FOOD FORWARD NDCs

Developing and improving agriculture in urban and peri-urban areas and enhancing local food markets

Overview

People living in urban areas account for 54% of the global population. Thus, urban settlements are spaces of vast food consumption and waste production. Improving the food environment through urban and peri-urban agriculture and local markets is an opportunity for local governments to achieve the triple policy goals of sustainable development, human well-being and climate action. They can do so by fostering local production of food, shortening food supply chains and encouraging the sustainable management of water, waste and land.

Moreover, urban and peri-urban agriculture promotes circular practices by reusing human and material resources, turning what otherwise would be wasted into products for local communities. Safe, efficient and reuse-oriented water systems can create synergies between agriculture and wastewater management while mitigating for challenges related to water scarcity and sanitation.

Concrete measures to implement

The development of urban and peri-urban agriculture, as well as enhancing local markets, can be encouraged through the following:

- Set organic waste bans that prohibit food waste from being sent to landfills, encouraging retailers and other downstream supply chain actors to reduce their food waste. Legislation could require the distribution of unsold edible food to charities. A more moderate policy option would be to disincentivise waste by instituting landfill tipping fees.

- Set up a regulatory framework allowing the practice of urban and peri-urban agriculture. The regulation should be made in consultation with the community, academia and business, to meet local necessities and priorities and provide long-term legal certainty. In addition, it should regulate land management practices for home, community, institutional and commercial activities.
- Develop zoning for urban agriculture and the cluster of activities relevant to food production, distribution and consumption.
- Increase responsible investments in food system technologies, infrastructure, services, logistics and supply chains, especially focused on creating benefits in areas with prevalent multidimensional poverty.
- Develop systems for sustainable circular sanitation, with the potential for re-using treated wastewater or greywater for peri-urban or urban agriculture. See ***Implementing circular food systems in cities***.
- Create a circular food production plan to transform food and urban agricultural waste into by-products ranging from biomaterials (like compost) to bioenergy. See ***Implementing circular food systems in cities***.
- Prioritise the protection and sustainable use of wetlands, flood zones and steep slopes for urban and peri-urban agricultural projects in urban planning.
- Provide inclusive training programmes on urban agriculture for local food producers and communities through local education institutions.
- Offer property tax exemptions for lands or buildings that establish urban food gardens.
- Scale up **community gardens and allotments** (i.e., public or community-owned land primarily used to grow food), or "edible cities" initiatives that integrate sustainable food production into urban landscapes. This will allow communities to participate in the food production process and raise awareness about good consumption practices.
- Improve the hygienic and sanitary conditions of local markets, including farmers' markets, to ensure food safety and increase community support. In addition, provide urban farmers equitable access to trade their produce in such markets.

- Support advertising and publicity of local food markets to inform the public of when and where they take place, while also supporting complementary activities (e.g., eating out in local markets and advertising through local tourism boards).
- Implement demand-side policy actions, such as a public procurement program of locally produced food for public institutions, to ensure demand for local products. See ***Integrating healthy and sustainable diets in public procurement***.

Enabling governance measures

- Establish a coordination mechanism between local authorities, urban food producers, local food markets, supermarkets, restaurants and food banks.
- Include urban and peri-urban agriculture in local development plans and budgets to articulate different government levels and ensure enough funding for specific activities, such as maintenance of green productive areas.

- Adopt territorial approaches for regional development and food system planning, including in local markets and agroecology, that strengthen equitable market connections and regional trade to build opportunities for local small-scale producers and also benefit consumers.
- Assess local capabilities, potentials and risks of urban and peri-urban agriculture, as well as local markets, to develop evidence-based guidance to design and implement concrete policy actions.

Tools and MRV systems to monitor progress

Calculators and trackers

MRV Platform for Agriculture

The MRV Platform for Agriculture is a comprehensive platform with sample tools, measurement methods, and case studies for monitoring, reporting and verifying GHG emissions in the agriculture sector.

Link: https://www.agmrv.org/

EX-ante Carbon-balance Tool (EX – ACT)

The EX-ante Carbon-balance Tool (EX – ACT) allows the estimation and tracking of the outcomes of agricultural interventions on GHG emissions.

Link: https://www.fao.org/in-action/epic/ex-act-tool/suite-of-tools/ex-act/en/

Ex-ante Carbon-balance Tool for value chains (EX-ACT VC)

The Ex-ante Carbon-balance Tool for value chains (EX-ACT VC) integrates socio-economic and environmental assessments of value chains, allowing the identification of potential areas of improvement along an agri-food value chain.

Link: https://www.fao.org/3/i7847e/i7847e.pdf

Guides and handbooks

The Milan Urban Food Policy Pact

The Milan Urban Food Policy Pact monitoring framework is a practical handbook to plan the implementation of urban agricultural policies and analyse changes in the urban food system.

Link: https://www.fao.org/3/cb4181en/cb4181en.pdf

Local Governments for Sustainability (ICLEI) Network

ICLEI connects ambitious local and regional governments with other governments, multinational bodies, academia, businesses, NGOs and other actors to promote sustainable urban development. ILCEI also offers numerous resources, funding opportunities and learning materials.

Link: https://iclei.org/

Mitigation benefits

Building urban and peri-urban agriculture and local markets increases green spaces in urban settlements and hence sequesters GHG emissions; these markets also shorten food supply chains resulting in a net reduction of GHG emissions from supply chains.

- Urban and peri-urban agriculture influences changes in food consumption towards lower carbon footprint products. It has the potential to reduce

205 kg CO2eq per year per capita when policies address dietary patterns, food origin and mobility behaviour.

- Shorter food supply chains result in a reduction of emissions associated with transport, cooling and packing.
- See ***Implementing nature-positive food production practices*** and ***Sequestering carbon in the soil and enhancing soil health*** for information on agricultural practices with mitigation benefits.

Other environmental benefits

- Micro-climate stabilisation and reduction of indoor temperature.
- Improved air quality.

Adaptation benefits

- Enhanced food supply chain resilience.
- Improved ecosystem services from urban ecosystems.
- Socio-ecological resilience and community development.
- Reduced dependence on external resources through the reuse of wastewater and food waste.
- Reduced landslides and negative incidences of floods.

Other sustainable development benefits

Urban and peri-urban agriculture and local markets have positive impact on SDGs, particularly on:

- SDG 2 (Zero hunger)
- SDG 3 (Good health and well-being)
- SDG 6 (Clean water and sanitation)
- SDG 10 (Reduced inequalities)
- SDG 11 (Sustainable cities)
- SDG 12 (Responsible consumption and production)
- SDG 15 (Life on land)

Cultivo de vegetales en la azotea de un edificio.

Main implementation challenges and potential negative externalities and trade-offs

- Absence of urban and peri-urban agriculture in local development plans to ensure funding for planning and implementation of actions over time.
- Potential disputes concerning land ownership and tenure rights between landowners and land users.
- Economic barriers for local markets to (i) guarantee healthy products and (ii) compete with large companies able to offer lower product prices.
- Competition with other land uses in urban areas.

Measures to minimize challenges and potential negative externalities and trade-offs

- Implement governance structure using inclusive multi-stakeholder approaches to promote broad support of the community and relevant actors.

- Establish a robust regulatory framework clarifying land ownership and tenure rights, as well as land use.
- Set up a community-led negotiation process to help solve any dispute amicably.
- Invest in improving the sanitary and hygienic conditions of local markets so that this economic burden is not borne by urban farmers and local traders.
- Discourage use of synthetic fertilisers and encourage nature-positive food production. See ***Implementing nature-positive food production practices***.
- Distribute spaces in land-use planning instruments in such a manner that different land uses can coexist.

Implementation costs

- The cost of this policy strategy and particular projects varies in accordance with their scope. However, policymakers and the community shall take a holistic approach to the financial costs and socio-economic and environmental benefits of urban food systems.

Interventions in practice

- Belo Horizonte in Brazil has been promoting **urban agriculture since 1993** through land-use plans and food security programs.
- Land banks and property tax exemptions were used by the city of **Rosario in Argentina** to promote urban agriculture and improve the life conditions of low-income residents.

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