Three UN agencies namely UNDP, WFP and ILO have implemented a project "Building Community Resilience Through Integrated Water Management" which was funded by the Netherlands Government. As part of that project, Green Livelihoods in the threated ecological aAreas was implemented by the ILO in cooperation with specialized agencies/organizations in Bangladesh, and promoted green skills for decent job growth of poor and vulnerable groups including renewable energy aimed at reducing carbon emission and contributing to nature conservation.

Project Title: Promotion of green livelihoods for threatened ecological areas"

Period of Implementation: December 2012 – June 2015

Budget: USD 250,070

Project Location:

• Hakaluki Haor covering Sylhet & Moulvi Bazar Districts & Cox's Bazar

Project Brief:

Three UN agencies namely UNDP, WFP and ILO have implemented a project "Building Community Resilience Through Integrated Water Management" which was funded by the Netherlands Government. As part of that promotion of green livelihoods in the threated ecological areas was implemented in cooperation with specialized agencies/organizations in Bangladesh promoting green skills and renewable energy aimed at reducing carbon emission and nature conservation.

Objectives:

The overall objective of the programme was to contribute to the achievement of the UNDAF 2012-2016 Pillar-5 Outcome that: "By 2016, populations vulnerable to climate change and natural disasters have become more resilient to adapt with the risk". To achieve this, development interventions under the programme offered an integrated and community-based approach to water management and access needs. Each intervention also considered the broader socioeconomic context in which it will operate; recognizing that cross-cutting issues such as gender, community participation, governance and climate change are central to ensuring uptake and sustainability. This programme offered an innovative and holistic approach to addressing water related challenges across Bangladesh.

The programme was based around five components that were built on existing projects of the participating UN agencies of UNDP, ILO and WFP. The projects had been selected because they are contributing to the achievement of UNDAF Pillar-5 and cover broad

thematic areas on Climate change, Environment and Disaster Risk Management. The five components of this programme are detailed below.

- **Component 1 (UNDP)**: Enhanced resilience of coastal communities through improved water management.
- **Component 2 (UNDP)**: Enhanced resilience of coastal communities through rehabilitation of coastal embankments. Increased protection for core family shelters (CFS) safeguarding 5,200 vulnerable families.
- **Component 3 (WFP):** Enhanced resilience of coastal communities through creation of community assets (14,000 households in three upazilas of the Southern coastal zone have enhanced resilience to natural disasters through creation of community assets).
- **Component 4 (UNDP):** Adaptive natural resource management in ecologically critical areas. ecological critical area (ECA) of Hakaluki Haor (ecosystem restoration and protection activities at Hakaluki Haor only).
- **Component 5 (ILO):** Green livelihood skills for communities of threatened ecological areas
- ILO Component 5

Component 5 focused on green skills training for targeted households of the Hakaluki Haor (Wetland of MoulviBazar and Sylhet Districts) and Cox's Bazar to promote sustainable rural livelihoods, biodiversity conservation and to reduce dependency of the targeted households on this critically endangered aquatic ecosystem. This component complemented the interventions of the UNDP's "Coastal and Wetland Biodiversity Management Project"(CWBMP II) at Hakaluki Haor and Cox's Bazar by adding a Green Jobs component. The Haor area (wetlands), comprised of perennial water bodies, is vulnerable to flash flooding, heavy flooding and other adverse climate change related impacts. As such, the lives and livelihoods of the people in the Haor area are particularly vulnerable and the creation of 'green jobs' would have ecological as well as socio-economic benefits. Hakaluki Haor and Cox's Bazar have been declared ecological critical areas (ECA) in Bangladesh.

The ILO component implemented activities based on the experience of ILO's 'Green Jobs in Asia' project implemented in five countries including Bangladesh.

The Component 5, therefore, supported project initiatives such as:

- Skills training for Solar Home System (SHS) Technicians for unemployed youth of the project areas in collaboration Grameen Shakti (a pioneer organization in promoting renewable energy/SHS), Bureau of Manpower, Employment & Training (BMET) and its Technical Training Centres (TTCs) of Sylhet, Comilla and Chittagong
- Supply and installation of Improved Cook Stoves (ICSs) in collaboration Grameen Shakti for vulnerable communities, especially women led households) to reduce dependency on fire woods and reduce carbon emission as well as generate employment on manufacturing and maintenance of ICSs.
- Promotion of green enterprises and organic through entrepreneurships and skills training using ILO Training for Economic Empowerment (TREE) methodology and tools for providing alterative employment opportunities (green jobs) for the poor and vulnerable women of Hakaluki Haor and Cox's Bazar ECA.
- Development of partnerships with the local government, NGOs and other actors involved in climate change issues and livelihoods improvement in the project area.
- Awareness programme on maintaining the natural resources base.

Outputs achieved

The ILO intervention contributed towards green development with the project stakeholders as below:

Project Location	Implementing Partner	Outputs
Hakaluki Haor, Moluvi Bazar/Sylhet	Centre for Natural Resource Studies (CNRS)	 Organized local level awareness raising program on conservation & maintaining natural resources base Developed & maintained database of project beneficiaries Identified, selected & trained 3,000 women beneficiaries & assisted to install & use of 3,000 ICSs in Households Conducted community assessment using ILO TREE tools & provided livelihoods/entrepreneurships training on duck rearing, ICS maintenance & organic farming to 50 women
Cox's Bazar	Nature Conservation Management (NACOM)	 Organized local level awareness raising program on conservation & maintaining natural resources base Developed & maintained database of project beneficiaries Identified, selected & trained 2,000 women beneficiaries & assisted to install & use of 2,000 ICs in Households Trained in collaboration with the ILO 20 local Trainers for using ILO TREE tools and on green skills

		•	identification Conducted community assessment using ILO TREE tools & provided livelihoods/entrepreneurships training to 30 women on ICS maintenance & organic farming such honey & mushroom cultivation etc.
Sylhet, Moulvi Bazar (Hakaluki Haor) & Cox's Bazar	Grameen Shakti (GS)	•	Conducted TOT for 36 Instructors from TTCs & GS on SHS Technician Training in Sylhet, Comilla & Chittagong Supplied & installed 5000 ICS in Hakaluki Haor & Cox's Bazar in Households Organised post training support on employment (wage & self) of trained SHS Technicians
	Bureau of Manpower, Employment & Training (BMET)	•	Organised & trained 286 unemployed youth from Hakaluki Haor & Cox's Bazar as skilled SHS Technicians

In the process and ILO interventions, ILO Green Jobs promoted in the ECA areas contributing in following manner:

Contributing issues:	Contribution to climate change & improved adaptation
Climate smart & resilience:	 The project provided supported on installation of Improved Cook Stoves (ICS) which reduces GHG emission and indoor air pollution Solar technician training provided local youth with independent green business ideas and promotion of Solar Home Systems (SHS) that will contribute generation of renewable energy as well help reduce the emission of carbon in ECAs Women's entrepreneurship training on Green Jobs provides to access to environmentally friendly green livelihoods aimed to preserve nature and reduce vulnerability of communities/families Awareness raising activities created knowledge and understanding on climate change, increase adaptability to climate change as well as on nature conservation
Climate adaptation (building resilience) or mitigation (reducing emissions)	 The ILO project 'Green Livelihoods for Communities of Threatened Ecological Areas' has contributed to both climate adaptation and mitigation. By installation and use of ICS less fuel wood is being consumed leading to conservation of mangrove forest and other indigenous forest which in turn is leading to a significant reduction in carbon emission.
Impacts of climate change	 Reduction of GHG emission in the project areas Forest coverage growing as less use of trees as fuel wood People's capacity and awareness on green jobs promoting livelihoods are helping build economies that will grow strongly and are more efficient and sustainable in the use of natural resources, as well as less carbon intensive and more resilient to climate change

Visible/measureable results on adaptation/mitigation? Potential private	 5,000 ICS's have been installed and all are operational in ECA areas of Hakaluki Haor and Cox's Bazar that help to save 2,000 medium sized trees per year With use of the ICS's approximately 2,000 tons of carbon emission is being reduced each year 286 unemployed youth have been trained on green jobs for access to electricity living in ECA areas (villages). Thus use of SHS technology has become a smart effort by harnessing renewable energy that also help save the nature. 80 women were trained on green entrepreneurship resulting in adaptation/mitigation on effect of climate change in their lives and livelihoods These above activities are encouraging more people to volunteer and get trained Ecotourism
sector partnerships mechanisms exist that will stimulate investments to support climate resilience in the transition from aid to trade	 Value added crop production for livelihood improvement (Strawberries, Capsicum, Guava etc) Waste management
Challenges/obstacles encountered in addressing adaptation/mitigation	 The main challenge was the lack of awareness of the target communities about climate change impact at the grassroots level To address this, project partners like Nature Conservation Management (NACOM), Centre for Natural Resources Studies (CNRS) and Grameen Shakti held awareness raising and sensitization programs in the form of folk dramas and information campaign through bill boards and distribution posters/leaflets
Strengthening activities to address adaptation and mitigation	 More focus on awareness through locally suitable and innovative methods Intensive involvement of communities and strengthening community based organizations like Community Based Committees More focus on green livelihoods improvement with access to alternate livelihoods and income generation activities for reduction in the use of carbon-intensive inputs (such as electricity, aluminum and cement).

Critical success factors of labour market interventions

- Policy level support from the Government for green growth;
- Providing incentives for youth for green occupations and green business development;
- Skills training on emerging green occupations and market support;
- Private sector participation in the green economy;
- Stronger advocacy and awareness raising at both policy and community levels for green growth.

• Aligning the TVET system with the green skills and green occupations and conduct demand analysis.

Challenges and key policy barriers

Challenges for the green economy include:

- Implementation of policies adopted by the government;
- Weak implementation machinery and lack of human resources to support the green economy at sectoral levels.
- Participation of the private sector and community level awareness and advocacy to support conservation of natural resources and introduce green practices;
- Setting up of baseline and monitor the results of the key interventions.
- Finding alternative livelihoods for the population affected by climate change.

For visual of the project activities & good practices, please click the following links.