Living on the margins

Indigenous Peoples' Food Systems, Biodiversity and Food Security

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What are the problems?

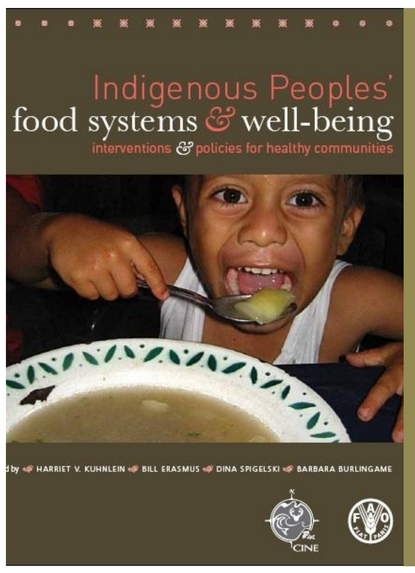
- Indigenous Peoples (IP) are often marginalized and have become the poorest members of society
- IP are severely affected by the nutrition transition and lifestyle changes leading to low quality diets
- Several IP today suffer from obesity and associated non-communicable diseases. Consequently, they have lower life expectancy

Why care?

- Indigenous Peoples (IP) are the custodians of much of the world's biodiversity for food and nutrition
- They protect the diverse ecosystems and cultures that shape these resources
- IP food systems are diverse and represent an important cultural knowledge base
- IP food systems are resilient and have minimal impact on the environment
- Some IP foods are rich in macro- and micro-nutrients

IP food systems

- Are a healthy, sustainable, culturally-acceptable and cost-effective alternative to improve diet quality
- They revive biocultural knowledge and heritage, strengthen food sovereignty and food system sustainability
- They help conserve traditional biodiversity for food and nutrition and the ecosystems that support this diversity.



Centre for Indigenous Peoples' Nutrition and Environment (CINE)

Scientists from CINE -McGill University- documented the food systems of12 indigenous communities around the globe: Ainu (Japan), Awajun (Peru), Baffin Inuit (Canada), Igbo (Nigeria), Ingano (Colombia), Karen (Thailand), Maasai (Kenya), Nuxalk (Canada) and Pohnpei (Federated States of Micronesia). These studies confirmed the diversity and complexity of Indigenous Peoples' food systems and diets. For example, in Pohnpei there was a major diversity and availability of local species and foods with 381 food items being documented including karat, an orange-fleshed local banana cultivar and pandanus cultivars rich in carotenoids. The Ingano diet revealed the utilisation of over 160 types of food ranging from roots to insects to palm tree products with milpesos palm, yoco liana, bitter cane and cayamba mushroom found to be a priority for maintaining local health. The Dalit food system revealed a diet highly reliant on wild plant foods with a total of 329 plant species or cultivars providing food recorded.


Woman preparing a WEP dish. Bioversity/C. Termote


Biodiversity walks , India. NESFAS/A. Bernhart

The Khasi – NE India

Women are the main custodians of biodiversity and traditional food systems among the Khasi people -an indigenous, matriarchal community of North East India. Traditionally, women who controlled the sources of nourishment (fields and food) would transfer their knowledge of diverse local foods and medicinal species to their youngest daughter, but the custom is being challenged by urbanization and modern monoculture cultivation. In 2011 the Khasi joined forces with the *Indigenous Partnership* to revive interest in traditional food and farming systems. The *Mei Ramew* (Mother Earth) Food Festival was organized and attended by 23 communities who showcased 200 species of edible and medicinal plants, many of which gathered from the wild. Biodiversity walks were organized during which community elders guided children in identifying and collecting food and medicinal species. The Festival has since become an annual event followed by a community banquet featuring the gathered foods. Community and school gardens as well as school feeding programs featuring local foods have also multiplied as a result of the intervention.

Busia - Western Kenya

The Iteso, Bakhayo, Banyala and Samia communities living in Busia County in Western Kenya helped researchers from the *Biodiversity for Food and Nutrition Initiative* (www.b4fn.org) identify lesser-known agrobiodiversity species that are locally consumed. Termites as well as many leafy vegetables, fruits, wild mushrooms and indigenous poultry are still consumed, often during religious and cultural festivals, yet little is known of their nutritional properties while the indigenous knowledge surrounding the collection and preparation of these foods is rapidly eroding. The *BFN Initiative* in Kenya is generating nutritional data for priority species identified by communities for which data is missing, creating awareness of the importance of traditional foods through diversity fairs, developing markets and value chains for local foods with nutrition potential to provide alternative food security and livelihood options for community members.


Wild mushrooms, Busia, Kenya. Bioversity/D. Hunter

The Turumbu – Democratic Republic of Congo (DRC)

Originally from the northern savannas, the Turumbu moved into the equatorial forest of DRC centuries ago and had to adapt to new agroecological conditions. Under colonial rule communities were forced to leave their forest dwellings and take up residence along the main roads. Scientists recently explored to what extent the Turumbu, who like the majority of DRC's population are food insecure following decades of war and political instability, still rely on forests for food. Rice, maize, cassava and plantain are the main staple crops, occasionally intercropped with pineapple, gourd, eggplant, chili peppers, sugarcane and sweet potato. Although 77 wild edible plants (WEPs) were recognized by local communities and documented as growing in the area, only a limited number are consumed. Interventions are needed to promote and exploit the dietary potential of many of these WEPs such as the mineral-rich *Gnetum africanum* and protein-rich *Treculia africana* which could be domesticated and integrated into innovative agricultural systems and home gardens for better nutrition security and health.

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