

Sustainable Use of Biodiversity



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Biodiversity, or genetic variability, is vital to the health of the planet and its people. It secures our food supply, provides a source of medicine, and helps regulate our climate. Much of the world's biodiversity is concentrated in remote areas, where it furnishes life's necessities to local communities and Indigenous peoples. Sources of biodiversity are disappearing at an ever quicker rate, however, victims of the varied forces of environmental destruction and globalization.

The goal of the Sustainable Use of Biodiversity Program Initiative (SUB PI) is to promote the conservation and sustainable use of biodiversity. It also aims to develop appropriate technologies, local institutions, and policy frameworks through the application of interdisciplinary and participatory research that incorporates gender considerations and local and Indigenous knowledge.

Objectives

- To promote the use, maintenance, and enhancement of the knowledge, innovation, and practices of Indigenous and local communities that conserve and sustainably use biodiversity;
- To support the creation of models for policy and legislation that recognize the rights of Indigenous and local communities to genetic resources, and to the equitable sharing of benefits from the use of these resources in the context of intellectual property regimes;
- To develop gender-sensitive incentives, methods, livelihood options, and policies that facilitate community-based participation in *in situ* biodiversity conservation and management strategies.

Our Approach to Programing

The SUB PI addresses two related issues:

- the importance of biodiversity resources to human livelihoods, particularly to marginalized communities; and
- the role of these communities in the sustainable use of biodiversity.

Within these broad objectives, the program focuses on plant genetic resources that are vital to communities for food security, nutrition, and primary health care. These include cultivated and uncultivated plants and marine organisms. In particular, SUB PI supports research that addresses these issues in an integrated and holistic way, and seeks ways to ensure that policies support what works at the community level. Given the changing roles and responsibilities of women and men in natural resource management in many rural areas, the program initiative stresses the importance of rigorous gender/social analysis in projects and programs to insure that the gender-differentiated impacts of these changes are understood, with a particular focus on resource tenure.

The program initiative emphasizes funding interdisciplinary research in Africa, Asia, and Latin America and the Caribbean that is community-based but can influence national and international policies. SUB PI projects have tended, to date, to focus on:

- new and traditional approaches to increasing food production without losing on-farm biodiversity;
- the sustainable and rational use of medicinal plants;
- the impacts of traditional and changing gender roles on biodiversity resources used for food and medicine;

- the development of research tools and skills within communities that can effectively contribute to documenting biodiversity;
- the participation of Indigenous and local peoples in research through the use of participatory methodologies, innovative research designs and strategies, and partnerships;
- developing, implementing, and disseminating research methods that link formal and informal scientists.

Some examples

In Central America and the Caribbean, as in much of the world, people in rural communities rely on a large diversity of medicinal plants as an affordable, accessible, and culturally relevant source of primary health care. But traditional knowledge and use of herbal remedies are diminishing because of lack of institutional support. Medicinal plant resources are themselves threatened. The *Central American Network on Medicinal Plants* (TRAMIL) links a variety of stakeholders to carry out research on medicinal plants and traditional health practices. Among other accomplishments, it has developed a model for evaluating the safety and efficacy of frequently used traditional plant-based remedies in the region.

Social instability in South Asia is caused in part by food insecurity in rural communities, which leads people to migrate from rural to urban areas. The *Food Security in South Asia* project seeks to alleviate these problems by enhancing communities' capacity to generate knowledge on biodiversity-based production systems — mixed cropping, intercropping, and crop rotation — and influence food policy. The project links policy advocacy, community capacity-

building, and science through targeted training, strategic research, and information sharing.

In Ethiopia, the wide diversity of crop varieties helps to ensure the country's agricultural resilience – for example, farmers grow more than 60 varieties of sorghum. To help ensure these varieties' survival, researchers are studying how farmers select and conserve sorghum varieties, and how plant diversity has changed in recent years. The goal is to strengthen *on-farm conservation of plant genetic resources*, which ensures that locally adapted and dynamic crop genetic resources are controlled by farmers and are directly available to them.

SUB team members

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