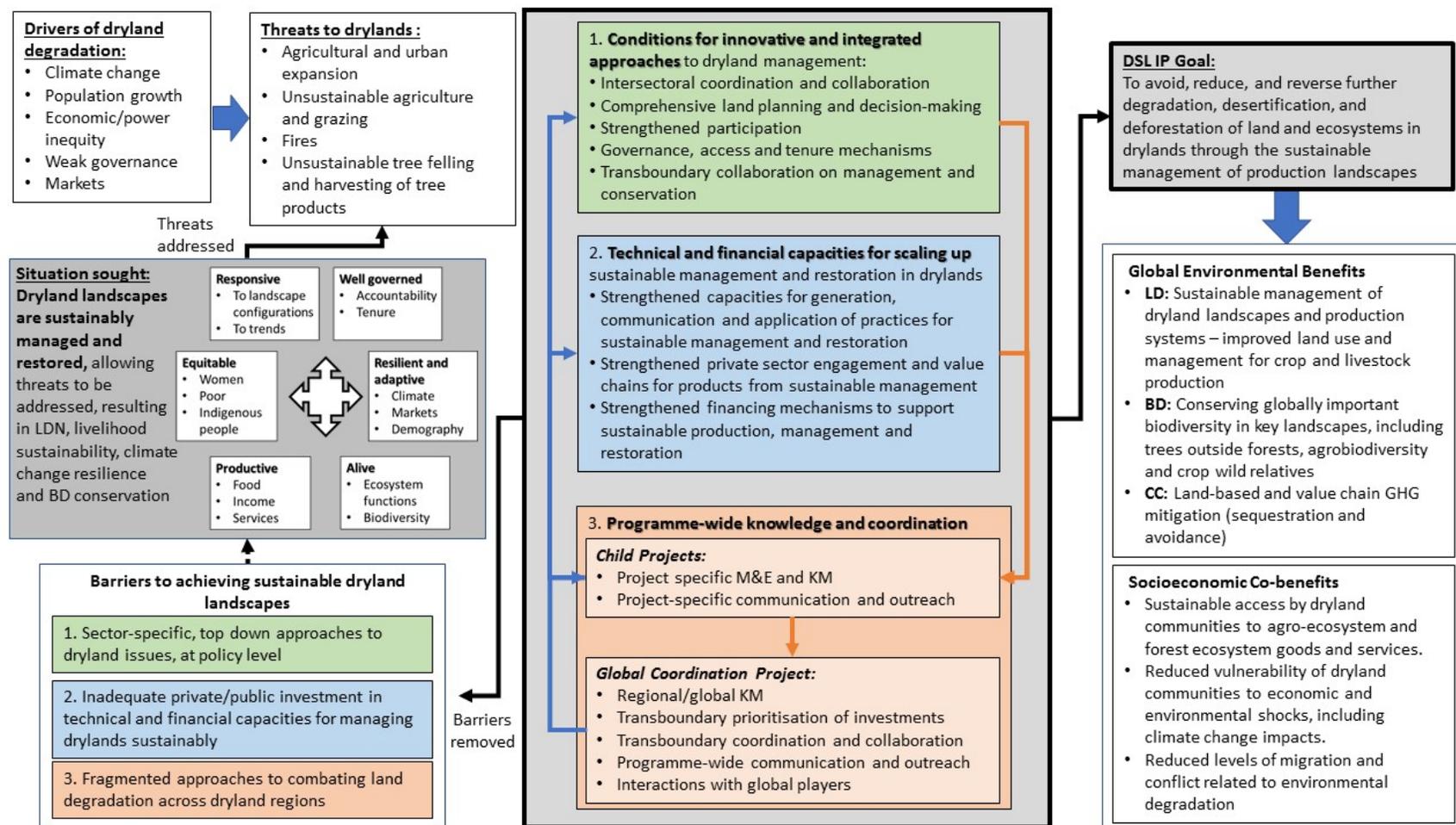
- 1) Sector-specific, top-down approaches to dryland issues, at policy level;
- 2) Inadequate investment in technical and financial capacities for managing drylands sustainably, including in private sector investment in the sustainable development of drylands.
- 3) Fragmented approaches to combating land degradation across dryland regions, without effective prioritization or adequate collaboration between sectors and countries.

These three barriers are explained in detail above in paragraphs 29-60.

Each of the three components of the program (which are also mirrored by the components of each of the child projects) then focus on removing one of the three identified barriers: the result of the interaction between these three components will be to allow the achievement of the goal of the SFM Drylands Sustainable Landscapes Impact Program, which is “to avoid, reduce, and reverse further degradation, desertification, and deforestation of land and ecosystems in drylands

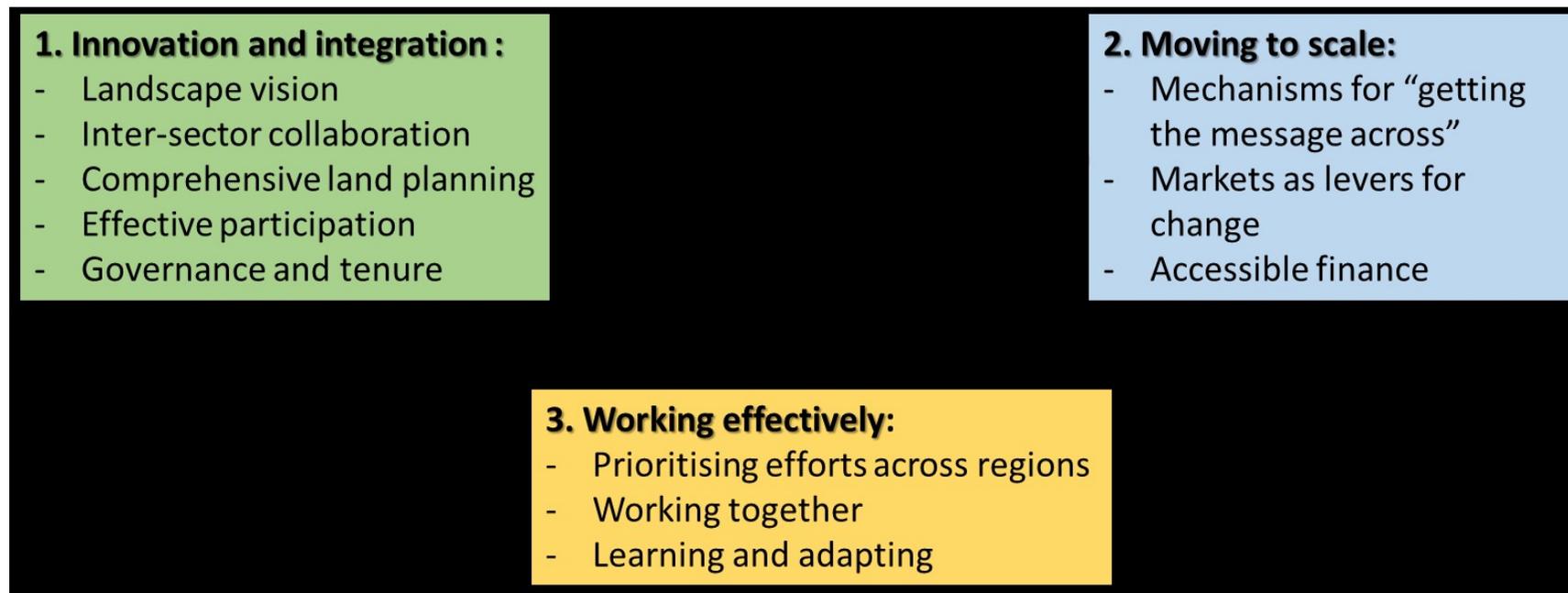
through the sustainable management of production landscapes”.

Figure 9 Theory of Change



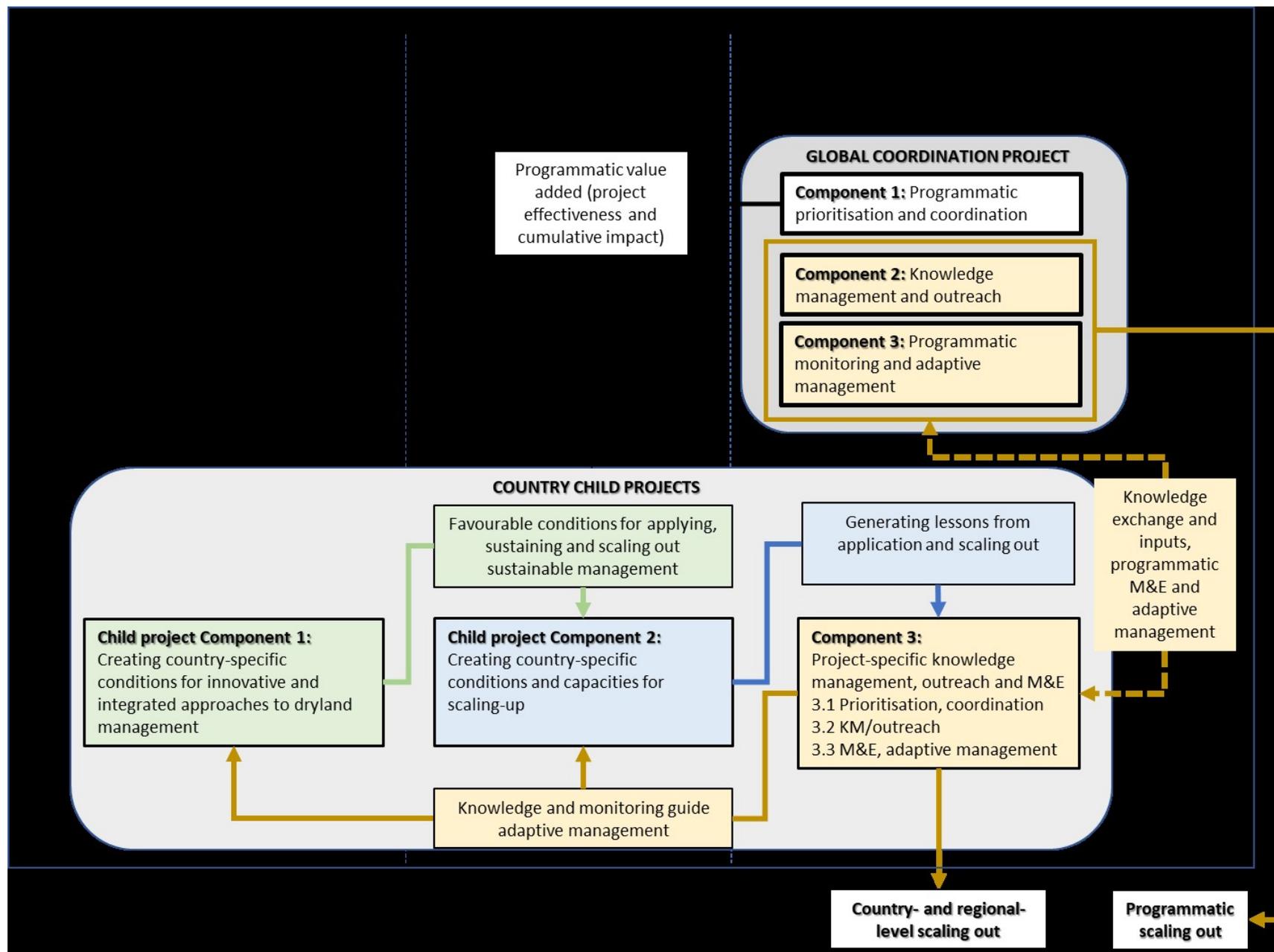
In contrast to conventional multi-focal area projects, the interventions of the program and its child projects have also been formulated so as to maximize programmatic “value added” in terms of scale and cost-effectiveness of impact, and sustainability (including equity dimensions). The key contributions of the three components to this programmatic value added are summarized below.

FIGURE 10. Key contributions of the program components to programmatic added value



The components of each child project will mirror those of the program as a whole (Figure 11); within each child project, the three components will be mutually interdependent and complementary; and the Global Coordination Project will play a vital role in ensuring that the potential for value-added offered by the programmatic approach, in terms of effectiveness and scaling out, is realized.

Figure 11. Relations among child projects, the global coordination program and the program as a whole



Key strategic considerations:

1. **Transformational change:** the program responds to the conclusions of the GEF Independent Evaluation Office (EOI) regarding the requirements for transformational change:

- (a) **Level of ambition:** rather than being farm-specific, the program will aim to transform the way that whole landscapes, production and livelihood systems and value chains are managed.
- (b) **Effective transformational mechanisms:** the program places a strong emphasis on the different dimensions of scaling (“up”, “out” and “deep”) achieve a catalytic and transformation effect at landscape and regional levels.
- (c) **Quality of implementation and execution:** the Global Coordination Project will play a particularly important role in program-wide coordination and oversight of the quality of the design and implementation of the individual child projects.
- (d) **Harnessing market forces:** the program will work with private and public sector actors to influence value chains, in order to generate market stimuli for sustainable forms of resource use and production through bottom up approaches – building capacity of local producer organizations and linking them (and surplus dryland produce) to national and/or regional markets with support of regional networks. While most private sector actors are small scale including in the finance sector, such as local credit/loan cooperatives, the Program will work to generate models of expanding private sector and finance sector investment in viable businesses – expanding overall reach.

Building on conceptual advances: the program will take into account and build on the major advances in conceptual thinking regarding dryland management that have occurred over the last few decades. Since the 1980s there has been a realisation that drylands need to be managed as non-equilibrium systems, instead of being managed to maximize productivity and carrying capacity, and there should be a focus on reducing risk and enhancing resilience. New practices and management regimes have emerged to meet these new objectives and they need to be scaled up with the help of an enabling environment and access to new and innovative sources of financing. There have also been advances in understandings of the management of common property resources (CPRs) and the notion of the tragedy of the commons has been challenged. New polycentric/multi-level governance and management regimes are emerging based on an understanding of the role of local institutions, collective action, and self-organisation for sustainable management of natural resources. There has also been a shift from top-down extension to group extension approaches, such as Farmer Field Schools (FFS) underpinning a more bottom-up, inclusive, and more equitable approach to the governance of natural resources.

Global vision: the global programmatic approach will allow the threats affecting environmental values and sustainability in the drylands of the 11 target countries to be considered from a global viewpoint, including distant and transboundary drivers, and addressed accordingly. Of particular relevance in the context of drylands are distant and transboundary factors affecting demographic processes, with implications for natural resource management.

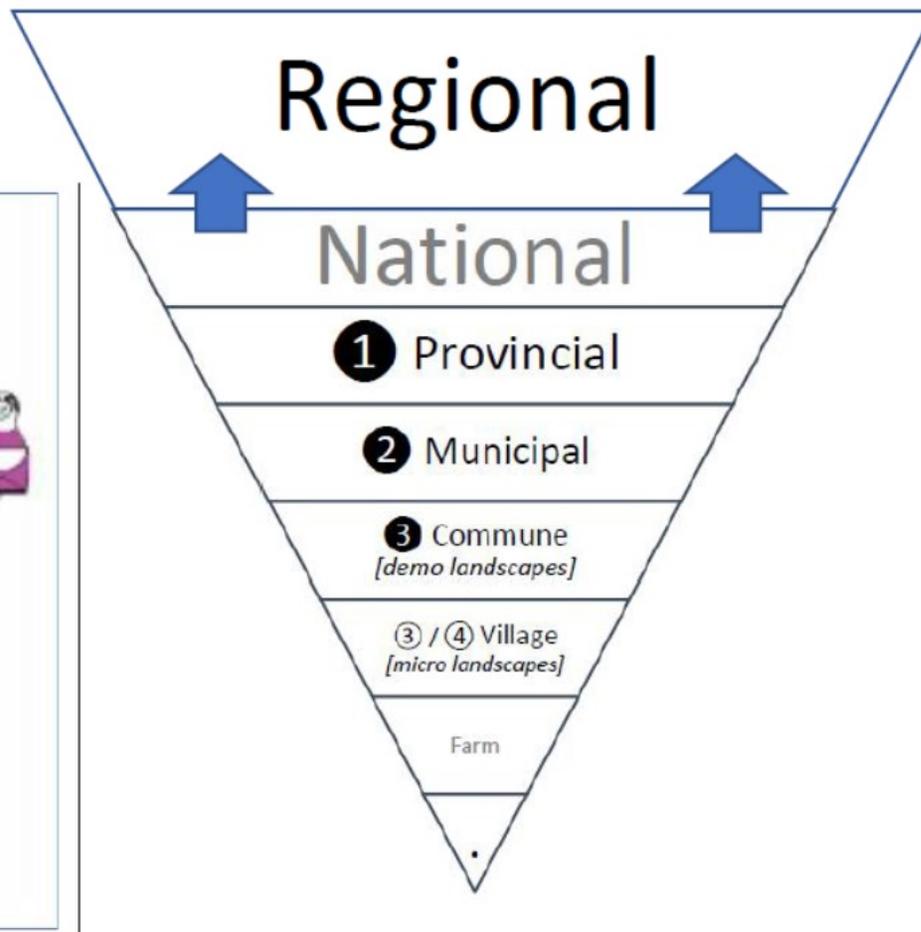
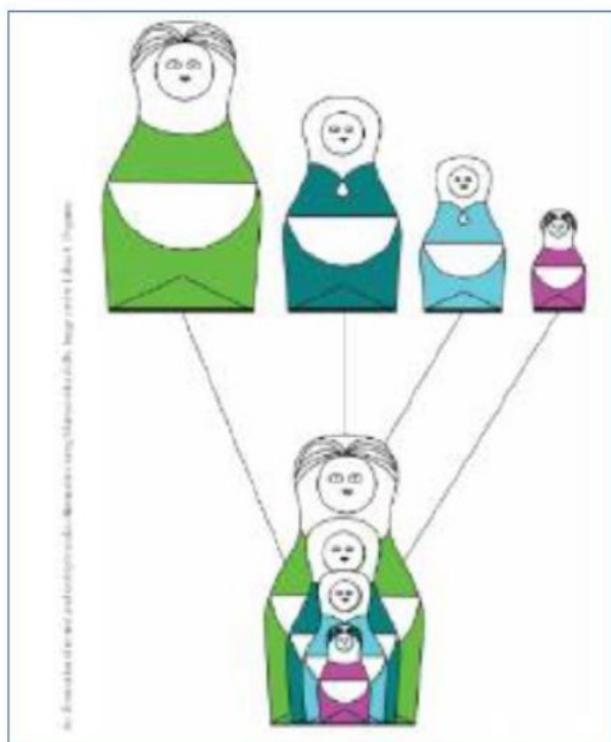
Box 6. The importance of a global vision in considering demographic processes in drylands

Transboundary migration may be motivated both by “push” factors including natural resource degradation and conflict (which in many cases is related to natural resource issues), and “pull” factors including perceived economic opportunities and land availability: in the countries where the “push” factors operate, emigration may result in rural depopulation, especially of economically more active sectors of the population, which may in turn lead to labour shortages and thereby affect the viability of resource management strategies, as well as weakening traditional natural resource governance structures (although at the same time, remittances from migrants may serve to reduce poverty among the remaining population, and address the poverty-related drivers of land degradation). In “pull” countries, influxes of new inhabitants may place unsustainable pressures on dryland resources, or place strains on existing governance structures.

The landscape vision: of particular significance, as a central characteristic of all of the country projects within this initiative, will be the landscape approach. A landscape perspective is particularly necessary in drylands given the importance of landscape-wide social, productive, environmental and biological dynamics that determine ecosystem sustainability and the condition of global environmental values: for example, water availability is particularly crucial in drylands as a limiting factor of production systems and livelihoods, and depends on landscape-wide hydrological flows; and unenclosed dry rangelands are in many cases managed through transhumance systems which feature seasonal migrations across the landscape and depend on effective landscape-wide spatial governance.

A 'nested approach' to landscape level management will ensure the effective engagement of relevant stakeholders at all the required levels as illustrated in Figure 12 (below). The nested approach resembles the 'scheme of Matryoshka' dolls, where one fits inside the other and are affiliated with each other, but they are also internally consistent and can be used as 'stand-alone' approaches as necessary. This nested approach will go beyond the national level to transboundary/regional levels, in response to the transboundary/regional nature of many of the biophysical and social processes operating in drylands.

Figure 12. The tiered nested approach to spatial planning and landscape-level management



As set out below, the project will address all of the ten principles mentioned by Sayer et al (2013) for a landscape approach to reconciling agriculture, conservation and other land uses (Box 7).

Box 7. Principles for a landscape approach to reconciling agriculture, conservation and other land uses

- 1) **Continual learning and adaptive management**, responding to the dynamic nature of many dryland processes;
- 2) **Common concern entry point**, building on trust-based shared negotiation processes, which is especially important in the unenclosed open access resources that dominate many commons;
- 3) **The need to work at the multiple scales** at which different productive, social, environmental, biological and political processes operate;
- 4) **Multifunctionality**, given the multiple uses and purposes of dryland landscapes and their components have, each of which is valued in different ways by different stakeholders;
- 5) **The need to engage multiple dryland stakeholders**, who may frame and express objectives in different ways (principle 2), in an equitable manner in decision-making processes;
- 6) **Negotiated and transparent change logic**, based on trust, in order to avoid or resolve conflicts, which may be particularly likely in drylands where competition for limited available resources may be particularly intense, and where resources may be open access in nature;
- 7) **Clarification of rights and responsibilities**, which again is likely to be particularly important in open access dry rangelands, with sometimes intense resource competition;
- 8) **Participatory and user-friendly monitoring**, as a key element of the adaptive and dynamic management that is needed in drylands;
- 9) **Resilience**, which is especially important given the exposure of drylands livelihoods (which are typically only marginally viable) to the effects of climatic and economic shocks; and
- 10) **Strengthened stakeholder capacity**, recognizing the major role of human populations in determining dryland conditions and management, and levels of economic and social disenfranchisement of many dryland stakeholders.

Systems approach to livelihood and landscape management for sustainability. smallholder farmers, pastoralists or others manipulate their land, labour and capital opportunistically within a general condition of scarcity, and their management systems thereby generate their own dynamics, economically and environmentally. Dryland degradation is therefore much broader than technology alone and contains a mix of technical and non-technical constraints and opportunities, form either barriers or pathways to sustainable landscapes, through co-evolving, 'coupled' human and biological systems.

Sahelian landscapes, and most probably those of other drylands managed by smallholders, resolve a dispute between human and natural systems at the level of the smallholding. An apparently homogeneous topographical surface breaks down into an almost limitless diversity, confirmed in other Sahelian studies. Each patch is situated on a continuum - a logical 'ladder' to sustainability - as managed ecosystems evolve, reflecting increasing investments of labour, skills and finance. Reaching a goal of sustainability, of course, is not inevitable. Movement down as well as up this 'ladder' is possible, and forms of degradation can ensue at any point. Nevertheless, conservation of an intensified and sustainable system through micro-management is the desired and logical outcome.

At a micro-scale, each landscape patch is an arena for contesting degrading and sustaining processes. From a 'greening' standpoint, management of development pathways at the household level is crucial. Decisions at this level aggregate at higher orders of scale. Thus the recent greening trend observed across the African Sahel, though primarily a product of recovering rainfall events, must be supported by policies and incentives that operate at this level. Studies of these patches at a micro-scale show the remarkable extent of resilience in Sahelian vegetation over several decades, including drought cycles.

Stakeholder participation: effective and equitable stakeholder participation, tailored as appropriate to the sociocultural conditions and needs of each target landscape, will be a central tenet of all child projects: it is a prerequisite for achieving long-term social sustainability of the dryland management models that are proposed, and for optimizing their social benefits and their compatibility with farm families' livelihood systems.

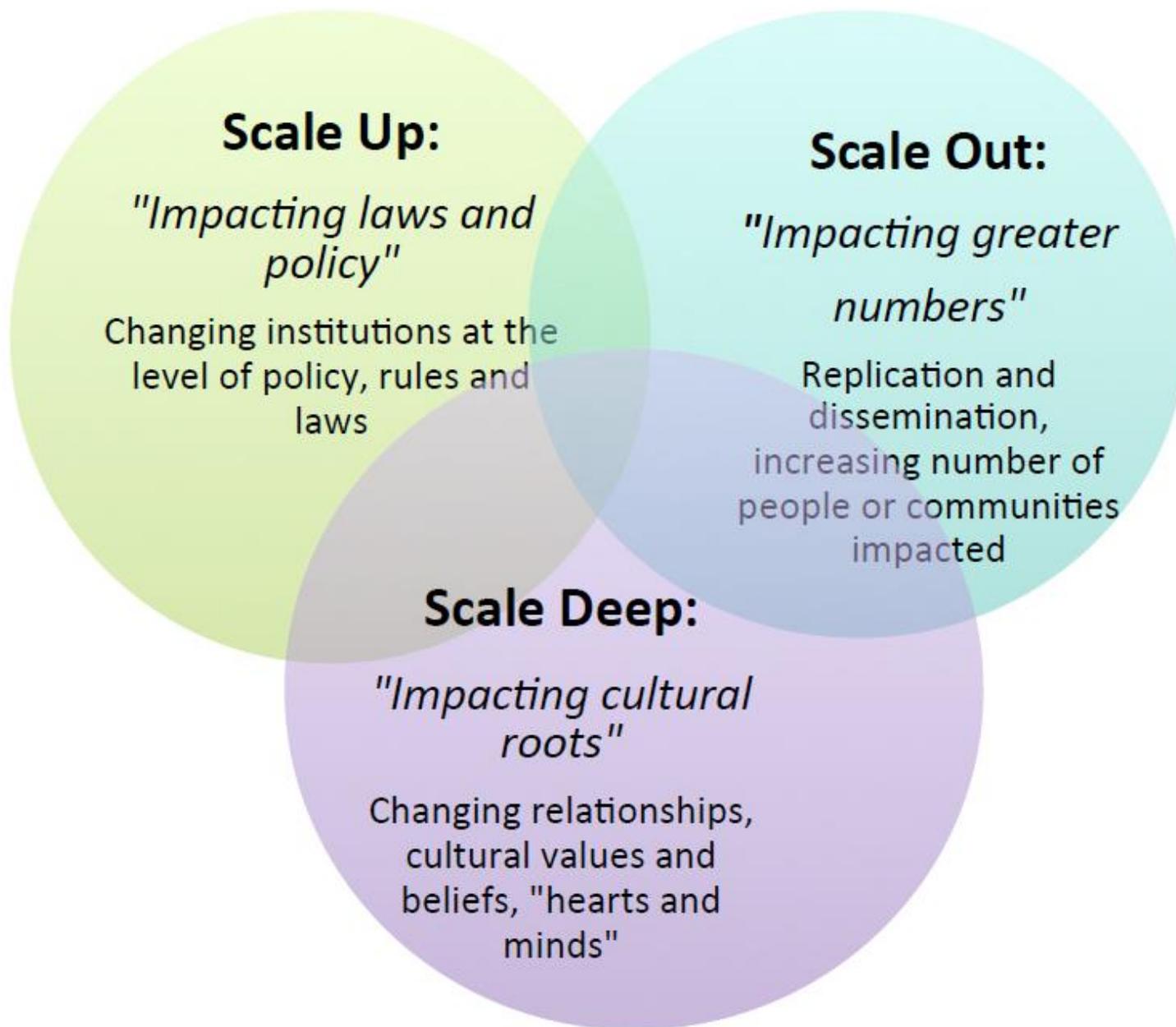
Child projects will, as needed and appropriate, strengthen mechanisms for effective and equitable participation of diverse stakeholders, especially the more marginalized, in planning and decision-making regarding the management of dryland landscapes. Wherever possible this will involve working with existing social structures (such as farmer organisations, village councils, local Governments and water user groups) rather than establishing potentially ephemeral new structures specifically related to the projects; the child projects will strengthen and facilitate these, providing them with information and orienting their discussion and decision-making processes related to dryland management issues. As necessary and appropriate to local social and cultural contexts, child projects will place particular emphasis on strengthening the organizational and participation capacities of groups who are normally more marginalized from decision-making.

This support will empower diverse stakeholders to participate more effectively and proactively in the planning and decision-making processes proposed under Outcome 1.2, and in the strengthened governance mechanisms proposed under Outcome 1.3, in accordance with principles of inclusive conservation.

Child projects will also seek to optimize local participation in systems for the generation and transfer of technologies, in order that these make provision for the effective and constructive participation of local stakeholders, especially farmers. The aim is to combine different sources of knowledge, and different methodologies for its generation and its communication, taking advantage of what both conventional "science-based" or exogenous approaches and traditional approaches have to offer. Effective local participation in technology generation and transfer will help to ensure the relevance, uptake and social sustainability of technologies, and their compatibility with the complexities of farm families' overall livelihood systems. The principal tool whereby child projects will promote this participation at field level will be Farmer Field Schools (see Outcome 2.1). Actions under this outcome (1.3) will go beyond the site-specific application of FFS, and will seek to mainstream principles of stakeholder participation and the valuation of traditional knowledge into overall institutional approaches to technology generation and transfer, through for example the strengthening of linkages between academic/research institutions, Government extension agencies, NGOs and producer organisations; advising on the incorporation of requirements for participation into procedural documents; and raising awareness among technicians of the benefits of promoting participation, through the communication of successful experiences.

Scaling out, up and deep: three dimensions of "scaling" will be pursued through the program (see Figure 13). Component 1 will principally focus on "scaling up" of innovative and integrated sustainable dryland management paradigms at policy and institutional levels, in order to ensure an overall supportive environment for scaling out and sustainability; actions under Components 2 and 3 will focus on scaling out to larger numbers of producers within and beyond the target countries, through for example knowledge exchange, financial and market incentives and outreach communication; while Components 1 and 2 will address the need for "scaling deep" as a key element of social sustainability, through the strengthening of community-level social capital and participatory approaches to knowledge generation.

Figure 13. Dimensions of scaling to be addressed by the program



By addressing the key requirements for delivering scale, cost-effectiveness and sustainability portrayed in Figure 8, the child projects will result in large scale and sustained scaling "out", "up" and "deep" in the target countries, beyond the boundaries of the specific target areas.

Even more significantly, the Program is designed, and will be implemented, in such a way as to result in scaling out of impacts at regional level, beyond the boundaries of the 11 target countries (see Figure 14). Actions proposed under Component 3, in relation to transboundary knowledge management, outreach and transboundary coordination, will allow the 11 countries to function as nuclei for the catalysis of scaling out to neighboring countries, including both other IP target countries and other, non-IP countries with similar conditions.

Attention will be paid in this scaling-out process to minimize the risk of selected aspects of dryland management being replicated in a “cookie cutter” fashion without adequate consideration being paid to their relevance to local needs and conditions: to this end, the program will focus on communicating the need for integrated packages of approaches, including situation analyses, participatory design processes and the development of capacities for improving knowledge exchange, monitoring and adaptive management to accompany and support technical models.

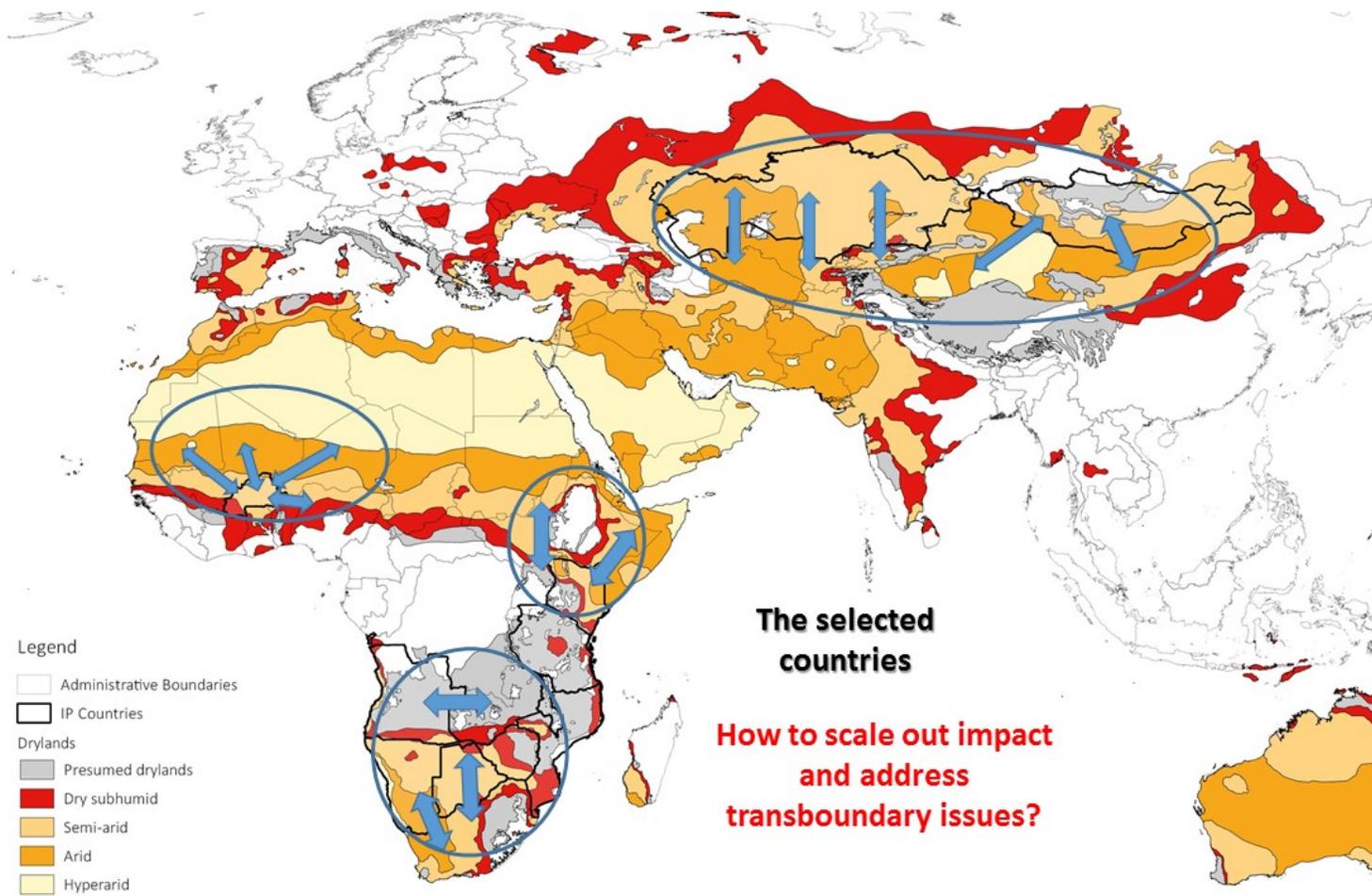
This transboundary scaling-out effect will be particularly important in north-west Africa, where only one country (Burkina Faso) has been selected for direct inclusion in the IP: using the child project in Burkina Faso as a nucleus, and in collaboration with the Global Coordination Project, lessons and knowledge on options for sustainable dryland management will be interchanged with neighboring dryland countries such as Mali, Niger and Benin, resulting eventually in scaling out of uptake and impact in those countries.

Similar processes and results will be pursued in southern Africa, for example between IP countries such as Angola and Mozambique on the one hand, and the non-IP country Zambia, regarding the management of miombo forest landscapes which span all three countries. Scaling out potential in southern Africa will further be promoted through alignment and collaboration with initiatives under the GEF-6 Food Security Integrated Approach Program (IAP) in Burkina Faso, Burundi, Ethiopia, Ghana, Kenya, Malawi, Niger, Nigeria, Senegal, Swaziland, Tanzania and Uganda, and corresponding knowledge hub structures, which include a policy and science interface.

In eastern Africa, there is scope for regional scaling out from Kenya to neighbouring non-IP countries to the north, such as Somalia and Ethiopia; and in Central Asia there is scope for scaling out from Kazakhstan to neighbouring non-IP Uzbekistan and Kyrgyzstan to the south.

The specific countries and sub-national areas in which this scaling out will occur will be confirmed through “similarity analyses” to be carried out during the process of child project formulation, which will identify areas (“replication domains”) which share key characteristics with areas covered by the country-specific child projects, meaning that the models promoted in the child projects are potentially viable there as well.

Figure 14 Potential scaling-out effects of impacts at regional level from IP countries to neighbouring non-IP countries.



Tailored, relevant and innovative solutions: the potential effectiveness of different SLM practices and/or restoration actions in avoiding, reducing and reversing land degradation is context-dependent, and will depend on the degree to which they address the nature, extent and severity of underlying drivers and processes of degradation, and the biophysical, social, economic and political settings in which they are implemented. The strategies supported by the program for the sustainable management of drylands will respond directly to the threats identified in each of the target countries (summarized in Box 2) and will be tailored to the specific conditions in each target landscape, on the basis of detailed analyses during the project formulation phase. The relevance of key strategies proposed by the project (explained in more detail in the Outcomes description below) to the threats identified in the target countries is summarized in Box 8.

Box 8. Key strategies for addressing threats identified in target countries

- The strengthening of systems and capacities for land use planning will help to ensure that where the expansion of agriculture, pasture and/or urban settlements does occur, it will focus on optimization of land resources, avoiding as much as possible areas of high global environmental value or fragility.
- The strengthening of community-based governance mechanisms will help to reduce unsustainable and illegal forms of resource use (such as tree felling for fuelwood and charcoal production, or overharvesting of non-timber forest products), combat threats such as fire, and promote compatibility of resource management between different stakeholder groups (for example between sedentary farmers and nomadic pastoralists)
- The promotion of sustainable agriculture and livestock management (through the development of farmer capacities, the promotion of supportive value chains, incentive mechanisms and the consolidation of tenure security) will reduce the degradation of farm and pasture lands, and help to intensify and stabilize production, thereby reducing processes of expansion and encroachment into natural ecosystems and fragile areas.

The need for flexible, innovative approaches tailored to individual conditions is exemplified by the case of landscape restoration. Although recent studies show that restoration investments are economically beneficial (taking into account non-market benefits and applying socially-appropriate discount rates), restoration itself is normally the most expensive of the options available. The options applied by the child projects will therefore reflect the diversity of alternative measures set out in the LDN response hierarchy (Figure 16).

Figure 15 - The LDN response hierarchy encourages broad adoption of measures to avoid and reduce land degradation, combined with localized action to reverse degradation



In decreasing order of priority, projects will focus on:

- 1) Avoiding landscape and ecosystem degradation, by addressing the drivers of degradation and providing resource users with attractive, sustainable alternatives to practices that cause degradation;
- 2) Reducing degradation, using the same strategies adapted to the needs and conditions of already partly degraded landscapes;
- 3) Rehabilitation of degraded landscapes in order to recover their productive and ecological functionality
- 4) Restoration of degraded landscapes to as near as possible to their original pre-degradation conditions: this is likely to be the most expensive and difficult option.

The potential effectiveness of landscape rehabilitation has already been demonstrated in the Sahelian region, where the Burkina Faso child project will be located. In the Maradi and Zinder Regions of neighbouring Niger (which will not participate directly in the IP through a child project, but will potentially be a partner country for knowledge exchange), farmer-managed natural regeneration (FMNR) is claimed to have benefited 4.5 million peoples' livelihoods. Improving on a traditional Sahelian practice of allowing economically valued species to reseed or regrow along field boundaries, simple improvements in the technique and awareness of an

economic opportunity, based on the valuable species *Faidherbia albida*, have led to increased tree densities with income, soil fertility, crop yields and livestock feeding benefits. The main beneficiaries of this approach are those who use or depend on tree resources such as farmers, herders, community members, and particularly women and children who harvest wood and non-timber forest products.

Box 9. Sustainable management of dryland forests

As part of the overall Sustainable Forest Management (SFM) Impact Program, the DSL IP will place particular emphasis on promoting the roles of trees and forests as key elements of sustainable dryland landscapes. At the same time, it will take into account the particular conditions of drylands, where a large proportion of the tree cover is located outside of forests (in 2015, in addition to the 1,079 million hectares of forest in drylands worldwide, a further 248 million hectares was found to have more than 10% tree cover). These trees outside of forests also play vital ecological and provisioning services, for example by contributing to biological connectivity between more intact ecosystem blocks, contributing to the maintenance of micro-climatic conditions and nutrient cycling in agroforestry systems, and providing accessible products of importance for subsistence use or sale, often integrated into the farm unit itself.

Adaptation: investments under the program will also recognize that sustainability is a “moving target” given the constantly evolving and emerging pressures that affect drylands. It will recognize and foster the innate abilities of dryland inhabitants to innovate and adapt, and will ensure that all of the proposed solutions incorporate considerations for resilience and adaptation: smallholders in many dryland countries have evolved complex market systems linked to interregional trade, experimented with new crops and technologies, sustained skills in animal breeding and struggled to optimise organic and inorganic nutrient inputs and to adapt to rainfall variability. Because smallholders are likely to be an enduring feature of semi-arid landscapes in most of Africa and much of Asia, the interaction of co-evolving and ecological systems defines the challenge facing development interventions. It calls for holistic analysis. The promotion of intensification technologies must contend with the long-term consequences of divisible inheritance, soil degradation and possible negative outcomes of climate change.

Sustainability and scale through system-wide, country-driven capacity development across people, organizations, institutions and policies: inadequate human and institutional capacities and knowledge management systems have been identified as key barriers to more sustainable management of drylands. This includes inadequate institutional integration and coordination among sectors and stakeholders, harmonization of regional, national and sub-national policies, skills and knowledge as well as participative governance particularly at landscape level. Gender norms surrounding the division of productive and reproductive labour between men and women also have a significant influence on the adoption and outcomes for SLM and/or restoration practices. To better understand the differences in adoption choices made by women and men, and vulnerable/marginalised people, it is necessary to analyse household decision-making patterns.

To maximize ownership and commitment, a country-driven approach will be applied at programmatic and individual child project level. This will be in line with the development effectiveness principles and apply a comprehensive, bottom-up and system-wide capacity development and knowledge management approach contextualized for the GEF that empowers people, strengthens organisations and institutions, as well as the enabling policy environment for more sustainable results at scale.

To ensure operational coherence, a detailed human/institutional capacity development and knowledge strategy and action plan will be developed at both programmatic and child project levels. Methodological steps include a participatory capacity assessment with a baseline definition, contextualizing appropriate capacity development interventions and monitoring results while capturing lessons learned. Expected results of this program will include enhanced horizontal and vertical integration and coordination among sectors and stakeholders, improved multi-stakeholder governance through multi-stakeholder processes, and application of skills and knowledge relevant at various levels relevant for more sustainable management of drylands.

Co-design and coordination: the relations among child projects within the programmatic framework. The present Program Framework Document (PFD) provides the overall framework for the design and implementation of the constituent country-specific child projects. The PFD has been formulated in such a way as to ensure that:

- Each of the constituent child projects conforms and contributes to the overall goal and principles of the SFM Drylands Sustainable Landscapes Impact Program;
- The structure and approaches of the child projects are sufficiently aligned and coordinated to allow them to be managed as part of coherent multi-country programmatic initiatives at regional and global levels, rather than as conventional stand-alone projects;
- The individual child projects make specific provision for how they will achieve programmatic scaling-out impacts through their relations with other IP countries (especially their neighbours) as well as non-IP neighbouring dryland countries (see Figure 14 above).
- At the same time, each child project will have the necessary flexibility to tailor its design to the specific threats and issues in its targeted landscapes – the PFD represents the sum of the child projects, but the child projects will be able to select which elements of the PFD are relevant to them, and within the constraints of the overall framework adjust their descriptions of threats, drivers, barriers and solutions accordingly.

The constituent projects of the program will be formulated through a process of co-design, and subsequently co-implemented, within the overall framework of the program as set out in the PFD. The key stages in this process, following Council approval of the PFD and child project PIFs, are shown in Box 10.

Box 10. Key stages in the process of program co-design and co-implementation

I. Detailed formulation phase:

- 1) Establishment of inter-agency coordination and governance structure to oversee the process of co-designed for formulation of the child projects, including the Global Coordination Project (GCP), in order to ensure that this responds to the need for inter-country harmonization and programmatic coherence explained above. This structure will be funded through the Project Preparation Grant (PPG) requested for the formulation of the GCP.
- 2) Formulation of the Project Document (ProDoc) for the GCP, under the oversight of the inter-agency coordination and governance structure.
- 3) Formulation of country-specific child projects using project-specific PPG funds, again under the overall oversight of the inter-agency coordination and governance structure (until this role is taken over by the GCP, see below).

II. Implementation phase:

- 4) Commencement of the implementation of the GCP: at this moment the GCP will take over from the inter-agency coordination and governance structure, and finance, the role of coordinating the process of formulation of the country-specific child projects (the country-specific formulation processes themselves will be financed through country-specific PPG funds).
- 5) Following the start of implementation of the GCP, the inter-agency coordination and governance structure will take on the role of overall Program Steering Committee.
- 6) Commencement of the implementation of the country-specific child projects.

III. Scaling out phase:

Lessons and experiences will be systematized throughout the lives of the child projects: as soon as a sufficient and usable body of lessons has been accumulated in the child projects, emphasis will be placed on communicating to target replication domains both inside and beyond the child project countries, as shown in Figure 15.

Component 3 of the GCP will facilitate knowledge exchange between child projects; knowledge inputs into the IP from external sources; regional and global capitalization and dissemination of knowledge generated by the program and its projects; and programmatic M&E. In addition to increasing the effectiveness and sustainability of the individual child projects, investments in these aspects of the GCP will also permit the scaling-out of models and impacts at regional and global levels, to neighbouring countries beyond the limits of the selected child projects directly supported by the program. The programmatic prioritization and coordination, and the system-wide capacity development, on which GCP Components 1 and 2 will respectively focus, will further increase the effectiveness and cumulative impacts of the child projects.

At the level of individual child projects, STAR and incentive funding will be used in an integrated and fungible manner. As shown in Section 5 below on incremental cost reasoning, child projects will take advantage of the additional “incentive” funding availability resulting from their inclusion in the Impact Program to generate benefits across all of their components and outcomes (on top of the GEF increment that would result from GEF investment in conventional non-IP projects), as follows:

- Social, demographic, economic and GEB considerations are included into sector development and land use plans in an integrated manner, at national and regional levels
- Lasting and effective multi-stakeholder coordination mechanisms operate, taking into account the fundamental interdependences that exist among sectors and among social, demographic, economic and productive factors
- Comprehensive spatial planning incorporates the full range of variables, the interactions between them, and spatial/temporal dynamics of landscapes, on which the sustainability of dryland management and the delivery of GEBs depend
- Mechanisms and conditions exist to address the multiple and complex ways in which governance, tenure and access determine the social and environmental outcomes of dryland management
- Transboundary communication and collaboration between stakeholder groups allows them to achieve a critical mass of participation and influence in mechanisms and processes at regional level
- Transboundary spatial units are defined, agreed between countries and subject to harmonized management for sustainable dryland management, biodiversity connectivity and conservation, allowing social, environmental and biological processes operating at transboundary levels to be addressed
- Knowledge is shared between countries, including experiences with integrated approaches that address transboundary issues and complex interactions among social, productive, environmental and economic factors; national and regional entities are able to participate effectively in global knowledge fora
- Technical options reflect the complexity of interactions between social, productive and environmental factors, and landscape dynamics
- By collaborating at regional level, producers attain critical mass of influence on regional and global markets, enabling them to negotiate favorable terms
- A regional/global perspective to the incorporation of environmental criteria into value chains allows potential inter-country leakages to be addressed
- National projects are linked to regional and global finance initiatives

This additional funding availability, due to the IP incentive, will be of particular significance from a programmatic perspective in relation to child project investments in outcomes 1.4 on transboundary harmonization of SLM and PAs, and the three outcomes under Component 3 (3.1, 3.2 and 3.3) in relation to programmatic coordination and monitoring, along with knowledge generation and scaling-out

Components and outcomes

Component 1. Creating conditions for innovative and integrated approaches to dryland management, to address inter-sector interactions, stakeholder diversity, inclusiveness and system complexity:

Outcome 1.1: *Key sector actors are collaborating, coordinating and harmonizing policies, plans and actions in relation to sustainable dryland management through intersectoral (national or regional) platforms and mechanisms*

Target: cross-sectoral support mechanisms for management of dryland landscapes established and/or strengthened
(target to be defined during PPG)

Responding to the differing needs and conditions in each of the participating countries, child projects will advise on and facilitate the establishment or strengthening of mechanisms for improving coordination and collaboration between actors in different sectors, including public-private cooperation where appropriate, in relation to dryland management. For example, development initiatives in the agricultural, industrial and infrastructural sectors must be coordinated with environment and forestry sectors, in order to minimize the risk of them undermining environmental sustainability and/or unnecessarily degrading environmental values, and in order to ensure that the natural resources and environmental services on which they depend themselves are well managed.

Emphasis will be placed on ensuring that this coordination and collaboration is lasting in nature. This will be achieved by, for example:

- Supporting the inclusion into policy and regulatory instruments of formal commitments to inter-sector coordination and collaboration, which will incentivize both current and future actors in public and private sectors to apply this approach and to establish and operate mechanisms for collaboration (such as multi-sector platforms, or requirements for multi-sector review of policies, strategies and plans for sector development).
- Generating, and communicating to institutional actors, practical experiences demonstrating how coordination and collaboration can work in practice, assisting child projects to map the existing investments at the landscape level, and facilitating policy dialogue to assist in improving policy coherence and institutional coordination.
- Implementing awareness-raising programs aimed at delivering strategic communication to policy- and decision-makers along with targeted information to the general public regarding the net development benefits attainable through inter-sector coordination and collaboration, and the potential for “win-win” outcomes, such as improvements to the long-term sustainability of public and private production sectors due to collaboration with environment sector actors, to protect the natural resource base on which production and livelihoods depend, with special attention to vulnerable communities and groups, including women.

Child projects will also promote the participation of local stakeholders in processes of policy formulation and planning. Participatory methodologies will be used^[1], selected and adapted to suit local needs and conditions, in order to enable local stakeholders to carry out analyses of their current situations and the implications of current policy environments for them, to identify and consider alternative future scenarios and to generate policy recommendations. The child projects will play a vital role in helping to convert these recommendations into reality: at one level, they will help to feed them into strengthened local frameworks for policy formulation and implementation (for example in communities and municipal governments); at the other extreme they will support the communication of locally-developed policy recommendations to policy-makers in central Government, and facilitate and inform processes of policy review that take the recommendations into account, supported where possible by effectively systematized and communicated evidence from local level experiences. The programmatic framework of the IP will particularly help in this regard, permitting the accumulation and communication important knowledge and information resources, and supporting the facilitation of regional processes of policy analysis and development.

Outcome 1.2: Management decisions in target landscapes in 11 countries are guided by comprehensive land use planning and decision support mechanisms that take into account landscape configurations and dynamics, global environmental values and multiple stakeholder needs in a participatory manner

Target: Integrated land use/management plans functioning in 11 countries (area target to be defined during PPG), defining priorities and strategies for sustainable dryland management

Child projects will strengthen national capacities for planning and decision-making, in order to help ensure that management practices and knowledge exchange systems are aligned as well as possible with spatial variations in conditions, with trends over time in dryland conditions and the drivers affecting them, and with the needs, interests and conditions of different dryland stakeholders. During the formulation processes of individual child projects, specific attention will be paid to establishing arrangements for data ownership and maintenance arrangements, as well as terms for data sharing. Examples of methodologies to be used in support of planning and decision-making are shown in Box 11.

Box 11. Examples of planning and decision-support methodologies to be used in child projects

- **Integrated landscape management through spatial land use planning (LUP):** child projects will strengthen existing LUP systems and support the establishment of new ones where necessary, focusing in particular on developing procedures, regulations and capacities for their functioning; on ensuring the availability, input and effective management of reliable and relevant spatial data; and on developing capacities and procedures for the effective and appropriate use of LUP systems as decision-making tools. The goal is to strengthen comprehensive LUP systems at all levels, ranging from the strategic prioritization of dryland management and conservation initiatives at national level down to participatory mapping and zoning at community and farm levels.

- **Targeted scenario analysis (TSA):** this permits the balanced presentation of evidence to decision makers, allowing them to weigh up the pros and cons of alternative development scenarios, comparing “business as usual” development with a more sustainable development path in which ecosystems are more effectively managed (sustainable ecosystem management or SEM). The results of TSA can show the impact of certain policy options or management practices on specific ecosystem services or resources, to help decision makers understand the circumstances in which maintaining ecosystems and their services may generate greater economic benefit than promoting economic processes that degrade and deplete ecosystems.

- **Natural capital accounting:** as needed, child projects will support the application of natural capital accounting to dryland ecosystems and services, in order to guide decision-making, especially in relation to the selection and design of financial instruments so that these are able to optimize net social and environmental outcomes. Crucially, projects will also develop capacities and mechanisms to contribute to mainstreaming and institutionalization of NCA as a decision-making tool, and to ensure that NCA results are effectively synthesized and communicated as inputs to decision-making processes.

- The **Restoration Opportunities Assessment Methodology (ROAM):** this methodology, developed by IUCN and WRI, provides a flexible and affordable framework for countries to rapidly identify and analyse forest landscape restoration (FLR) potential and locate specific areas of opportunity at a national or sub-national level. ROAM is designed primarily to provide relevant analytical input to national or subnational policy and operational processes, such as the development of programs of work related to a national REDD+ strategy, a national adaptation program of action, a national biodiversity strategy and action plan, or requests for development assistance. In addition, ROAM will often be able to fill in missing information relevant to other national policy priorities, such as rural development, food security or energy supply. Many of these types of policies tend to ignore the potential of degraded or sub-optimally managed land.

- **Land Degradation Assessment in Drylands:** LADA is a science-based participatory approach to assessing land degradation at different spatial scales. It also maps land improvements such as SLM using the **World Overview of Conservation Approaches and Technologies (WOCAT)**. The main objective and purpose of LADA is to identify and understand the main causes/drivers of degradation and identify appropriate responses. It allows communities and institutional participants to prioritize interventions for adopting SLM practices.

- The **Self-Evaluation and Holistic Assessment of Climate Resilience of Farmers and Pastoralists (SHARP)** tool is designed as a survey **instrument** to assess the resilience and vulnerability to shocks of farmer and pastoralist households.

The survey questionnaire incorporates a range of topics (land degradation, sustainable land management, agro-biodive

rsity, resilience, and gender/decision-making) measurable through indexes, scores and scales. Basic characteristics of the household respondent (gender, age, relationship to the household head, area of residence, main agricultural practice – farmer/agropastoralist) are recorded, informing thorough socio-economic and gender analysis.

Outcome 1.3: Governance, tenure and access conditions are improved sufficiently to meet the requirements for effective and sustainable dryland management, in the target landscapes

Target: male and female stakeholders (numbers and area to be defined during PPG) in 11 countries have governance, tenure, access and participation conditions required for them to apply sustainable dryland management (*SDG 2.4.1 sub-indicator 11: Secure rights to land = SDG 5.a.1 indicator for farm-level use*)

5. Child projects will also, as appropriate, strengthen mechanisms for effective and equitable stakeholder participation in natural resource governance. The aim will be that State and community-based governance systems are strengthened in parallel in order that they complement each other and, where possible, are integrated. Governance in this context is taken to include the negotiated formulation and application of norms and regulations on resource use, taking into account the needs of different stakeholders both within the target landscapes and beyond (including at national and global levels); the effective and equitable application of sanctions on transgressions of the norms and regulations; the constructive and equitable resolution of conflicts regarding the management and enjoyment of dryland landscapes and the goods and services that they provide; and the effective representation in decisions of the interests of different stakeholder groups, including those which are normally marginalized.

6. In contrast to many baseline initiatives that have sought to address tenure and governance issues, the program and its child projects will seek to address the multiple and complex ways in which governance, tenure and access determine the social and environmental outcomes of the management of dryland landscapes, based on the results of whole-landscape mapping of stakeholders and analyses of their needs, behaviour and the interactions between them. Projects will consider, for example, the contrasting and potentially conflicting social and environmental implications, at livelihood and landscape levels, of the strengthening of the land use and tenure rights of sedentary farmers, versus the usufruct rights of grazers on open access common lands.

7. The specific conditions of governance, tenure and access required for effective and sustainable dryland management to take place may vary between countries, landscapes and stakeholder groups; child project actions in these regards will therefore be formulated on the basis of case-specific participatory analyses of stakeholders' decision-making processes and constraints on sustainable management.

8. Examples of approaches proposed under child projects in support of improved natural resource governance in dryland landscapes include the following:

- **Mongolia:** The project will support the management capacities of existing Nature Reserve and Local Protected Area Networks in the project focal area and introduce community centered conservation and sustainable management mechanisms for critical patch ecosystems within the productive landscapes. Connectivity of these critical landscapes and protection biodiversity of global significance will be integral to the intervention.

Raising awareness about the Voluntary Guidelines on Governance and Tenure (VGGT) in Mongolia has stimulated dialogue to improve tenure governance in the country. The Guidelines have accelerated the establishment of formal legislation related to pastoral land, to secure the legitimate tenure rights of nomad herders. FAO has mainstreamed the gender equality perspective throughout the national implementation processes of the VGGTs. To smooth the transition to their adoption, FAO launched Governing land for women and men, a capacity development programme to support countries in implementing the Guidelines' gender equality principle and consequently the National Committee on Gender Equality integrated the programme as part of its national gender capacity development plan which will provide useful guidance for relevant future activities.

- **Kenya:** the program will address the principal constraint of sustainable governance and management of dryland forests by targeting capacity improvements in the organization and management of local institutions and policy framework at the conservancy, county and inter-county level. An ecosystem-based adaptation for pastoral risk management component will build the capacity of target communities and their service providers to anticipate and monitor threats through early warning systems. Regarding livestock migration between Marok and Kajiado counties, the project will develop a framework for the management and utilization of shared pastoral and agropastoral resources within the context of integrated climate-smart planning, reinforcement of the Olkerri traditional pasture management system, social stability and conflict prevention.[01]

9. A related requirement for sustainability in dryland management is that local people have secure rights to access, manage, use, and enjoy the goods and services generated by dryland ecosystems and landscapes. Child projects will support analyses of existing conditions of tenure and use rights, and the implications and adequacy of these for sustainable dryland management; and will correspondingly support the negotiated development or modification of appropriate provisions for tenure and use right mechanisms. Particular attention will be paid to equity and equality considerations and potential conflicts between alternative tenure and access models, including the recognition of both formal and informal (but socially recognized) forms of tenure and use rights; discrepancies between social groups in terms of their rights; and unintended negative consequence of changes to production systems or tenure conditions (such as the exclusion of informal resource users, or the interruption of transhumance systems based on customary access, as a result of management intensification or tenure formalization).

Outcome 1.4: *Actors throughout the target regions are collaborating on the transboundary harmonization of the management of dryland landscapes.*

- Rangelands are managed to permit the continuity of sustainable forms of transboundary systems of landscape use, production and livelihood support, such as well-managed transhumance;10. As explained in the introductory section above, political borders are typically highly porous to environmental and social processes: the DSL IP programmatic approach will allow this to be taken into account in order to optimize outcomes. With support from the Global Coordination Project, child projects will advise on and facilitate transboundary planning processes with the aim that, as appropriate and necessary:

- The management of contiguous protected areas in neighbouring countries will be harmonized in order to permit cross-border movement of wildlife, minimize cross-border threats and leakages (such as poaching) and facilitate cross-border sustainable livelihood support activities such as transhumance;
- The management of production landscapes will be harmonized in order to promote cross-border biological connectivity;
- Ecosystem management will take into account cross-boundary flows of ecosystem services such as basin-wide hydrological flows.

11. Child projects will support these processes of transboundary harmonization by:

- Establishing information resources to provide planners and decision-makers with access to reliable and comparable information, at supra-national level, on biophysical and social conditions, and on the transboundary processes on which the sustainability of actions within their countries may depend (such as regional-level biological connectivity, markets and infrastructure, or transhumance).
- Facilitating transboundary negotiation and planning of harmonized resource management, wherever possible using existing platforms and initiatives such as SADC, CACILM and the Great Green Wall Initiative.

Component 2. Investment in and scaling out of sustainable dryland management

Targets:

- 10,573,114 hectares of landscapes under sustainable land management in production systems (*GEF sub-indicator: 4.3*).
 - 68,978,261 tCO₂eq of GHG sequestered and emissions avoided in the AFOLU sector (*GEF sub-indicator 6.1; SDG 1 5.3.1 sub-indicator 3 on carbon stock*)
 - 1,150,267 hectares of land rehabilitated or restored in 11 countries (includes target for direct investment under Outcome 2.4 above). Total of the following:
 - 80,548 ha of degraded agricultural land restored (*GEF sub-indicator 3.1: also SDG 2.4.1 sub-indicator 4, prevalence of soil degradation, and SDG 15.3.1 indicator on land degradation*);
 - 370,259 ha of forest and forest land restored (*GEF sub-indicator 3.2: also corresponds to SDG 15.2.1 indicator on sustainable forest management*);
 - 671,850 ha of natural grass and shrublands restored (*GEF sub-indicator 3.3: also corresponds to SDG 15.3.1 indicator on land degradation*);
 - 27,610 ha of wetlands restored (*GEF sub-indicator 3.4: also corresponds to SDG 15.3.1 on land degradation*)
 - 1,584,162 ha of terrestrial PAs under improved management in 5 IP countries and in neighbouring countries (*GEF sub-indicator 1.2*).
 - 1,221,000 ha of landscapes under improved management to benefit biodiversity, in 11 countries (*GEF sub-indicator 4.1: also corresponds to SDG 2.4.1 sub-indicator 8: Use of biodiversity-supportive practices*);
 - 239,800 hectares loss of High Conservation Value Forest (HCVF) has been avoided (*GEF sub-indicator 4.4*)
1. Technical capacities among producers and land managers for the application of sustainable management practices;1. Child project investments under this component will focus on meeting the conditions required for sustainable dryland management practices to be scaled up to landscape and regional level, moving from the stage of being pilots to becoming the norm. The three key requirements are:
- Markets and value chains (acting, alongside food security, as the principal determinants of most farmers' land management decisions) that motivate farmers to produce sustainably in drylands;
 - Access to reliable financial resources to cover the investment costs necessary for applying sustainable forms of production, and for compensating any financial costs incurred, for example in terms of higher investment costs or lower production during the initial stages of adoption.
2. Integrated landscape investment mapping will support the integration of these three requirements. Child projects will be assisted to map the existing public and private funding streams already available for conservation, restoration, sustainable management practices, as well as the incentives for their adoption: ranging from capacity building, business development, market and credit access and livelihood diversification. In collaboration with the activities of the multi-sector platforms to be supported under Outcome 1.1, this mapping will start with a desk review guided by them, and be followed by dialogue events to identify opportunities and barriers to extend the reach of these programs to the agricultural producers assisted by the child projects. The resulting coordination strategy may involve activities ranging from simply assisting farmers to enroll in these programs, to negotiating adjustments in their eligibility criteria and co-financing the additional costs of extending their reach to child project target farmers. This will allow child projects to foster greater compliance with existing regulation, increase coherence in existing investments, and focus their investments (under Outcomes 2.2 and 2.3) on activities that are most effective.

Outcome 2.1: *Resource managers in the target landscapes have access to services or mechanisms for generation, communication and application of practices for the sustainable management and restoration of drylands*

- **Target:** male and female resource managers and users in 11 countries are participating in mechanisms for innovation and for the generation, communication and application of practices for the sustainable management and restoration of drylands, resulting in:

- Restoration of 1,150,267 ha of land, including 80,548 ha of degraded agricultural land, 370,259 ha of forest and forest land, 671,850 ha of natural grass and shrublands and 27,610 ha of wetlands

- Avoided emissions of 81,093,371 tCO₂ eq of greenhouse gases

- Benefits conferred to 1,060,785 dryland inhabitants, including 552,082 women.

3. The emphasis of the Program, through its child projects, will be on achieving transformational change in the management of dryland landscapes, resulting in the generation of large scale, multiple GEBs, through the development of conditions and capacities that will permit the sustained application of sustainable management and restoration practices, at scale. The child projects will invest not only in developing capacities of farmers, but in strengthening capacities and mechanisms for technology generation and transfer in order to ensure the sustainability of farmers' access to support. This will involve strengthening existing extension systems (managed by Governments, NGOs and/or private sector), including the technical and institutional strengthening of extension agencies and ensuring the existence of long-term financing sources; as well as supporting community-level capacities and mechanisms such as Farmer Field Schools (Box 12) and farmer cooperatives, emphasizing the development of sustainable human and organizational capacities at local level.

Box 12. Farmer Field Schools

Farmer Field Schools (FFS) offer spaces for hands-on learning among peers, enhancing skills for critical analysis and improved decision making by local people: FFS activities are field based, include experimentation to solve problems, reflecting a specific local context, and participants learn how to improve skills through observing, analysing and trying out new ideas on their own fields, contributing to improved production and livelihoods. The FFS process enhances individual, household and community empowerment and cohesion. FAO has refined the FFS approach over more than 30 years in partnership with farmer organizations, governments, bilateral agencies, and including science bodies and NGOs, and many countries have already mainstreamed FFS into their extension and rural advisory programs and national budgets. The FFS approach has been successfully expanded to small and medium scale livestock producers in different production systems, including smallholder mixed farming and intensive livestock systems in pastoral, sylvo-pastoral and agro-pastoral systems.

In order to provide increased support for rural women, FFS were linked to community listeners' clubs promoted by the FAO–Dimitra approach in several African countries. This helped to encourage local adaptation and adoption of sustainable agricultural methods through season-long farmer experimentation and rural radio transmissions. FAO's vast Dimitra program is a participatory information and communication project which contributes to improving the visibility of rural populations, women in particular. Not only did the schools improve technical skills, they also significantly changed social dynamics by strengthening gender relations and helped to build mutual trust within the community. More than 400 Dimitra Clubs were set up in Senegal as part of a FAO project to strengthen producers' capacities to handle shocks, adapt to climate threats, improve food and nutrition security and increase incomes. Achievements in Mali include the upscaling of the Farmer Field School approach in over 130 municipalities; the adoption of improved seeds in 250 villages and the dissemination of 13 improved and adapted varieties. Four agroforestry zones were created through barriers made from trees and shrubs managed by producer organizations, 75% of whom are women. As a result of the project, the capacities of 5 000 women farmers were enhanced.

4. The specific technical approaches to dryland sustainable management and restoration, to be applied in individual target landscapes, are outlined in the child project summaries. Overall, in accordance with GEF-7 Guidance, the Program and its constituent child projects will focus approaches to land management and production that seek to maintain ecological processes and the capacities of ecosystems to generate environmental services, and that combine these with the generation of benefits in support of sustainable livelihoods and economic development.
5. The practices to be promoted will include, for example:
 - Diversified agro-ecological food production systems, in order to improve productivity and maintain or improve flow of services that underpin food production and livelihoods: innovative approaches will support an efficient use of land, soil, water, and vegetation in crop and livestock production systems, including temporal diversification and spatial diversification at various levels, including plot, farm and landscape.
 - The large-scale restoration of degraded landscapes for sustainable production and ecosystem services. Although specifically emphasized under the Food Systems, Land Use and Restoration (FOLUR) Impact Program, the restoration of productive landscapes is especially important in drylands and production areas where agro-forestry land-use systems dominate and so is also highly relevant to the Drylands IP: a huge opportunity exists to restore agricultural productivity in (degraded) agro-forestry systems by improving soil management and increasing soil organic matter content, increasing the vegetation and tree coverage, and thereby generating multiple environmental and socio-economic benefits.

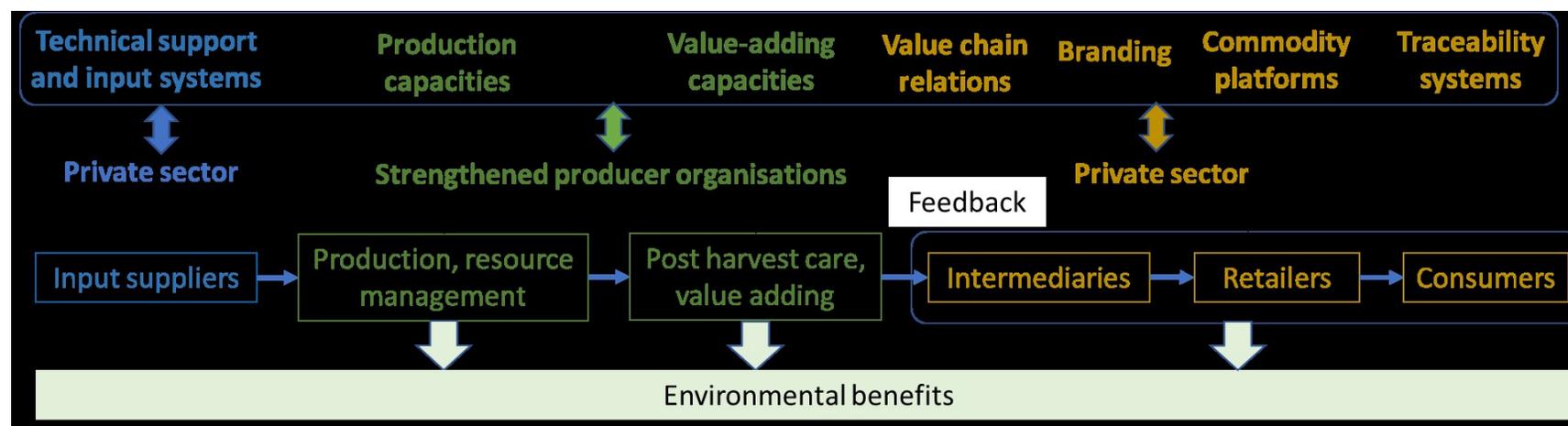
Rangeland management, including the management of stocking densities and grazing regimes in order to reduce soil and pasture degradation and to maintain rangeland biodiversity, the introduction of alternative feed sources (including alternative grass and legume species, fodder banks, and cut-and-carry systems) in order to reduce grazing pressures and the need for pasture expansion; and the use of silvopastoral systems in order to improve livestock nutrition and health and to promote nutrient and water cycles.

Outcome 2.2: Resource managers, government and private sector actors are collaborating in strengthening green value chains in support of sustainable dryland management

6. As also emphasized in the FOLUR Impact Program, value chains for dryland products are major determinants of the nature of production and management systems, acting either as drivers of dryland degradation by motivating unsustainable forms of production or potentially as incentives for sustainable production. Value chain improvements can generate leverage for environmental sustainability in a range of products produced in drylands, such as non-timber forest/dryland products, the income from which has the potential to motivate retention rather than conversion of the ecosystems from which they are obtained; through to food crops produced in traditional agroecological production systems, linked to local markets; to globally traded food crops and commodities, the expansion and (unsustainable) management of which is driven by global market mechanisms. To be eligible for support through the program, dryland products and their value chains must have the potential not only to generate livelihood benefits, but also to provide these kinds of leverage for sustainable dryland management.

7. Investments by child projects will include the development of local capacities for producing dryland products sustainably and for inserting them effectively into value chains (addressing aspects of post-harvest care, processing, packaging, marketing and business management), and working with value chain actors (processors and retailers) on the development of product lines based on sustainable production, linking them to reliable sources of supply, and developing and applying certification, verification and traceability systems as appropriate. Child projects will work closely with private sector actors in this regard, and strengthen the linkages between producers and private sector actors. In cases where effective linkages with private sector entities will be difficult or impossible (e.g. remote dryland areas), the IP will strengthen the capacity of local producer organizations, linking them and selected dryland products to national and or regional markets. The latter can be supported by regional networks, e.g. SADC and SACAU in the case of the Miombo cluster Key points where child projects will intervene to promote the contribution of value chains as leverage for the delivery of environmental benefits, and the actors involved at different stages, are summarized in Figure 17.

Figure 16. Key entry points for support to green value chains



In general, the value chains in many of the program target areas are characterized by unreliable supply of produce, due to low productivity; disorganized or unstructured markets (spot markets as opposed to contractual arrangements); lack of coordination and organization among actors; limited value addition, weak producer organizations; and limited bargaining power among producers. Women, in particular, have very limited access to credit with which to finance their processing activities.

Value chain upgrading strategies which will be critical in transforming rural economy of drylands from subsistence to commercial oriented economy include: (i) formalizing the market system through contracting; (ii) building capacity of the actors, particularly smallholders and women entrepreneurs, on agribusiness skills, financial management, collective bargaining and post-harvest handling; (iii) linking producers and other actors to financial institutions by negotiating for financial products that suit resource needs of the actors; (iv) strengthening producer organisations by building their capacity on collective bargaining and governance and linking them to buyers; (v) establishing and/or strengthening agricultural market information system to prevent information asymmetry and exploitation, and (vi) encouraging public-private partnership in investment in market infrastructure (storage facilities, shared collection centres, processing equipment) to reduce post-harvest losses.

Promoting an inclusive value chain approach that is also sustainable will also include a focus on how to integrate women, who often operate in the informal, low-skilled and least profitable nodes of many agrifood value chains to increase their income and build their resilience. This includes innovative methods for engaging and influencing the private sector and promoting access to inclusive financial services to catalyse sustainable economic participation for women and men in lucrative value chains. Improvements along the value chains are achieved through interventions such as advances in weather resistant food storage systems, strengthened cooperatives, farmers' groups, self-help groups and business development. Gender-sensitive value chain analysis will be applied to debunk barriers to women's participation; access to and control over productive resources and benefits and aims to address these barriers in a systematic manner in all nodes of the chain.

Examples of proposed investments by child projects in sustainable value chains for drylands include:

- **Mongolia:** The private sector is a key partner sharing the project's intent to develop traceable and sustainable livestock supply chains for meat, dairy products, leather, cashmere and wool, rain-fed crops/cereals, as well as in tourism and mining.
- **Namibia:** The majority of poor households living adjacent to forests use NTFP to complement their livelihoods. Sustainable wild harvesting, cultivation and trading of indigenous natural plant products has the potential to contribute significantly to the alleviation of rural poverty while increasing households' resilience and conserving natural resources, as evidenced through growing international demand for some forest resources. This has triggered the growth of a local industry, with harvesting and processing initiatives at community level (e.g. women cooperatives). The Government of Namibia is aware of the positive impact of this sector (contribution of INPs to GDP estimated at N\$ 30–50 million/year) and is committed to its expansion. However, challenges still persist in the consolidation of the supply chains. The project will support drought tolerant, indigenous and underutilized crop value chains with focus on selected medicinal/cosmetic plants, food crops and perennials, including e.g. Marula, Manketti and Devil's Claw.
- A large segment of the population in Namibia is dependent on forests for food and fuel wood, and the continuing destruction of forests threatens their livelihoods. About 9 percent of Namibia's land area is forested and a further percent is woodland. Food-related trees are the women's domain, and women and children are responsible for fuel wood and wild fruit gathering. In most rural communities of Namibia, women and girls constitute about 75 percent of the workforce who collect firewood and water. Women in the Northern Region are directly granted permits to trade in the medicinal plants. They gather, process and sell the medicinal plant and make a living out of it, as the well processed herb sells for N\$30–N\$60 per kg. Men, are responsible for firewood cutting and processing for charcoal that is exported to South Africa and Europe and they also use forestry for timber carpentry and woodcarvings. Community forestry

management is one of the core programmes of the Department of Forestry that aims at establishing community forests and the transfer of forest resource management rights to local communities in accordance with the Forest Act of 2001. Women, according to the directorate, are in the majority in the forest community groups, with over 80 percent are women in each group^[01]

- **Kenya:** the target counties of Narok and Kadjiado host one of Kenya's most important livestock production economies, on which up to 65% of the local communities depend. Protecting this economy from production and livestock failure will build the resilience of pastoralists, ensuring all year-round access to markets. The project will also work with off-takers committed to purchasing sustainably produced livestock, expanding successes in the Mara Beef program. Other value chains will include honey, gums and resins, poultry, medicinal plants, fodder and fish. The child project in Kenya will support the South Rift Association of Land Owners conservancies to develop ecotourism ventures to cash in on the wildlife economy. Women and youth engaged in crafts production will be organized into production cooperatives to develop cultural products for the local and regional markets.

Outcome 2.3: *Financial institutions and other investors offer finance to support sustainable production, management and restoration of drylands, tailored to the needs and conditions of resource managers*

Target: male and female stakeholders (target to be defined during PPG) in 11 countries are participating in and benefiting economically from sustainable value chains. *Contributes to GEF core indicator 11 (number of direct beneficiaries as a percentage of GEF investment); and SDG 2.4.1 sub-indicators 1 (farm output value) and 2 (net farm income).*

5. In some cases, the modification of production and resource management practices to improve environmental sustainability and deliver global environmental benefits may require direct financial investment by farmers, or incur opportunity costs in terms of reduced production or profitability in the short term. To address this, child projects will, as needed and appropriate, support the introduction and application of financing mechanisms. These may include, for example, direct subsidies, grants or fiscal incentives; schemes for payment for environmental services (PES); and improved access to credit facilities.

6. It is known that tree planting, tree care, and conservation in general might expose women to additional costs without gaining corresponding benefits if gender is not considered in contract allocation specifically and in PES designs generally. Targeting women improves gender equity in terms of access to project decision-making, trainings and cash and can significantly improve the effectiveness of the PES schemes. However, because women might be more averse to risks associated with PES schemes and because evidence shows that conservation programs can negatively affect women's land rights, PES designs will be tailored to local conditions, bearing in mind both gender equity and conservation goals.

7. Child projects will support the introduction and sustainable application of these mechanisms by, for example:

- Supporting the development of systems and capacities for verifying the generation of the environmental benefits that the financing mechanisms are intended to reward, such as Measurement, Reporting and Verification (MRV) mechanisms for greenhouse gas mitigation measures, and progress with watershed management measures targeted by water-based PES schemes)

- Valuation of ecosystems and services, willingness to pay studies, and evaluations of the costs of desired management changes, as the basis for defining appropriate levels of incentives;

- Support to the negotiation of incentive schemes, between resource managers and the beneficiaries of environmental services; the establishment and management of financing mechanisms (including the effective, cost-efficient and equitable distribution of benefits) together with necessary capacity development; and the development and implementation of mechanisms for monitoring compliance and the effectiveness of incentives.

- Studies of the feasibility and creditworthiness of sustainable natural resource management and production practices, and, on the basis of this, lobbying/advice to public and private financing institutions, leading to the inclusion in their portfolios of financing products tailored to such practices (in terms of loan eligibility criteria, guarantees, interest rates and repayment terms).
- Incorporating Corporate Social Responsibility (CSR) programmes developed and introduced to communities and key stakeholders in pilot sites, similar to those that have been introduced in the mining sector and other extractive industries

Outcome 2.4: Direct investment in dryland rehabilitation and restoration

Target (to be confirmed during PPG phase): area of land rehabilitated or restored in target countries, through direct investment (contributes to the component-wide impact targets for rehabilitation and restoration below):

- Area of degraded agricultural land;
- Area of forest and forest land;
- Area of natural grass and shrublands

8. In addition to creating capacities and conditions to allow actors in the selected countries to apply and scale out sustainable dryland management practices, GEF and cofinancing resources will be used, as appropriate, to cover the direct financial costs of carrying out landscape rehabilitation and restoration. As appropriate on a case-by-case basis, such direct investments may cover, for example, the costs of labour, mechanical land preparation, nursery establishment, tools, or tree seeds. These forms of investment may be required, for example, in open access areas where no one individual or community group has sufficient security or motivation to undertake the restoration using their own resources, or in situations where the costs of restoration exceed the economic returns that the land managers may reasonably expect.

9. Such direct investments will be subject to environmental and social assessments and safeguards, in accordance with the procedures of the country involved and of the agency responsible for the project in question: these procedures will address issues such as the potential environmental implications of restoration for natural ecosystems and biodiversity, the livelihood implications of establishing perennial species in areas which may hitherto have been managed as open access sources of goods and services for local communities, or the potential social implications of formalizing the management of areas where tenure and access may hitherto have been implicitly agreed through informal, unwritten, rules and agreements.

10. The presence of risks and trade-offs specific to women as they decide whether to invest in new practices imply that without more targeted support and services that address women's needs, the challenge of achieving the multiple goals of this programme will remain significant. Women farmers often lose control over the resources, products, and market niches they traditionally manage once they become lucrative; men will often take over production and marketing, even of women's traditional crops. What appears as progress from one perspective may, when considered from another perspective, actually reveal negative side effects, such as women's increasing dependence and diminishing income opportunities, power, and traditional status, underlining the need to promote gender-responsive programming and implementation for planned initiatives.

11. Direct investments in restoration and rehabilitation will also be formulated in such a way as to maximize prospects for sustainability:

- Restoration/rehabilitation modalities and management regimes will be defined with the participation of local women and men, through inclusive and informed participatory processes: this will help to maximize their compatibility with existing resource management and livelihood support systems, and the compatibility of the products and services generated from the restored areas with the needs and cultural preferences of the population. Wherever possible

restoration and rehabilitation will be integrated with existing management systems, for example through the conversion of existing agricultural systems into agroforestry systems.

- Selection of management regimes and species will also be informed by external technical expertise and research in order, for example, optimize the matching of species and management regimes to site conditions and to optimize the technical effectiveness of management regimes.
- The location and spatial configuration of rehabilitation and restoration initiatives in the landscape will be guided by the provisions of land use planning instruments, the formulation and improvement of which will be supported where necessary under Outcome 1.2.
- As a key element of the projects' exit strategies, child projects will invest in developing the technical and organizational capacities of the stakeholders and institutions involved in restoration, with the aim of enabling them to take over the maintenance and, where necessary, scaling out of restoration following the eventual withdrawal of external financial and technical support by the projects.
- Child projects will work with and strengthen existing local governance structures in order to ensure that these provide the governance conditions necessary to sustain the restored areas, with particular attention to mechanisms for the equitable distribution of goods and services generated by the restored areas, rules and enforcement capacities to address potential threats to restored areas from product extraction, grazing or fires, and rules for equitable and sustainable access to and use of restored areas in order to minimize impacts on local livelihoods.
- It will be ensured women receive an equitable amount of the income earmarked for land rehabilitation and restoration, which was designed to contribute to achieve land degradation neutrality targets.

Component 3. Program-wide coordination and monitoring

Target: the management of dryland landscapes in 11 countries (total area to be defined during PPG) is harmonized, informed and adaptive as the result of effective prioritisation, coordination, monitoring, and knowledge sharing and capacity enhancement.

1. As shown in Figure 12, actions and outcomes under Component 3 will occur at two levels: *program-wide*, each country-specific child project will its own systems for coordination, monitoring and knowledge, and in addition the Global Coordination Project will contribute to ensuring the *programmatic* vision required for the realization of the value-added potential of programmatic approach, in terms of improved targeting, cost-efficiency, synergies and consideration of transboundary issues. The child projects and the GCP will be formulated through a process of co-design and subsequently co-implemented, and will work together, taking advantage of the additional resources available to both the child projects and the GCP as a result of the IP incentive, to ensure the application of the programmatic approach at all levels.

Box 13. Role of the Global Coordination Project under Component 3

The Global Coordination Project (GCP) will be crucial in realising the potential of the programmatic approach of the DSLIP to deliver value added in terms of effectiveness, sustainability and scale of impact at regional and global levels.

- **Component 1** of the GCP will deliver programmatic value added in terms of increased effectiveness and cumulative impact of the investments under the IP, by ensuring region-wide coordination and informed prioritisation of investments in sustainable management of drylands. Its support to inter-country coordination (taking advantage where possible of existing global and regional policy platforms such as CACILM, SADC, the Great Green Wall, the UNCCD) will serve to generate synergies between projects, resulting in increases in cumulative impacts, and to limit the risk of duplication or conflicts between projects for example through transboundary leakages of impacts. Its support to the improved regional prioritisation of investments will be achieved by providing participating countries with science-based overviews of conditions across the whole of the regions in which they are located, and on the basis of these facilitating region-wide processes of priority setting (again taking advantage of existing coordination mechanisms where possible): this will ensure that investments are targeted where they are most needed and therefore used most effectively, and that unnecessary trade-offs between environmental and social aspects are avoided wherever possible.

- **Component 2** will focus on knowledge management and outreach. On the one hand, this will contribute to the effectiveness of child project investments by ensuring that they respond to lessons learned regionally and globally and to the cutting edge of science and best practice, by linking them to regional and global knowledge hubs and technical communities of practice such as the Global Landscapes Forum, the Global Soil Partnership, the World Overview of Conservation Approaches and Technologies (WOCAT), the Pastoral Systems Knowledge Hub and the Agroecology Knowledge Hub. On the other it will contribute to sustained uptake and scaling out of impacts, by ensuring that lessons learned through the child projects are effectively systematized, fed into national, regional and global knowledge hubs so that they contribute to the global resource of knowledge on best practices, and disseminated to stakeholders both within and beyond the target areas and countries. Under this component, the GCP will also coordinate training and technical assistance to national project implementation teams and stakeholders at national and regional levels on issues such as the nature of transboundary biological and demographic processes, and corresponding response strategies, innovative tools for information management and knowledge exchange, and innovative financial incentive mechanisms.

- **Component 3** will focus on the establishment and implementation of harmonized and linked systems for monitoring at project, regional and program (global) levels, so that these result in reliable, relative and timely information on trends in conditions and impacts being fed back in support of adaptive management at all of these levels. This will be of particular significance from the programmatic perspective, allowing the detection of, and formulation of appropriate responses to, cumulative (supranational) impacts resulting from synergies, effects on transboundary leakages, and scaling out impacts.

Outcome 3.1 Effective prioritization, coordination and capacity development maximize the relevance, impact and cost-effectiveness of actions and investments in support of the sustainable management of drylands

2. A key role of the Global Coordination Project, constituting value-added of the programmatic approach of the Dryland Program, will be to promote coherence among multiple individual country initiatives operating across dryland regions: as described above, this will be carried out in collaboration with the country-specific child projects, taking advantage of the additional resources available to them as a result of the IP incentive. The Program Steering Committee will function in close coordination with and report to the Working Group on Dryland Forests and Agrosilvopastoral Systems, of the FAO Committee on Forestry.
3. The GCP will also coordinate the provision of training and technical assistance to national project implementation teams and stakeholders at national and regional levels on issues such as the nature of transboundary biological and demographic processes, and corresponding response strategies, innovative tools for information management and innovative financial incentive mechanisms. This capacity development will include support to the organization of and participation in regional training workshops.

3.2 M&E systems at programmatic level and at project level in all 11 countries, supports learning and adaptive management

4. Each of the child projects within the Drylands Program will establish and operate its own Monitoring and Evaluation (M&E) system, as a key element of adaptive project management. The Global Coordination Project will complement and support these project-specific systems, by:
 - Advising on the development and application of “SMART” indicators that are based on GEF-7 architecture and programming frameworks for each of the target focal areas^[1], and can be related directly to relevant GEF-7 Core and Sub Indicators, Sustainable Development Goals, as well as being gender-sensitive;
 - Defining and monitoring supra-national/regional indicators related to potential cumulative, synergistic and/or cross-boundary impacts (for example cross-boundary leakages of demographic or productive pressures);
 - Establishing and maintaining programmatic and sub-programmatic M&E systems at global and regional levels, into which the project-specific M&E systems of each of the individual child projects will be fed.

Outcome 3.3: Information and knowledge management at programmatic and child project levels supports adaptive management and outreach, in all 11 countries

The programmatic approach of the Drylands Program will ensure that investments in sustainable dryland management, through the constituent child projects, take advantage of global knowledge resources and are therefore at the cutting edge of best practice, building on and contributing to existing mechanisms and partnerships. One of the key roles of the Global Coordination Project will therefore be to link the Program and the child projects to relevant global initiatives and platforms (see Box 14).

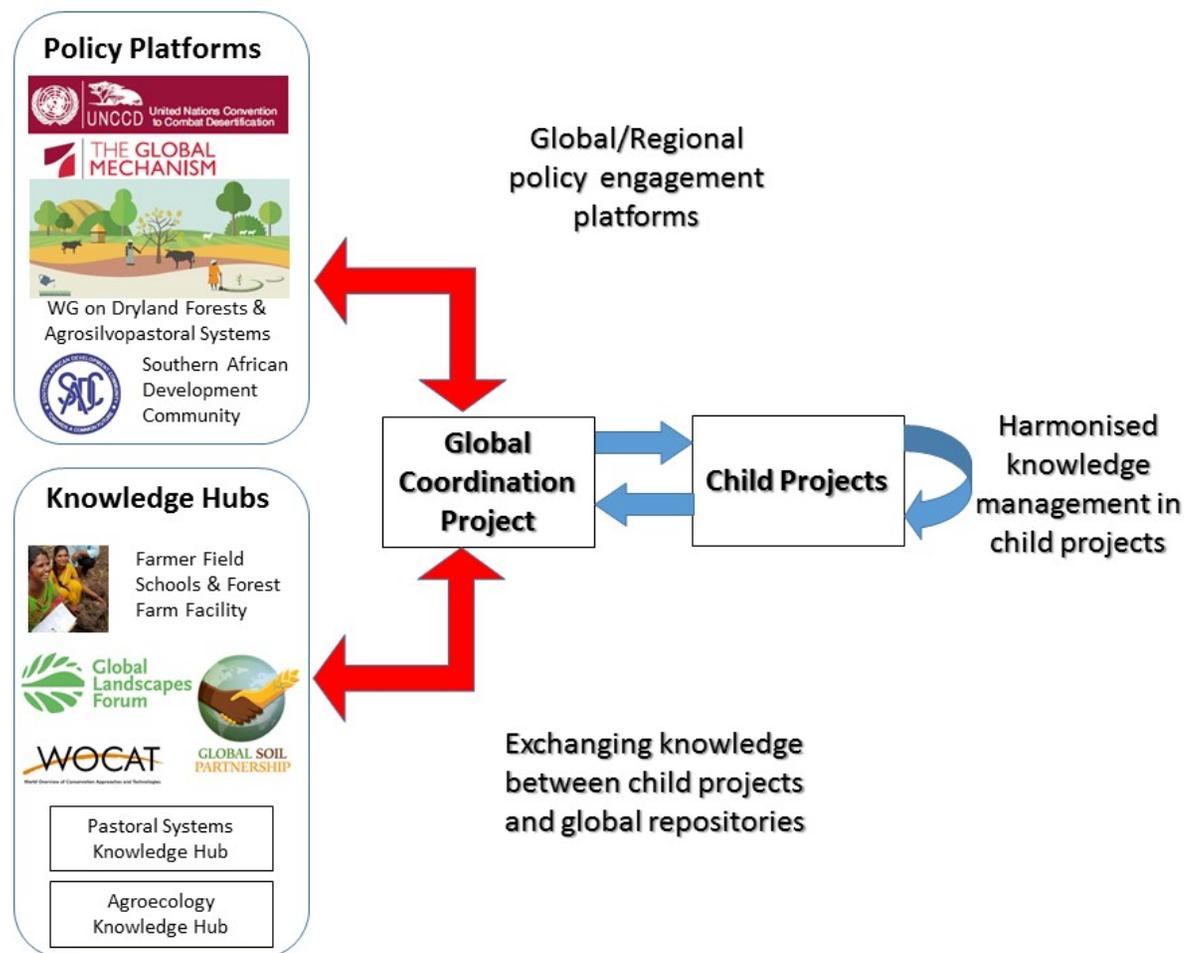
Child projects will strengthen national capacities for planning and decision-making, in order to help ensure that management practices and knowledge exchange systems are aligned as well as possible with spatial variations in conditions, with trends over time in dryland conditions and the drivers affecting them, and with the needs, interests and conditions of different dryland stakeholders. These efforts will be supported by the GCP, which will also establish a system for receiving, reviewing and responding to the results of these project-specific systematization processes, comparing and contrasting experiences generated in different countries, and on the basis of this making inferences about lessons learned with potential for replication, together with the range of conditions under which they are potentially replicable.

The Drylands Program will engage with a variety of global and regional platforms, as noted in paragraph 64 above, illustrated below in Figure 18, and further detailed in Box 14. Engagement with these processes, on the one hand, is primarily to advance key policy shifts that will support the transformational change in dryland systems expected in this Program, and on the other to support the scaling up and scaling out of the impacts and knowledge generated through the country investments through technical support, capacity building, and communities of practice.

The role of the GCP is central in this regard, as it will present and communicate these lessons learned in consistent and accessible formats, taking into account the characteristics and needs of different target audiences, and also feeding the lessons into existing platforms, as described above, such as the World Overview of Conservation Approaches and Technologies (WOCAT), the Pastoral Systems Knowledge Hub (PSKH) and the Agroecology Knowledge Hub (AKH). The process

will therefore operate within the Program itself, enabling lessons to be shared among different child projects (within and between regions), as a support to their adaptive management; it will also constitute a contribution to the global body of knowledge on the effectiveness of different approaches to sustainable dryland management.

Figure 17. Knowledge flow among global/regional hubs, the global program coordination project and the child projects



Box 14. Global initiative and platforms linked to the Program

Policy Platforms:

- **UNCCD Knowledge Hub and Global Mechanism[1]:** the Agencies participating in this Program have worked closely with the UNCCD Global Mechanism to support countries in the LDN process. This support will continue under this Prog

ram, ensuring that DSL will work closely and in a complementary manner with the UNCCD. While the Global Mechanism supports individual countries within the UNCCD policy framework, FAO and participating Agencies will provide the necessary technical tools and capacity enhancement for comprehensive land assessment and restoration where needed within the scope of country investments.

- **The Working Group on Dryland Forests and Agrosilvopastoral Systems** is an inter-governmental body of the Committee on Forestry, which will review and report to the Committee on Forestry on the status, trends, issues and developments in dryland forests and agrosilvopastoral systems, and make recommendations to the Committee on these matters. It will contribute to developing a comprehensive understanding of dryland forests and agrosilvopastoral systems and the people who depend on them. In addition, it will promote scaling –up of the adoption of good practices for the protection, sustainable management and restoration of drylands forests and agrosilvopastoral systems, enhancing also environmental and socio-economic resilience and sustainable livelihoods;

- **Southern Africa Development Community (SADC)** plays a key role in policy harmonization and coordination in the southern African region. Seven of the eleven countries involved in this Program are SADC members, and the organization engages actively with NEPAD, the East African Community, and the African Union – which include two additional countries in this Program. Key areas of work include Operationalization of the SADC Regional Agricultural Policy (RAP,) Natural Resources, Disaster Risk Management, and Social and Human Development – all of which are important for the implementation of this Program.

Knowledge Platforms:

- **Global Landscape Forum:** the GLF is the world's largest knowledge-led platform on sustainable land use, dedicated to achieving the Sustainable Development Goals and Paris Climate Agreement, connecting 3,900 organizations. It works in Africa through the AFR100 and Latin America through Initiative 20x20, as well as developing innovative finance mechanisms to invest in sustainable farming and supply chains with the Land Degradation Neutrality (LDN) and the Tropical Landscapes Finance Facility, among others.

- **The Great Green Wall Initiative** in Africa: FAO is actively working with the Pan-African Agency for the Great Green Wall (GGW) programme: this partnership is helping the regional framework of implementing AAD's large scale model and reinforcing government engagement and support to the GGW programme, the UNCCD national plans and South-South Cooperation. The newly established Great Green Wall Initiative/SADC partnership will ensure that relevant national and regional strategies focusing on the management of drylands will be implemented in a harmonized manner; support the overall coordination of projects and programmes focused on the management of Miombo and Mopane woodlands; and provide a platform for multi-sectoral exchange, knowledge management including sharing of evidence based best practices.

- **The Central Asia Countries Integrated Land Management Initiative (CACILM)** project (supported by GEF and implemented by FAO): partnership between the Drylands Program and CACILM will provide a framework for the coordination of national child projects in a Central Asian Steppes cluster, further building upon previous joint activities and programmes. CACILM is supporting links and collaboration with the global Knowledge Management platform of the DS-SLM project, the Eurasia Soil Partnership, and other international partners, forums and processes, with a view to developing a

multi-country process and program, with the participation of ICSD, the Central Asia Regional Environmental Centre (CA REC), international research centres, such as ICBA and ICARDA, and development agencies, such as GIZ, aimed at the restoration of degraded lands in Central Asia and Turkey.

- **The Farmer Field Schools Platform** is a space for sharing knowledge and expertise on Farmer Field Schools. It is a means to connect a global Community of Practice and facilitate partnerships among institutions committed to sustainable farming, education and empowering people. News and events regarding FFS around the globe are posted on the platform, highlighting best practices, emerging trends and innovations. The FFS library contains over 300 documents (case studies, training manuals, impact assessments, journal articles, videos, pictures, etc.), and over 250 FFS resource persons from different regions of the world have registered themselves in the global roster of FFS experts, including master trainers, evaluators and project managers.
- **Global Soil Partnership (GSP):** the GSP (hosted by FAO) is the leading international body addressing soil health and sustainable soil management. Its work is supported by the Inter-Governmental Technical Panel on Soils (ITPS), made up of nationally appointed soil scientists and experts from academic and technical institutions from around the world. The Voluntary Guidelines for Sustainable Soil Management, developed by the GSP and endorsed by the international community in 2016 provide an important framework of technical and policy coherence on sustainable soil management at national level. This will be an important element of success in the Drylands Program, particularly with respect to improving carbon stocks above and below ground.
- **World Overview of Conservation Approaches and Technologies (WOCAT):** WOCAT is a key knowledge resource and global repository for best practices on sustainable land management (SLM), containing over 800 unique tools and practices.
- **Pastoral Systems Knowledge Hub (PSKH):** the objective of the PSKH is to fill gaps including the lack of global policy discussions on pastoralism and the need to bring attention to the challenges faced by pastoral communities. By systematizing available information, literature and knowledge as well as technical tools, assessments and research results, it also aims to better inform evidence-based decision making at all levels. In the context of the Program, the PSKH will serve as a repository of technical excellence on pastoralism and pastoral people's livelihoods, and as a neutral forum for exchange and alliance building among pastoralists and stakeholders working on pastoralist issues.
- **Agroecology Knowledge Hub (AKH):** the objective of the AKH is to foster dialogue and collaboration among a variety of actors in order to advance science, knowledge, public policies, programs and experiences on agroecology for food security and nutrition at regional and national levels.

4) Alignment with GEF focal area and Impact Program strategies

The Drylands Sustainable Landscapes Impact Program (DSL IP) is a multifocal, integrated initiative that will create multiple benefits in the land degradation (LD), biodiversity (BD) and climate change (CC) focal areas, as described below. It is also aligned with the general IP strategies to address key programmatic issues including transformation, impact, collaboration, coordination, and private sector engagement, and is aligned with DSL IP goal of addressing the nexus between local livelihoods, land degradation, climate change and environmental security.

The integrated multi-focal programmatic approach of the DSL IP will offer significant value added compared to conventional focal area-specific approaches. Central to this approach is the sustainable management of dryland landscapes. Investments through child projects in improving the sustainability of human interactions with dryland landscapes (especially through agriculture, grazing and forest management/use) will deliver benefits under the land degradation focal area, avoiding further degradation and desertification of production lands and ecosystems in dryland landscapes and thereby helping participating countries to achieve LDN targets and commitments under the UNCCD. The integrated approach of the Program also recognizes, however, the interconnectedness of different environmental values in dryland landscapes, and the complex nexus of local livelihoods, land degradation, climate change, and environmental security.

Child projects will contribute to all three sub-objectives of the Drylands Program:

1) Particular attention will be paid in child projects to maintaining and promoting comprehensive land-use analysis and planning, landscape-wide flows of ecosystem services, and responding to the dynamic, landscape-wide nature of many of the drivers of dryland degradation as well as the interactions between them. The integrated landscape management approach (see Box 15) will be applied, for example, in addressing the sometimes conflictive interactions between extensive, landscape-wide livestock management in rangelands, the dynamics of wildlife populations in those same landscapes, and processes of demographic and economic change leading to more sedentary, individualized forms of production.

Box 15. Integrated landscape management

Integrated landscape management (ILM) within the GEF-7 Program addresses the physical, biological and socio-economic aspects of the processes of land degradation, with specific attention to desertification and deforestation to maximize the delivery of multiple benefits in the context of food security and livelihoods of affected communities. It involves management of production systems and natural resources within a physical area that is large enough to produce vital ecosystem services, yet small enough to be managed by the people who use the resources and help produce (or care for) those services.

ILM is a comprehensive framework to invest in the management of landscapes across sectors and across political or administrative boundaries in the context of sustainable development. GEF will support wide applications of innovative tools to prioritize policy reforms, investments, and other interventions to optimize the collective impact of all interventions across the landscape.

Scaling up of SLM practices and the restoration of landscapes will be particularly supported, including the use of locally adapted species, agro-forestry, farmer-managed natural regeneration, and practices for sustainable supply of wood and biomass energy.

2) The promotion of **diversified agro-ecological food production systems**; the challenging biophysical conditions that define the dryland landscapes in the participating countries make it especially important for food production systems to operate in balance with the maintenance of the natural resources (especially soil and water) on which they depend. A strong emphasis is therefore placed in the child projects on agroecological approaches to food production that are capable of achieving this balance, combining traditional and farmer-based knowledge with external, locally-validated knowledge inputs.

3) The creation of **enabling environments for LDN**, specifically through:

- Embedding the LDN tool into planning frameworks and participatory land-use planning, through the promotion of inter-sector coordination (Outcome 1.1) and the strengthening of planning mechanisms in support of integrated landscape management (Outcome 1.2);

- Policy work at national levels leading to the resolution of land tenure issues that are obstacles to LDN objectives (improved tenure and access systems, Outcome 1.4);
- Promoting good governance especially in view of land tenure and efforts in securing livelihoods of smallholders (improved governance of resource management, Outcome 1.5);
- Providing the technical assistance required to bring bankable projects to the investment, through the strengthening of capacities for the generation, communication and application of practices for the sustainable management and restoration of drylands (Outcome 2.1);
- Supporting smallholders through special lending and through extension systems (Outcome 2.1 and Outcome 2.3 on sustainable financing mechanisms);
- Supporting countries in the implementation of their LDN targets;
- Lessons learning and knowledge exchange and south-south cooperation within regions, and developing monitoring and information systems and targeted research on impacts, trade-offs, costs-benefit analysis of restoration, and identifying incremental synergies, through the investments in programmatic coordination, monitoring and evaluation and knowledge management under Component 3.

4. The proposed investments in sustainable dryland management will be tailored, in accordance with conditions in each of the target landscapes, actively to optimize BD benefits. The programmatic coordination and knowledge management investments proposed under Component 3, as well as the support to landscape planning tools under Component 1, will allow the identification of high conservation value (HCV) ecosystems within the overall dryland landscapes and regions, as a guide to this tailoring of on-the-ground investments. In the context of drylands, this prioritization will not be limited only to HCV forests, but will also include other dryland ecosystems including wooded ecosystems that may not meet the strict definition of forests (i.e. trees outside of forests) as well as non-tree ecosystems such as biologically-diverse grasslands, wetlands, and steppes.

5. This prioritization and tailoring will occur at both macro and micro levels. At macro level, it will involve the definition of differentiated strategies for broader HCV ecosystem categories; at micro level, it will consider the spatial dynamics of ecosystem functions and conservation strategies, such as the identification of particularly important locations requiring differentiated treatment and increased conservation, the need to provide for biological connectivity, and the minimum size needs for vegetation patches to be ecologically viable.

6. A range of approaches will be applied for delivering biodiversity benefits through the Program, including set-asides and reserves in some cases; but more commonly, given the highly anthropogenic nature of many drylands and the high degree of livelihood dependence on their active use, the emphasis will be on the active management of BD in production landscapes, such as through on-farm diversification and the promotion of production systems (and associated value chains) that are compatible with or actively favour the maintenance of biodiversity.

7. Specific strategies for delivering biodiversity benefits that will be applied in the child projects, as relevant on a case-by-case basis, will be:

- **BD mainstreaming:** the support to land use planning under Outcome 1.2 will help to ensure that land and resource uses are appropriately situated in the target dryland landscapes to maximize production without undermining or degrading biodiversity; while the support to capacities for technology generation and application under Outcome 2.1 and to value chains under Outcome 2.2 will focus on the promotion of biodiversity-positive production practices.
- **Protected Areas:** depending on case-specific conditions (BD values, ecological requirements, threats and social conditions), child projects may feature the establishment and/or strengthening of protected areas as elements of the target landscapes, supported by spatial planning instruments (Outcome 1.2), governance strengthening (Outcome 1.4) and regional prioritization of conservation needs (Component 3).

8. The sustainable management of drylands will also contribute to the **climate change** focal area, specifically Objective 2 (Demonstrate mitigation options with systemic impacts), through its vision of stabilizing landscape systems, which will reduce expansive pressures that are currently resulting in the degradation and loss of carbon stocks in dryland ecosystems; its emphasis on developing capacities and conditions to sustain integrated agroecological production systems, capable of maintaining ecological processes in farming systems as well as carbon stocks in both soil and vegetation; and its focus on mainstreaming sustainability (including carbon capture) into food systems and associated value chains.

9. The Program responds to the priority given under GEF-7 Programming Directions on private sector engagement. As further detailed in Section 4 below, key roles of private sector actors in relation to participating projects will include as participants in green value chains (see Outcome 2.2); as financial service providers, at national or local levels, including for example credit and service cooperatives and banks (see Outcome 2.3); and as co-financiers.

5) Incremental cost reasoning and expected contributions from the baseline, the GEFTF and co-financing

Baseline scenario (without GEF investment)	GEF scenario: incremental benefits achievable through conventional (non-IP) GEF approaches	The scenario achievable through embedding GEF projects in the Impact Program	Net benefits achievable as a result of the Impact Program approach
Component 1: Strengthening the enabling environment for the sustainable management of drylands			
Policies and plans fail to consider environmental values, and promote forms of development that undermine sector sustainability	GEBs are mainstreamed into sector development and land use plans	Social, demographic, economic and GEB considerations are included into sector development and land use plans in an integrated manner, at national and regional levels	- Effectiveness and sustainability are improved by addressing issues in more integrated way
There are major investments in production and resource management, but these are planned and executed in "silos" that fail to recognize the interdependences between sectors	Sector institutions coordinate actions in order to address inter-sector threats, but this coordination is limited in scope and does not reflect the full complexity of inter-sector interdependences and threat drivers	Lasting and effective multi-stakeholder coordination mechanisms operate, taking into account the fundamental interdependences that exist among sectors and among social, demographic, economic and productive factors	- Transboundary leakages of drivers are addressed - Improved social sustainability - Improved targeting and cost-effectiveness of investments, at regional and global levels
The nature and locations of production and management systems do not reflect spatial variations in conditions	Land use plans are developed, but these only consider a narrow range of variables	Comprehensive spatial planning incorporates the full range of variables, the interactions between them, and spatial/temporal landscape dynamics, on which the sustainability of dryland management and the delivery of GEBs depend	
Dryland stakeholders lack the governance, tenure and access mechanisms required to managed drylands sustainably	Governance, tenure and access mechanisms are strengthened to allow sustainable management in drylands	Mechanisms and conditions exist to address the multiple and complex ways in which governance, tenure and access determine the social and environmental outcomes of dryland management	
Planning, decision-making and production/management support in d	Mechanisms are established for local stakeholder participation in planning, deci	Transboundary communication and collaboration between stakeholder groups allows them to a	

drylands is top-down, limiting relevance, social benefits and social sustainability.	Decision-making and production/management support systems, increasing social relevance and sustainability	achieve a critical mass of participation and influence in mechanisms and processes at regional level	
Inadequate mechanisms and capacities for managing landscape units for sustainable use, connectivity or conservation	Protected areas and other management unit are strengthened, but are constrained within national boundaries	Transboundary spatial units are defined, agreed between countries and subject to harmonized management for sustainable dryland management, biodiversity connectivity and conservation, allowing social, environmental and biological processes operating at transboundary levels to be addressed	
2. Scaling up sustainable dryland management			
Technical support to farmers focuses narrowly on maximizing production at the expense of environmental sustainability	Environmental sustainability considerations are mainstreamed into technical support Production systems that deliver GEBs are actively promoted by technical support programs	Technical support benefits from knowledge exchanges within and among countries Technical options reflect the complexity of interactions between social, productive and environmental factors, and landscape dynamics	Improved access to options for sustainable dryland management Increased viability and attractiveness of value chains for sustainable forms of production
Value chains generate perverse incentives for unsustainable forms of management	Environmental considerations are mainstreamed into value chains, and value chains that actively support environmental sustainability are promoted	By collaborating at regional level, producers attain critical mass of influence on private sector actors and markets at regional and global, enabling them to negotiate favourable terms The regional approach will also allow private sector actors to collaborate at regional level and ensure scale and reliability of supply of sustainable dryland products A regional/global perspective to the incorporation of environmental criteria into value chains allows potential inter-country leakages to be addressed	Increased financing opportunities for sustainable dryland management options Improved targeting of financing mechanisms and effectiveness in supporting sustainable management
Financing mechanisms generate perverse incentives for unsustainable forms of management	Financing mechanisms include environmental safeguards Green financing is available at national level to actively support sustainable forms of production	National projects are linked to regional and global finance initiatives in both private and public sectors	

Component 2: Programmatic coordination and monitoring

Component 3. Programmatic Coordination and Monitoring			
Experience and knowledge on sustainable management of drylands is managed locally, limiting opportunities for dissemination and scaling out.	<p>Knowledge on options for sustainable management and GEB generation is managed at national level</p> <p>Knowledge is shared at regional/global levels, but does not adequately include non-integrated approaches</p>	<p>Knowledge is shared between countries, including experiences with integrated approaches that address transboundary issues and complex interactions among social, productive, environmental and economic factors</p> <p>National and regional entities are able to participate effectively in global knowledge fora</p>	<p>Improved effectiveness of national interventions (best practice)</p> <p>Scaling up beyond target countries</p> <p>Contribution to global knowledge, tools and policies</p>

6) Global environmental benefits

The expected impacts are relevant to the land degradation, biodiversity and climate change focal areas; in accordance with GEF-7 guidelines, however, the benefits will be delivered in an integrated multi-focal manner within an overall framework of sustainable dryland management.

Benefits for these three focal areas will be maximized by helping countries to meet their Land Degradation Neutrality (LDN) targets, by focusing in particular on high conservation value forests (HCVFs) and by supporting the recovery of carbon stocks in vegetation and soils – in all cases, project/program interventions will be guided by landscape- and region-wide spatial data in order to optimize targeting on areas with maximum potential for impact generation.

These impacts will primarily be generated in the 11 countries participating directly in the program, but the targets also include an estimated 10% “scaling out” effect in neighbouring countries in the three regions covered by the program (southern/central Africa, western Africa and central Asia). This scaling out effect will result from region-wide programmatic vision of the IP, and will be possible due to the additional resources available to participating countries and to the Global Coordination Project, through the IP incentive.

Please refer to the core indicators module for information on expected Global Environmental Benefits to be generated by the program.

7) Innovation, sustainability and potential for scaling up

Innovation:

The approaches to capacity development and knowledge management to be applied under the Program will serve to nurture innovation: at field level, in particular, the Farmer Field School approach promotes “learning by doing” and farmer-led experimentation which, when combined with exogenous technical inputs will result in farmers identifying and formulation innovative solutions to their problems. The emphasis on promoting knowledge flows at regional and global levels, under Component 3, will further facilitate the introduction into participating countries of nationally-innovative approaches to dryland management, which may then be tailored to national needs through stakeholder-led validation and adjustment. Examples of specific innovations under the program, proposed in country PIFs, are shown in Box 16.

Box 16. Examples of innovations proposed in child projects

Information technologies:

- *Mongolia:* access to communication technologies (e.g. solar powered mobile phones) and relevant applications, include financial technology solutions through mobile phone-based transactions and reporting on environmental data (livestock and wild animal/bird count, status of grassland) – Mongolia.
- Improved access to land-use data by the Government, herders/farmers and private sector for monitoring and compliance.
- *Kazakhstan:* automation of forest inventory data collection, storage of primary documents on forestry (logging and forest tickets, acts, protocols, etc.) and their processing for compiling statistical reporting will be pivotal instruments financed by the project.
- *Angola, Namibia, Tanzania, Zimbabwe:* the application of Open Foris Tools/Collect Earth, as well as FFS and FFF (enabling communities to build sustainable businesses based on forest and farm products) and GreeNTD for territorial planning. Dissemination of SLM/SFM practices and social acceptance will be supported by the Digital green Approach.

Financing and business models:

- *Burkina Faso:* the implementation of environmental safeguards by micro-finance institutions providing loans to smallholders and other agribusiness men and women.
- *Kazakhstan:* Innovative financing architecture for dryland restoration, which consolidates financing from the GEF, World Bank, IFC, MIGA and private sources with the help of the LDN Fund, RESILAND and ECA30x30 Initiative.
- *Kenya:* innovative investment approaches including linking pastoralists to markets through frameworks that reward good conservation practices among livestock keepers with premium pricing of their livestock; and innovative community conservation and restoration funds - Kenya.
- *Malawi:* innovations in governance, financing and business models, building on national restoration monitoring framework to apply cutting-edge restoration monitoring techniques at District Level and build capacities of District Development Officers and M&E Officers. Results will be customized for private investors to provide unbiased information on the effectiveness of their investments. The innovative Land Accelerator will be replicated to reach more entrepreneurs with information how to build profitable restoration businesses. New financial mechanisms, including blended finance and crowdfunding platforms, will be adopted to facilitate finance flows to local level.
- *Mongolia:* Mechanisms for environmental service payments linked to value adding, sustainable supply chains and certification.

Sustainability:

Program strategies in support of the sustainability of impacts will include the following (please see Section 3 for detailed explanations):

- ***Engagement and participation of stakeholders*** (see paragraph 80): child projects will, as needed and appropriate, strengthen mechanisms for effective and equitable participation of diverse stakeholders, especially the more marginalized, in planning and decision-making regarding the management of dryland landscapes. Wherever possible this will involve working with existing social structures (such as farmer organizations, village councils, local Governments and water user groups) rather than establishing potentially ephemeral new structures specifically related to the projects; the child projects will strengthen and facilitate these, providing them with information and orienting their discussion and decision-making processes related to dryland management issues. As necessary and appropriate to local social and cultural contexts, child projects will place particular emphasis on strengthening the organizational and participation capacities of groups who are normally more marginalized from decision-making.
- ***System-wide, country-driven capacity development across people, organizations, institutions and policies*** (see paragraph 98), based on participatory capacity assessment, involving appropriate capacity development interventions, the monitoring of results and the capturing of lessons learned, resulting in enhanced horizontal and vertical integration and coordination among sectors and stakeholders, and improved multi-stakeholder governance through multi-stakeholder processes, as well as application of skills and knowledge relevant at various levels relevant for more sustainable management of drylands.
- ***Systems approach to livelihood and landscape management for sustainability*** (paragraph 78) in order to ensure that interventions reflect and respond to the complexity of the co-evolving, 'coupled' human and ecological systems that constitute dryland livelihoods, ecosystems and landscapes.
- ***Scaling up and scaling deep*** (paragraph 85): as shown in Figure 14, the program will further sustainability by applying the approaches of "scaling up" aimed at changing institutions at the level of policy, rules and laws (especially through the actions proposed under Component 1), and "scaling deep" aimed at changing relationships, cultural values and beliefs or "hearts and minds" through the strengthening of community-level social capital and participatory approaches to knowledge generation proposed under Component 2.

Attention will be paid in particular to maximizing the prospects for sustainability of direct investments in landscape restoration, proposed under Outcome 2.4:

- Restoration/rehabilitation modalities and management regimes will be defined with the participation of local people, through inclusive and informed participatory processes: this will help to maximize their compatibility with existing resource management and livelihood support systems, and the compatibility of the products and services generated from the restored areas with the needs and cultural preferences of the population. Wherever possible restoration and rehabilitation will be integrated with existing management systems, for example through the conversion of existing agricultural systems into agroforestry systems.
- Selection of management regimes and species will also be informed by external technical expertise and research in order, for example, optimize the matching of species and management regimes to site conditions and to optimize the technical effectiveness of management regimes.
- The location and spatial configuration of rehabilitation and restoration initiatives in the landscape will be guided by the provisions of land use planning instruments, the formulation and improvement of which will be supported where necessary under Outcome 1.2.

Scaling out:

The program is designed, and will be implemented, in such a way as to result in "scaling out" of impacts at regional level, beyond the boundaries of the 11 target countries ("scaling out" is the third of the dimensions of scaling portrayed in Figure 14). Actions proposed under Component 3, in relation to transboundary knowledge management, outreach and transboundary coordination, will allow the 11 countries to function as nuclei for the catalysis of scaling out to neighbouring countries, including both other IP target countries and other, non-IP countries with similar conditions.

1b. Program Map and Coordinates

Please provide geo-referenced information and map where the program interventions will take place.

Maps for each country are provided at the link below:

<https://drive.google.com/open?id=1HYblwiWjGy4recafTUiSyEJ4y8eV60YF>

2. Stakeholders

Select the stakeholders that have participated in consultations during the program identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities

Private Sector Entities Yes

If none, please explain why:

1. The time constraints on the process for preparing Expressions of Interest (EOIs) and PIFs limited the extent and depth of consultation that was possible during the program identification phase. In all cases, however, initial project ideas were identified in consultation with the GEF Operational Focal Point (OFP), and EOIs and PIFs based on these ideas were subsequently prepared in collaboration between the responsible Government entities and the GEF agency in question. In those cases where National Dialogues, that form part of the national (overall) GEF-7 prioritization (and stakeholder engagement) processes, coincided with the process of child project identification and EOI formulation, child project ideas were presented and discussed among Government, CSO and where relevant indigenous organizations, and the results of these discussions were subsequently taken into account in OFP decisions.

2. Additional consultations held during the process of child project PIF formulation included the following:

- **Burkina Faso:** in the northern region, consultations were conducted with communities' members in Tibtenga and Ramdola. In the Central-western region, community members from the commune of Dassa, Tenado and Kyon were consulted. In the Central, representatives from Donsin and Saaba contributed in the project identification. All these consultations were held during IUCN field mission and included men and women. It is planned to include more communities during the project preparation phase. The following civil society organisations, also members of IUCN, were consulted during the project identification: NATURAMA and APROS (Association pour la promotion des Oeuvres sociales). There are all active in the targeted regions. During the identification of the project, IUCN consulted with BioProtect, whose founding partners are the Association for Research and Training in Agroecology (ARFA) based in Burkina Faso and the crop protection research and development company BIOPHYTECH based in France. They are interested in assisting farmers to apply organic fertilisers and pesticide. They are also operating as offtakers of agricultural products. The private mobile phone operator (Telecel) who have developed climate information system in collaboration with the University of Ouagadougou was consulted to expand this technology to smallholders in the targeted regions.

- **Kenya:** indigenous peoples and local communities consulted included Keekonyokie Farmers Cooperative Society, South Rift Organization of Land Owners (SORALO) and Namanga Community Forest Association. Civil Society Organizations consulted include the African Conservation Center, Kenya Wildlife Conservancies Association and World Wildlife Fund/Kenya. Private sector entities consulted include Mara Beef, Tata Chemicals Lake Magadi Limited and UAP Insurance – they run an index-based livestock insurance programme on drought related risks in northern Kenya and would be interested to expand their coverage to southern rangelands of Kenya.

- **Tanzania:** a total of three multi-stakeholder workshops held and series of consultative meetings conducted. In the National Dialogue, in addition to Government and FAO, participants included CSOs (MJUMITA, Nature Conservancy, TaTEDO, IUCN) and the Tanzania Private Sector Foundation (an umbrella of private sector in the country): at this early scoping stage, the interests of indigenous people and local communities were represented by CSOs and Local Governments who participated in the workshop. A wider workshop on aligning LDCF with the DSL IP child project was also conducted: participants included members from CSO and the private sector: including African Wildlife Foundation, Wildlife Conservation Society, Agriculture Non-State Actors, National Networks of Farmers' Groups in Tanzania, SNV, Journalist Environmental Association of Tanzania, Tanzania Traditional Energy Development and Environment Organization, Alliance For Green Revolution in Africa, National Community Forestry Conservation Network of Tanzania and the National Microfinance Bank.

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the program preparation, and their respective roles and means of engagement.

1. During the project preparation (PPG) phase, adequate consultations and participatory processes will be held in accordance with stakeholders' needs and the protocols and safeguard provisions of national Governments, GEF Agencies and, where relevant, international treaties (such as Free, Prior and Informed Consent).
2. Key elements of the engagement process during project formulation will include the following:
 - Inception workshops for the PPG phase at national and, where relevant, local levels, involving Governments, CSOs, private sector and where relevant indigenous organizations. These inception workshops will be used to discuss and validate further the project ideas presented in the PIFs and confirm needs for more detailed analyses during the PPG phase; and to identify stakeholders to be engaged during the PPG phase and define engagement requirements, with specific attention paid to ensuring adequate engagement of women.
 - The PPG phase will develop programme-level Gender Action plan to explicitly guide gender mainstreaming efforts, including specific gender indicators for monitoring impact related to tenure, access and use rights, technical capacity development, and market and credit access and livelihood diversification in the proposed programmatic and sub-programmatic M&E systems. A scorecard system will be designed to track progress across selected areas.
 - Formulation of stakeholder engagement plans including overall stakeholder maps, route maps for stakeholder engagement and statements of principles and methodologies to be applied to maximize the effectiveness and utility of engagement, including specific provisions for women's engagement.
 - Where appropriate, more specific multi-stakeholder workshops at regional and local levels with regional and local Governments, CSOs and stakeholder (including indigenous) organizations, to propose the specific areas and communities in which the projects will work.
 - Participatory community-level stakeholder workshops (normally in a subset of target communities, given resource and time constraints) to validate project ideas in relation to local conditions and needs, and to define needs and mechanisms for participation during the implementation phase of the project.
 - Focus groups to obtain deeper understandings of aspects of key relevance to the projects such as the functioning of production systems and value chains, and women's needs and their roles in resource management.
 - The results of these engagement processes will be reflected in project design documents.
 - The results of the PPG process will be presented and discussed in project validation workshops, with the same range of participants as the inception workshops, prior to finalization and submission.
 - The project documentation will include stakeholder engagement plans and gender analyses and action plans, which, taking into account the consultations held and information generated during the PPG phase, will set out detailed proposals for how the projects will ensure effective engagement during implementation.

3. Gender Equality and Women's Empowerment

Are gender dimensions relevant to the success of program. Yes

If yes, please provide indicative information on these dimensions and how these will be addressed in the program. If no, please explain why

1. The program will address identified gender gaps and will explicitly aim support the empowerment of women that help achieve global environmental benefits by ensuring equal opportunities for women and men to participate in, contribute to and benefit from activities.
2. The program and will seek to leverage strategic gender entry points that can help achieve global environmental benefits and catalyze system change by:
 - Supporting women's improved access, use, and control of natural resources by contributing to shape policy and gender norms to improve women's access to and control over land, water, forests and other natural resources;
 - Focusing on understanding the different gender roles, responsibilities and relations, and how these are managed, the approach assists development actors to promote gender equality in access and manage land and natural resources. Responsive local governments and inclusive local governance are essential building blocks of improving social and ecological resilience through local arrangements that build legitimacy. The approach promotes a parallel, complementary process of strengthening stakeholder groups, often women, and enabling them to actively participate in the decision-making processes. In particular, it addresses different/conflicting demands and interests posed by a variety of stakeholders
 - [Practical Guide for Improving Gender Equality in Territorial Issues \(IGETI\) \(2018\)](#)
 - At the national level, the Program will advance operationalization of the Voluntary Guidelines on Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT). These guidelines seek to promote the land rights of women farmers, among others, who face serious gender discrimination in all regions.
 - [Governing land for women and men \(FAO, 2013\). A technical guide to support the achievement of responsible gender-equitable governance of land tenure](#)

The above builds on earlier technical expertise in this domain, including:

- Contributions to the revision of the land tenure policy and pilot projects on implementation of the tenure reform
 - Development of and training on a customized version of software for capturing cadastral data and online sharing with the agency responsible for registration of land transactions
 - Pilot projects on formalizing tenure on customary lands, development of land tenure capture software based on Open Tenure and training on this software
3. In addition, FAO is the custodian agency for SDG 5.a.1, the indicator that measures the "Percentage of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control". According to the methodology, progress against the indicator is determined by the extent to which countries have incorporated into their legal framework six proxies. The proxies selected cover equality in inheritance, joint registration, control of the property in marriage, women's representation in land institutions, governmental funding to support women's land ownership and the protection of women's land rights in legally recognized customary systems. FAO will continue to engage with relevant national institutions to provide the necessary technical assistance for achieving and measuring progress on this indicator. Relevant indicators include :

- Share of female plot owners and male plot owners that have a formal certificate of title issued by and registered with government authorities, by sex
- Share of female and male plot owners that have the right to sell land and/or use land as collateral
- Share of plots owned by women and men (and jointly owned), relative to total number of plots
- Land area owned by women and men (and jointly owned), relative to total land area
- Input use/access:
 - Share of male and female producers that purchased improved seeds/fertilizer/fodder
 - Share of male and female producers that received agricultural extension services
 - Share of male and female producers that have access to credit for agriculture (by source of credit: formal/semiformal/informal)

4. To document this, the FAO Gender and Land Rights Database <http://www.fao.org/gender-landrights-database/it/> is an online platform that provides important qualitative and quantitative information on factors that determine men and women's rights to land. It includes 84 regularly updated country profiles with information on national policy and legal frameworks relevant to gender and land rights, as well as related statistics from national agricultural censuses and household surveys. It also contains assessments of the national legal frameworks for 25 countries, prepared with the FAO Legal Assessment Tool (LAT), which uses 30 legal indicators to provide prompt, targeted and effective policy advice to Members wishing to achieve gender-equitable land tenure. The GLRD serves as a practical tool for government officials, policy-makers, programme designers, researchers and activists engaged in land-related issues.

- a) enhancing women's decision-making capabilities, at all levels, regarding land, forests, water and other natural resources they use;
 - i) promoting women's equal engagement in community planning processes;
 - ii) supporting women's engagement in producer organizations.;
 - iii) promoting women's voice (including indigenous peoples and local community groups);
 - b) Targeting women as specific beneficiaries by
 - i) increasing awareness of the roles of women and men in the sustainable management and use of natural resources;
 - ii) creating opportunities from (alternative) sustainable livelihoods and income-generation opportunities such as conservation, rehabilitation and restoration actions for women;
 - iii) engaging women in processes for making commodities and supply chains more sustainable;
 - iv) supporting renewable energy solutions and
 - v) supporting interventions that enable women's access to credit
5. Further envisaged action:
- Incorporate sex-disaggregated data collection & gender-sensitive indicators to help measure socio-environmental impacts in meaningful and consistent way

- Consider both formal and informal land tenure, forest use & access to resources when defining beneficiaries & direct & indirect benefits
 - Engage women, women's groups, & gender/women's ministries in discussions on incentives & fund mechanisms and Incorporate gender considerations in operational modalities of incentive & financial mechanisms
6. Child projects will be informed by existing comprehensive Country Gender Assessments (CGAs), providing up-to-date information on the situation of rural women and the gender gap in the broader agriculture sectors. These reports are specifically intended to assist with the formulation of evidence-based interventions and policies. CGAs will be uploaded <http://www.fao.org/gender/resources/country-assessments/en/>. These assessment will include:
- Relevant gender analysis and participatory assessments of direct & indirect costs & benefits for both women's & men's participation in interventions
 - Incorporation of sex-disaggregated data collection & gender-sensitive indicators to help measure socio-environmental impacts in meaningful and consistent way
 - Consideration of both formal and informal land tenure, forest use & access to resources when defining beneficiaries & direct & indirect benefits
 - Engagement of women, women's groups, & gender/women's ministries in discussions on incentives & fund mechanisms and Incorporate gender considerations in operational modalities of incentive & financial mechanisms
7. The CGAs also map existing national and regional gender machineries, including non-government organizations and academic institutions engaged gender equality. These counterparts will be treated as integral actors in the stakeholder consultation, design and implementation process, as appropriate. Working beyond the boundaries of the agriculture sector is important to achieving the empowerment of farming women. Reforms in land and other natural resource tenure; labour; social protection; health and nutrition; credit and finance and other areas where synergies and mutually supporting policies and actions can deliver meaningful impact.
8. The scope and type of gender mainstreaming activities that will be needed later in the program/project development and implementation stage will be determined based on dedicated socio-economic assessments that identify and describe any major gender differences, gender differentiated impacts and risks, trade-offs and opportunities that may be relevant to the proposed activities. Additional needs for quantitative (statistics) and qualitative data (analytical) information, resources and/or expertise required during the project development phase will be included accordingly.

In addition, please also indicate whether the program the program will include gender sensitive indicators in its result framework

Yes

4. Private sector engagement

Will there be private sector engagement in the program?

Yes

Please briefly explain the rationale behind your answer.

Strong emphasis will be placed on engagement of private sector in the development and implementation of the child projects. This will be of vital importance for achieving transformational change, scale of impact and sustainability. The private sector has major current and potential impacts in determining farmers' production systems and resource management practices, through value chains and financing mechanisms, and has potential to complement the capacities of weak Government institutions. Private sector actors will be involved at a range of levels, including for example community-level value chain actors and innovative financing mechanisms (e.g. in the case of charcoal value chains), through to companies, corporate groupings and sector organisations, and financing entities at national and regional levels. Particularly in cases where effective linkages with larger private sector entities will be difficult or impossible (e.g. remote dryland areas), the IP will strengthen the capacity of local producer organizations (bottom up), linking them and selected dryland products to national and or regional markets. The latter will be supported by regional networks, e.g. SADC and potentially SACAU and Phyto Trade in the case of the Miombo cluster. Additional private sector entities will be identified during the PPG phase. Engagement of the private sector will be of mutual benefit to farmers, Government entities and private actors themselves. Appropriate forms of private sector participation will serve to increase farmers' access to markets and to technical and financial services; at the same time, there is major potential for the private sector to benefit from this engagement through improved access to reliable and sustainable sources of supply of products based on dryland management; increased opportunities to participate in green value chains, which offer market and/or price advantages; expansion of lending portfolios (in the case of private sector financing entities) into new areas; and improvements to corporate images, and to their ability to meet corporate social responsibility targets.

Key roles of private sector actors in relation to participating projects will include the following:

- Participants in green value chains (see Outcome 2.2: Resource managers and users, government and private sector actors are collaborating in strengthening green value chains in support of sustainable and equitable dryland management). As shown in Figure 16 above, projects will interact with private sector input providers, intermediaries (including farm gate purchasers and traders further along the value chain, as well as multinational commodity traders where relevant), processors and retailers both within and beyond the target countries, in the strengthening of green value chains, and will develop the capacities of producers and their organizations to interact with these private sector value chain actors. Specific examples of private sector involvement in value chain aspects of the child projects are presented under Outcome 2.2 (paragraph 128): in addition to these examples, specific attention will be paid during the formulation phases of each of the other child projects in identifying opportunities for green value chains and for the involvement of private sector value chain actors.

Financial service providers, at national or local levels, including for example credit and service cooperatives and banks (see Outcome 2.3: Financial institutions and other investors - public and private - offer finance to support sustainable production, management and restoration of drylands, tailored to the needs and conditions of resource managers and users). Projects will work with these to promote the inclusion into their lending portfolios of financial instruments accessible by productive enterprises based on sustainable natural resource management in drylands.

- Co-financiers: in addition, private sector actors will make concrete financial contributions to the Program, in the form of USD 31,250,000 of co-financing, as shown below:

Country	Private sector source	Type	Investment mobilized	Amount (USD)
Burkina Faso	Bioprotect	In-kind	Recurrent expenditure	100,000
Kenya	Tata Chemicals Lake Magadi Limited	Equity	Recurrent expenditure	2,000,000
Kenya	Mara Beef Limited	Equity	Investment mobilized	1,000,000
Kenya	UAP Insurance	Equity	Investment mobilized	1,000,000
Mongolia	XacBank/WBCSD members/local private sector	Grant	Investment mobilized	3,000,000
Mozambique	Peace Parks Foundation and other CA co-managers	Other	Investment mobilized	20,000,000
Tanzania	NMB Foundation	Grant	Investment Mobilized	1,000,000
Tanzania	SAGCOT	Grant	Recurrent Expenditure	3,150,000

5. Risks

Indicate risks, including climate change, potential social and environmental risks that might prevent the Program objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Program design (table format acceptable)

1. External risks potentially affecting program impacts are shown below, along with the corresponding mitigation measures to be applied by the child projects. The specific nature and magnitude of these risks will be confirmed during project preparation, and are likely to vary between projects. In all cases, the potential for these risks to be significantly mitigated through the application of the mitigation strategies is considered to be high, but it cannot be ruled out that there will be residual impacts following mitigation if the magnitude of the risks exceeds the “coping capacity” of the mitigation strategies (for example due to target countries being affected by unusually serious and/or frequent natural disasters or political upheavals, especially if these are regional in nature).

Risks	Probability and Implications	Mitigation strategies
Climate change and natural disasters	<ul style="list-style-type: none"> - Probability: high – climate change is a certainty and will exacerbate the frequency and severity of natural disasters. - Implications if not mitigated: major – natural resource management practices are particularly vulnerable to e.g. changes in temperature and rainfall regimes 	<ul style="list-style-type: none"> - Climate change resilience will be a key criterion for the selection of the resource management and production models to be promoted by the child projects. - The farmer field school (FFS) approach will emphasize the development of farmer capacities for innovation and adaptation.
Economic pressures (national, regional, global)	<ul style="list-style-type: none"> - Probability: high – regional and global economic integration processes are increasingly affecting the economic drivers that determine dryland management - Implications if not mitigated: major – changes to economic drivers risk increasing productive and extractive pressures, and undermining traditionally sustainable management systems 	<ul style="list-style-type: none"> - The capacities of producers to interact proactively with value chains and to respond to changing market conditions will be strengthened. - Green value chain promotion will respond to feasibility analyses including consideration of the implications of alternative economic scenarios. - FFS will also serve to develop capacities of farmers to adapt to economic, as well as climate, change.
Demographic, social and cultural change	<ul style="list-style-type: none"> - Probability: high – many dryland countries are already experiencing rural-urban and transboundary migration, and external cultural and social pressures - Implications if not mitigated: medium – undermining of social capital and governance structures (although in some cases may reduce population pressures on resources, and remittance income from migrants may serve to which may 	<ul style="list-style-type: none"> - Analyses of the feasibility of the production and management models to be promoted will include considerations of the implications of reductions in labour availability due to emigration. - Project support to governance mechanisms will include development of capacities for the adaptation of their functioning to evolving social and cultural conditions and threats

	have positive effects)	- Projects will actively support the systematization, exchange and valuation of traditional knowledge and develop local capacities to reflect on how to adapt it to changing conditions.
Changes to political and governance conditions	<p>- Probability: medium: political and governance conditions in most of the target countries are generally stable</p> <p>- Implications if not mitigated: medium: the projects will involve actions at diverse levels ranging from community up to central Government, which will limit its exposure to these risks at any specific level</p>	- Projects will actively strengthen local governance structures as a complement to centralized institutions which may be more susceptible to political changes,
Resistance to transboundary collaboration (within and beyond IP countries)	<p>- Probability: low-medium: although capacities for collaboration are still limited, there have been strong indications of political will and a number of mechanisms already exist</p> <p>- Implications if not mitigated: medium: although limitations on transboundary collaboration would reduce the programmatic value-added, they would not affect the GEF increment of national action</p>	- Projects (including the Global Coordination Project) will conduct outreach to political actors to provide them with evidence of the mutual benefits of transboundary collaboration

6. Coordination

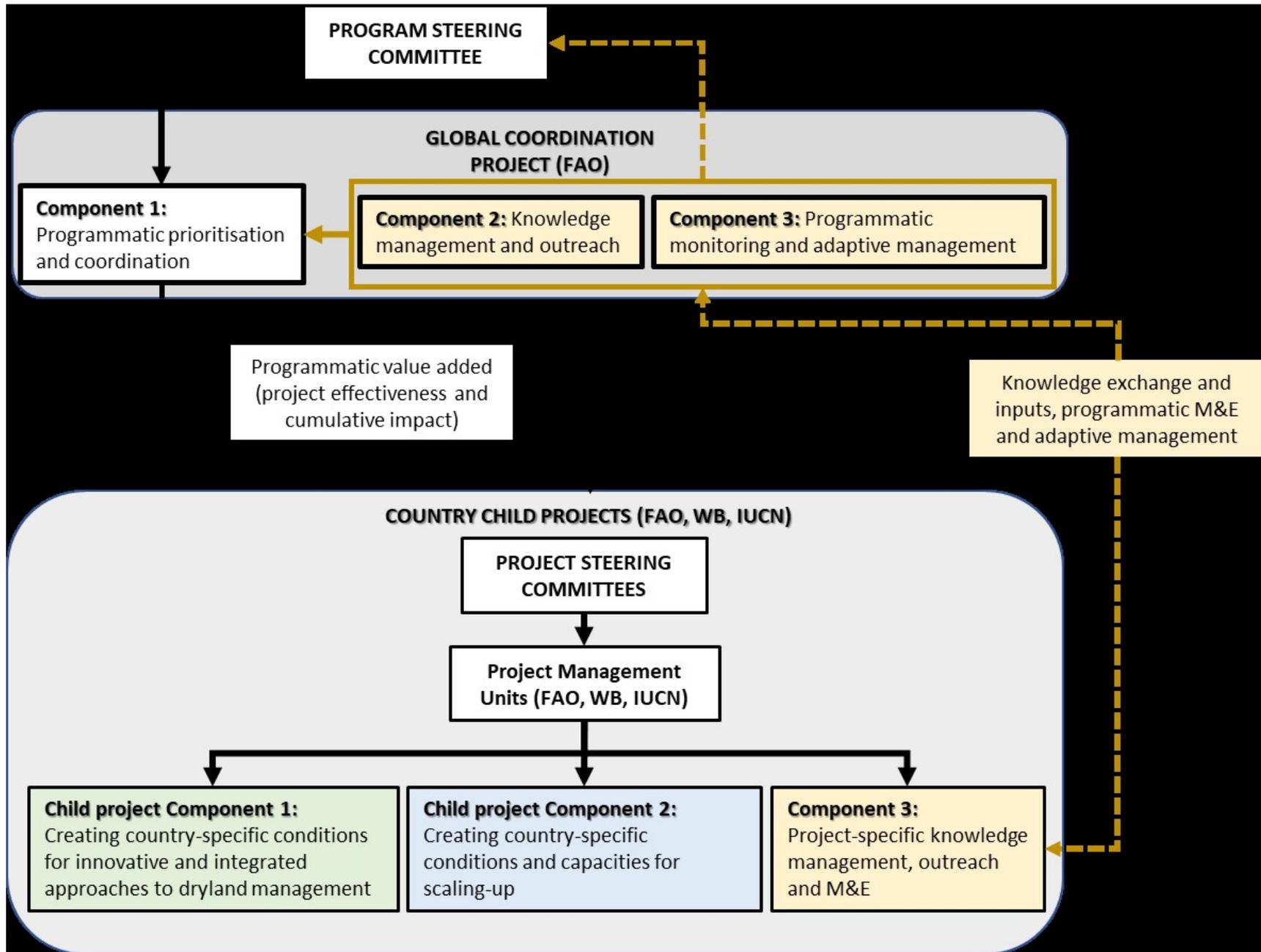
Outline the institutional structure of the program including monitoring and evaluation coordination at the program level. Describe possible coordination with other relevant GEF-financed programs and other initiatives.

The program will consist of 11 country-based “child projects”, each of which will have its own Project Management Unit, under the oversight of a national Project Steering Committee made up of representatives of the host Government, the GEF Implementing Agency for the country in question, and project beneficiaries as necessary and appropriate.

The program as a whole will be coordinated, facilitated and advised by a Global Coordination Project (GCP), implemented by FAO, which will also be the lead GEF agency for the IP.

The IP as a whole will in turn also be guided by a Program Steering Committee, the membership and functioning of which will be defined in detail during the process of detailed formulation of the GCP and the individual country projects (Figure 19).

Figure 18. Organizational structure of the program



Each of the child projects will have its own monitoring and evaluation (M&E) system, to enable it to measure progress against the indicators defined in its results framework, thereby functioning as a tool for adaptive management. These project-specific results frameworks and M&E systems will be designed in detail during the formulation phases of the child projects. They will be based on the project-specific results frameworks presented in the child project PIFs: these have been harmonized between projects, and with the results framework of the PFD as a whole, in order to allow them cumulatively to contribute to programmatic monitoring.

As lead agency both of the Program as a whole and of the GCP, FAO will advise on the detailed formulation of the results frameworks of the child projects, in order to maintain this harmonization in the horizontal dimension (between child projects) and vertical dimension (to allow monitoring results to be tracked at programmatic level). It will also oversee the management of monitoring results at program level, in order to track the cumulative impact of the program as a whole, to track impacts on transboundary processes, synergies and scaling out, and to learn lessons on effectiveness by comparing results between projects.

Project indicators are aligned where relevant with Sustainable Development Goals (SDGs), including SDG 2.4.1 for which FAO is custodian agency. During child project formulation, FAO will provide methodological guidance on practical and methodological aspects of achieving this alignment between project and program indicators and SDGs.

7. Consistency with National Priorities

Is the Program consistent with the National strategies and plans or reports and assesments under relevant conventions

1. In all of the participating countries, child project investments will contribute to the achievement of national LDN targets. Projects progress with LDN will be tracked in relation to national targets and progress, in order to avoid the risk of leakages of land degradation.
2. In addition, Kazakhstan, Kenya, Malawi, Mongolia, Mozambique, Tanzania and Zimbabwe have committed to the Bonn Challenge on restoration, and Burkina Faso, Kenya, Malawi, Mozambique, Tanzania and Zimbabwe have committed to the AFR100 effort to bring 100 million hectares of land across Africa into restoration by 2030.
3. Other strategies, plans and targets to which child projects will contribute include the following (please see individual child project PIFs for more detailed information):
 - National Development Plans, Poverty Reduction Strategies and Poverty Reduction Strategy Papers (PRSPs)
 - National Climate Change Programs, Climate Action Plans, National Communications under the UNFCCC
 - Nationally Determined Contributions (NDCs) under UNFCCC
 - National Action Plans for Adaptation
 - National risk prevention and environmental protection programs
 - National programs for the promotion of agriculture production and development
 - National Sustainable Forest Management Programs
 - National Biodiversity Strategy and Action Plans and reports to the UNCBD

8. Knowledge Management

Outline the Knowledge management approach for the Program, including, if any, plans for the Program to learn from other relevant Programs and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

1. A key function of the global coordination project will be comprehensive knowledge management (KM) strategy and approach across the Program, particularly with regard to Outcome 3.2. The rationale is based on the need for shared and collaborative learning, improved strategies and tools for adaptive management, and ongoing innovation in SLM/SFM practices in dryland landscapes. Each country project will have its own systems for monitoring and knowledge management, however these will be designed and developed in conjunction with the Global Coordination Project (GCP). This “co-design” process will ensure the *programmatic* vision required for the realization of the value-added potential from a comprehensive knowledge management approach across the Program – and scaling out to other countries. With regard to the knowledge strategy, the child projects and the GCP will work together and be implemented in a collaborative fashion, taking advantage of the additional resources available to both the child projects and the GCP as a result of the IP incentive, to ensure the best possible generation and leveraging of knowledge resources at all levels across the Program.

2. The KM strategy will be implemented as a collaborative initiative bridging countries as well as outcomes in key sectors, and will build upon and integrate existing knowledge platforms related to the sustainable management and restoration of dryland landscapes. This effort will support the application of successful approaches to integrated landscape management (ILM) across countries within the Program, along with the development of new knowledge products for practitioners and strategic communication material for policy and decision makers. A key aspect of the DSL-IP knowledge strategy is leveraging existing platforms and communities of practice, as outlined in paragraph 66 and further elaborated in paragraph 152[01]. Component 2 of the GCP will focus specifically on supporting knowledge management and outreach across the Program. Child project investments will be linked to regional and global knowledge hubs such as the Global Landscapes Forum, the Global Soil Partnership, and the World Overview of Conservation Approaches and Technologies (WOCAT) among others. Lessons learned through the child projects will be transferred and codified, fed into national, regional and global knowledge hubs so that they contribute to the global resource of knowledge on best practices, and disseminated to stakeholders both within and beyond the target areas and countries. Under this component, the GCP will also coordinate training and technical assistance to national project implementation teams and stakeholders at national and regional levels.

3. The KM Strategy will prioritize showcasing and upscaling successful strategies, best practices for enhancing the engagement of women and particularly vulnerable groups and resources within child projects, ensuring further uptake by national project implementation teams and stakeholders at national and regional levels on successful approaches. Examples of the successful integration of gender equality and women’s empowerment by demonstrating the necessity and benefits of incorporating a gender-sensitive approach will be consolidated. This will involve the collection of experiences, opportunities and challenges and bringing the interface of gender and landscape restoration as a national and global community of practice closer, rooted in the experience and expertise of partners in civil society, multilateral organizations, research community and private sector – all working in different ways to enhance the gender-responsiveness of restoration efforts.

4. Key activities under Component 2 will include:

- Deployment of innovative spatial data assessment tools to support partners in monitoring and co-production of knowledge with local stakeholders;
- A stocktaking of existing knowledge products (including tools and approaches) supporting integrated management of dryland landscapes and seascapes, including related best practices;
- Development of a web-based platform on integrated approaches to landscape management and restoration, facilitating to existing approaches, best practices, guidelines, tools, and methodologies to support program implementation and host new innovations and experience emerging from the Program;

- Preparation of strategic communication policy briefs for senior managers and decision makers on experience Program implementation;
- Highlight the work of the Dryland Sustainable Landscapes Program within key communities of practice , such as the Global Landscapes Forum

5. The expected outcomes from this effort will be strengthened capacity amongst institutions and other stakeholders in monitoring and assessment of the resilience of dryland landscapes, improving the evidence base for the deployment of best practices, and facilitating Program-wide learning, reporting and adaptive management.

9. Child Program Selection Criteria

Outline the criteria used or to be used for child program selection and the contribution of each child program to program impact.

1. On the deadline of January 31st, GEFSEC received 20 valid Expressions of Interest (EOI) submitted with the support of 5 agencies. The EOIs were reviewed by an evaluation committee consisting of the GEF Secretariat, UNCCD Global Mechanism, and STAP, and were assessed and ranked according to pre-defined selection criteria. FAO as the lead agency for the Impact Program participated in the identification of the selection criteria below, however recused itself from the evaluation process and final selection.

2. Child projects were selected on the basis of the following criteria:

- High potential/ability to generate multiple GEBs (GHG, BD, LD) and the significance that these represent in terms of contribution to delivery of GEF core indicator targets
- Contribution to wider national/sub-national strategies and alignment with existing comprehensive land use plans
- Public sector support (policy and institutional) and demonstrated political will of key government actors
- Private sector involvement (markets and financing)
- Potential for achieving large-scale change
- Ability to catalyze innovations generated in technology, policy, governance, financing, and business models.
- Focus on working with forest dependent communities in the management of their own forest resources, with a focus on livelihoods.
- Potential for multi-country collaboration on management challenges that cross borders and that countries identify as priorities during the design process;
- Area share of semi-arid and sub-humid drylands on total land area;
- Degree of dependence on dryland resources for local livelihoods and the potential of GEF investments to benefit smallholders and pastoralists;
- Importance of climate risks, resilience, and environmental security issues including drought, food insecurity, and migration; and
- Being part of geographies/landscapes that are important for delivering multiple ecosystem services, including threatened dryland ecosystems.

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Mr. Julio Ingles Ferreira	Advisor to the Minister	Ministry of Environment - Angola	3/27/2019
Mr. Khulekani Mpfu	Chief Natural Resources Officer	Department of Environmental Affairs (DEA) - BOTSWANA	3/28/2019
Mr. Justin Goungounga	Secetaire Permanent	Ministere de l'Environnement de l'Economie Verte et du Changement Climatique - BURKINA FASO	3/28/2019
Prof. William Mwegoha	Director of Environment	Vice President's Office - TANZANIA	4/5/2019
Dr. Ibrahim Mohamed	Principal Secretary	Ministry of Environment and Forestry KENIA	3/26/2019
Ms. Shamiso NAJIRA	Chief Environmental Officer	Environmental Affairs Department Ministry of Natural Resources - Malawi	4/4/2019
Mr. Sabit Nurlybay	Vice Minister Environment	Ministry of Environment - Kazakhstan	3/26/2019
Mr. Momedé Abdurramene Nemané	Senior Officer	Ministry of Land, Environment and Rural Development - National Sustainable Development Fund - MOZAMBIQUE	3/20/2019
Mr. Teofilus Nghitila	Director of Environmental Affairs	Ministry of Environment and Tourism NAMIBIA	3/19/2019
Mr. Ariuntuya Dorjsuren	UNCBD Focal Point	Ministry of Environment, Tourism - MONGOLIA	4/3/2019
Ms Tanyaradzwa Mundonga	Deputy Director Natural Resource Management	Ministry of Environment, Tourism and Hospitality Industry - ZIMBABWE	4/3/2019

ANNEX A: LIST OF CHILD PROJECTS UNDER THE PROGRAM

Country	Project Title	GEF Agency	GEF Amount (\$) (without PPG)					Agency Fee (\$)	Total (\$)
			LD-STAR	BD-STAR	CC-STAR	IP set aside	TOTAL		
	FSPs								
Angola	1. Land and natural resource degradation neutrality and community vulnerability reduction in selected Miombo and Mopane Ecoregions of Angola (Okavango and Cunene river basin)	FAO	1,813,077		1,777,700	1,768,856	5,359,633	482,367	5,842,000
Botswana	2. Integrated sustainable and adaptive management of natural resources to support land degradation neutrality and livelihoods in the Miombo-Mopane landscapes of North-east Botswana	FAO	3,569,725			1,784,862	5,354,587	481,913	5,836,500
Burkina Faso	3. Sustainable Management of Drylands Landscapes in Burkina Faso	IUCN	2,672,294	1,336,147	445,382	2,226,911	6,680,734	601,265	7,281,999
Kazakhstan	4. Kazakhstan Resilient Agroforestry and Rangeland Project	WB/FAO	642,202		3,486,238	2,155,964	6,284,404	565,597	6,850,001
Kenya	5. Strengthening forest management for improved biodiversity conservation and climate resilience in the Southern rangelands of Kenya	IUCN	892,431	2,231,078	446,216	1,784,862	5,354,587	481,913	5,836,500
Malawi	6. Transforming landscapes and livelihoods: A cross-sector approach to accelerate restoration of Malawi's Miombo and Mopane woodlands for sustainable forest and biodiversity management	FAO	1,423,072	2,810,567		2,116,820	6,350,459	571,541	6,922,000
Mongolia	7. Promoting Dryland Sustainable Landscapes and Biodiversity Conservation in the Eastern Steppe of Mongolia	FAO/WWF-US	1,784,862	1,784,862		1,784,862	5,354,586	481,914	5,836,500
Mozambique	8. Conservation Areas for Biodiversity Conservation and Development	WB	4,100,917	9,941,464	1,908,257	7,165,138	23,115,776	2,080,420	25,196,196
	9. Integrated landscape management to reverse degradation and								

Namibia	support the sustainable use of natural resources in the Mopane-Miombo belt of Northern Namibia	FAO	3,642,627		444,223	2,043,425	6,130,275	551,725	6,682,000
Tanzania	10. Integrated Landscape Management in Dry Miombo Woodlands of Tanzania	FAO	4,019,349	893,189		2,456,269	7,368,807	663,192	8,031,999
Zimbabwe	11. A cross-sector approach supporting the mainstreaming of sustainable forest and land management to enhance ecosystem resilience for improved livelihoods in the Save and Runde Catchments of Zimbabwe	FAO	5,350,741	891,790	713,432	3,477,982	10,433,945	939,055	11,373,000
Global	12. Global coordination project for the SFM Drylands Impact Program	FAO/WB/UCN/WWF-US				8,056,881	8,056,881	725,119	8,782,000
Total			29,911,297	19,889,097	9,221,448	36,822,832	95,844,674	8,626,021	104,470,695

ANNEX A1: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place

Maps for each country are provided at the link below:

<https://drive.google.com/open?id=1HYblwiWjGy4recafTUiSyEJ4y8eV60YF>

