Sustainable Land Management Program in Ethiopia "Linking Local REDD+ Projects to National REDD+ Strategies & Initiatives"

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1. Land degradation in Ethiopia: an overview

- About 70 per cent of Ethiopia's highland population and an area of over 40 million ha are affected by land degradation
- Annual soil loss is 1.9 billion tons
- Rate of forest loss due to deforestation is 0.16- 0.2 million ha/year
- Water lost as runoff not used 110 billion m^3 /annum
- Loss of soil nutrients is valued at USD 100 million/annum
- Economic loss due to reduced agricultural production is 3% of GDP (EHRS, 1986)
- Wind erosion affected area is 38% land area (dry

2. Causes of land degradation in Ethiopia

- Extensive use of cropland without improving it (nutrient mining) and Deforestation
- Cultivating steep slopes and marginal lands
- Inappropriate farming practices and technologies
- Large population making livelihoods from land (cultivation, use of forests/ tree based, grazing,)
- Inadequate resources (financial, skills, etc)
- Improperly designed and constructed roads
- Improperly constructed drainage ways including improperly designed land management measures
- Deforestation, forest burning and expansion of cultivated lands
- Lack of awareness of the problem and the measures to

3. Features of land degradation in Ethiopia

Farmlands

3. Features of land degradation ….

Farmlands

3. Features of land degradation …..

Gullies in farmlands

3. Features of land degradation …….

Grazing lands

3. Features of land degradation ……

Communal lands

3. Features of land degradation ……

Acid and termite affected farmlands

3. Features of land degradation …..

Woodlands

4. Effects of land degradation

- Declining land productivity
- Poor agricultural (crop, livestock and forests) productivity,
- Food insecurity (household and national) and poverty
- Unsustainable subsistence agricultural practices
- Depleting soil fertility / nutrients and water
- Weakened resilience of land users for shocks and drought
- Diminishing biological diversity (annuals, perennials)

5. Sustainable land management: the way out

SLM is the way out from declining agricultural productivity, climate change effects, poverty, food insecurity cycle

The SLM Program emphasizes on scaling up of successful practices, approaches and technologies to prevent or control land degradation by pursuing integrated and cross-sectoral approaches to sustainable land management.

The vehicle for scaling up best practices is the Ethiopian Strategic Investment Framework (ESIF) for SLM which was developed with leadership of the MoA and involvement and contributions of development partners, civil society organizations and other stakeholders

6. Principles of ESIF

- Land degradation is **a multi-dimensional problem**, which the piecemeal efforts of different agencies in the past have failed to tackle effectively.
- The ESIF calls for **an alternative approach** based on **multi-sectoral partnerships** in which the different stakeholders seek to harmonise and align their investments in a collaborative manner .
- Ethiopian Strategic Investment Framework **advocates** for
  - **Coordination of efforts**
  - **Harmonizing approaches**
  - **Alignments**

7. Goal of ESIF

- The ESIF is formulated with the goal of *serving as a national level strategic planning framework that is to be used to guide the prioritisation, planning and implementation, by both the public and private sector, of current and future investments in SLM*

- *Addressing the interlinked problems of poverty, vulnerability, land degradation and climate change impacts at the rural community level*.

8. Objectives of ESIF

livelihoods / socioeconomic:-

The overall development objective of the ESIF is to *improve the livelihoods and economic well-being of the country's farmers, herders and forest resource users by scaling up SLM practices with proven potential to restore, sustain and enhance the productivity of Ethiopia's land resources*.

Environmental:

The overall environmental objective of the ESIF is to *rebuild Ethiopia's natural capital assets by overcoming the causes, and mitigating the negative impacts, of land degradation on the structure and functional integrity of the country's ecosystem resources*.

Objective of the SLM project

- to provide assistance to smallholder farmers to adopt sustainable land management practices on a wider scale to
- (a) reverse land degradation in agricultural landscapes;
- (b) increase agricultural productivity and income growth; and
- (c) protect ecosystem integrity and functions.

Components Supported By SLMP

- SLM with its current scope was launched in 2009
- **Watershed Management- has four subcomponents under it**
  - (a) Capacity building;
  - (b) Communal land and gully rehabilitation;
  - (c) Farmland and homestead development and
  - (d) Community infrastructure.

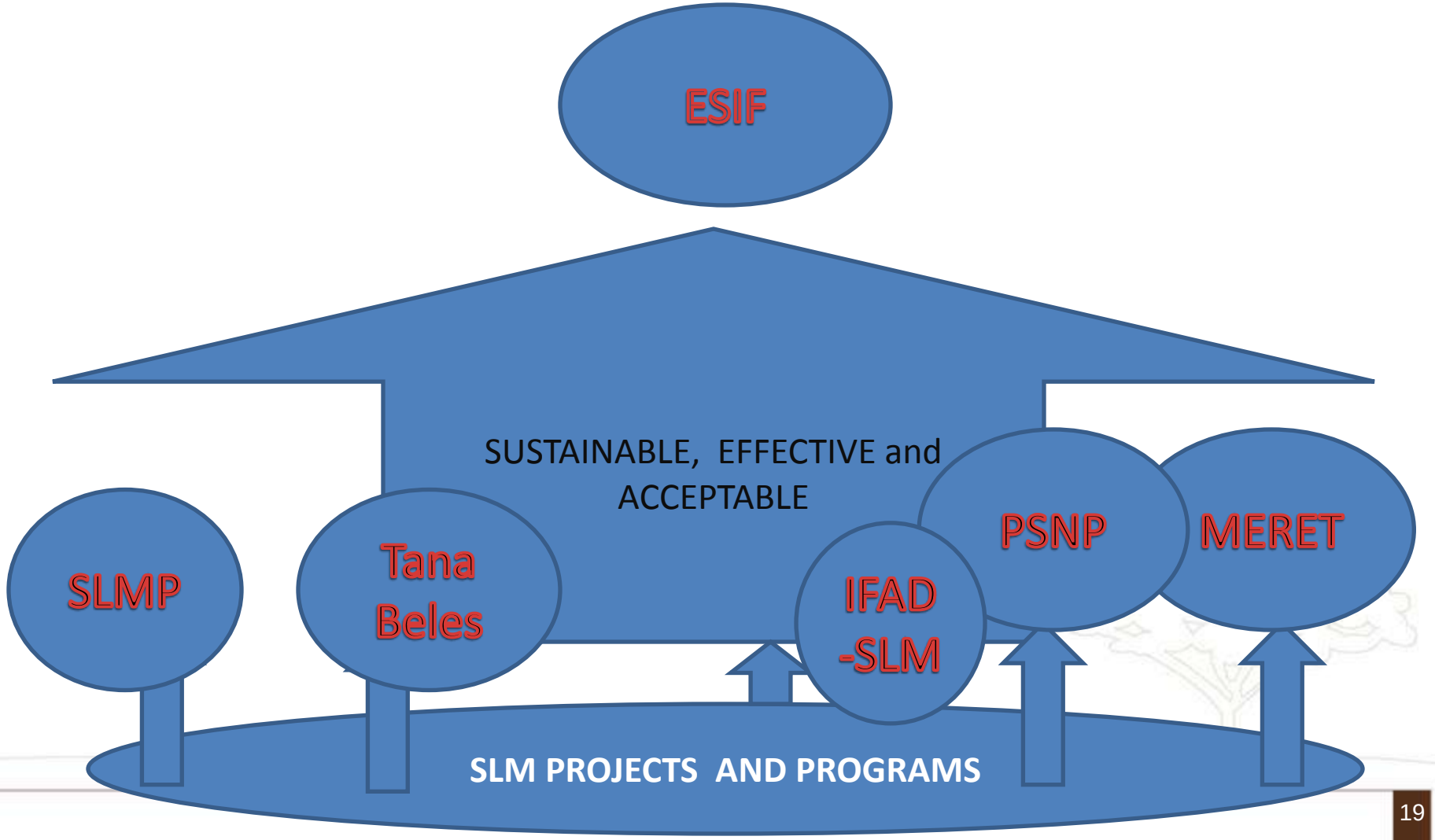
- **Rural Land Certification and Administration**
  - **First level certification supported – (2008-2010/11)**
  - **Fully focused on second level certification started, since 2011/12**

- **Project and Knowledge Management**

9. ESIF Coordination (platform)

- SLM Steering Committees
  - National
  - Regional
  - Woreda (District Level)
- Technical Committees
  - National
  - Regional
  - Woreda (District Level)
- Task Forces under the national SLM TC
- SLM Secretariat (Coordination Office in the MoA)

10. ESIF building blocks

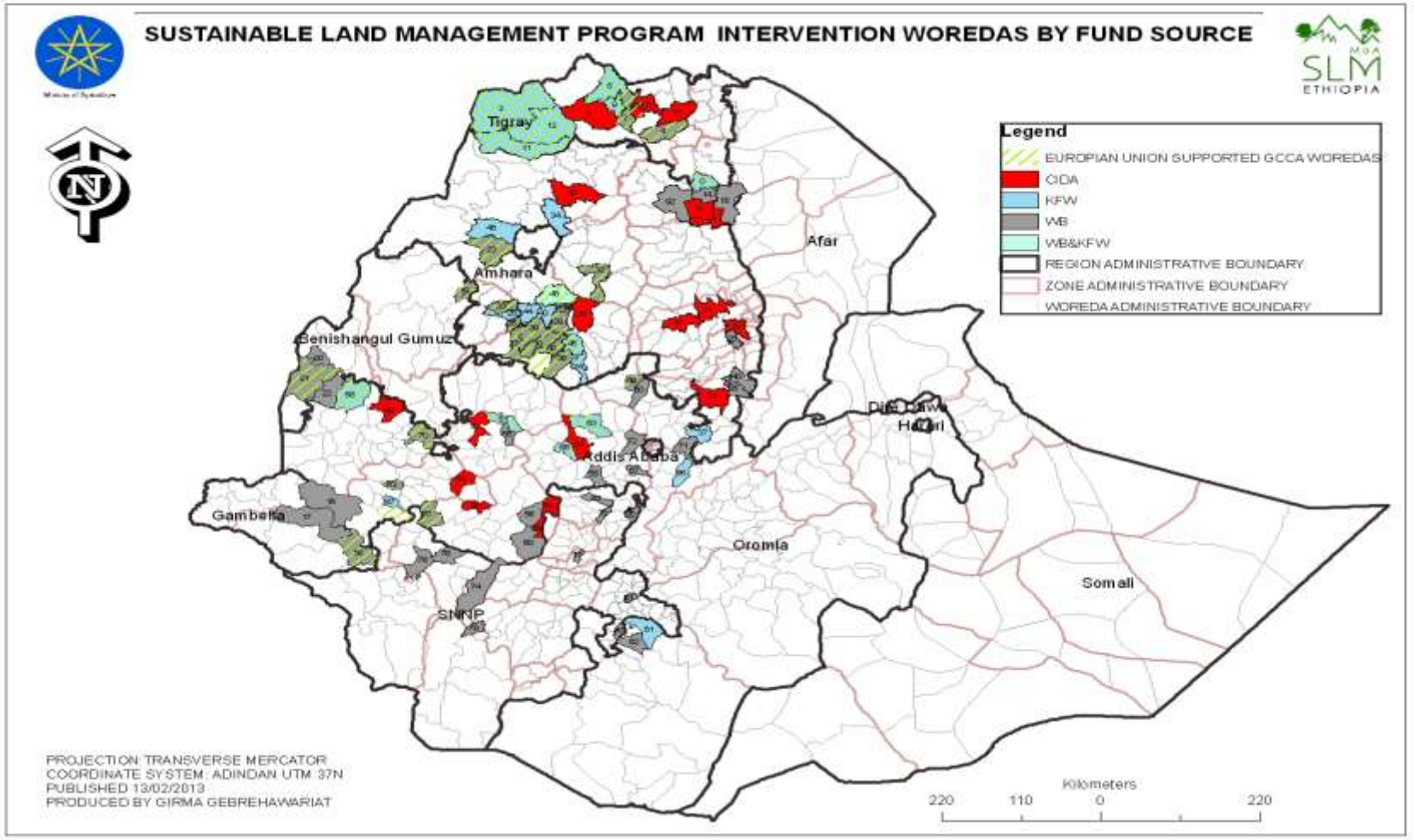


11. SLM technologies and practices

- Traditional measures existed well over 400-500 years
- Introduced measures started since 1970s
- These are documented and screened for scaling up with ESIF- SLM
    - 52 technologies and 27 approaches **Documented as well as**
    - 33 technologies and 8 approaches **Screened so far**

The Sustainable Land Management Program is one of the Flagship Program for ESIF

1. SLM Program area



Development Partners contributing to the SLM Program

Development Partner	Contribution Type	Targeted Regions	Woreda	Targeted Watersheds	Area (ha)	Allocated budget (million)
THE WORLD BANK	Financial	Amhara, Oromia, Tigray, BG, Gambela, SNNP	42	35	211,000	US$ 29
KFW	Financial	Amhara, Oromia, Tigray	23	23	175,950	Euro 13.3
Canadian International Development Agency	Technical Financial	Amhara, Oromia, Tigray	18	18	172,529	CAN$ 6.272 CAN$ 13.2
	Financial	Amhara, Oromia, Tigray, BG, Gambela,	34	34	40,876	Euro 8.5
giz	Technical	Amhara, Oromia, Tigray,	83	76	n.a.	Euro 11.89
IFAD,GEF	Financial	Amhara, LakeTana WS	27	1	227,500	US$ 27.23
Government of Finland	Financial	Amhara, Benishangul Gumuz	8			Euro 12.8

Objective and Components of SLMP
Joint Results Framework

Program Development Objective: Reduced land degradation in selected agricultural landscapes and improved agricultural productivity of smallholder farmers

5 Components of SLMP				
Watershed Management	**Land Administration**	**Improvement of Framework Conditions**	**Improved Agricultural advisory services**	**Project Management**
Component Objectives				
Area under SLM practices and amount of carbon sequestered is increased	Increased tenure security among male and female farmers issued with land certificates	The framework conditions for up scaling and effective implementation of successful SLM approaches are improved	The quality of public agricultural advisory services on SLM is improved	Effective project management and coordination established and operational
Development Partners contributing to Components				
(WB,KFW,CIDA IFAD,EU,GIZ)	(WB, Finland)	(GIZ)	(GIZ)	(WB,KFW,CIDA,IFAD,EU,GIZ)

4. Major achievements by Key indicators to date

- **Indicator 1 : Percentage increase in area under sustainable land management practices in the targeted watersheds:**
  - Cumulative of 175,510 ha of communal and individual land have been treated by undertaking various (more than 15 types) physical and biological measures till January 2013. This achievement is close to 83% of the total area targeted to be covered during the project life.

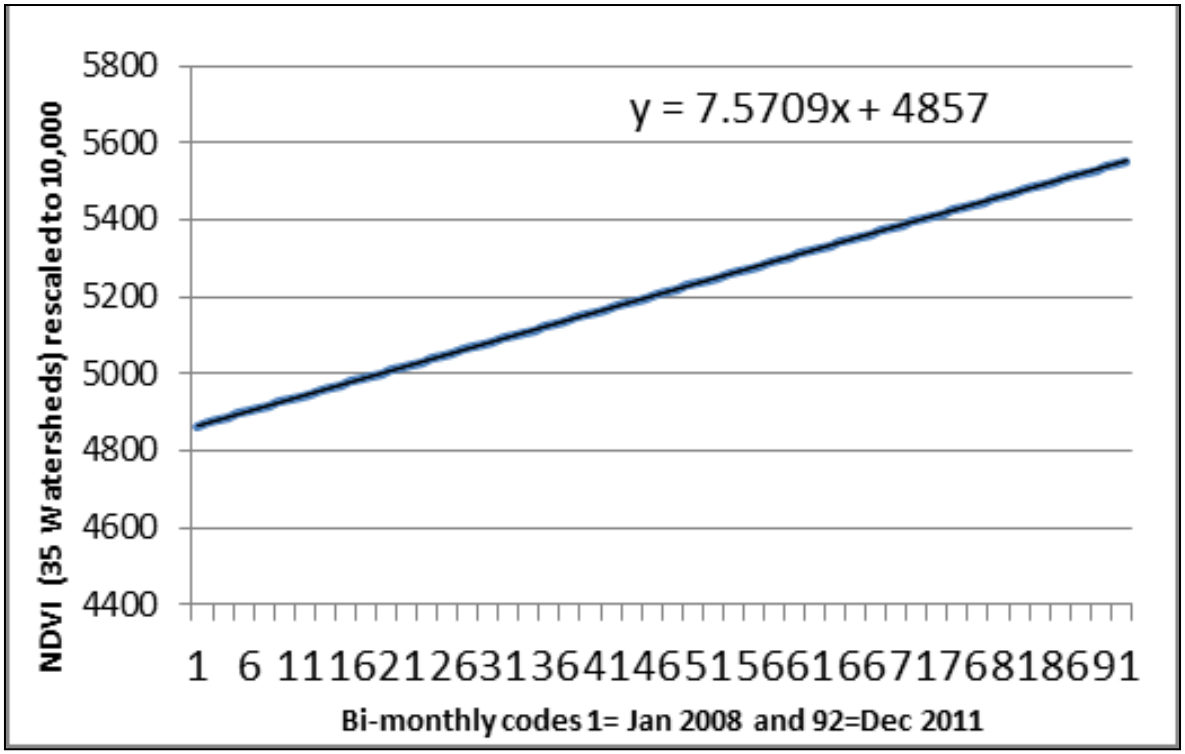
4. Major achievements by Key indicators to date

- **Indicator 2 : Percentage increase in agricultural productivity (for dominant crops and livestock):**
  - Baseline data in 2009 is collected for 35 WB financed watersheds and productivity of **2 major crop per region** and **cow milk liter/yr has been determined**
  - Impact Assessment for the same WB finance watershed is on going and analysis and result is expected in May, 2013 even though significant impacts are observed.
  - Data collection to establish baseline for 23 KfW financed and 18 CIDA financed watersheds is also ongoing and Analysis and Report is expected in May 2013.

4. Major achievements …..

- **Indicator 3 : Percentage increase in normalized difference vegetation index:**
  - A 23.3% increase over the baseline (0.42) is observed **in September 15, 2012** (average weighted NDVI value of **0.518** for 35 WB Watersheds is attained **on Sept. 2012)**
  - Continuous (4 Yrs) NDVI analysis shows: **annual weighted average increase** by 3.5% in NDVI for 35 WB watersheds (Jan 2008 to Dec 2011).

Continuous NDVI Analysis (Y-Axis) over time (on X-Axis) in 35 World Bank financed Watersheds, averaged on area weighted basis



The trend line in the regression graph shows an average annual increase of greenness by 3.5% per year over the project area between January 2008 – December 2011.

4. Major achievements …..

- **Indicator 4 : Number of households that have adopted one or more sustainable land management practices on their individual land as a result of SLM interventions:**

  - **More than 96, 000 HHs have been technically or materially assisted by SLMP to apply best SLM practices on their homestead or farmland. At least 60% of these HHs have implemented additional new practices.**

4. Major achievements ….

Indicator 5 : Percentage of Development Agents and Woreda experts in the project areas using information on best management practices in sustainable land management from MoA knowledge management system:

- **A study commissioned by GIZ have shown that on average, 43% of all interviewed Development Agents and 70% of all interviewed Woreda Experts in Amhara, Oromia and Tigray regions use at least one SLM knowledge management Information of MoA's Knowledge Management System (KMS)**

4. Major achievements ….

- **Indicator 6: Issuance of land certificates, with geo-referenced maps of the parcels to small holder farmer households:**

  - **22,229** second level Certificate issued and
  - **229,642** parcels surveyed for issuance of 2nd level Certificates so far.

4. Major achievements ….

Based on the recommendation of the JISM team, that evaluated the project during Feb. 13 – 27, 2013, :

- IDA upgraded its rating for the project's performance towards achievement of its development and global objectives from “ **Moderately Satisfactory” to Satisfactory level**.

SLMP interventions for climate change adaptation and mitigation

- Crop diversification is one of the strategy followed in SLMP, crops that generally thrives in challenging environments
- SLMP is also using genetic resources which are more productive and better adapted crops such as stress resistant (resistance to heat, drought, pest, salinity, floods and water and nutrient efficient) and higher yielding varieties
- In retaining Soil Moisture, SLMP is practicing soil organic matter improvements through conservation agriculture , composting, mulching and green manuring

SLMP interventions for climate change adaptation and mitigation(Cont'd)

- In Increasing Nutrient Use Efficiency SLMP practice a combination of organic matter((either manure, crop residues or green manure) and nitrogen fixing legumes which are contributing towards reducing the use of synthetic fertilizer

- SLMP practices also Integrated pest management technologies (IPM) where ecological control is used supported by early warning system, training, regulation and incentives to reduce the use of hazardous pesticide)
- In increasing water productivity SLMP is materializing it through the application of water harvesting technologies, using the ground water resources soundly and improving the water use efficiency of the already existing irrigation schemes in the dry areas

SLMP interventions for climate change adaptation and mitigation(Cont'd)

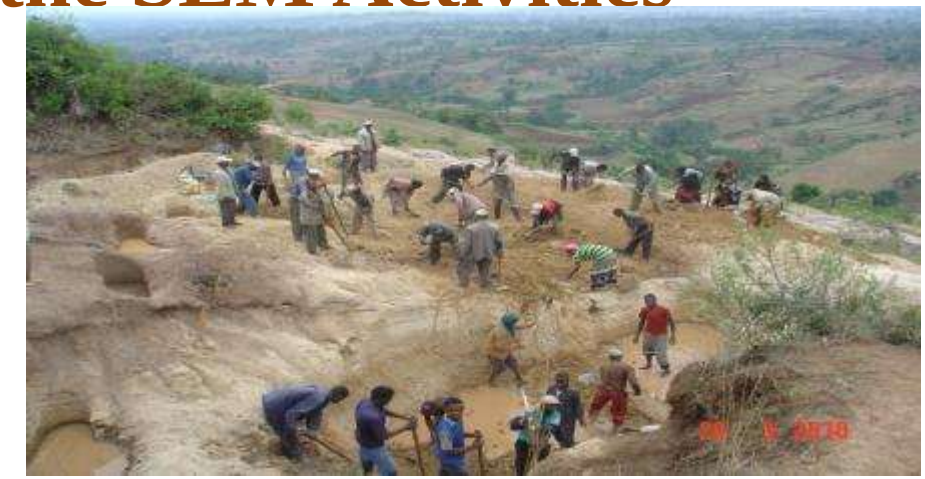
- In Controlling and Copping with Salinization, SLMP tackles it through the plantation of salt tolerant species, mixed farming system and improving the drainage
- Relegation of degraded lands
- Area enclosure and management in lowland/dry forest Are
- Aforestation and reforestation in small holder forestry and Agroforestry as a REDD+ Activity
- Agro-forestry and crop biodiversity
- Planting high value crops / trees
- Soil fertility improvement ,compost application and planting nitrogen fixing vegetation are some of the practices

SLMP interventions for climate change adaptation and mitigation(Cont'd)

- In managing Organic Matter, in SLMP watersheds composting, crop residue management, conservation agriculture and green manuring are practiced
- Bio physical erosion control measures In combination with other measures are fundamental for climate smart agriculture
- The type of erosion measures implemented for reducing Erosion in SLMP are
    - Agronomic (Mulching, reducing tillage, Conservation agriculture)
    - Vegetative (Using grass or forest strips, cover crops)
    - Structural (check dams , bank stabilization, and terraces)
    - Management (Introducing fallow, changing land use

These measures are often used in combination

5. Some of the SLM Activities



5. Examples of SLM ….

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6. Outstanding Issues

- As Phase I of the IDA/GEF support will come to an end in September 2013, the design of the Phase II has been started, the Core Committee with the WB have developed the First Concept Note and preparation of PAD and conducting various studies is ongoing.

- Phase II is expected to be financed by the WB/ IDA, Norway Gvt, the GGWSSI, GEF, etc. and about USD 130 million is expected for this purpose.

- It is also required to tap additional money for CSA and Carbon Finance from the CRGE and other sources as well as scale up the best practices for Bio Carbon fund.

7. Lessons Learnt

- Revising the existing Implementation Manual (PIM) based on the condition and Partners interest for SLMP further enhances the harmonization of donor supports and enable to build up a programmatic approach

- The use of one common logical framework for SLMP would enable to apply a uniform and standardized result based reporting, monitoring and evaluation system

- Strictly following the planning approach as described on the CBPWD guideline is essential to maximize results and ensure community ownership and sustainability of results achieved

8. Conclusions

- Since the launching of SLMP within the ESIF, sustainability of development activities have been observed as a result of:
  - Proper SLM platform functionality (stakeholders and partners) and conflict of approaches and duplication of effort avoided ;
  - Harmonization of flagship projects also explored through consultation workshops with the objective of setting directions for closer future collaborative actions among the actors (SLMP, PSNP, MERET and AGP)
  - Aggressive community mobilization and awareness efforts and strong technical assistance from SLMP Coordination office,
  - adequate policy and strategy support, increased interest by donors and development partners to align their activities with SLMP, which are to be scaled up both in other food secure and insecure areas

8. Conclusions ….

- Commitment of the Government and communities to mobilize resources at all levels (Federal and Regional)
- empowerment of the woredas and availability of policies and strategies that support SLM from the experience gained through **Research and Extension** carried out by government, NGOs, and development partners,
- **Strengthen EthiOCAT documentation** on indigenous and introduced land management practices, technologies and approaches
- Readiness and willingness of partners organizations to technically and financially support scaling up of SLM.

9. Key Future strategies

- Create more harmonized approaches, methodologies and activities in SLM
- Expand Massive public awareness promotion in a wider scale
- Ensuring long term land security
- Implementing policies and develop more
- Strengthening and creating capable institutions for SLM implementation
- Mobilizing communities labor and finance (private, public, external), involving more partners and SH's.
- Strengthen the Extension System through support from Research and Academic Institutions for REDD+ activities and other SLM Interventions.
- Full adoption and implementation of the ESIF for SLM in line with the National GTP and CRGE strategy of Ethiopia

- **Sustainable Land Management: SLMP- a shared Responsibility**

Thank you!

OUR LAND – OUR WEALTH, OUR FUTURE, IN OUR HANDS