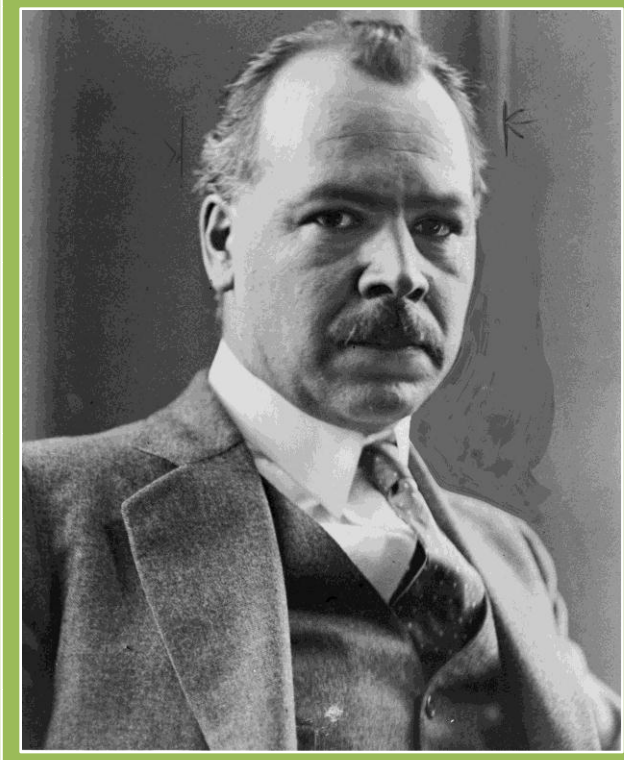
2012

Biodiversity Monthly Newsletter



Inside this issue

Public Relations & Communication Directorate

Institute of Biodiversity Conservation

8/31/2012

Counting on women in development

13 August 2012 Policies allowing women to own land in Rwanda contributed to the country's economic recovery. Gender analysis must become integral to development policy. But the first step is to count women in, says UNCSTD gender adviser Shirley Malcom.

Research, policy and development programs have, for the most part, failed to take women into account. But without separate and gender-specific assessment of these programs, we will not know what works best — for both women and men.

In the developing world, women's roles are especially important in food security, water management, biodiversity, energy, education and care of the young and old.

There are plenty of examples of where 'counting women in' has led to good policy, programs and outcomes. We need to build on them by 'mainstreaming' gender into science, technology and innovation (STI) policy — a process that should begin with reliable baseline data.

Challenging assumptions

Agricultural policies often do not support smallholder subsistence farmers who, in Africa, are mostly women; or they fail to provide them with scientific knowledge to improve the quality and yield of their food crops.

For example, African women farmers are estimated to produce 20 per cent more than men from the same access to land and inputs, with only one per cent of the land and seven per cent of extension services. [1] By how much could global agricultural production increase if women had the same access to support and services as men?

In post-genocide Rwanda, women have made major contributions to the economic recovery of the country by supporting their families and community development. This was a result of changes in policy that allowed land ownership by women, who are now heads of households in the country. It also followed from women seeking knowledge of growing coffee, available from agricultural extension workers.

In Namibia, a palm tree conservation project was failing until the rights of local women to manage the forest were reinstated. Palm trees began to die months after women were asked to cut production of baskets made from palm leaves, used to store and carry milk and water. An investigation eventually revealed that the trees started to die when their care was transferred from the women, but once they regained this responsibility the plantation revived. [2]

Examples abound in research too. The symptoms of heart disease and action of aspirin were assumed to be the same for men and women, until research done on both groups showed this was not the case.

Experience has taught us it is a mistake to make assumptions about sex or gender.

Embedding gender analysis

These examples of positive change are a good start, but they are not enough. Unless this practice of gender analysis becomes an integral part of policy and decision making, long-term, sustainable development will not be realized.

Too often, good policy depends on the work of individuals committed to gender equality, but changes in leadership or priorities can derail good intentions.

We need a systemic approach — if a requirement is in place that includes a process for pre-decision assessment and post-decision monitoring of proposals, for research or development projects, the information needed for advocacy and action will be in place.

Baseline data, once available, can be used to help establish a case for gender-sensitive policymaking as well as to document its value.

Mainstreaming gender in STI will lead us to ask different questions and ask questions differently; to formulate more effective policies and programs, and to seek solutions in development that are sensitive and responsive to the roles that women and men play in the lives of their communities and the future of their countries.

Scidev.net

Vavilov's Trail in Ethiopia: the most productive of scientific expeditions (Part 1)

August 29th, 2012 The world's most valuable asset-biological resources, on which we all depend, is silently slipping through our fingers, in some cases lost before it is even discovered.

With ever-increasing knowledge about the importance of biodiversity to human livelihoods and well-being, combined with mounting evidence that we are in the midst of great extinction crisis, action to halt/to reduce the loss of biodiversity at several levels is crucial. The vast majority of the world's nations declared that human actions were dismantling the Earth's ecosystems, eliminating genes, species and biological traits at an alarming rate. This observation led to the question of how such loss of biological diversity will alter the functioning of ecosystems and their ability to provide society with the goods and services needed to prosper.

One of the most remarkable human beings in collecting the world plant diversity and studying it for the purposes of plant breeding is Nikolai I. Vavilov, the Russian biologist, botanist and geneticist who was the foremost plant geographer of his time. Vavilov took part in over 100 collecting missions to 64 countries to explore the major agricultural centers in his country and abroad, including Ethiopia.

His genetic study of wheat variations led to an attempt to trace the locales of origin of various crops by determining the areas in which the greatest number and diversity of their species are to be found.

Genetic variation, the diversity created by thousands of years of agriculture, was not equally distributed around the globe. In a small, isolated pocket on the Ethiopian plateau, for example, Vavilov found hundreds of endemic varieties of ancient wheat.

Vavilov mapped out the distribution of this diversity for each of the crops he studied. He reasoned that the degree of diversity was indicative of how long the crop had been grown in that area. The longer the crop had been grown, the more diversity it would display… 'By locating a center of genetic diversity for a crop, one could pinpoint its origin'.

While developing his theory on the centers of origin of cultivated plants, Vavilov organized a series of botanical-agronomic expeditions, collected seeds from every corner of the globe, and created in Leningrad the world's largest collection of plant seeds. This seed bank was attentively preserved even throughout the 28-month Siege of despite starvation; at least one of Nikolai's assistants starved to death surrounded by edible seeds.

Perhaps Ethiopia was Vavilov's most excellent adventure. He was certainly not the first European explorer to set foot in the country, but he was the first Russian biologist to travel here, and he did so by train and mule-back. While his expedition may not have been as outright dangerous as several others occurring around the time.

Though neither the first nor the most perilous, the trip was easily the most productive of scientific expeditions to Ethiopia up until its time, in terms of its success in gathering seeds for future selection and use, in generating ideas that might help his country and others achieve food security, and in awakening recognition of Ethiopia's unique bio-cultural heritage.

Ethiopia has so much topographic diversity that somewhat isolates farmers in one place from those in other places, for this dissected landscape with a broad elevation range. The dissected landscape not only fosters the isolation of crop varieties, but also isolates wild species. The highlands of Ethiopia are now identified by bio-geographers as the eastern Afro-mountain center of diversity. The rest of Ethiopia is considered part of the broader Afro-tropical center of diversity.

The latter includes the coffee-growing lowlands of the south and east as well as the "bottom floor" of the Great Rift Valley. These areas are incredibly rich in the diversity of food crop species, whereas the highlands are more renowned for their diversity of locally adapted grain and legume varieties.

From his extensive readings in physical and cultural geography, Vavilov deduced that this highly dissected, anciently inhabited land had something special to offer. More unexpectedly he selected a route from the lowlands to the highlands that afforded the best opportunity imaginable for collecting a remarkable range of samples of Ethiopia's crop diversity, especially of cereals, over a rather short period of time. From one field between Gonder and Aksum, he collected hard wheat, which he called "a first class discovery". Hundreds of thousands of seed samples were collected by his expedition and then

shipped back to Russia for revaluation and conservation. The progeny of some of those collections actually made it back to Ethiopia's seed bank decades later.

Vavilov's work and cross-bred barleys from Ethiopia saved the entire California barely crop from a yellow dwarf virus in the 1950s, allowing millions of dollars to be made in California without any substantive benefits returned to Ethiopia.

IBC

African blackwood: the most expensive hardwood in the world

The tree is indigenous to Ethiopia

The African Blackwood also known as mpingo tree, "Moghano" (Oromipha), "Zobbi" (Amharic) (botanical name: Dalbergia melanoxylon) is regarded as one of the most precious timbers in the world. Ranging from reddish to pure black, its lustrous heartwood has exceptional mechanical properties that make it ideal for making carvings. It is naturally oily, finely grained and has a unique density that enables intricate carvings with a lustrous finish to be made.

Its tonal qualities are particularly valued when used in woodwind instruments mainly clarinets, oboes, bagpipes, piccolos, Highland pipes, and Northumbrian pipes. Its exceptional density enables the instrument's intricate shapes to be carved. The African Blackwood being highly durable protects the instrument from the acidity of saliva and oily hands. In addition, it is environmentally stable and does not distort when exposed to increased humidity thus significantly prevents the tone and pitch of a musical instrument from altering.

With all these qualities, it is no wonder that the African Blackwood manufactures some of the world's best woodwind musical instruments. In fact it is believed to be the most expensive hardwood in the world costing up to 25,000 dollars per cubic meter.

It is especially prized by wood sculptors in Africa where it is used to carve tools, utensils, traditional carvings, supports for buildings and in house construction. In Tanzania and Mozambique, the Makonde sculptors use mpingo wood to carve intricate ornaments and make a handsome living from selling sculptures to visiting tourists.

Mpingo also has many traditional uses; different parts of the tree are used as medicine to treat a variety of ailments. The bark leaves and pods can all be used as animal feed; the heart and sapwood can be burnt as fuel; or made into charcoal. The wood when boiled produces a broth believed to impart strength when used to bathe newborn babies. Mpingo is also important in the ecosystem. It maintains soil stability and it fixes nitrogen in the soil thus enhancing soil fertility.

Mpingo generally grows under a wide range of environmental conditions able to survive fires that destroy grasslands and other vegetation. It is indigenous to 26 African countries; from northern Ethiopia

to the south of Angola, and from Senegal across to Tanzania. It is most common in the mixed deciduous forest and savannahs of the coastal areas of Tanzania and Mozambique. It is frequently found on dry, rocky sites from sea level to an altitude of 1,200 meters. It survives on very little water, in fact once its root system is set up; the tree requires little or no rainfall to mature.

It is semi-deciduous and loses most of its leaves over the dry season. Its little white flowers are sweetly scented and grow in tight bunches. The tree has a disheveled appearance and is frequently multi-stemmed. It grows extremely slowly attaining a height of between4.5 and 7.5 meters with an average girth of 1.2 meters. It is ready for harvesting upon reaching maturity between 50 and 70 years and requires three years of processing before it can be used to make an instrument.

While only a small number of people would recognize the tree, many throughout the world have heard its melodious tunes. Presently, the African Blackwood is in high demand for making professional musical instruments. It is found in northern Mozambique and Tanzania which boasts large tracts of natural forest and woodlands and is harvested mainly for international trade.

Indeed every year, over 7,000 trees are felled purposely to make wind musical instruments. Unfortunately, once planted the mpingo tree takes long to mature before harvesting. Now there is growing concern among instrument manufacturers that the supplies of high quality wood are becoming limited.

Although mpingo tree is not likely to become biologically extinct, it is at high risk of becoming locally and commercially extinct. It is estimated that less than three million African Blackwood trees remain mostly in Tanzania and northern Mozambique. Due to illegal logging and over-harvesting, mpingo tree populations in Kenya, southern Ethiopia and also much of northern Tanzania have seriously declined over the last 30 years. Many local people and various organizations are now taking the initiative to conserve the African Blackwood.

In Tanzania, the Ministry of Natural Resources and Tourism has imposed an export ban on mpingo tree. Also enshrined In Tanzanian law, is the system of participatory Forest Management in which the government allows communities to take possession and control of their local forests provided they manage the forests sustainably. If successful the communities are awarded a certificate by the international body, the Forest Stewardship Council (FSC) which promotes responsible management of the world's forests. This landmark achievement enables the communities to earn 250 times more from their forests than they have done previously – a golden opportunity to lift themselves out of poverty through selling responsibly harvested timber. This certificate also differentiates timber coming from community forests with those from illegal logging widespread.

Partnering closely with Mpingo Conservation and Development Initiative (MCDI) to help Tanzanian communities use their mpingo trees in a sustainable way is the Global Trees campaign as well as the Fauna and Flora International's (FFI's) which is also a partner of the Sound and Fair campaign, that promotes sustainably produced woodwind instruments.

Communities at the foot of Mt. Kilimanjaro are also being mobilized into planting trees critical for the survival of the sensitive Mt. Kilimanjaro ecosystem affected heavily by climate change. The people, plants and wildlife all depend on the sustenance of water sources originating on the mountain hence a crucial watershed in the region. Strongly supporting these reforestation efforts for the conservation of Mt. Kilimanjaro is the African Blackwood Conservation Project (ABCP) which is involved in replanting a variety of tree species, focusing mainly on mpingo tree, which will bring immediate benefits to populations in the region.

The conservation of the mpingo tree especially in Tanzania has brought significant positive impact on the local communities, enabling them to control and manage their own forest resources, including sustainably harvesting this valuable timber. And as these concerted efforts continue, so are we assured of enjoying eye treasured, melodious tunes of the mpingo woodwind instruments!

By Cecilia W. Gatitho (SELAMTA, April-June, 2011 Edition)