Natural Resource Management and Community-based approaches to Climate Change
The United Nations Volunteers (UNV) programme is the UN organization that promotes volunteerism to support peace and development and its benefits to both society at large and the individual volunteer. UNV contributes to peace and development by advocating for volunteerism globally, encouraging partners to integrate volunteerism into development programming, and mobilizing volunteers. These beliefs inform the concept of volunteerism for peace and development, which is at the core of UNV’s mission.

The difference UNV makes is by demonstrating peace and development results and impact through volunteerism. UNV’s comparative advantage is the ability and knowledge to bring about transformational change through volunteerism, community voluntary action and civic engagement through active partnerships with civil society, volunteer involving organizations, UN agencies and Governments. This is inspiration in action.

Front Cover: Through UNDP GEF’s Small Grants Programme (SGP), UN Volunteers and local NGOs provide technical support and training for Sri Lanka’s coastal communities. Activities focus on livelihood enhancements, such as home gardening in Liyanagoda village. (UNV, 2007).
GENERAL BACKGROUND

Ecosystem and biodiversity loss, deforestation, land degradation, shrinking freshwater supplies, air and water pollution, and global warming represent only a few examples of the on-going process of environmental degradation and continuous decline in natural resources. Concurrently, there has been a growing recognition that the social consequences and economic costs associated with such processes disproportionately affect the world’s poorest people. The World’s poorest are heavily reliant on natural resources for their livelihoods and, as a result, are extremely vulnerable to both natural disasters and environmental hazards. The decline of natural systems through soil depletion, deforestation, “over-exploitation”, and pollution represents a direct threat to nature-based income and is a contributor to increasing poverty.

Promoting climate change adaptation and mitigation at the local and community level is an absolute must for a number of interconnected reasons. Firstly, it’s at the local level that changes in the ecosystem can result in, for example, freshwater shortages, reduced agricultural productivity, or increased health risks that can directly affect the livelihoods of individuals, families and communities living in the area. It is at the community level that provision and realization of access to renewable and efficient energy truly generate better and more impact toward achieving Millennium Development Goals (MDGs) as well as climate change mitigation effects.

Secondly, for developing countries and remote areas, vulnerabilities and adaptive capacities are context-specific and are best understood at the local level, as they depend on unique combinations of ecological, political, and socio-economic factors that determine people’s ability to react to and cope with climate variations.

UNV supports initiatives involving community-based organizations and local volunteerism that can play a decisive role in improving the lives of the poor, while simultaneously benefiting the environment. The 2011-2013 UNV Programme Strategy identified environment and climate change as one of the organization’s three strategic focus areas. This was in response to an increased global recognition of the actual and potential role of volunteerism for achievement of sustainable development and the MDGs. It also corresponds with the UNDP Executive Board Decision 2008 call to UNV to contribute to environmental sustainability and the climate change agenda.

Human activity closely interacts with and impacts the status of the environment and its sustainability. Due to its importance, environmental sustainability has become the 7th MDG. Achieving the goal of environmental sustainability requires the ingenuity, solidarity, and creativity of many millions of ordinary people, particularly through volunteering. Efforts on the part of Governments, supported by the international community, can only complement what ultimately will depend on the involvement of people around the world. Recognizing this fact is the first step toward harnessing volunteerism – a vast resource – in a global effort to meet the 7th MDG.
CAMBODIA: Alternative Livelihoods for biodiversity conservation through community volunteerism

The Tonle Sap is the largest freshwater lake in Southeast Asia and one of the most productive freshwater ecosystems in the world. The Tonle Sap is critically important for Cambodians as a source of nutrition and livelihoods. The principal threats to biodiversity in the area are loss of habitats, over-exploitation of forest, fish and wildlife resources, encroachment and land clearance, and the impact of exotic species on native flora and fauna.

To address the issues above, UNV partnered with UNDP, the Global Environment Facility (GEF), and the Government of Cambodia to promote – through community volunteerism – alternative, biodiversity-friendly, income-generating activities among communities living in the three core areas of the recently established Tonle Sap Biosphere Reserve. Conceived as an integral part of the UNDP/GEF Tonle Sap Conservation project, the UNV project aimed to expand the livelihood initiatives originally envisaged by the GEF project, while at the same time, reinforce community mobilization and participatory aspects of the project. The goal was to break the vicious cycle that links biodiversity loss with deterioration of livelihoods.

UN Volunteers supported the project by providing training and technical inputs. Volunteers also mobilized communities to establish linkages with civil society organizations, to reinforce local ownership, and promote biodiversity.
Examples of project activities included distribution of fuel-efficient stoves and water filters to reduce the need for firewood. At the same time, volunteers encouraged villages to look into environmentally-friendly businesses, such as mushroom-growing and ecotourism.

Twelve self-help groups were established in the communities, with around 500 families participating. About 85 percent of the members of these groups were females.

Group members actively raised awareness in their communities and advocated for better natural resource management and protection of biodiversity. The project also improved the capacity of self-help group members to provide for their own families.

**ETHIOPIA: Involvement of Ethiopian youth in combating desertification**

Ethiopia suffers among the worst erosion in the world, losing two billion metric tonnes of soil each year. Studies indicate that 70% of the country is affected by the spread of desertification, which in turn aggravates land degradation and increases poverty. UNV collaborated with the United Nations Convention to Combat Desertification to mobilize youth volunteers in halting land degradation and desertification through grassroots-level projects in two regions of Ethiopia (Amhara and Oromia).
The UNV pilot project ‘Involvement of Ethiopian Youth Volunteers in Combating Desertification’ was implemented in partnership with the Federal Environmental Protection Authority of Ethiopia. UN Volunteers supporting this programme supervised, empowered and capacitated 200 youth volunteers to work in soil and water conservation, forest management, water harvesting, setting up nurseries, beekeeping, and horticulture at four different worksites. During 2008, youth volunteers constructed 33 trenches and 114 micro-basins to conserve soil and water and planted 11,500 tree seedlings.

The youth gained useful skills and hands-on experience, while simultaneously improving their livelihoods.

Their visible progress helped raise awareness of environmental issues among communities and had a multiplier effect on neighbouring communities and other youth groups.

Faced with challenges such as unemployment, inadequate education and skills development, and limited control over resources and assets, youth in developing countries are often seen as recipients of aid rather than as potential contributors to the development of their country. With this project, Ethiopian youth served as catalysts of development and of change in their communities, and acquired increased social recognition and self-esteem.
NIGER: Community Based-Adaptation (CBA) Programme

UNV is implementing a three-year project in support to the UNDP’s CBA programme. Jointly funded by the Government of Japan and UNV’s Special Voluntary Fund, the UNV component aims to strengthen and sustain CBA projects through volunteer mobilization and development of methods to measure and integrate voluntary contributions into adaptation efforts.

In Niger, volunteer contributions to the CBA programme have already shown significant progress, in particular through the mobilization of national UN Volunteers. National UN Volunteers have been constantly encouraging people, inspiring them through concrete actions, and promoting collective action for natural resource management. They have mobilized hundreds of women, men, youth, elderly and people with disabilities to voluntarily contribute their valuable local knowledge, know-how, labour force and materials to the successful implementation of CBA activities.

CBA target areas in Niger have been the villages of Maïkoulaké, Atoulé, and Roumbou, all located within a fragile, intermediate eco-zone. Although they are near the Tarka Valley – one of the nation’s few remaining fertile areas – the villages, which are home to 1,600 people, are at risk as the Sahel expands. These three agro-pastoral communities depend largely on natural resources for their livelihoods. This leaves them highly vulnerable to natural and economic shocks, as well as climate change.
Fatima Moumounta, a national UN Volunteer, is assigned to the Project for Peace Consolidation in Air and Azawak in Niger to reintegrate ex-combatants into rural society. Here, she confers with members of the cooperative in Agadez (Aly Adamou/UNDP Niger, 2009).

The project has bolstered the adaptive capacity of local communities through the following activities:

(1) promotion of sustainable farming techniques that enhance yields, while helping regenerate soil; (2) demonstration of quick-maturing varieties of local staple crops; (3) training of farmers in techniques that improve soil fertilization, dune fixation, and natural regeneration; (4) creation of a community-managed bank of agricultural inputs, such as fertilizers and pesticides; and (5) provision of animal-drawn plows and farming inputs to households whose adaptive capacity is lowest.

CBA pilot farmers volunteered to share their experiences and newly-acquired knowledge with their peers during traditional causeries (talks), and have rebuilt the initial stock to allow more farmers to benefit.

Villagers in these areas have shown an understanding of the long-term process of adaptation, as they expressed a pride in and desire to leave a legacy to their children. Activities they have actively engaged in include well rehabilitation, dune fixation, and tree planting.

Partner communities and NGOs are taking their responsibility as a pilot project very seriously: they know that if they succeed, they will be able to influence policy in order to widely increase adaptive skills of their peers.
Thanks to modern technology, volunteerism for climate change can be supported online through the internet. A team of four online volunteers from Togo, Congo (DRC), Guinea and France – two Geographic Information Systems and Remote Sensing specialists, a professional in environmental and social impact management, and an economist – helped AfricAvenir (an NGO engaged in political education and information dissemination about Africa, both in Africa and Europe) for a six-month period to obtain up-to-date information about the state of the environment in 15 Togolese localities. By collecting, analysing and interpreting satellite images, AfricAvenir has been able to assess the impact of climate change in this region.

While the Remote Sensing Specialists collected and processed the satellite images, the other two volunteers carried out an environmental analysis to track signs of drought, desertification, biodiversity loss, soil degradation, and depletion of water resources. This information was entered into a Geographic Information System database, a key tool for a sensitization campaign that AfricAvenir has planned as a next step.
The online volunteers’ work laid the basis for a campaign to raise awareness on climate change and its causes and consequences among local populations and authorities. It also aimed to set in motion decision-making processes at the local, regional and national levels about protecting natural resources and taking adaptive measures to deal with climate change.
UN Volunteers in support of natural resource management and biodiversity conservation can:

*Raise awareness* and disseminate information in delivering key messages and harnessing volunteerism around practical environmental issues at the grassroots level;

*Provide technical assistance*, capacity building, and training on new or modified natural resource management practices and technologies that may have a major impact on the community’s socio-economic behaviours and activities;

*Facilitate* involvement of community members and provide technical assistance to build local and national capacity for sustainable natural resource management;

*Engage* to reach out to every societal group, including youth, women, and other marginalized groups.
UN Volunteers in support of a community-based climate change approach can:

**Facilitate and mediate** the relationship between government authorities (national and local) and local communities, as well as represent local communities’ interests and needs in the context of local and national decision-making processes, so that local conditions, vulnerabilities, and coping capacities are adequately considered in policy-making;

**Raise awareness** and disseminate information in order to communicate climate change-related issues to vulnerable communities effectively;

**Provide technical assistance**, capacity building and training to introduce knowledge, abilities, and skills, while building community, household, and individual capacity to make decisions in the context of a changing climate;

**Empower** local communities to implement climate change feasibility studies, methodologies and tools. This can range from gathering and analysing baseline data, to facilitating risk and vulnerability assessments.