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Sustainable Agricultural System

Ensuring sustainability across the food supply chain



The term "Sustainable Agricultural System" refers to an integrated system of agricultural production, processing, product distribution, whilst building a common vision for food security and stability that balances the social, economic and environmental dimensions of sustainability. Moreover, sustainable agriculture also aims to promote quality livelihoods and wellbeing to farmers and consumers.

Sustainable agricultural products must undergo a sustainable supply chain, with the careful selection of resources and input materials, production process, processing, distribution, marketing and consumption. The promotion and integration of sustainable consumption and production principle would require various types of instruments to incentivize producers and stakeholders along the supply chain to adopt efficient use of natural resources, reduction of waste and pollution from the production process, and prevention of any potential form of degradation and negative impacts on the environment.

Sustainable Agriculture Process

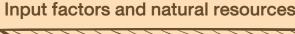


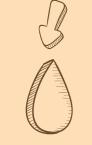


Land and soil

Issues of concern: Land tenure, soil erosion and soil degradation. Approach:

- Use legal instruments to strengthen Use economic instruments and implementation of forest sustaining to incentivize farmers agricultural production.
- food supply chain to ensure produce or fee on irrigated water). are sourced from appropriate sources.
- Use legal measures to declare areas at risk of soil erosion and degradation as "soil conservation zone".





of water in the agricultural sector. farm labor and a decline in Approach:

- to use water in sustainable • Implement traceability system in the ways (e.g. Impose charges
 - Provide incentive measures to encourage young farmers to advance sustainable agriculture.



the number of young farmers.

- · Provide training for older farmers on the use of new technologies to increase production efficiency on their farm.



Production process



Land preparation for farming

Issues of concern: Slash-and-burn agriculture is a widely used method in commercial farming to clear and prepare land for agricultural purposes.

- Transfer knowledge to farmers on better utilization of crop residues (i.e. bioenergy production).
- Enforce strict laws and regulations related to open burning in agricultural and forested areas.



Use of hazardous agrochemicals

Issues of concern: Excessive use of hazardous agrochemicals by farmers in agricultural production.

- Use economic measures to discourage use of hazardous agrochemicals (e.g. levy taxes on hazardous agrochemicals)
- · Prior to the introduction of such economic measures, research and development on sustainable and 'natural' alternatives to pesticides and hazardous agrochemicals should be encouraged.
- · Reinvest tax revenues in sustainable agriculture practices.



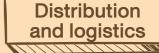
Issues of concern: Contamination

and short shelf life of sustainable agricultural products.

Processing

Approach:

- Levy stringent standard and controlled use of chemical additives during processing process.
- Source sustainable raw materials and crops from multiple sources to diversify risks and ensure continuity



Issues of concern: Maintenance of

quality of sustainable agricultural

products along supply chain.

Promote use of cold-chain

transportation process to

management during

preserve freshness of

agricultural products.

Approach:



inaccessibility.

Approach:

markets.









Issues of concern: Lack Issues of concern: Lack of of market diversity and consumer understanding towards sustainable agricultural product

- sustainable agricultural products by utilizing local retailers or local
- · Modern trade to purchase sustainable agricultural products from multiple sources to ensure • continuity of supply and product availability.

Expand distribution channels for

- Incorporate food literacy into school curricula and utilize social campaigns to raise public awareness.
- Provide information on sustainable agricultural products through use of labelling.

and Strategies to support Sustainable Agricultural system



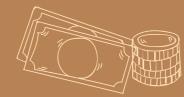
Land tenure measures

Farmers should be encouraged to turn towards sustainable crop production that does not involve provision of land tenure in forest areas



Temporary suspension of debt repayment

Initial transition towards sustainable agricultural practices often demands high forest encroachment or the excessive working capital and large upfront costs from the use of new agricultural technology, machinery, seeds and other inputs. In this regard, temporary suspension of debt liquidity situation for farmers during the transition process.



Capital

Issues of concern: High

for sustainable agricultural

transformation

production.

working capital and investment

Provide temporary suspension

farmers shifting towards

sustainable agricultural

concessional rates to farmers

shifting towards sustainable

· Provide "soft loan" at

of debt repayment for

Soft loan

Soft loan at concessional rates should be offered to farmers who are committed to adopt sustainable agricultural practices.



Taxing hazardous agrochemicals

Taxes on hazardous agrochemicals need be levied to encourage alternative uses of environmentally-friendly biological substances. However, more research and development on alternative substance will need to be prioritized to ensure that their effectiveness are not compromised.



Strengthen sustainable agriculture products

Establishing food standards

boost consumers' confidence in the safety and quality of the sustainable agricultural products.



Increase distribution channels

Given that the wider public still has limited access to sustainable agricultural products, large wholesale markets can help source sustainable agricultural produce from diverse farmer groups, as well as provide a one-stop-shopping service for retailers and end consumers.