SECTORAL M&E TO MEASURE PROGRESS TOWARDS NATIONAL CLIMATE CHANGE POLICY (CRGE) OBJECTIVES
EXPERIENCES FROM APPLYING TAMD IN ETHIOPIA

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Indonesia, Jakarta
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3. Sectoral M&E to measure progress towards national climate change policy (CRGE) objectives

4. TAMD experience in Ethiopia

5. Focus of TAMD

6. TAMD approach

7. Indicators of different Programs

8. Relation to CRM, Resilience and Development Indicators of TAMD

9. Theory of Change
1. Understanding CRGE Strategy

**CRGE:** Climate-resilient Green Economy is a strategy identified and prioritized more than 60 initiatives:

- To achieve the country economic development goals
- To protect the country from the adverse effects of climate change
- To contribute sharp decrease in GHG emissions and unsustainable use of natural resources.
- To build a green economy that will help the country ambition of reaching middle-income status before 2025.
2. Objectives of CRGE Strategy

Identify green economy opportunities that could help Ethiopia to reach its ambitious growth targets while keeping greenhouse gas emissions low.

Create a climate resilient economy which will be protected from the negative impacts of climate change and will be ready to seek opportunities in a changing climate.
3. Sectoral M&E

CRGE initiatives follow a sectoral approach to overcome the challenges of developing a green economy.

One of the Sectoral CRGE M&E system is through CRGE Fast Track Investments which include development of sector-specific M&E systems.

The CRGE Facility M&E system outlines national, high-level Impacts and Outcomes (pillars and sub-pillars) for sectors.

Sector-specific M&E systems detail outputs and activities but must also demonstrate alignment with CRGE pillars and sub-pillars.
Pillars and sub-pillars showing the hierarchy of CRGE objectives at the sector level

3. Sectoral M&E cont’d

CRGE Pillars (Sector Impacts)

1. Agricultural systems strengthened using low carbon, climate resilient practices
2. Forests and other natural resources protected and sustainably managed for their social, economic and ecosystem services
3. Increased energy efficiency and electricity generation from diversified, climate resilient renewable sources
4. Green cities, buildings, transportation and industrial systems developed and safeguarded against climate risks
5. Climate resilient and green economic growth is socially equitable and inclusive, addressing underlying drivers of vulnerability to climate risks

CRGE Sub-pillars (Sector Outcomes)

1.1 Climate smart crop production practices adopted and productivity increased
1.2 Increased coverage of climate smart irrigation systems
1.3 Increased productivity and resource efficiency of livestock sector
2.1 Forest management practices improved
2.2 Land and water resources management practices strengthened
3.1 Renewable energy generation capacity scaled up and diversified
3.2 Increased energy efficiency
4.1 Urban areas greened and environmental quality improved
4.2 Green, resilient industries strengthened for domestic & regional markets
4.3 Low carbon climate resilient transport modes expanded and adopted

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3. Sectoral M&E cont’d

Sector M&E systems
Program / project M&E plans

CRGE Facility Portfolio
Results Matrix

Inputs
Activities
Outputs
Outcomes
Impact

- Money
- Staff time
- Equipment
- Office space
- Climate information

- Collecting baseline information
- Organizing workshops
- Buying and providing tools and seeds

- Training sessions for producers
- Pilot plots
- Field guides
- Policy briefs

Short and medium-term effects:
- Adoption of climate-smart cropping
- Improved water resource management practices

Long-term effects:
- Change in carbon intensity of GDP
- Change in climate vulnerability of rural communities
3. Sectoral M&E cont’d

Example: MOA reporting channels to the CRGE Facility
4. TAMD Experience in Ethiopia

Major findings

**Track 1 Scorecard Indicator**

CRM(Track1): Sectoral ministries less integration of climate change into their planning, while MOA has some capacity from national to local level.

**Track 2 Indicators**

Identify Changes in adaptation and development performance

Climate data analyses to interpret changes in Track 2
4. TAMD Experience in Ethiopia cont’d

TAMD was applied retrospectively to understand the resilience benefits of SLMP-1 interventions in selected woredas.

TAMD and the set of indicators created could be considered as a basis for the implementation of climate M&E systems in Ethiopia.

Scaling up the use of TAMD from project scale to national scale could be one way to respond to the need for more robust monitoring and evaluation of climate adaptation policies.
5. Focus of TAMD

Measure resilience
Measure improvement of livelihood and poverty reduction
Assess the improvement of local economy
Show the contribution of agriculture sector for the alignment of CRGE and GTP
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### 6. TAMD Approach

<table>
<thead>
<tr>
<th>MOA Approach</th>
<th>TAMD Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOP-DOWN Approach</strong></td>
<td><strong>BOTTOM-UP Approach</strong></td>
</tr>
<tr>
<td>National</td>
<td>National</td>
</tr>
<tr>
<td>Woreda</td>
<td>Woreda</td>
</tr>
</tbody>
</table>

**TAMD Approach**:

- **TOP-DOWN Approach**
  - National
  - Woreda

- **BOTTOM-UP Approach**
  - National
  - Woreda
6. TAMD Approach cont’d

Track 1

CRGE Facility + MOA

Regional Agriculture bureau

CRGE Ag FTI target Woredas

Institutional changes in climate risk management

Change in livelihood and local economy

Adoption/upgrading CSA interventions

Track 2

Changes in livelihoods

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7. Indicators of Different Program

<table>
<thead>
<tr>
<th>Natural Capital</th>
<th>TAMD generated M&amp;E indicators</th>
<th>AFTP Indicators (Bibilo pilot woreda)</th>
<th>GTP Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Hectare of land suffer from the hazard</td>
<td>• Number of household secured or registered farmland</td>
<td>• Improved in soil fertility in thousand /Ha</td>
</tr>
<tr>
<td></td>
<td>• Number of household secured or registered farmland</td>
<td></td>
<td>• Land covered in Ha</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical Capital</th>
<th>TAMD generated M&amp;E indicators</th>
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<th>GTP Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Distance to fetch drinking water</td>
<td>• Number of hours to fetch water</td>
<td>• Rural potable water supply coverage within 1.5km radius (%)</td>
</tr>
<tr>
<td></td>
<td>• Number of irrigation schemes</td>
<td>• Number of ponds, volume of water</td>
<td>• Urban potable water supply coverage within 0.5km radius (%)</td>
</tr>
<tr>
<td></td>
<td>• Number of hand dug well</td>
<td>• Number of irrigation schemes</td>
<td>• Reduce nonfunctional rural water supply schemes (%)</td>
</tr>
<tr>
<td></td>
<td>• Number of water pump for irrigation</td>
<td>• Surplus production marketed</td>
<td>• Area of land developed with medium and large scale irrigation (Ha)</td>
</tr>
<tr>
<td></td>
<td>• Number of health care center</td>
<td></td>
<td>• Area of land with its irrigation infrastructure rehabilitated and developed (Ha)</td>
</tr>
<tr>
<td></td>
<td>• Number of health post</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Number of schools</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Hectares of land covered under physical structure</td>
<td></td>
<td></td>
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</tbody>
</table>
7. Indicators of Different Program  cont’d

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<tr>
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<th>GTP Indicators</th>
</tr>
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<tbody>
<tr>
<td>• Milking per cow/per day</td>
<td>• Number of livestock markets</td>
<td>• Number of live animal exported</td>
</tr>
<tr>
<td>• Milk product per kilogram</td>
<td>• Amount of cattle product</td>
<td>• Amount of animals product exported</td>
</tr>
<tr>
<td>• Meat per kilogram</td>
<td>• Number of cattle</td>
<td>• Number of improved livestock</td>
</tr>
<tr>
<td>• Number of livestock</td>
<td>• Increase yield</td>
<td>• Edible production in thousand tones</td>
</tr>
<tr>
<td>• Price and productivity of crops per quintal/per hectare</td>
<td>• Number of farmers who produce vegetable and fruits</td>
<td>• Productivity of edible in qui/ha</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Land covered with edible in thousand/ha</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Agricultural input supply in thousand/ tone/quintal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Export items in million USD</td>
</tr>
</tbody>
</table>

**Financial Capital**
- Number of student enroll schooling
- Number of female student enroll schooling
- Number of household uses family planning
- Number of household who access climate information or EWS

**Human Capital**
- Number of HH able to send their children to school
- Number of household who access climate information or EWS

**GTP Indicators**
- Extension service beneficiaries HH in thousands and in %
- Number of extension trainings
- Number of research conducted
- Number of woreda in pest control
Interventions at various levels have their own indicators.

**8. CRM, Resilience and Development Indicators**

- **CRM Indicators**
  - National-level interventions
  - Woreda level interventions

- **Development Indicators**
  - Theory of change
  - Aggregation
  - Resilience Indicator
  - Impact indicators
  - Outcome indicator

Indicators measures Program at national level

Indicators measures Project at household level

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9. Theory of Change

Bilbilo watershed Theory of Change pathway with its indicators, risks and assumptions.
Thank You
For Your Attention...

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