

## Theme 2: Innovative Partnerships with CSOs

### Best practices for CSO involvement in GEF focal areas and multi-stakeholder engagement

For over two decades, the GEF has partnered with civil society organizations (CSOs) in projects and programs. This strategic alliance has brought various stakeholders together and created linkages among communities, non-governmental organizations (NGOs), academic and research institutions, governments, and the private sector encouraging cooperation and improving understanding and dialogue between local, national, regional and international levels.

Numerous innovative partnerships have been created around the different types of support the GEF provides, including full sized projects (FSPs) and medium sized projects (MSPs). Through the Small Grants Programme (SGP) local communities have been empowered to deliver and pioneer community-based solutions to global environmental problems.

The GEF recognizes the importance of building on the strong, diverse and expanding network of implementing partners, civil society and indigenous peoples organizations, and the private sector. Thus, in GEF-6, partnership building will be further encouraged to effectively tackle the drivers of environmental degradation and deliver global environmental benefits.

The Policy Recommendations for GEF-6 are based on six key areas targeted towards delivering higher impacts in an effective and efficient manner for the GEF as a whole. One of these areas is *Strengthening Country and Civil Society Engagement*. Efforts will be focused on enhancing country ownership and GEF impact by encouraging recipient countries to engage a broad set of stakeholders, including relevant ministries, civil society, indigenous peoples, and the private sector in the programming of GEF-6 resources. Also, guidelines for the effective implementation of public involvement in GEF projects will be formulated.

On both these areas, CSOs can play a crucial role, at the country level, to share and build on the experience, expertise and knowledge gained through the collaboration with national and local stakeholders in addressing global environmental problems. These CSO contributions can create partnerships and advance national knowledge-based platforms, which can be beneficial for all stakeholders to promote and build mutually productive relationships for improved country coordination and increased impacts and sustainability of GEF interventions.

A starting point for these partnerships and platforms is the innovative alliances already established by and with CSOs through GEF projects. They are diverse, and the approaches by which these alliances are established vary. All of these innovative collaborative efforts positively contribute to delivering on-the-ground results and increasing the impact of GEF-supported interventions.

The following projects provide a glimpse of the diversity of these innovative partnerships through FSPs and MSPs, and the impacts achieved by the SGP.

<b>Mechanism for Voluntary Mitigation of Greenhouse Gas Emissions in Colombia</b>	
Country	Colombia
Focal Area	Climate Change
Project type	FSP
Allocation	\$2,970,000 (GEF), \$7,616,000 (cofinancing)
GEF Agency	Inter-American Development Bank (IADB)
Executing partner	Fundación Natura
Type of partner	Non-governmental organization
Approval	April, 2011
Status	Under implementation

### **Project Overview**

The voluntary carbon markets have been created to enable governments, organizations, industries, agencies and/or individuals, to voluntarily offset their carbon emissions by purchasing Voluntary Emissions Reductions (VERs). Each VER represents one ton of carbon dioxide equivalent (CO<sub>2</sub>e) reduced or sequestered. The global share of VER transactions from forest carbon projects accounted for 24 percent in 2009. This trend, however, was not being fully developed in Colombia, where its natural forest covering about half of its territory was increasingly threatened by deforestation and degradation processes. To develop the great potential for forest carbon mitigation projects, Fundación Natura is implementing this project to establish a platform for a VERs market mechanism and to facilitate efforts of voluntary mitigation of greenhouse gas (GHG) emissions, by:

1. Creating a voluntary market platform for VERs accessible to national or international buyers through an on-line platform, institutional and governance arrangements and dissemination and education program about the voluntary trading platform and the opportunities for national suppliers and national and international buyers.
2. Promoting the formulation, validation and verification of forest carbon projects generating VERs tradable through the market platform, and strengthening the national capacity to design and implement forest carbon projects. Forest carbon initiatives include afforestation, reforestation and land use projects, agro-forestry and silvopastoral projects, reduced emissions from deforestation and degradation (REDD) projects; and efficient cook stoves projects.
3. Promoting corporate voluntary mitigation and offsetting strategies, including the development of GHG emissions inventories, the identification of mitigation goals, planning and adoption of measures for reducing and offsetting GHG emissions; and the generation of an incentive/rewards package for voluntary mitigation.

### **Partnerships**

Technical inputs needed for the design of the innovative market-based mechanism proposed by this project were compiled and assessed through participatory stakeholder workshops. In addition, consultations with various public and private stakeholders helped Fundación Natura establish the following alliances for the implementation of the activities:

- **Government Agencies.** A key alliance has been created with the Ministry of Environment, Housing and Territorial Development to establish the National Voluntary

Mitigation/Offsetting Program, which ensures support and sustainability for the voluntary carbon markets proposed by the project as well as the linkages with the country's Global Climate Change strategy.

- **Private Sector.** The Colombia's Mercantile Exchange (BMC for Bolsa Mercantil de Colombia) is an active partner, since it is the main negotiating forum in Colombia for trading commodities and is the only institution authorized by the Financial Superintendence to trade carbon certificates. Through this partnership, the linkages to private sector companies and other stakeholders for the market mechanism proposed by the project was ensured.
- **Civil Society Organizations.** The Bogota's Chamber of Commerce (CCB, for Cámara de Comercio de Bogotá) is collaborating through capacity development and guidance on carbon footprint measuring, as well as assisting participating companies in identifying potential sources of financing for internal mitigation projects. To enhance outreach plans and efforts to other stakeholders and the public in general, collaboration and joint efforts are being implemented with World Wildlife Fund (WWF) through their media campaign *I am ECOlombian* (Soy ECOlombiano); the Alexander von Humboldt Institute, through their information platform on the National Biodiversity System; and Patrimonio Natural, an organization implementing a comprehensive information disclosure program with rural communities, indigenous groups and Afro-Colombian communities.
- **Academia and research institutions.** Carbon & Forests, a private research center dedicated to forestry research and project development, is engaged in the activities providing overall guidance and one of the co-financing partners.

<b>Inter-jurisdictional System of Coastal-Marine Protected Areas (ISCOMPA)</b>	
Country	Argentina
Focal Area	Biodiversity
Project type	FSP
Allocation	\$2,177,727 (GEF), \$10,730,000 (cofinancing)
GEF Agency	United Nations Development Programme (UNDP)
Executing partner	Fundación Patagonia Natural
Type of partner	Non-governmental organization
Approval	August, 2010
Status	Under implementation

### **Project Overview**

The coastal marine area of Argentina extends almost 4,500 km from the mouth of the Rio de la Plata to Tierra del Fuego. This area supports large populations of marine birds and mammals of global importance, including more than 80 species of seabirds, some 50 species of marine mammals and over 400 species of fish. For example, it sustains more than half of the breeding population of Magellanic Penguins (*Spheniscus magellanicus*) and approximately 30 percent of the world population of Southern Right Whales (*Eubalanea australis*), among others. This rich marine and coastal biodiversity is being threatened by habitat degradation driven by an expanding oil industry, tourism and invasive species; and over-harvesting of species and unsustainable fishing practices as a consequence of rapid coastal development and poorly controlled economic

activities. Protection efforts are in place, but are uneven and insufficient. For example, although over 40 Coastal Marine Protected Areas (CMPAs) have been established along the coast, only 15 percent have updated management plans with varying degrees of implementation. Thus, to develop a framework for an effectively managed and financially sustainable Inter-jurisdictional System of Coastal-Marine Protected Areas (ISCMPA), Fundación Patagonia Natural (FPN) is implementing this project for the conservation and sustainable use of coastal marine biodiversity, through:

1. Establishing an ISCMPA that brings together the national government and five provincial governments to coordinate the management of over 20 Coastal Marine Protected Areas (CMPAs). Agreements are also being established with the tourism, fisheries and oil sectors in support of the ISCMPA to reduce threats to the CMPAs.
2. Piloting CMPAs to incorporate priority marine areas and provide lessons for ISCMPA management agreements, by testing a variety of governance models and management systems. Experiences and lessons learned from these pilot sites are being compiled into a strategy for developing an effective ISCMPA with the active involvement of a wide range of partners and stakeholders.
3. Developing a financial strategy for a sustainable ISCMPA and its CMPAs. Business plans and innovative tools are being tested and adopted by all interested stakeholders, including the government, the private sector and local communities.

### **Partnerships**

A thorough stakeholder analysis and extensive consultations were undertaken in order to identify key stakeholders related to protected area management and biodiversity conservation. Through interviews, group discussions, site visits, formal and informal meetings, and workshops, Fundación Patagonia Natural engaged with relevant stakeholders and established the following partnerships for the implementation of this project:

- **Government Agencies.** Representatives from various agencies from the national government and the governments in the five provinces in the project area are participating by providing overall guidance for the effective implementation of activities. To sustain achievements, government officials and technical staff are being trained on the ISCMPA framework. Key partners include: Secretariat of Environment and Sustainable Development, Secretariat of Tourism, National Parks Administration, Ministry of Agriculture, Livestock, Fisheries and Food, Ministry of Environment and Sustainable Development of the Province of Chubut, Provincial Agency of Sustainable Development of Buenos Aires Province, Under Secretariat of Environment and Natural Resources of the Province of Santa Cruz, Secretariat of Natural Resources of the Province of Tierra del Fuego, Antarctic and South Atlantic Islands, and Ecology and Environment Council of the Province of Río Negro.
- **Civil Society Organizations.** FPN is an active member of CSO networks working in coastal-marine conservation at the national, regional and international level. In close consultation with some of these partners, strategies that are socially and economically sustainable are being developed. Also, communication and training plans are being jointly implemented through collaboration agreements with other organizations, including academic institutions and research centers. These partners also provide technical advice for local conservation strategies in the pilot sites. Key partners include: Wildlife Conservation Society, Fundación Vida Silvestre Argentina/WWF, Aves Argentinas/BirdLife, Cethus Foundation, the Patagonian National Center and the Austral Center for Scientific Research of the National Counsel for Science and Technology, among others.
- **Local Communities.** Through information dissemination, communication and training, local communities residing near the selected pilot sites are actively participating in the project.

Education and information activities are also being targeted to teachers and students in these areas on the value and importance of the CMPAs. Through this collaborative engagement, participatory action plans are being elaborated based on issues of concern to the communities around the San Matías Gulf in the Province of Río Negro, Punta Tombo Natural Reserve in the Province of Chubut, Magellan Penguin corridor and Burwood Bank in the Southern edge of the Argentine continental shelf.

- **Private Sector.** Through these partnerships with companies and business associations, guidelines and best practices are being agreed and implemented in the selected CMPAs to minimize the negative impact of fisheries, oil industry, shipping and tourism. New financing mechanisms and tools for protected areas are also being tested, promoting business leadership towards the effective management of the CMPAs. Key partners include: Harengus, Pan American Energy, Oxy Petroleum, Total Austral, Sipetrol, Alpesca, Cerro Vanguardia and Aluar.

<b>Promotion of Energy Efficient Cooking, Heating and Housing Technologies (PEECH)</b>	
Country	Pakistan
Focal Area	Climate Change
Project type	MSP
Allocation	\$1,000,000 (GEF), \$1,488,500 (cofinancing)
GEF Agency	United Nations Development Programme (UNDP)
Executing partner	Aga Khan Planning and Building Services – Pakistan
Type of partner	Non-governmental organization
Approval	October, 2007
Status	Completed (Implementation: 2009-2012)

### **Project Overview**

Up to 95 percent of all households in the Northern Areas and the Chitral district in Pakistan used timber as the main material for house constructions. In addition, about 86 percent of households use biomass as the main fuel for cooking and heating; during the 6-month winter season, fuel wood demand significantly increased. The growing demand for timber and fuel wood was expensive, in both household and health expenditures, further aggravating the pressure on the natural forests cover. It was estimated that the rate of consumption of fuel wood for heating and cooking would exhaust the entire vegetation cover in the Northern Area of Pakistan within a decade. To reduce greenhouse gas emissions and promote sustainable uses of wood for building and energy purposes, the Aga Khan Planning and Building Services – Pakistan (AKPBS) implemented this project to improve household economies and health in the Northern Areas and Chitral through the efficient use of fuel wood and energy efficiency housing construction technologies, by:

1. Developing local awareness and capacity on energy efficient products and technologies. A comprehensive capacity development and awareness strategy was implemented, using different types of technical and non-technical publications and media, targeted to the public sector, private sector and local communities for the installation energy efficiency cooking, heating and housing products and technologies. Activities also targeted the engagement of

local entrepreneurs in the installation of energy efficient systems for cooking, heating and housing construction.

2. Improving policy support and institutional capacity. Energy efficiency principles, products and technologies were adapted to the rural conditions of the area and promoted into local and national level building codes and standards. These codes and standards were piloted in 29 new constructions – four public buildings, five communal buildings and 20 private buildings.
3. Developing an energy efficiency service market. Local entrepreneurs and suppliers were engaged through training and strengthening their business skills to facilitate local enterprises to be profitable on energy efficiency products and technologies. The installation of energy efficient cooking, heating and housing improvement technologies and products was actively promoted through micro-credit.

### Partnerships

The project proposal was developed through a robust process of participatory planning involving local communities in 40 villages of the Northern Areas and the Chitral district, government agencies, local and international organizations, among other stakeholders. The process culminated in a multi-stakeholder inception workshop, which also helped create partnerships for the implementation of the project. These partnerships were considered as the foundation for the project's successful implementation due to the high quality of the alliances created, which built upon previously existing high levels of trust and willingness to cooperate. Key partnerships established by AKPBS through this project included:

- **Local communities** were directly involved through training and awareness building on energy efficient products and technologies; and community activities, including social mobilization, facilitation of group access to micro-finance, awareness building, and measuring and reporting of fuel consumption. Around 17,000 households benefited from the project, through the installation of energy efficient products.
- **Financial Institutions.** One of the most successful partnership arrangements under the project was undertaken with the First Micro Finance Bank. The Bank provided micro-credit to poor households to purchase energy efficient cooking, heating and house improvement technologies and products, which in turn ensured the sustainability of the market chain promoted by the project. As a result of this alliance, a total of 27,452 products were installed. Micro-credit was also provided to bring entrepreneurs and craftsmen closer to local communities, and thus, enhancing significant growth of rural enterprise and income generation from community service.
- **Civil Society Organizations.** A strategic alliance was created with World Wide Fund for Nature-Pakistan (WWF), which was responsible for the development of planning tools, including a series of studies and digitalized hazard maps, that helped decision-makers, planners and builders understand the importance of comprehensive, multi-sector approaches to planning and building which consider the impacts of deforestation, climate change and disaster mitigation.
- **Government Agencies** were actively involved in policy development, support and implementation initiatives, also providing technical oversight and advice. Major partners included the Climate Change Division of the Ministry of Environment, the Planning and Development and Forestry Departments of the Government of Gilgit-Baltistan and the Government of Chitral.
- **Academic Institutions.** Three of the most well-established training institutions in the project area became partners. Their engagement resulted in the integration of the project's training manuals, materials and programs into their existing curricula. These academic institutions

also offered Training of Trainers for faculty members. Their students collaborated as interns on project building sites. Key partners included the Institute of Professional Development of the Karakorum International University, the Karakorum Polytechnic Institute and the Gilgit Baltistan Polytechnic Institute.

- **Technical Institutions** provided technical advice and support for the activities on products and technology development, including studies on building typologies and specialized training for architects, engineers and master trainers. Key partners at the international and national level included the Swiss Resource Centre and Consultancies for Development and the Pakistan Engineering Council.

<b>Improved Convention Coordination for Sustainable Growth in Uruguay (ECCOSUR)</b>	
Country	Uruguay
Focal Area	Multi Focal Areas(Cross-cutting Capacity Development)
Project type	MSP
Allocation	\$1,952,400 (GEF), \$1,879,100 (cofinancing)
GEF Agency	United Nations Development Programme (UNDP)
Executing partner	Fundación ECOS
Type of partner	Non-governmental organization
Approval	September, 2013
Status	Under implementation

### **Project Overview**

Uruguay's economy is strongly dependent on natural resources, including globally significant resources. Over the last decade, a comprehensive institutional, policy and legal framework was adopted to protect the country's environmental resources and implement the Rio Conventions. A number of factors, however, contributed to intensify the complexity of environmental problems. Some of these include the expansion of agriculture and intensification of livestock production which resulted in around 30 percent of the country's territory and more than 80 percent of the arable land being affected by varying degrees of soil degradation; changes in rainfall patterns and more frequent floods and droughts due to climate change increased the vulnerability of the country's primary production systems; the significant expansion of industrial activities, particularly agro-industries, which tend to overlap with grassland ecosystems and areas of biodiversity importance, among others. To address the need for an overall environmentally sustainable growth strategy aligned with the Rio Conventions and Multilateral Environmental Agreements, Fundación ECOS is implementing this project to develop innovative mechanisms and instruments through a constructive partnership between the public and private sectors. A set of coordinated and complementary activities are being implemented to strengthen public-private capacities to establish improved consultative mechanisms and incorporate global environmental considerations into the country's sustainable development decision-making process, by:

1. Improving Convention's implementation and coordination within the public sector. A series of capacity building activities are being targeted to managers and staff of the public sector working on programs and projects related to the Conventions on Climate Change, Biodiversity and Land Degradation, as well as Biosafety, Territorial Planning, and Water Resources Management. Institutional strengthening and improved coordination between

Convention Focal Points will be promoted through enhanced public-private consultation processes.

2. Developing the capacity for integrating Rio Convention provisions into national procedures and regulations in production sectors. Information systems among government agencies are being harmonized, and inter-agency dialogue and collaboration is being strengthened through task forces for improved planning and delivery of public policies and programs.
3. Enhancing the contribution of CSOs to sustainable development. A team of environmental specialists from civil society is being established to assist relevant public stakeholders in mainstreaming global conventions in programs, actions and policies through analytical studies, consultations and training. These activities will develop innovative instruments and expertise to strengthen civil society as well as facilitate inter-institutional dialogue. A knowledge platform is being established to disseminate best practices and lessons learned at the regional and international levels.
4. Implementing a model program for integrated local environmental management. Activities will be focused on the local level, targeting local governments, CSOs and communities through education programs, to generate initiatives addressing climate change, biodiversity and land degradation.

### **Partnerships**

A robust platform for effective and efficient multi-sectoral dialogue and inter-institutional alliances is one of the central elements of this project. Fundación ECOS coordinated a highly participatory consultation process with various stakeholders to provide the foundation for the innovative public-private partnership proposed by the project, which resulted in the following alliances for its implementation:

- **Government Agencies.** Representatives from relevant agencies related to energy efficiency, climate change adaptation and mitigation, ecosystem and biodiversity conservation, territorial planning, and land and water management are actively engaged. Through training, capacity development and technical assistance, among other capacity development instruments, effective coordination mechanisms among all agencies are being established. Key partners include the National Directorate of Environment (DINAMA) of the Ministry of Housing, Territorial Planning and Environment (MVOTMA); the Focal Points for UNCBD, UNFCCC and UNCCD; the Environmental Technical Advisory Committee (COTAMA), the Ministry of Livestock, Agriculture and Fisheries (MGAP), the Directorate of Energy (DNE) of the Ministry of Industry, Energy and Mining (MIEM), the Ministry of Economy and Finance (MEF), the Ministry of Planning and Budget (OPP), the Ministry of Foreign Affairs, Public Development Agencies such as National Agency for Research and Innovation (ANII) and the National Corporation for Development (CND), and the local authorities of Maldonado, Rocha, Lavalleja and Treinta y Tres.
- **Civil Society Organizations.** A team of Convention-related CSO experts are actively engaged to assist and mentor other CSOs on cross-cutting issues. Strengthened CSOs' capacities will in turn enhance synergies with the public sector for improved support and advice through the knowledge platform. Alliances have been established with the Latin American Social Sciences Institute (FLACSO) and the 35 member organizations of the Uruguayan Environmental NGO Network, including organizations with national and regional reach.
- **Academic Institutions.** Public and private academic institutions are engaged as beneficiaries of capacity development, knowledge management and awareness activities, as well as providers of inputs and expertise for the consultative and participatory components. Environmental education programs are being developed and offered by partner institutions



through scholarships and training courses aimed at improving cross-cutting knowledge. Key partners include the St. Clare’s College, the National University of the Republic (UDELAR) and the South American Institute for Resilience and Sustainability (SARAS), a global interdisciplinary research institute comprised by experts from UDELAR, the Wageningen University in The Netherlands, the Catholic University of Chile, the Stockholm Resilience Centre, the University of Waterloo in Canada, the University of Wisconsin in the United States, among others.

- **Local Communities** are involved in awareness raising activities. In addition, communities in Maldonado, Rocha, Lavalleja and Treinta y Tres, in the Eastern region of Uruguay, are piloting local initiatives related to climate change, biodiversity and land degradation.
- **International Organizations.** The regional bureau for Sciences in Latin America and the Caribbean of the UN Educational, Scientific and Cultural Organization (UNESCO) is providing scientific advice and support for policy strengthening and inter-institutional cooperation.

<b>Strategic Pilot on Adaptation to Climate Change (SPACC)</b>	
Country	India
Focal Area	Climate Change
Project type	MSP
Allocation	\$1,000,000 (GEF), \$2,853,560 (cofinancing)
GEF Agency	Food and Agriculture Organization of the UN (FAO)
Executing partner	Bharathi Integrated Rural Development Society
Type of partner	Non-governmental organization
Approval	April, 2010
Status	Under implementation

### **Project Overview**

The state of Andhra Pradesh is the fifth largest state in India, with an estimated population of 83 million people. About 70 percent of the population lives in the rural areas, depending on agriculture (crop production, livestock, forestry and fisheries) for their livelihood and subsistence. Some areas in the state, in the south of India, experience high climate variability including decrease in rainfall under the monsoon season, making them chronically drought prone. Since agriculture is largely dependent on rainfall, recurrent droughts were causing significant losses of crop production. For example, rice is one of the five main crops in the region, experienced yield losses ranging from 8 to 60 percent depending on drought severity. Particular skills and tools were lacking for communities to adapt to climate variability. Under the framework of the India Sustainable Land and Ecosystem Management Programme (SLEM), the Bharathi Integrated Rural Development Society (BIRDS) is implementing this project to increase the knowledge and capacity of communities to respond to climate change impacts and to establish a knowledge base to integrate climate adaptation into sustainable land and water management (SLWM) practices. Nine pilot hydrological units in seven drought-prone districts of Andhra Pradesh are taking part of this project. Through an innovative farmer driven grass-root level environmental action, which takes into account the effects of climate variability and change, the project will contribute to the

rehabilitation and protection of critical ecosystems, and improved soil carbon sequestration while raising agricultural productivity, by:

1. Providing information tools for decision making and local institutional capacity development. Activities are focused on combining scientific historical data and climate change impact assessments with local knowledge on climate variability and its impacts on land, water and crop production, to give farmers and community-based organizations the necessary knowledge, capacities and tools to understand climate variability, assess the related vulnerability of land, water and crop production, and identify adaptation measures to be integrated into SLWM practices.
2. Piloting adaptation measures integrated into SLWM practices in farming systems in drought prone areas. Key actions are targeted to developing farmer's skills in managing climate variability and piloting adaptation technologies in farming systems through participation in Climate Change Schools –an innovative participatory approach based on an experiential learning cycle where farmers are encouraged to identify a problem, consider different options for problem solving and implement the best option.
3. Developing a platform for scaling up climate change adaptation measures. Successful methods, tools and institutional approaches to climate variability management as part of SLWM, and best adaptation practices and technologies in farming systems are being disseminated for scaling up and replication in drought prone areas.

### **Partnerships**

Various consultations and workshops were held to formulate it, at the national and local levels. Efforts were made, in particular, with community leaders to ensure that communities in project sites were fully engaged in the activities and that their concerns were adequately tackled. Based on these consultations, BIRDS established the following partnerships for the implementation of the activities:

- **Civil Society Organizations** already working at the community level in Andhra Pradesh are also involved, providing training, technical assistance and support to communities. In close collaboration with the Climate Change Adaptation Committees, CSOs are capturing and sharing the wealth of experience, knowledge, and skills from farmer participants to be systematized into the Farmers Climate Schools. Key partners include the Centre of Applied Research and Extension (CARE), Collective Activity for Rejuvenation of Village Arts and Environment (CARVE), Development Initiatives and People's Action (DIPA), Gram Vikas Samstha (GVS), People's Activity and Rural Technology Nurturing Ecological Rejuvenation (PARTNER), Society For Sustainable Agriculture And Forest Ecology (SAFE), Social Awareness for Integrated Development (SAID) and Star Youth Association (SYA).
- **Community-based Organizations** and farmers are engaged in capacity building and training on the collection and analysis of climate data through participatory climate monitoring. This innovative monitoring system enables CBOs and farmers to create platforms to discuss climate variability factors, their impact on land and water resources, and identify adaptation options. Based on increased capacities coupled with their traditional knowledge, CBOs and farmers are identifying and developing local collective adaptation options and SLWM plans through Climate Change Adaptation Committees. These alternative SLWM practices that incorporate adaptation technologies into farming systems are being implemented by farmers. In addition, communities and farmers are participating in Farmer Climate Schools, aimed at providing them with knowledge and tools to make critical and informed decisions on adaptive measures and SLWM practices. CBOs and farmers in the Chinneru, Mallappa vagu, Yadalavagu, Narsireddipalli vagu, Rommonivagu, Bookineru vagu, Jampaleruvagu,

Naathigani Cheruvu and Upparavanka hydrological units are taking part of the activities, engaging over 143 habitations (communities).

- **International CSOs.** An alliance established with World Education, Inc. is providing guidance and expertise in the design and effective implementation of Community Climate Change Schools, aimed at using experiential learning process to train farmers on how to conduct their own experiments so that they can develop appropriate methods to increase productivity in their farming systems while simultaneously reducing environmental degradation.
- **Government Agencies** are providing support and overall guidance for the activities, at the national and state levels. Coordination and learning exchange are being facilitated between other projects within the Sustainable Land and Ecosystem Management Programme. Also, lessons from implementation are being mainstreamed into the government policy and legislative framework due to the unique approach being implemented at the hydrologic unit level. Main partners include the Ministry of Environment and Forests and the Indian Council of Forestry Research and Education at the national level; and the Principal Secretary Panchayati Raj and the Department of Rural Development of the Government of Andhra Pradesh, at the state level.

<b>Increasing the Supply of Potable Water Using Renewable Energy</b>	
Country	Jamaica
Focal Area	Climate Change
Project type	SGP
Allocation	\$40,000 (GEF SGP); \$71,173 (cofinancing)
Executing partner	Jamaica Maritime Institute Trust Fund of the Caribbean Maritime Institute
Type of partner	Research Institute
Status	Completed (Implemented: August 2010 - October 2011)

### **Project Overview**

Jamaica faces two major challenges within the context of climate change: the cost of energy and an inadequate water supply. Annual spending on fossil fuel is estimated at \$4 billion, which translates into energy costs of approximately \$0.40 per kW –over 50 percent more than the average in the rest of the region. Drought further pressured access to fresh water. To address these challenges, the Jamaica Maritime Institute Trust Fund implemented this project to provide potable water to over 1,000 people at the Caribbean Maritime Institute (CMI) and surrounding communities. The CMI, a teaching and learning institution, provided the institutional support to implement the activities because it is well known as a hub for innovation, creativity, and community service. Thus, the CMI was the ideal partner to pilot an innovative solution to potable water and to promote the use of renewable energy, by:

1. Installing two wind turbines, solar photovoltaic panels and a reverse osmosis water purification system. The low-cost wind generators were constructed using local materials, some of which were recycled materials including used 45-gallon metal drums and PVC pipes. The reverse osmosis system is being used to treat and purify sea and harvested rain water to potable water on-site. This water purification system runs on renewable energy produced by the wind turbines, ensuring minimal maintenance costs for the equipment. Also, to make the

purified water easily accessible to the community, a bagging machine to make bag water has been installed.

2. Implementing an education and awareness raising campaign. The CMI aimed at establishing a national renewable energy center with a focus on continuous research, development and training. Thus, wind and solar energy issues have been incorporated into the school curriculum, where trainings and workshops on renewable energy were coordinated through the CMI's School of Advanced Skills. To promote replication, an operational manual was produced. To facilitate knowledge exchange with other community stakeholders, the CMI utilized educational tours, public awareness sessions, print and electronic media, national exhibitions and collaboration with academia.

### Impacts

Through a key partnership with the Environmental Foundation of Jamaica, a non-governmental organization which provided technical support, the activities implemented by the Jamaica Maritime Institute Trust Fund achieved the following impacts:

- **Environmental Impact.** The project successfully demonstrated an innovative system to purify rain, brackish and sea water using renewable energy. Before project implementation, the operation of the center would incur approximately \$ 277 of electricity costs per month. Currently, the center is saving an average of \$ 160 per month in electricity costs by producing renewable energy, representing about 60 percent savings per month. The wind turbines produce energy of 0.5kW per hour at a rate of \$0.40. The energy produced by the solar photovoltaic (PV) panels is 1.8kW per hour. Hence, the total amount of energy produced per day from renewable and emission-free resources is 13.8kW per hour, with an average energy production of 400kW per month. In addition, the innovative water purification system installed ensures the provision of a renewable, clean and affordable water supply.
- **Socio-economic Impact.** The project has successfully contributed to the training of inner city youths, equipping them with entrepreneurial skills and associated opportunities. Currently, there are 28 students from the inner city pursuing a course in renewable energy through the CMI's School of Advanced Skills. This cohort is due to graduate in July 2013 and will support the renewable energy sector in Jamaica. Also, the water bagging machine is producing 35 to 40 8oz/250ml bags per minute at a cost of \$0.05 and with a retail price of \$0.11. Given that the cost of bottled water is \$0.28 per 8oz/250ml bottle, this bagged water production will not only bring income to the institute but also reduce water costs for consumers by 60 percent. This pilot system empowered the community to manufacture, sale and maintain the unit.
- **Policy Impact.** The project has successfully influenced the national energy policy, as it establishes that the CMI will provide training in their technologies and manufacture more equipment for local communities who are unable to access electricity. In addition, the CMI has been established as a training center in renewable technologies, enabling the Institute to manufacture the equipment for local communities who are unable to access electricity. Currently, only about 60 percent of Jamaica has access to potable water. Over the last 5 years, the government has provided licenses to private operators and community groups to source and provide their own water supply. This project underlines those development objectives.

**Sustainability.** Several private and public sector organizations, including the National Commercial Bank and the Digicel Foundation, have expressed interest in partnering with the CMI to further improve project sustainability.

**Replication.** A Jamaica Defense Force base in the Pedro Cays has already replicated the renewable energy and water purification system, funded by the Canadian International Development Agency. An NGO in Barbados is assessing and adapting the training and

production component of the project, in consultation with the Jamaica Maritime Institute Trust Fund.

<b>Promoting the Adaptation of Renewable Energy by Installation of Biogas Units in Indigenous Communities</b>	
Country	India
Focal Area	Biodiversity and Climate Change
Project type	SGP
Allocation	\$38,334 (GEF SGP); \$129,422 (cofinancing)
Executing partner	Centre for Tribal Rural Development
Type of partner	Local non-governmental organization
Status	Completed (Implemented: April 2010 – April 2013). Scaled up to December 2015

### **Project Overview**

India is one of the 17 mega biodiversity countries of the world and it together supports seven percent of the species on earth. India has a total of 78 million ha of forest and tree cover which is about 24 percent of India’s total geographical area. Some 275 million rural people depend on forests for their livelihoods in India, including 89 million tribal members across 700 tribal groups. Rural people directly depend upon climate-sensitive sectors (agriculture, forests and fisheries) and natural resources (such as water, biodiversity, mangroves, coastal zones, grasslands) for their subsistence and livelihoods. The indigenous / tribal communities are not only the guardians of the biodiversity and related traditional knowledge, but simultaneously are under tremendous pressure due to poverty and over-use of the natural resources by indulging into unsustainable environmental practices. Nilgiris is one of the largest tribal areas in the state of Tamil Nadu, India. The most common tribes are Paniya, Kurumbas & Kattunayaka. The quality of life for these tribal communities continues to remain a challenge, as they have a limited access, into the local programs and the credit facilities benefitting them.

To balance between environmental benefits, the wellbeing, livelihoods capabilities, equity and sustainable actions in the villages with locals, Centre for Tribal Rural Development (CTRD) has been working with range of stakeholders for addressing the grass root actions through employee volunteers. The activities in the projects are ensuring to deliver quick results, involving communities to take responsibilities, decisions and share costs in cash and in kind. In 2008, CTRD approached the Small Grant Programme (SGP) and after several discussions and informal meetings a common understanding was created on the need to institutionalize women into Self Help Groups (SHGs) and link them to use alternative energy sources to avoid drudgery and limit health issues due to massive indoor wood burning. The Centre for Environment Education (CEE) encouraged the skills building approach as a growth strategy. During the process, the AIRBUS Corporate Foundation (ACF); Raleigh India (RI); through employee volunteering program and the Forest Department also joined hands in the partnership.

Taking a more practical approach between all partners, the project was developed to introduce sustainable alternative energy sources to conserve local woodlots; and to demonstrate biogas as a low cost potential technology solution to address climate change and deforestation while improving the livelihoods of the community through livestock and fodder management.

## Impacts

All partners, Ministry of Environment & Forests, (MoEF), Government of India, GEF, UNDP, Raleigh, CTRD, ACF, FD, SGP, CEE and tribal communities joined hands in the project sharing and synergizing roles and responsibilities and sharing costs and decisions.

In the last three years, 10 visits consisting of 159 officials from ACF and Raleigh's India (under the employee volunteering program) have already spent time in partnering the local communities in the construction of 51 Biogas units and 51 cow sheds in 9 tribal villages with 51 poor tribal and scheduled caste households (HHs). This has generated nearly 2,190 days of work by the employees of ACF &RI and leading to an in kind contribution of about \$27,000, along with nearly 1,400 person days of work by the local communities. 51 pairs of buffaloes and cows have been provided to 51 families, with communities also sharing costs. More than 15 informal and formal trainings have been provided for building the local capacities of tribal communities in livestock raising and nutrition, introduction of nutritional fodder plots, maintenance and management of biogas units, milk production and collection and providing links to the local dairy. Continuous exposure and trainings are facilitated by CTRD with local officials. For timely, cheap and easy access to credit more than 16 women savings and credit (S&C) SHGs have been promoted with 210 members, opening individual and group bank accounts for tribal groups and individuals for the first time in the region through the project. Through this S&C scheme, regular monthly savings are made by women members of \$1/2 per women per month which during the last 28 months has cumulated to \$2,066 and this effort of community help has been facilitated by CTRD and the SHGs have accessed a total bank credit of \$8,835. The program has also spread naturally to many more villages. In addition, the project introduced almost 200 smokeless fuel efficient cook stoves to households in the community that do not benefit from biogas, creating a more equitable resource use with locals sharing costs through in kind labour. The CTRD is now creating more access to quality livestock and livestock management practices through community pay and use systems. Three local boys have been trained in handling the biogas units repairs and maintenance and as local-para-veterinarians. In an effort to inform, engage and agree with communities and other stakeholders to the installation and management of biogas, clean cook stoves, fodder management, local vegetation conservation, SHG formation, milk collection and supply, livestock management and other enterprise management; more than 510 village informal and formal small meetings were held with over 400 households. This, in fact, has been the most challenging task as the Indigenous People are not usually engaged in agricultural practices. Key impacts include:

- **Environmental Impact.** In all 51 biogas plants, each household saves about 8-9 kgs of firewood per day for nearly 280 days in a year and avoids deforestation in the local areas. In the last three years, the project has managed to avoid the emission of 3,100 Metric Tonnes (MTs) of CO<sub>2</sub>. Additionally, the introduction of the cook stoves have further resulted in saving nearly 3 kgs of wood per household per day with a total 790 Mts of CO<sub>2</sub> emissions checked, while also protecting and allowing for the regeneration of woodlots. More than 35 Mts of organic manure has been produced through these biogas units leading to raise the productivity of the crops and vegetation of the community. More than 50 percent of the produce has been sold by the communities to other farmers in the area.
- **Socio-Economic Impact.** By providing animals to the beneficiary households, the communities not only have the cow-dung available for the biogas plants, but the milk is sold to the local dairy first time by the locals. This is increasing the income of this indigenous group. The residue/washings of the cow-dung has improved fodder production, also leading to improve the production of tuber crops and turmeric, resulting in additional incomes for the households. Through the introduction of the clean cooking stoves, the smoke indoors has been reduced thereby improving the health of the beneficiaries. In fact, women and families

have reported a reduction in respiratory problems and less watering in eyes. Women have also benefitted from reduced drudgery and allowed them to invest time in other activities and household chores. On an average, 6 to 8 litres of milk is sold by the families on day to day basis. This is bringing additional income of about \$2.5 per day per family/household. Therefore all 51 HHs have since last two/three years had a sale revenue of nearly \$38,667 resulting in additional annual income of \$416. Other 250 households have also gained through the increase in agricultural production and introduction of cash crops like turmeric, ginger and spices. These increased incomes have led the locals into making investments in asset building (better housing, utensils, radio, TV sets, etc.) and productive investments in goat and poultry programs. Nearly 150 families have saved a total of \$4,168 in their respective accounts. The program is instilling a new way of life for these poor communities, more so the women, who are every day eager to earn more. In addition, based on the feedback of the employees, the expeditions have had a significant impact on the personal, professional and community lives. The expeditions can be considered for personal development of the ACF and RI employees, having a direct impact on motivation, engagement and productivity at work. Today the employees are more optimistic about life and can see life beyond temporary setbacks and problems, have gained confidence and feel more at ease at sharing their ideas, are open minded and more tolerant towards the others and have improved their ability to cope with diversity. Employees have become more active in protecting the environment and their actions have influenced others and have taken part in environmental projects outside Airbus and agree that it was a life changing experience for them. This active engagement is emerging as a win-win situation for all stakeholders.

- **Policy Impact.** The communities and the local governance systems seeing possibilities of better engagement with indigenous groups through this alternate renewable systems –biogas units. The government has a policy to provide about \$100 per biogas unit extending the subsidy directly into the beneficiary’s bank account, mostly women. Plantations of fodder along the margins of land holdings and around houses in homestead land are making the authorities encourage all households in the region to adopt sustainable fodder practices. Also, the employee volunteers from ACF and RI feel rewarded from their contributions in mitigation of CO<sub>2</sub> emissions; and the program has also helped in team building among themselves and provided inspiration for the communities.

### **Replication and Upscaling**

The project introduced a unique way of working with large corporations under their Corporate Social Responsibility (CSR) programs. With Indian Government making the CSR programs mandatory for large corporations, there is a tremendous scope of replication of such projects with the private sector. In addition, replication has also gone beyond marginalized households, with many households approaching CTRD to build biogas through their own funds.