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CRGE Highlights is a monthly newsletter of the Environmental Protection Authority of the Federal Democratic Republic of Ethiopia, focusing on disseminating the lessons learned from the implementation of Ethiopia's Climate Resilient Green Economy Strategy (CRGE).

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Announcement ...

The Environmental Protection Authority in collaboration with its partners will organize a national environment day celebration on 5 June 2013, under the theme *Caring Nature for Food Security*. This event will be part of World Environment Day (WED) celebration, which will be held globally under the theme *Think. Eat. Save.*

More information on this event is available in the upcoming events section on Page 4.

What is the Sectoral Reduction Mechanism (SRM)?

☐ Belete Geda | Director of Education and Awareness Programme | EPA

This article is based on a question and answer session with Ato Desalegn Mesfin, Deputy Director General of the Environmental Protection Authority, and discusses the Sectoral Reduction Mechanism (SRM), which is an approach developed by EPA for the implementation of Ethiopia's Climate Resilient Green Economy Strategy.

The Climate-Resilient Green Economy (CRGE) strategy of the Government of Ethiopia aims to address the adverse impacts of climate change and to build a green economy that will help realize the country's ambition of reaching middle-income status by 2025. Currently, the CRGE is being implemented in three phases, with the first, second, and third phase covering the period 2011-2015, 2016-2020 and 2021-2025, respectively. The following sectors are CRGE priorities — crops, livestock, forests, energy, transport, industry and green cities.



Ato Desalegn Mesfin, Deputy Director General of EPA (left) being interviewed by Ato Belete Geda, Director of Awareness and Education Program at EPA (right).

What is the Sectoral Reduction Mechanism and how did it evolve as the implementation vehicle of Ethiopia's Climate Resilient Green Economy strategy?

The global negotiations set the context on how climate change mitigation is to be implemented at the national level, with the subsequent meetings of the international community in Bali, Indonesia (2007); Copenhagen, Denmark (2009); and Cancun, Mexico (2010); Durban, South Africa (2011) and Doha, Qatar (2012) defining how this was to be implemented. To this end, it was agreed that due to their historical responsibilities developed nations were to implement their commitment to reduce and mitigate the impacts of greenhouse gases (GHGs) using their own finance. On the other hand, developing countries were required to define their approach to mitigate the impact of Greenhouse Gases though a process known as the Nationally Appropriate

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Sector Focus: The Agriculture Sector CRGE Unit

☐ Sertse Sebuh | CRGE Unit Coordinator | MoA

The CRGE units (also known as environmental units in some sectors) are constituted differently at present. The Ministry of Agriculture (MoA) has established a dedicated CRGE coordination unit which is recognized by the employment norms of the Ministry of Civil Service. On the other hand, some sectoral CRGE units are organized as teams drawn from the experts of the different departments of a ministry/sector. The rationale for establishing these units within sectoral ministries is to build a technical expert base that deals with real-world data sets and tools needed to design, develop and disseminate project/program activities of the CRGE strategy. At the present, the agriculture sector CRGE unit is designed to have a full time coordinator and six technical experts. When fully constituted, the CRGE unit in the Ministry of Agriculture could increase from its current seven experts depending on the expected intensity and volume of work to implement the CRGE strategy. The CRGE coordination unit is entrusted to lead, steer, mainstream and monitor the performance of the sector's CRGE vertically as well as horizontally giving consideration to the complex institutional arrangement. The unit is besides responsible to form and direct sub-technical committees composed of experts from the directorates, sub-sectors and affiliate institutions of the Ministry of Agriculture which deal with specific subject matters of the sector's CRGE. This unit is chaired by a coordinator whose role is to oversee all the activities of the unit and to participate as a member of the National CRGE Technical Committee convened by EPA. The CRGE unit is structured to report to the Technical Committee and give guidance to the Regional Bureaus of Agriculture/Regional Forest and Wildlife enterprises

For the time being, in the agriculture sector CRGE focal persons at the regional level are assigned to coordinate Regional CRGE Technical Working Groups that give guidance to regional and district level CRGE activities. These Focal persons are linked to the national process as well. At the Community (Kebele) level the Development Agents (DAs) will serve as the CRGE focal persons. Discussions among regions are underway on the need to replicate the institutional arrangement observed at the federal level. In the agriculture sector, three subtechnical committees were also drawn to undertake CRGE work at the sub-sector level, two to undertake the tasks associated to the green economy strategy and a third to undertake tasks for the climate resilience strategy. The benefit of this approach is that it supports the cross fertilization of ideas from experts who bring their various skills and work experience to fulfilling a singular course of action.

The agriculture sector CRGE unit and its sub-technical teams have been instrumental in achieving the Ethiopia's vision of a Climate Resilient Green Economy, The CRGE unit has produced the sector chapters of the Green Economy Strategy in the sub-sectors of soil, REDD+ and livestock. It has also contributed to the development of the Climate Resilience Strategy for the agriculture sector, which is in its completion phase. The most recent work the unit is carrying out is updating the fast track livestock investment plan that was initially drafted in 2011 to fit in with the findings from the climate resilient strategy output. Similar efforts are being undertaken to synthesize the crop efficiency investment plan. Owing to the fact that the country depends to a large extent on agriculture for livelihoods, there is no doubt that agriculture sector CRGE unit will play a pivotal role in the move to achieve a climate resilient green economy for the sector and the country at large. The unit will also be better positioned to share the experience not just in the continent but to the other developing countries around the globe. For that reason, the sector has maximized its efforts to ensure that all concerned stakeholders are involved to the optimal extent in contributing to the fulfillment of the CRGE vision.

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Mitigation Actions (NAMA). It was also agreed that developing countries are to receive support in the form of technology transfer, finance and capacity building to implement their NAMAs.

In this context, Ethiopia developed its Climate Resilient Green Economy (CRGE) vision, which sets out to achieve middle-income status by 2025, attaining zero net carbon emission and reducing the cost of vulnerability to climate change. The Sectoral Reduction Mechanism (SRM) converts the CRGE vision and strategy to a more actionable programme. Specifically, the SRM responds to the need for new and additional finance that Ethiopia requires to attain its CRGE targets. It sets to avoid a fragmented and project-focused approach in implementing the CRGE by establishing the ground for the development of a more inclusive, programmatic and longer-term approach for the implementation of CRGE. There is also strong strategic focus, with SRM interventions prioritizing actions that yield multiple benefits with relatively less investment. For example, afforestation of a non agriculturally productive land may not cost much but can bring about multiple benefits.

How will the SRM be implemented, across sectors and regions?

The SRM defines the roles and responsibilities of the different CRGE actors. In the context of SRM, the following two types of entities have critical roles and responsibilities.

- ministries and regions which are respectively responsible to develop sectoral and regional investment plans based on the needs of the sector or region. SRM implementing entities are responsible to undertake the investment plan development through a participatory process and in a manner that identifies activities that will be undertaken with or without support or through a reward scheme. Apart from their role in developing investment plans, implementing entities are also responsible for bundling investment proposals that are developed by executing entities, in response to the initially elaborated investment plans.
- SRM executing entities include the private sector, parastatals, micro-green enterprises and communities/community associations. Executing entities are responsible for developing investment proposals in response to the investment plans elaborated by SRM implementing entities.

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As the final steps of the SRM process, investment proposals (which have been bundled into investment packages by implementing entities) are reviewed by a technical committee chaired by the EPA. Finance is then allocated through the CRGE Facility hosted at the Ministry of Finance and Economic Development (MoFED) for implementation.

What is the current implementation status and what are lessons learned from the implementation exercise?

Even as the SRM document was being prepared and refined, there have been efforts to implement CRGE at a pilot level. The EPA has been particularly active in the dissemination and use of 'green' technologies at the community level. However, due to lack of finance these activities were only undertaken at the pilot level, with the aim of identifying the opportunities and challenges in the form of lessons learned, thereby informing sectors on how to replicate and scale up these interventions.

What are the capacity needs across sectors and regions for the implementation of the CRGE through SRM? What is EPA, as the coordinator of CRGE, undertaking to fill the identified capacity needs and gaps?

Currently, EPA is developing a structured approach that defines and identifies the barriers in developing capacity in the implementation of CRGE. The approach looks at capacity building requirements at the systemic, organizational and individual level, taking into account the available human resource capacity for CRGE implementation. SRM implementing and executing entities will undertake an extensive review of this approach, prior to its disclosure in the public domain.

In the broader context, what is the role of partners in creating the required capacity for CRGE implementation?

The primary role of partners, which include donors, civil society organizations and academia, will be to provide demand driven support along the entire span of the SRM process. Partners will particularly have significant role in the provision of support to executing entities in their preparation of investment proposals. In order to facilitate the link between the different actors in the context of the SRM, EPA is currently developing a registry, which should be completed in the next few months.

Where will one see Ethiopia, in 2015, at the end of Ethiopia's Growth and Transformation Plan (GTP) cycle and when the SRM structures and capacities are strengthened for CRGE implementation?

One should anticipate that the CRGE facility will be strengthened and have more finance. Implementing and executing entities would also have fulfilled their role in relation to the implementation of the CRGE. In more practical terms, by 2015 there will have been substantive gains in the forest and energy sectors. In the forestry sector the gains will be in two areas, namely in REDD+ interventions and in the development of 'new' forests. In fact, the latter, i.e. the conversion of degraded lands to forests, is already yielding substantive gains at the lower ranks of government and at the community level, bringing about economic benefits that is sustaining livelihoods.

Regarding on-grid energy, by 2015 Ethiopia will have a more diversified clean energy utilizing sources such as geothermal, wind and hydro. Similarly in the off-grid sector, Ethiopia would also have fairly developed mini-hydro and mini-wind sectors. Moreover, the efforts in energy efficiency (when aggregated) would have resulted in substantive gains.

Where do we need to invest more to support CRGE implementation?

The success of CRGE will highly depend on the availability of finance, as it determines the investment (both in terms of technology and human resource capacity) that can be made to attain the required results. While the international community has been providing support for climate change related interventions in Ethiopia, this has not been enough. Hence, it is important to leverage domestic finance using this support from the international community. In this regard, the Government of Ethiopia is doing its part by committing 2% of its budget for CRGE implementation. However, there is still a lot to be done in setting the ground for the participation of the domestic private sector in the implementation of CRGE.

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Upcoming Events - World Environment Day

The Environmental Protection Authority in collaboration with its partners will organize a national environment day celebration on 5 June 2013, under the theme *Caring Nature for Food Security*. This event will be part of World Environment Day (WED) celebration, which will be held globally under the theme *Think. Eat. Save.*

Four main activities that will be held during the event are:

- Tree planting along the Churchill Road in Addis Ababa,
- Panel discussion on the event theme, i.e. the role of nature and ecosystem goods and services in delivering the country's ambitions of becoming food secure and attaining middle income status. The panel discussion will bring together government officials, diplomats and prominent experts as discussants.
- Acknowledgement of partners that have contributed to Ethiopia's efforts towards becoming a climate resilient and green economy, and
- Exhibition to showcase the Authority's interventions in green technology dissemination to support CRGE implementation at the grassroots level.

For more information on the event, please contact:

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Implementing the CRGE - Piloting the use of solar energy technologies in rural communities

☐ Mohammed Ali | Director of Technology Transfer Programme | EPA

Context

The Government of Ethiopia has prioritized the promotion and use of renewable energy technologies as an intervention area in implementing its Climate Resilient Green Economy (CRGE) Strategy. The Environmental Protection Authority of Ethiopia (EPA), as the CRGE coordinating entity, has focused its efforts on promoting 'green' technologies, piloting their utilization at the community level. These preliminary interventions enable the Authority to play a catalytic role in facilitating the implementation of the CRGE, by creating the opportunity to draw the lessons from the pilots and informing the energy sector in its broader and long-term engagement of disseminating and mainstreaming the use of such 'green' technologies and appliances.

Type of Technology Used

The type technology used was appropriate for rural settings in Ethiopia and focused on the installation of solar panels at the community level for power generation and as charging stations. Chargeable light bulbs and other electrical appliances were charged at these stations for use by the community.



Solar power generation and charging station under construction in a rural community in Ethiopia

The Pilot Exercise

In 2012-2013, EPA rolled out solar energy technologies and appliances (including solar panels and solar light bulbs) within communities in eleven kebeles within four regions of the country, namely Benshangul Gumuz, Amhara, Oromia and Tigray. This pilot exercise was implemented through organized youth groups in these regions, with strong support provided from the regional environmental protection bureau, zonal departments, woreda offices and communities. The primary role of EPA was to provide the technologies and coordinate the logistic and technical aspects of the pilot.

Aim of the exercise

The general aim was to promote the use of solar energy technologies at a pilot scale in rural and *off-grid* communities in Ethiopia. This was designed as a means to create a learning process that informs the energy sector for a country-wide and longer-term engagement in mainstreaming renewable energy technologies.

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In specific the exercise aimed to:

- provide electricity using solar technologies to communities in eleven localities found in four regions of the country,
- provide organized youth groups at the community level with direct employment opportunities from the process of distributing chargeable electrical appliances and the provision of electrical charging services (among others),
- provide the broader community with an opportunity to engage in economic activities that use the electricity generated from solar power,
- identify the opportunities and challenges arising from this exercise, thereby informing the energy sector in its effort of replicating and/or scaling up this initiative.

Activities undertaken

The activities undertaken in relation to this exercise were:

- the procurement of chargeable electrical appliances and solar panels, the latter having the capacity to generate a total of 12,920 watts of electricity,
- the provision of training and learning-by-doing exercise to local youth groups on the installation and maintenance of solar panels,
- the distribution of chargeable electrical appliances and the installation of solar panels in a total of eleven Kebeles situated in four regions (Amhara, Tigray, Benshangul Gumuz and Oromia).

Additional benefits of the exercise

Apart from benefits in providing clean energy to newlyreached communities, the exercise also enabled the establishment of 15 rural micro-green enterprises that comprise a total of 150 organized youth (100 male and 50 female). These youth were involved in distribution of electrical appliances and the installation of the solar panels and will continue to be involved in the upkeep and maintenance of these technologies.

Lessons Learned

Three main lessons were learned.

- i. Technology used the pilot exercise showed that in the Ethiopian context solar technologies can be employed to provide energy access to rural communities. However, while the beneficiary communities found the technologies used to be appropriate, the operational (upkeep and maintenance) aspects of the technology would require continuous follow-up, including measures to avail appliances and to regularly train the human resource at the community level.
- ii. Employment created and human resource capacity strengthened The exercise also showed that, even in such rural settings, such interventions can enable the creation and strengthening of community-based and private sector institutions, which are essential for the implementation of Ethiopia's CRGE strategy. Furthermore, such interventions can also create 'green' jobs and can mobilize the human resource capacity at the community level to take the right steps towards the realization of the country's CRGE vision.
- iii. Replicability and Scaling-up The pilot exercise was successfully carried out at the grassroots level in rural communities and in some cases in emerging/developing regions of Ethiopia that are highly constrained in terms of the availability of educated human resource capacity. Thus the pilot exercise proved that such interventions may be easily replicated with the observed dedication and ownership of the participating communities and the reliable follow-up provided on the side of the entity that is providing technical support. Such dedication and ownership also creates the basis for justifying the scaling-up of such interventions by the concerned sectors at the national level.

DISCLAIMER

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CRGE HIGHLIGHTS

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