

Beat the beetle

■ A tiny parasitic wasp is helping to save the coconut industries of a number of countries in the Asia and Pacific region from a destructive pest that feeds on the developing leaves of the coconut palm. Severe attacks by the coconut hispid beetle (*Brontispa longissima* Gestro) destroy palm leaves and cause a sharp drop in coconut yields. If a palm is young or suffers from poor growing conditions, it may die. The beetle has recently invaded coconut plantations in Nauru, as well as Asian countries including China, the Maldives, Thailand and Vietnam, causing massive losses. It was already widespread in areas of Papua New Guinea and a number of other Pacific Island countries. FAO has launched biological control projects in all the affected countries, by mass-rearing the wasp parasitoid *Asecodes hispinarum*, which attacks the larvae of the beetle.

Milky way

■ Zambian livestock owners are linking up with a market for their milk in the Kazungula Smallholder Milk Collection Centre Project. Finta Danish Dairies in Livingstone has the capacity to buy 40,000 l of milk per day, securing market linkage for some 360 farmers in and around Kazungula and adding valuable income in a drought-prone area. Farmers are currently earning about US\$1.5 (€1.25) per day with a potential to earn up to \$2.5 (€2) per day. This kind of return is encouraging farmers to obtain improved dairy breeds and employ artificial insemination technology to further expand the chances of increasing their income. The scheme is now being replicated in 10 other Zambian cattle-raising areas.

Quality bears fruit

■ The creation in Senegal of a horticultural production and marketing sector, in partnership with operators from Spain, and most notably the Canary Islands, appears to be bearing fruit: Greenmarket, which sells wholesale fruit and vegetables to the European market, has relocated to Senegal, tempted by the high quality of the country's produce. Behind Senegal's success is a long gardening tradition coupled with a decision taken in 1984, after the drought, to develop horticulture, following in the steps of Kenya, Africa's leading exporter of fruit and vegetables.

Mapping for good change



■ In Kasika conservancy, on the East Chobe floodplain in north-eastern Namibia, local people are using modern spatial information technologies to produce detailed maps showing the location of wildlife areas and livelihood resources. In Kenya, the minority Ogiek community is using new mapping technologies as advocacy tools to communicate more efficiently and fight for their ancestral rights. In Cameroon, meanwhile, three villages of the Tinto clan in Southwest Province have compiled a map and forest management plan to win a forest management contract.

In each case, the communities practised participatory geographic information systems (PGIS) to gather, analyse and compile spatial information and map their territory. PGIS practice marks a new and exciting development in the rapid evolution of participatory approaches to development. At a multi-donor-sponsored and CTA-led conference "Mapping for change, international conference on participatory spatial information management and communication" held in Nairobi, Kenya, in September 2005, 156 participants from 45 countries shared lessons and discussed benefits and risks deriving from the good and bad practice, as well as some of the challenges that still lie ahead.

PGIS practice combines a range of geo-spatial information management tools and methods such as sketch maps, participatory 3D models, community-based aerial photo maps and satellite imagery interpretation, global positioning system (GPS) and

GIS-based mapping. But it differs from conventional mapping approaches in that it closely involves local stakeholders in drawing up visual representations of their land, forests and other resources and in using these representations to efficiently communicate with political and economic bodies. "PGIS practice is geared towards community empowerment through measured, demand-driven, user-friendly and integrated applications of geo-spatial technologies," said CTA's Giacomo Rambaldi, one

information management tools and systems to record data and other spatial information about their land and resources. Although still relatively expensive, the cost of the technologies has fallen sharply and the hardware has become smaller, lighter and easier to use. Applications include planning and managing land use and resources, conserving wildlife, identifying tenure and rights, negotiating boundaries and resource uses, managing conflicts, safeguarding intangible cultural heritage, and participatory monitoring and evaluation.

But effective participation is the key to good PGIS practice and for the process to work well there must be a good balance between local participation and outside facilitators skilled in applying PGIS. There is also a need to develop guidelines for good practice if PGIS is to meet the needs of different groups in the South.

In tandem with the conference, CTA supported a PGIS course attended by 33 participants from Africa and Iran, organised and funded in collaboration with the International Institute for Geo-Information and Earth Observation (ITC), Ermis-Africa and the Christensen



The Nairobi conference on spatial communication stimulated lively exchanges between participants from 45 countries.

of the key organisers of the conference. If used properly, the conference heard, PGIS can make a dramatic difference to communities' ability to assert their rights over natural resources and protect their traditional knowledge and wisdom from outside exploitation.

As the growing number of initiatives embodying PGIS practice in the South attests, local people with minimal basic training can use a vast array of geographic

Fund. In 2005, CTA helped launch a PGIS project in Fiji and has joined with the Center for International Forestry Research (CIFOR), the International Institute for Environment and Development (IIED), ITC and the Secretariat of the Pacific Community (SPC) for the publication of a special issue of *Participatory Learning and Action (PLA)* to appear in March 2006. A training video on PGIS is also planned for 2006.