



Proceedings on Workshops

Trainings and Key Lessons Learned from the project titled Enhancing the Solid Waste Management Practices of Hawassa city in the Era of COVID-19 Pandemic through the 3R (Reduce, Reuse, Recycle) Approach

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PROJECT FINANCIALLY SUPPORTED BY
UNDP/GEF SMALL GRANTS
PROGRAMME



CONSORTIUM FOR CLIMATE CHANGE
ETHIOPIA (CCC-E)

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Addis Ababa, **Ethiopia**

1. Background

1.1 General Project Information

Name of the Organization:	Consortium for Climate Change Ethiopia (CCCE)
Project Title:	Enhancing the Solid Waste Management Practices of Hawassa city in the era of COVID-19 Pandemic through the 3R (reduce, reuse and recycle) approach.
Address:	Yeka Sub city, Woreda 6, House No. 150/9, Addis Ababa, Ethiopia
Proposal submitted to GEF SPG on	25 September 2020
project commenced	25 th of April, 2021
project Completed	31st March 2022

Budget and finance

Amount received under this Agreement:	USD 30,000.00
Contribution of the Local [CSO][CBO] or the recipient community:	USD 6,273.00
Amount received from other sources of funding:	NA
Total Project Cost:	USD 36,273.00

1.2 Project overview

Consortium for Climate Change Ethiopia (CCC-E) is an independent not-for-profit organization established in 2014 and duly registered in Ethiopia by the Authority for Civil Societies Organizations (ACSO) as a local organization under the new Civil Societies Proclamation No: 1113/2019 and bearing registration number 3355.

CCC-E's mission, in tandem its vision, is to promote climate change agenda in Ethiopia through advocacy, networking, research and capacity building towards designing and disseminating activities aimed at influencing public behaviour and policies along with establishing platform which will synergize the efforts of NGOs/CSOs and other stakeholders in combating climate change.

CCC-E has recently completed the implementation of a project entitled: *Enhancing the Solid Waste Management Practices of Hawassa city in the era of COVID-19 Pandemic through the 3R (Reduce, Reuse, Recycle) approach with the financial support of the UNDP/GEF Small Grants Program.*

The project was implemented in collaboration with Tilte Environment Protection & Development Association (TEPDA). The duration of implementation of the project was 12 months.

1.3. Project Rationale and Approach

1.3.1. Problem Statement

As stated in the proposal, the major policy shift towards urbanization and industrialization has significantly contributed to rapid transformation of the Ethiopian economy, resulting in a noticeable shift in economic sectors' GDP contribution from the agriculture sector towards services and manufacturing sectors (World Bank, 2015).

In line with this, over the past twenty years, urban areas including Hawassa City have experienced rapid urbanization and economic development. Due to the expansion of industries (e.g. Hawas

sa industrial park) and other service providing industries in the city, the population of Hawassa has shown significant increase. Correspondingly, the solid wastes generated by households, business centers, industries and institutions in the city have been progressively increasing (HCM, 2018). This necessitated an effective solid waste management at the various stages of its generation: storage, collection, transfer and transport, recycling, reuse, processing, and disposal.

Solid waste management (SWM) is one of the main challenges of Hawassa city (Forum for Environment, 2010). A study conducted by UNDP in 2004 in Hawassa City showed that the municipali-

ty collected and disposed about 50% of the solid waste generated daily, while the rest is either burned or left to decompose in open space or is dumped in unregulated landfills, impacting the environment negatively (UNDP, 2004). Moreover, a recent study conducted on SWM of Hawassa city has revealed that solid waste separation activity at household level in the town is only bound to solid wastes that have sellable values, and to some extent organic wastes. There are limited composting, recycling and reusing activities; and the government agency for waste management is rather engaged in collection, transfer, and disposal of solid waste as the only means of municipal solid waste management.

Door -to -door solid waste collection is provided by Micro and Small-Scale Enterprises (MSE) and private waste collectors, and rarely by municipality collection truck. The transportation systems are largely implemented for collection of solid waste from residential areas. The services of MSE are reached to very small number of household due to lack of materials and finance.

The ongoing UNDP supported GEF financed project ‘Creating Opportunities for Municipalities to Produce and Operationalize Solid Waste Transformation (COMPOST)’ which is designed to promote greater use of Integrated Solid Waste Management (ISWM) and Urban Green Infrastructure (UGI) approaches in six cities in Ethiopia has adopted ISWM standards, guidelines and manuals from existing national standards. Hawassa city is benefited from the increased knowledge and skills for compost productions and waste management.

However, the solid waste management practice in Hawassa is still inadequate and unorganized and most of the residents throw wastes on street, sewerage lines and ditches. This is partly due to the lack of holistic SWM practices and inadequate solid waste collection facilities or containers in the neighborhood as well as from lack of awareness of the community on solid waste management.

Hawassa town solid waste disposal site and its management is poor and below the standard. The waste disposal site called “Diaspora” is located about one km away from the city center and generally described as open unsanitary dump site than landfill site.

On the other hand, COVID-19 pandemic creates additional burden to the solid waste management practices of the city by introducing potentially infectious wastes (contaminated wastes) in the waste

stream, which, if improperly managed and disposed, can pose environmental and health threats to the waste management workers and the city dwellers in general.

This project was therefore intended to alleviate some of the challenges of SWM in Hawassa city through (taking COVID-19 into consideration):

- Improving the collection coverage, storage, transportation and disposal activities,
- Enhancing the capacity of in solid waste management and establishing new MSE in reuse and recycling activities
- Enhancing capacity of the municipality and sub cities to enforce laws and ISWM standards and guidelines
- Awareness creation and trainings to the community and relevant stakeholders

1.3.2. Project Objectives and Expected Results

1.3.2.1 Primary objective

The primary objectives of this project were twofold: (i) to increase the environmental and health benefits of integrated solid waste management (ISWM) standards and guidelines in Hawassa City by boosting the ISWM practices through reducing, reusing and recovering waste materials; and (ii) to strengthen capacity of formal and informal sectors, the MSEs and the city administration (the municipality and the sub cities) to manage solid wastes and reduce environmental and health risks by taking COVID-19 pandemic into considerations.

1.3.2.2. Specific objectives

The specific objectives of the project were;

- a. Enhance ISWM practices with focus on 3R (reduce, reuse and recycle) and build capacity at local level through hands on involvement and training;
- b. Improve the service delivery capacities of MSEs (especially women and youth based MSEs) and the city administration in solid waste management and reduce the problem of environmental pollution
- c. Demonstrate the processes of ISWM approaches at the sub city level to facilitate its replication at other sub cities and towns in the region or in Ethiopia;
- d. Awareness building on ISWM to community and relevant stakeholders

2. Major project activities and outputs

2.1. Activity 1- Waste Inventory

It was planned that the waste streams in the municipal area would be assessed to develop a complete waste inventory. This activity included the identification of waste sources, quantification and characterization of different type of wastes including household, commercial and health care wastes.

Output: A preliminary survey on solid waste management practices in Tabor sub city conducted covering different waste streams and types with quantities and characteristics with projections into future. A separate report on the processes and results of the preliminary survey is prepared.

2.2. Activity 2- Situation Analysis, Target Setting and Identification of Issues of Concerns of Waste Management System

Under this activity it was planned that an assessment would be conducted to know the extent and effectiveness of the existing waste management practices from collection to final disposal. This is done by involving different stakeholder groups, visits, observations, and reviewing the level of compliance with the national regulations and standards.

Output: *A comprehensive overview of the waste management system of Tabor sub city with constraints and areas for improvement was carried out by taking stakeholders' issues of concern which need to be addressed during the ISWM planning and implementation.*

2.3. Activity 3- Capacitating the MSEs, the government and stakeholders for effective Integrated Solid Waste Management

Based on the outputs of the above activities, the capacities of the local formal and informal groups and MSEs would be strengthened by supplying with the necessary facilities and trainings particularly focusing on ISWM and combating COVID-19. In the context of waste management, MSEs are the main drivers of the ISWM system. MSEs are believed to be responsible for collecting, segregating, recycling

and disposing wastes. Hence they were explicitly targeted by the project.

The proposed activities generally would address all the issues of waste handling in a holistic and integrated manner.

This included: waste prevention and reduction at source, waste segregation at source, waste collection, waste transportation, waste reuse/exchange, waste recycling/resource recovery, and waste treatment/disposal. It was planned that depending on the local situation, this project would include designing of some activities/actions to organize the MSEs working on organic eco-friendly bag made from water hyacinth to replace use of plastic bags. The MSE would contribute to the fight for the water hyacinth problem of Lake Hawassa by using it as a raw material for the production of packaging bags and other biodegradable products. Simultaneously, it was believed to create employment opportunities for vulnerable members of the society in the city.

Strategic interventions at the Municipality and sub-city levels introduced to address the centralized and decentralized ISWM options available and probe into synergy between waste management plans at different levels. The intervention took into consideration the enabling measures required to make the ISWM approaches a success through regulatory, economic and market based instruments. At strategic level it was planned that further evaluation would be conducted for the inclusion of Best Available Practices (BAP) & Environmentally Sound Technologies (EST) in solid waste management.

At stakeholder level, it was planned that supportive institutional framework for the ISWM would be created. The framework was considered to develop linkages with key stakeholders representing all community groups who contribute to the problem and affected by the solutions. These key stakeholders include the health sector, business sector, construction sector, domestic sector, schools and educational institutes and others. The institutional framework ensures long-term sustainability of the ISWM of the city.

At operational level, it was planned that the ISWM would address the capacities and training needs of the various formal and informal sectors, MSEs and stakeholders in waste management which include provision of equipment and facilities for service providers in the field of waste management and combating COVID-19 spread. It was also planned to include basic technology specifications for different aspects of waste management chain.

Output: *Capacities of the MSEs, government agencies and relevant stakeholders were strengthened in the implementation of ISWM through offering trainings and some waste management items.*

2.4. Activity 4- Awareness Raising, Training and Public Dissemination:

Citizens' awareness and participation in separating waste materials was believed to be integral to the success of the ISWM practices. Lack of proper knowledge on the separation of solid waste at the sources result malpractices of SWM. This problem impedes the successful operation of ISWM. However, while ISWM had been a good practice for the Hawassa city, citizens may generally be unaware of the importance and benefits of ISWM activities. The participation rate of the citizens in such activity is found to be very low.

- In this situation training on “Effective Implementation of ISWM” was incorporated. Therefore, the following additional trainings were planned for successful implementation of the ISWM approach.
- Awareness raising package on the ISWM issues
- Training Package on the ISWM for local/national government employees
- A public dissemination package for the civil society
- A set of waste management guidelines (including COVID-19) for ISWM implementation
- Training of selected stakeholders /community groups.

Output: *Awareness raising and training workshops were organized to enhance the capacity of the solid waste management agencies of the city in the implementation of ISWM and better and efficient service delivery and the awareness and knowledge of the community were enhanced.*

3. Key accomplishments during project implementation

- i. Formal launching and awareness raising training/presentation was organized for key officials of the sub city and members of the TEPDA Association from 24 -25 April 2021 at Kerawud Hotel. A total of 14 participants took part in the training out of which 2 were females. As a result, meeting was held with the chairperson TEPDA Mr. Agaro and the Secretary Mrs. Messelech
- ii. The contents of the training includes: major urban environmental challenges, SWM challenges, turning challenges into opportunities, basics of ISWM approach and models, and good SWMs experiences from other countries like: Cairo, Tokyo, Copenhagen, Stockholm, Bangladesh and Lagos
- iii. Situational assessment and consultation meeting with the sub city and Tilte Environmental Protection and Development Association (TEPDA) leaders held before the commencement of project implementation.
- iv. Officials of the Tabor sub city were consulted and they ensured to provide the necessary supports for smooth implementation of the planned activities. To formalize the partnership, a number of constructive discussions were conducted with the sub city's contact person Ato Mitku Desta and a formal partnership a Memorandum of Understanding (MoU) was signed.
- v. The pilot project implementation site was identified and visited to assess the actual magnitude of the challenge on the ground and also to see the members of the CBO doing their activities at the site. The CCC-E contact person in Hawassa was introduced to the CBO and Sub city leaders so that he would be able to closely work with all stakeholders.
- vi. Review and assessment of previous similar interventions was undertaken to make wise use of resources and energy and also avoid duplication of efforts. As a result, two studies undertaken in 2015 by Ripple were accessed. In the meantime, the association developed schedule to collect solid waste materials every week on Saturdays from Hawassa lake on the side of "amora gedel".
- vii. The TEPDA members mobilized and undertaken three round waste collection including Water hyacinth (Emboch) (an invasive plant species) from Hawassa lake.
- viii. On June 2021, as it is the season for tree planting, to take part in the green legacy program of the country, the members of the CBO planted trees at the site allotted to the association in the previous year, which is located on other side of Amora gedel. As a result of this particular intervention the sub city communicated with the municipality and facilitated provision of a Nursery site to Tilte

TEPDA as one way of diversifying their sources of income to improve their livelihood.

- ix. As part of the capacity building scheme for members of the CBO waste collection and Personal Protection Equipments (PPE) such as: Iron fork hoe, Wheel barrow, Shovel, Spade fork, Safety hand gloves, Collection dust beans, Face Masks, Plastic boots, Rake, Workplace cloth and Waste weighing balance were procured and distributed. The sub city officials were informed on the proper way of managing these equipments and the sub city has tentatively provided a store for the equipments so that the CBO can safely keep and use the items.
- x. A one-day awareness raising training was given on 15th August 2021 to 14 participants drawn from the Tabor Sub city administration.
- xi. A two days capacity building training was undertaken from 17-18 August 2021 to train them on the proper use of PPE equipments. A total of 34 persons from TEPDA and another vibrant CBO known as Dume attended the capacity building training out of which 21 were females.
- xii. The contents of the two days trainings include: factors that contribute to the solid waste problem, basic principles of integrated Solid Waste Management (ISWM), concept of sustainability in relation to waste management, major sources of solid and liquid waste in Hawassa City, composition Properties of Solid Waste in Hawassa City, and Quantities and Volume of Solid Waste in Hawassa City, and Solid/Liquid Waste Laws in Ethiopia
- xiii. Awareness raising training was also given on December 24, 2021 for the CBOs under the title “Income Generation Options of Solid Wastes at Central Hawassa hotel. Under this title the topics covered were;
 - xiv. Circular Economy through SWM,
 - xv. Types of Solid waste management.
 - xvi. Income generation options through composting
 - xvii. selecting recyclable wastes and selling to recyclers,
 - xviii. using plastics for innovative purposes

4. Major outcome

The primary objectives of the project were to increase the environmental and health benefits of Integrated Solid Waste Management (ISWM) in Hawassa City by boosting the ISWM practices through reducing, reusing and recovering waste materials. It is also aimed to strengthen the capacities of formal and informal sectors that include the city administration (the municipality and the sub cities) to manage solid wastes and reduce environmental and health risks by taking COVID-19 pandemic into considerations. In this regard, these objectives are met through different capacity building activities and awareness raising trainings on ISWM. The project targeted CBOs, relevant government officials both at the Tabor sub city as well as the municipality level. In addition to TEPDA, two other vibrant CBOs namely Dume Solid Waste Management Association and Hawassa Wubet Solid Waste Recycling and Management Association were involved in the project activities.

5. Immediate (short term) benefits received by the participants and/or the recipient communities

Members of the three CBOs were given Personal Protective Equipments (PPE) and basic tools for waste collection in two rounds. During monitoring it was witnessed that the equipment provided were very useful for facilitating waste management practices. From the feedbacks collected at the end of each training, it is realized that the trainings provided very instrumental knowledge and skill in improving the Solid Waste Management practices in Hawassa. They also benefited primary protection from the COVID pandemic which was latent at that time.

6. Long term benefits

As a result of various initiatives and joint trainings undertaken under the project, the partnership between the sub city and CBOs has been strengthened. The provision of a nursery site by the administration is a long-term benefit by way of diversifying their sources of income to improve their livelihood. Some of the Personal Protection Equipment can be used quite for a long period of time. One of the three CBO called Hawassa Wubet Solid Waste Recycling and Management Association is relatively active and well established and CCC-E facilitated and recommended them to apply for a small capacity building project following the call for proposal by the African Climate Justice Alliance (PACJA).

7. Lessons learned

- a. Integrated Solid Waste Management (ISWM) approach remains to be the best way of addressing the challenges of solid waste management in Hawassa.
- b. Involvement of all stakeholders including government, CBOs, academia, private sector, etc. is indispensable to properly address the SWM problems.
- c. Supporting and capacitating the newly established Sidama regional and city administrations are very crucial.
- d. The high-level consultation provided strong commitment to support interventions in this regard.
- e. The waste associated challenge around Lake Hawassa is critical and needs more systematic interventions
- f. This particular project has triggered some activities that give clue to future interventions at city level.
- g. Water Hyacinth poses great threat to Lake Hawassa similar to other lakes of Ethiopia and needs immediate and special attention by both NGOs and the government.
- h. It is vital to scale up the project at city level by mobilizing funds from possible sources.

References

- I. Hawassa City Solid Waste Management Status Study Report (January, 2020)**
- II. Waste Management in Hawassa City and Preserving the Lake Hawassa Ecosystem: Challenges and Interventions A SYNTHESIS REPORT (Hawassa2015)**
- III. Municipal Solid Waste Characterization and Generation Rate Determination with Future Projections for Integrated Solid Waste Management Plan of Hawassa City (Hawassa 2017)**



Figure 1- Launching and awareness raising workshop



Figure 2 Partial view of the training participants



Figure 3. Stake holders training workshop



Figure 4. Training Workshop for the Beneficiaries of the CBO Members



Figure 5. Training workshop for Beneficiaries



Figure 6. Field visit at Lake Hawassa after the Training workshop for Beneficiaries



Figure 7. Consultative workshop with 10 Sub-cities of Hawassa Town Administrations



Figure 8. Project Evaluation at the field and Discussion with the beneficiaries



Figure 9. Members of TEPDA collecting waste from around the lake shore



Figure 10. The tree planting area given for the association



Figure 11. Collecting water hyacinth (Emboch) and transporting to the site where it is properly disposed



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