

# Sustainable Livelihoods

## FACTS

- ✓ Around 75 per cent of the world's poor people reside in rural areas.
- ✓ The Canadian market for non-timber forest products alone is valued at C\$120 million.
- ✓ Today, 68 per cent of hunted species in Africa are harvested unsustainably.
- ✓ In Sub-Saharan countries the number of people living in poverty increased from 184 million people in 1985 to 216 million people in 1990.
- ✓ In Eritrea, the direct use of forest, agricultural and marine biological resources contributes almost three quarters of per capita GDP for poor rural households.
- ✓ The global trade in medicinal plants is estimated at US\$800 million a year.
- ✓ Women account for 70 per cent of the world's poor.
- ✓ Desertification threatens more than one third of Africa's land area, particularly in Mediterranean Africa, the Sudano-Saharan region and Southern Africa.
- ✓ In the Huacamayos forest of Ecuador, people use 212 plant species and 141 animal products for food.
- ✓ An apple purchased in a British supermarket is likely to have travelled 12,000 miles from New Zealand.
- ✓ In one area of India, the rural poor normally derive up to a quarter of their income from nature, and in times of drought, this rises to as much as 57 per cent.

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## WHAT MAKES A LIVELIHOOD SUSTAINABLE?

**The international community has set an ambitious goal: to halve the number of people living on less than one US dollar a day by the year 2015. As laudable as the goal may be, the key to finding the way out of poverty for today's poor may be not just about putting some extra dollars in their pockets.**

Today, 53 per cent of the world's six billion people still live off the land. The majority of the world's poor people continue to live in rural areas and depend heavily on natural ecosystems for their livelihoods.

**For example, 88 per cent of Nepal's 21 million people are dependent on agriculture and related activities and 40 per cent live in absolute poverty. One billion Asians rely on fish as their primary source of protein, while the fishing enterprise employs globally some 200 million people. Worldwide, 200 million indigenous people live in and depend on forests for their livelihood, food, medicine, and shelter.**

While this dependence may conflict with protecting biodiversity values of a given forest area, it also gives opportunities for local people to engage in conservation and sustainable use of forests that might otherwise be lost. The challenge is therefore to accommodate the growing - and sometimes truly pressing - needs of humankind with the capacity of nature to restore itself. Even more so if we're talking about a time span longer than a human life. When it comes to sustainable livelihoods we are concerned about people's capacity to generate and maintain means of living and hence wellbeing for themselves and that of future generations.

## THERE'S LIKELIHOOD OF LOSING LIVELIHOODS

**The livelihoods of people around the world are under increasing pressure owing to environmental degradation, rapacious economic development, and implications of global processes, to name just a few. The natural resources of our planet are being depleted - some irreversibly. For example:**

The 2000 IUCN Red List of Threatened Species reports a shocking one in four mammals being threatened with **extinction**. 14 out of the 17 world **fisheries** today are in decline. Some 27 per cent of the world's coral reefs have also been effectively lost, up from 10 per cent in 1992, taking a huge toll on marine biodiversity.

**Desertification** is stealing arable lands from the rural poor each day. An estimated 65 per cent of all arable land may have already lost some biological and physical functions.

**Deforestation** has already wiped out half of the tropical forests and mangroves. Forests all over the world continue to be lost and degraded, a trend that threatens forest ecosystems as well as the 1.7 billion people who rely on forests for numerous goods and services.

**Water scarcity** has grown in seriousness, with grim ecological and human implications - particularly in parts of Africa and West Asia. By 2025 a total of 3.5 billion people will be living in water-stressed countries where their well-being, livelihoods and environment will be exposed to increasing levels of risk and uncertainty - be they farmers, urban consumers or indigenous people.

Concerns over **climate change** have also gained prominence, as our understanding has grown of the links between greenhouse gas emissions, rising temperatures and sea levels, and the growing frequency and intensity of extreme weather events.

**As land, forestry and fisheries resources are destroyed, it will be the poor - globally and locally - who will bear the ultimate cost of this unsustainable path.**

## The Worth of the Earth

How much is the environment worth? Several years ago, ecologist Robert Costanza of the University of Maryland and 12 co-authors attempted to estimate the total value of all of the world's ecosystem services, put together. The answer was US\$33 trillion per year - a figure that approximates the sum of the world's gross national product.

The importance of natural resources in directly supporting human livelihoods is often overlooked, as the goods and services they yield do not show up in national economic statistics. For instance, recent studies calculated that the presence of Mount Kenya Forest, alone, saved Kenya's economy more than US\$20 million a year through natural protection of the catchment for the Tana and Ewaso Ngiro Rivers. Officially, however, the forest sector contributes only just over 1 per cent of Kenya's national economy.

Ironically, it may well be easier to demonstrate the value to local livelihoods of natural resources once they have been severely degraded. In Pakistan, the costs of remediating environmental degradation have topped US\$1 billion.

Ecosystem conservation can also literally be a matter of life and death. A detailed assessment of the impact of Hurricane Mitch, which led to mudflows and flash floods that killed almost 18,000 people and left 2.5 million homeless in Central America in October 1998, revealed the key contributions of forests on steep slopes in preventing landslides.

## Food for Thought

Ecosystems are the richest sources of food. One hectare of mangroves can 'produce' up to US\$ 30,000 in shrimp per year. The protein derived from fish, crustaceans and molluscs accounts for 13.8 – 16.5 per cent of the animal protein intake of the human population worldwide. However, over one billion people living today in and around rich biodiverse areas known as biodiversity 'hotspots' suffer from massive poverty and food insecurity and are particularly dependent on biodiversity for their livelihoods. Harvesting wild species for food, for instance, has been part of the traditional diet in many parts of Africa and Asia. However, today 68 per cent of hunted species in Africa are harvested unsustainably. Furthermore, wild meat has become a delicacy in the restaurants of New York and London, further fuelling trade. A vast range of species are affected from birds and small mammals such as the duiker and flying fox to the larger animals such as deer, hippo, buffalo, elephant and even gorillas.

**Globalization** has so far been extremely successful in generating wealth, but has also exacerbated poverty and inequality within and between societies, resulting in greater human and environmental insecurities. Inequalities between rich and the poorest between and within the countries are, by orders of magnitude, out of proportion to anything experienced before.

**The richest 20 per cent of the global population receive 80 per cent of the global income. About 1.2 billion people are living in absolute poverty - subsisting on less than US\$ 1 per day. This represents one fifth of the world's population.**

Insufficient income is only one indicator of human deprivation. Poverty is frequently rooted in lack of access to, and control of, assets upon which human livelihoods depend.

**Poorly planned economic development** has led, in many cases, to displacement of people and environmental degradation. One of the examples is found in the **Waza Logone** area in Cameroon, a floodplain that was destroyed by reduced rainfall and the construction of a dam. Without the annual rhythm of inundations that allowed cattle to graze and crops to grow, the floodplain turned into a dustbowl. It took over 12 years to revive the floodplain and improve the livelihoods of local people.

**All the evidence suggests that current patterns of resource exploitation and consumption are unsustainable and are approaching natural limits in some areas. These problems underpin concerns that competition over dwindling natural resources may trigger future conflicts.**

## WHAT THREATENS LIVELIHOODS IN NAMIBIA?

Namibia's harsh climate, poor soils, scarce natural resources base and fragile environment seems not promising for its people's sustainable livelihoods. On the other hand, developing countries like Namibia are in an excellent position to avoid the damaging impacts of development that other nations have suffered in the past. Namibia's Ministry of Environment and Tourism reports that the country's top 12 threats to sustainable livelihoods are:

1. Poorly planned development and rapid industrialization
2. Poverty and inequality
3. Limited water resources
4. Land issues
5. The loss of biodiversity
6. Population growth and settlement patterns
7. Lack of human resources
8. Poor governance
9. The need for a stable macro-economic environment
10. Increasing competition over shared resources
11. The adverse impacts of global atmospheric change
12. The need to improve access to existing and generate new knowledge.

## WHAT HAS THE INTERNATIONAL COMMUNITY DONE FOR SUSTAINABLE LIVELIHOODS?

**The Convention on Biological Diversity** was adopted at the 1992 Rio Earth Summit and has been ratified by over 180 countries - with the notable exception of the US. The convention's triple bottom line seeks: conservation of biodiversity; sustainable use of biological resources; and equitable sharing of the benefits.

The **Ramsar Convention on Wetlands**, the **Convention on International Trade in Endangered Species**, the **World Heritage Convention**, the **Convention on the Law of the Sea**, and the **Desertification Convention** provide invaluable instruments to conserve biodiversity in the long term and contribute to making sustainable use of biological resources. Sustainable and equitable development also depends on the implementation of the **Climate Change Convention** and its **Kyoto Protocol**, but also agreements and processes related to trade, financial flows and intellectual property rights.

## Livelihoods Recorded

A picture is worth a thousand words, it is said. The Mtwara media centre in Tanzania used a participatory video with traditional fishing. They decided to record the whole process of traditional fishing methods, but they did not know how helpful it was going to be in the future. At some point the government decided to ban traditional methods of fishing in favour of modern ones. As a result of the ban there was a decline in fish that became available to traditional fishers due to the large-scale dynamite fishing for commercial sale and for export. That's when the video became very handy. The local communities used it to sensitize their leaders in how traditional fishing methods protected coral, fish eggs and young fish in their environment as compared to dynamite fishing. The policy makers were so impressed by the video that they decided to lift the ban on traditional fishing methods.

## QUOTES

*"Let's be honest: greens and businesses do not have the same objective, but they can find common ground. We look for pragmatic ways to save species. From our own work on the ground on poverty, our members - be they bird watchers or passionate ecologists have learned that 'sustainable use' is a better way to conserve."* — Achim Steiner, IUCN Director General

*"We can no longer afford to consider the promotion and protection of human rights, security and environmental protection as separate aims. There are too many examples in the world where environmental degradation has led directly and indirectly to violations of the rights to life and health."* — Mary Robinson, UN High Commissioner for Human Rights

*"While one cannot say with any confidence what forms an ecological crunch might take, when it might happen, or how severe it might be, it is easier to predict who will have the worst of it. The poor and powerless cannot shield themselves from ecological problems today, nor will they be able to do it in the future."* — J.R. McNeill, author of "Something New under the Sun"

## IUCN'S RESPONSE

**Most of today's environmental and human problems cannot be understood or addressed in isolation from each other. The Wellbeing of Nations report, published in cooperation with IUCN in 2001, confirms that human and ecosystem wellbeing are intimately entwined, and validates the need to plan and manage for ecosystem protection and human development simultaneously.**

### ECOSYSTEM RESTORATION FOR POVERTY ALLEVIATION

IUCN has worked in Cameroon's Waza Logone floodplain for over twelve years. Together with the local communities and a variety of institutions, IUCN brought back seasonal inundations.

**30 per cent of the floodplain is now restored and its rich biodiversity has returned. Better yields have increased per capita income by US\$250. Clean water from 37 wells constructed in 33 villages and training in health and sanitation reduced water-borne diseases by 70 per cent.**

### A BUSINESS CASE FOR BIODIVERSITY

IUCN is exploring several strategies of linking livelihoods with biodiversity conservation; for example, through investing in the sustainable use of natural resources such as the harvesting of non-timber forest products (NTFPs), or by supporting community enterprises in the vicinity of protected areas, such as ecotourism.

**From a cup of tea that cures both headaches and unemployment to beekeeping for poverty relief, IUCN's unique regional project funded by the W.K. Kellogg Foundation, showcases eight African success stories of people who relied on their own innovation and entrepreneurship, using local natural resources to create jobs and sustain their communities.**

IUCN developed and promoted a new understanding of the relationship between poverty and biodiversity through its work on ecoagriculture. In the book *Common Ground, Common Future: How Ecoagriculture Can Help Feed the World and Save Wild Biodiversity* published in collaboration with Future Harvest, IUCN explores various practices that can enhance synergies between agriculture and wild biodiversity - thus improving livelihoods as well as conservation.

### SUSTAINABLE USE - A BETTER WAY TO CONSERVE

Few conservation buzz words are as widely uttered and as poorly understood as "sustainable use". Few concepts generate as much heat - the most visible example being whether it is acceptable to shoot elephants in order to achieve ecological and economic benefits. What to say about mining and timber companies which brandish the banner of "wise use"?

**IUCN's Sustainable Use Specialist Group has been assessing the sustainability of resource-use practices, be it mahogany, ivory or caviar. It is an effective ground-truthing of global policy issues, especially in the light of examining regional environmental effects and responses to globalization.**

One of the main challenges for IUCN is to find means to ensure the equitable sharing of costs and benefits arising from the conservation of species and ecosystems from local to global levels. IUCN works with indigenous communities from the Andes to Kamchatka to promote indigenous knowledge and practices and to ensure that the interests of local communities do not get subordinated to the interests of more powerful groups.

### GREENING THE GDP

The economic benefits from biodiversity conservation and ecosystem management surely make a real difference for a household budget but are they visible in global terms? The following examples illustrate how biodiversity conservation makes economic sense.

**In Lao PDR biodiversity-based sectors contribute nearly three quarters of GDP, over 90 per cent of national employment, 60 per cent of exports and foreign exchange earnings, and one third of government revenues. It is estimated that around 55 per cent of visitors worldwide travel to visit protected areas, while global travel and tourism generates 11 per cent of global GDP.**

## IUCN CONTACTS

**Stewart Maginnis**, Coordinator,  
IUCN Forest Conservation Programme  
Tel: +41 22 999 0001  
Fax: + 41 22 999 0002  
E-mail: forest@iucn.org

**Elroy Bos**, Communication Officer,  
IUCN Wetlands and Water Resources  
Programme  
E-mail: elroy.bos@iucn.org

**Lucy Emerton**, Head, Regional  
Environmental Economics Programme Asia  
IUCN - Pakistan  
Tel: +92 21 586 1540-2  
Fax: +92 21 583 5760  
Email: lucy.emerton@iucn.org  
Web: <http://iucn.org>

## A WEB OF EXPERTISE

The web of IUCN remains focused on the diversity of life. We learn and work together with members, partners, Commissions and Secretariat to seek a balance between human uses and the capacities of ecosystems. We promote comprehensive strategies for conservation and development, which maintain both the natural and cultural diversity of life. Our challenge is to find practical actions to achieve the vision of a just world that values and conserves nature. IUCN plays a vital role in that challenge.

Created in 1948, **IUCN – The World Conservation Union** brings together over 70 states, over 100 government agencies, 750 plus NGOs and some 10,000 scientists and experts from 181 countries in a unique worldwide partnership. IUCN's mission is to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. IUCN is the world's largest environmental knowledge network and has helped over 75 countries to prepare and implement national conservation and biodiversity strategies. IUCN is a multicultural, multilingual organization with 1000 staff located in 42 countries. Its headquarters are in Gland, Switzerland.

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## SUSTAINABLE LIVELIHOODS GLOSSARY

**Livelihood:** a livelihood comprises the capabilities, assets - including both material and social resources - and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capacities and assets both now and in the future, while not undermining the natural resource base.

**Ecosystem:** a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.

**Biological diversity:** "biodiversity" means the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

**Sustainable development:** "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." - from the World Commission on Environment and Development's report "Our Common Future".

**Sustainable use:** Sustainable use, both extractive and non-extractive, is a dynamic process toward which one strives in order to maintain biodiversity and enhance ecological and socio-economic services, recognising that the greater the equity and degree of participation in governance, the greater the likelihood of achieving these objectives for present and future generations.

## TO LEARN MORE

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