Context

Quelimane, the fourth-largest city in Mozambique, is facing severe environmental damage caused by poor waste management, coupled with an increase in agricultural production due to continual population growth. As population grows into the rural and peri-urban areas surrounding the city, environmental impacts from increased food production include devastation of mangrove areas and an increase in food waste in markets. At the municipal level the priority is to build the resilience of the city and at the same time support food production for food security. Therefore, as a member of ICLEI-RUAF CITYFOOD project and as a signatory of the Milan Urban Food Policy Pact, the Municipality of Quelimane launched an initiative in support of intensive food production in small fields owned by family households using only organic fertilizers. Institution of organic production practices laid the foundation for the production of compost from food waste. Waste management and reuse has the potential to reduce the spread of diseases among the population and to curb malnutrition, increasing household food production.

Overview of the food practice

Within the project “Quelimane Limpa” food waste is collected from 11 markets within the municipality and taken to a compost-making facility. Here, four Community Associations, composed of about 32 members each, are provided with training and involved in the compost-making process. Compost is then distributed to 340 gardens, where different types of vegetables and food crops are grown and then sold in the markets. Thanks to the use of compost, the farmers obtain high quality yields and at the same time preserve the soil structure. This process enhances the development of micro to small-medium scale entrepreneurs, leading to processing, packaging and selling of different food products. With 128 people involved with their gardens and considering that each household has about 5 family members, the number of people directly involved can be estimated to 700. Furthermore, the initiative fosters the production of food consumed within the city, comprised of about 450,000 people.

Results and lessons learned

With the introduction of this practice there has been a general increase in the yields of the gardens enriched with organic material. This has translated into higher incomes for families, resulting in more vegetables sold in the markets. Besides economic empowerment of poor households, the project is also improving soil fertility. In the past, farmers were just growing the same crops on the same piece of land. This practice exhausts the soil and reduces its fertility, thus reducing the quality and quantity of the produce. With the introduction of compost derived from food waste, organic fertilizer is brought back to the soil, increasing the production, while conserving the soil. The diversification of crops further benefits the food security of families, who are now learning to incorporate new elements, such as beetroot, in their diet. Nutrition habits are not the only habits that changed among the population of Quelimane. Families who only practiced fishing are now switching to agriculture as their main source of income. This helps restore marine life, which was threatened by intensive over-fishing. Moreover communities are now helping the city to replant mangroves, thus promoting biodiversity as they switch from their old style of earning a living to practicing smart agriculture. In the long run, family members will take responsibility of gathering and selling out food waste to be decomposed for fertilizer, further supporting the sustainability of the food system. “Quelimane limpa” represents a successful example of systemic integration of different elements within the food chain. The direct involvement of communities and institutional actors, producers and consumers, highlights the importance of multi-level cooperation in achieving a systemic transformation.