

Introduction to Taiwan(ROC) Sustainability

Tzu Chieh, Lin. Agriculture & Food Agency, Taiwan(ROC)

Introduction

In June 1992, the United Nations (UN) assembled over 171 national leaders and representatives in Rio de Janeiro to attend the Earth Summit, and Agenda21 was adopted as an action plan for earth's sustainable development. Simultaneously, the Rio Declaration was announced which propagates the concept of "Think Global, Act Local" in order to achieve sustainable development. The United Nations Commission on Sustainable Development was established in 1993 to aid and supervise sustainable development works across the globe.

Taiwan's sustainability policy

To keep pace with global developments, in August 1994, the Executive Yuan established the Working Committee on Global Environmental Change Policy, comprised of ministers from various departments and related experts, to combat environmental issues and sustainable development works with 6 working groups under its jurisdiction. With the formal inauguration by the Executive Yuan, the Working Committee on Global Environmental Change Policy was expanded as the National Council for Sustainable Development (NCSD).

The NCSD has 9 functioning working groups, namely:

- Climate Change and Energy Conservation & Carbon Reduction Working Group
- National Land Resources Working Group
- Biodiversity Working Group
- Energy and Production Working Group
- Transportation and Livelihood Working Group
- Technology and Evaluation Working Group
- Urban and Rural Development Working Group
- Health and Welfare Working Group
- Education and Promotion Working Group

To stay align with the international development, Green Economy Task Force was also formed in September 2012, to draw plans on promoting green economy.

Our vision of sustainability is to build a world where the present and future generations will both be able to enjoy a “tranquil and diverse environmental ecology,” “vital, open, and prosperous economy,” and “safe and harmonious welfare society.” To create such healthy and ecologically balanced urban and rural communities, the environmental carrying capacity must be taken into consideration, as well as the premise of total quantity control on environmental loads, to establish treatment facilities for waste, air, and water pollution emissions and facilities to separate sewage and wastewater reclamation and reuse systems. Through a systematic approach, plan and improve rural and urban landscapes and public infrastructure, enhance human health risk assessments, and adopt disaster prevention and response measures, in order to create a safe and healthy environment free of worry for the nation’s citizens. To adjust people’s living habits, it is essential to advocate green consumption and simple living, placing an emphasis on quality of life while working to replace extravagant and wasteful habits. Establish recycling communities and implement waste product and resource recycling and reuse systems, to create a plain and thrifty living environment. In promoting economic development, the ability of forward-looking precautionary planning against calamities should be strengthened, with priority consideration given to ecological conservation and preservation of biological diversity. In the utilization of national land, environmentally sensitive lands, wildlife habitats and virgin lands should be appropriately conserved, in order to maintain the ecosystem’s stability, balance and ability to flourish. By enhancing energy diversification, researching and developing clean energy, and developing green industries, the energy security and long-term stability in supply can be better ensured. By enhancing the use of bio-fuels and promoting low-polluting, energy-saving transportation systems, the transport sector’s carbon dioxide emissions can also be reduced. Meanwhile, more efforts will be devoted to raising energy efficiency, adjusting the industrial structure, and enhancing clean production technology.

Agricultural sustainability policy

Regarding the agricultural sustainability, its main goal is to ensure basic food security, agricultural production capacity, sustainable use of lands, and solid economical outputs. The means to attain this objective include:

- Prioritize in allocating prime farmlands to production use, integrating the specialties in ecology, life, and production methods of rural areas to explore its potential.
- To make sure the production is long-term sustainable, the consolidation of

farmlands should be handled with great care, taking the production environment as a whole into the consideration, including the location, suitability, necessity in the context of total land quantity control.

- Avoid damaging the production environment or over-segmentation of lands.
- Strictly forbid over-cultivation of and construction projects on forestry lands.
- Encourage water-saving and recycle water uses, whether through adopting new production methods or technical advancements, to conserve water resources, which is in line with the predominant trend of eco-friendliness and healthfulness.
- Promote reasonable use of fertilizers based on the weather, crop variety, and growth cycle. This can be accompanied by regular fertility tests and expert recommendations on the proper fertilizer category and use quantity, as these measures can stop farmers from using fertilizers excessively and teach them how to use fertilizers more effectively, truly elevating the production quantity and quality.
- Spread the message of reasonable use of fertilizers and its relation with agricultural sustainability, as deducing and proper use of fertilizers and pesticides is so essential to accomplish genuine eco-friendliness. Also, those who are using conventional fertilizers can be gradually encouraged to try organic fertilizers, and if things work out well, then they will receive assistance on transforming into organic farming in areas like applying for the certification. In sum, this will increase our total size of organic cultivation.
- More training courses on all aspects of organic culture can be provided to elevate the nation-wide techniques in organic farming.
- Finally, the CAS organic label plays a center role in the overall organic development, since it is the most likely way for consumers to be exposed to the concept and product of organic agriculture in distribution channels.



A sight of eutrophication due to over-fertilization



Paddy lodging caused by over-fertilization



CAS Organic Label

Conclusion

Taiwan has island ecology with a dense population in a small land area that two thirds of which is mountainous terrain, as well as an uneven distribution of rainfall by region and season. In addition, the heavy burden on the environment caused by economic development has been comparably higher than in other countries. Therefore, proper use and protection of Taiwan's precious natural resources, including forests, soil, surface water, and groundwater, is necessary. At the same time, a national land development plan that includes the spirit of sustainable development is needed to prevent damage to the ecosystem, landslides on mountain slopes, submersion of land, inappropriate encroachments on coastal lands and imbalanced development from occurring. Regarding national land use, forward-looking and holistic thinking is needed, including careful consideration of the fragile nature of the island ecosystem that is easily damaged but difficult to repair.