



Sundarbans Restoration Bangladesh Perspective

Capacity Building workshop for central, South and
East Asia on ecosystem conservation and restoration
to support achievement of the Aichi Biodiversity
Targets

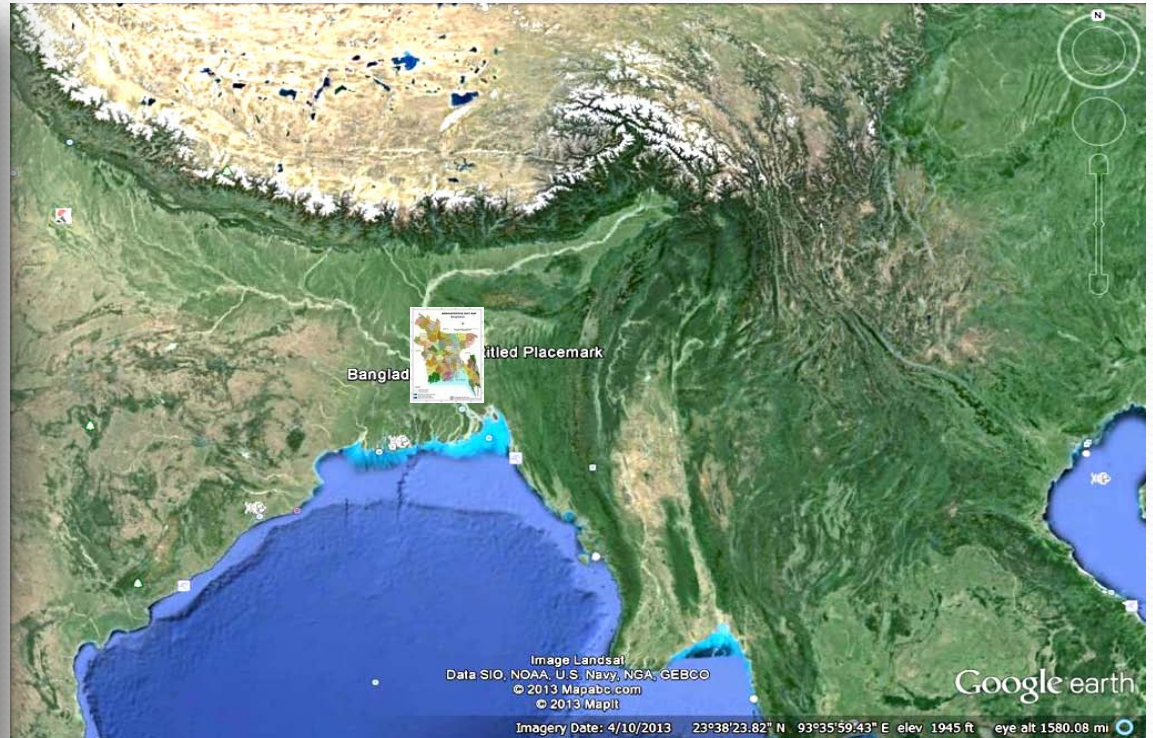
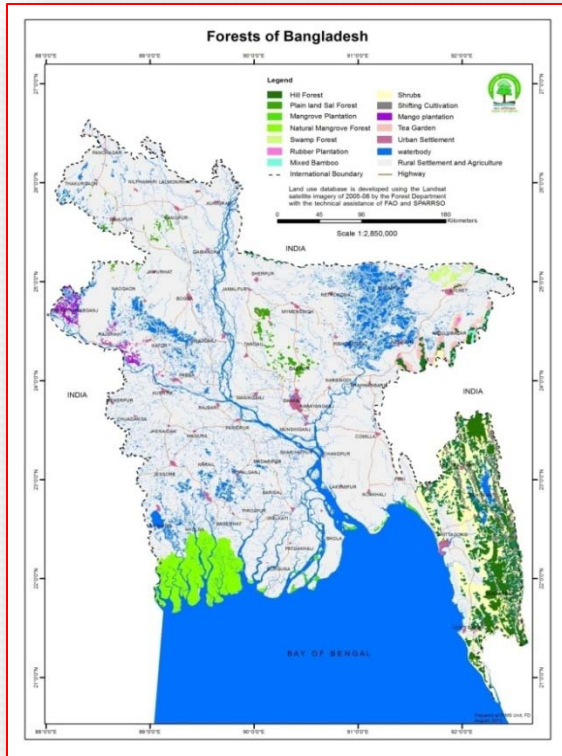
14 to 18 Jeju
Day 4
Republic of Korea

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Bangladesh Country Profile



Area ; 147,570 sq km
Population ; 160 million (Highest Density in the World)
Forests ; 2.33 m. hec.(0.014 hectares forest per person)
Poverty ; 23%
Income ; 1044 US \$



Forests of Bangladesh



Forest types	Area (m. ha.)	% to country's area
FD managed Forest	1.60	10.85%
Un-classed State Forest	0.73	4.95%
Total	2.33	15.80%
Forests in Homestead	1.88	12.74%

FD managed Forests

Forest Types	Area (m. ha.)	% to country's area
Hill Forest	0.63	4.28%
Mangrove Forest	0.60	4.07%
Littoral Forests	0.05	0.34%
Mangrove Plantation	0.20	1.35%
Plain land (Sal) Forest	0.12	0.81%
Total	1.60	10.85%



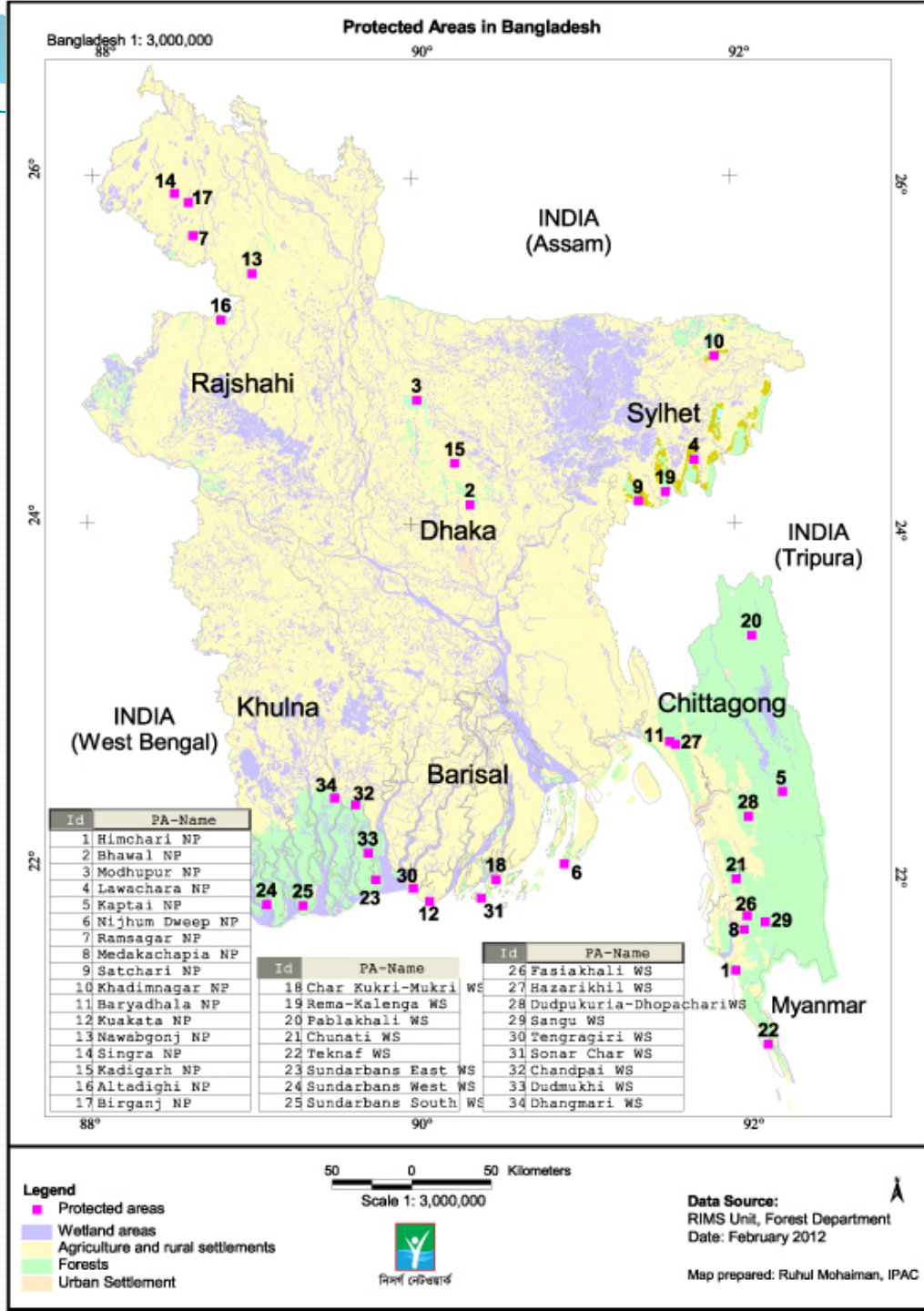
Protected Areas (PAs) in Bangladesh

Number of PA – 37 nos

Area – 265,736 ha

which is 1.8% of Country

- 16.58 % of forest
- Proposed
- 15 PAs with 1,96,065 ha.
- About 62% area of PAs are managed under Participatory system (co-management)



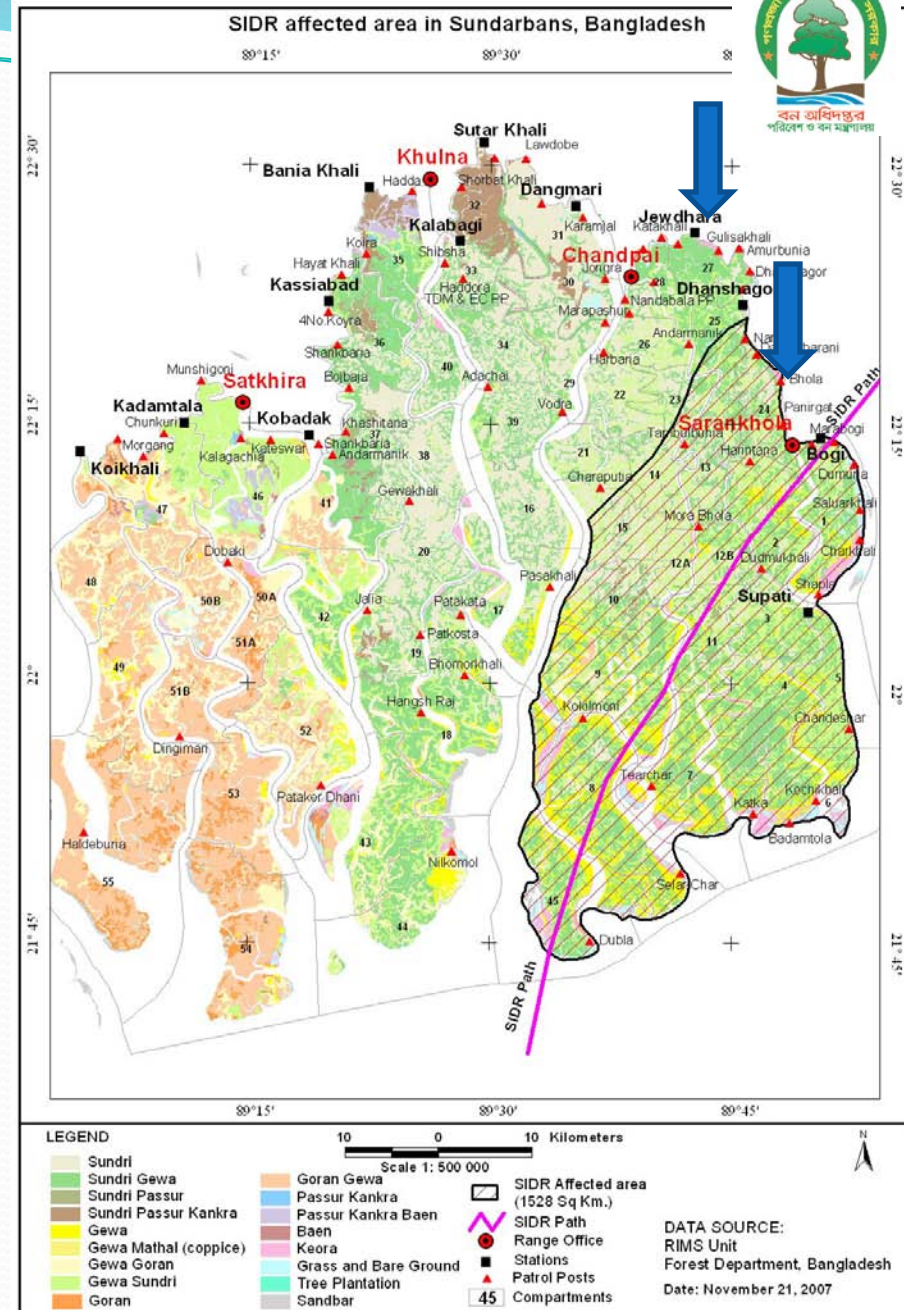


Sundarbans



Sundarbans

- The largest mangrove forest in the world, covers 6017 Sq km in Bangladesh (10,000 sq km including Indian part),
- A **World Heritage Site** and **Ramsar site**. One third of Sundarbans is water , About 4.2% of Bangladesh and about 44% of the forests.
- Sundarbans harbour **315** species of fauna including Bengal Tiger and Irrawaddy Dolphins, spotted deer, Crocodiles, birds and snakes etc.
- **512** species of flora of which about **70%** is Sundari (Heritera fomes) from which it derives its name.
- **The Sundarbans has been managed since 1879.**





Ecosystem Services from Sundarbans



- **Provisioning:** Timber, fuel-wood, fish, thatching materials, honey, bee wax, shells etc. 300,000 people dependent for subsistence.
- **Supporting:** Largest remaining habitat for the Bengal Tiger and Spawning ground for fishes and aquatic fauna. Barrier to cyclones and tidal surges,
- **Regulating:** The world's largest mangrove carbon sink. Purifying water and air.
- **Cultural :** More than 1 million people visit a year. Thousands people get bath during Rush Mela to get rid of sin. Believe in Banabibi for the safety of life.



Honey collection



Goran Fuel-wood



Tourism



Spiritual Services



Fishing



Cyclone Sidr.

- On **November 15 of 2007** Cyclone Sidr, struck the Sundarbans with winds of 250 kph (155 mph) speed and triggered a **5-meter (16-ft)** tidal surge from the Bay of Bengal,
- The number of death is estimated around 3,500 people, affected **2.3 millions households.**
- At least **30 percent** of the Sundarbans was destroyed by the Cyclone.
- The total damage and loss caused was estimated as **1.7 billion US Dollar.**

The Sundarbans and the coastal mangroves largely offset the adverse impact of the cyclone and associated tidal surge.

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Restoration after Sidr—



Mangrove can regenerate naturally if the normal tide hydrology and the supply of seeds and propagules from adjacent stands are not disturbed.

Accordingly the Sundarbans restoration process after the Cyclone SIDR was left to the nature.

To facilitate the natural rehabilitation processes undisturbed, all terrestrial activities in Sundarbans was banned for a year.

Most of the trees, turned brown as suffered from unusually high salinity caused by the Sidr's heavy tidal wave, turns to green within few weeks.

Study shows the nature was able to recover the damage of Sundarbans Mangrove in one year.





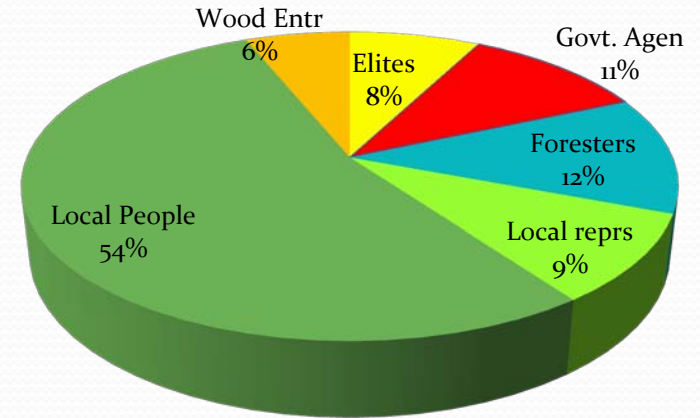
Local Level empowerment through co-management



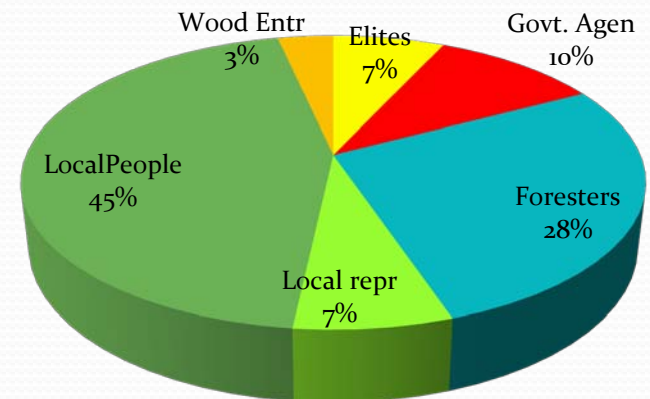
Co-Management:

- Sharing of responsibilities established through formation of **Co-management Councils and committee (CMC)**. Framed by Govt. on 15.5. 06
- CMC responsible for management of PAs on local stakeholders participation. They perform activities of PA under the guidance of council and approved by FD.
- People (30-100) of the adjacent villages organized to form **Village Conservation Forum (VCF)** with 1/3 female members, **Peoples Forum (PF)** with One pair of VCF member elected. **Community Patrol groups (CPG)** , **Eco-Tour guides** are selected from villages and represented in CMCs.

Co-M Council 65 member s



Co-M Committee 19 members





Sundarbans Restoration Initiatives



Sustain ban on logging in Sundarbans since 1989 for biodiversity conservation,

One third of Sundarbans is declared as Protected Areas. 3 more dolphine Sanctuaries.

Fishing ban on 18 Canals which is highly potential for natural fish breeding ecology .

Digging of 100 ponds to provide wild life with safe drinking water.

Assisted natural regeneration and enrichment plantation carried out in degraded areas.

Re-Excavation of derelict canals along the border of Sundarbans in 2005.

Ban on marketing and use of major two spp. (Sundari & Passur) timber imposed in 2007.

Tiger Action Plan 2009-17.

Compensation for tiger victims launched.

Co-management of mangrove forest has been piloted in 2010.





Sustainability of Co-management

The Co-management system of PA has been Institutionalized through approval of **Grant Financing** system on 29/3/2009, in which **50%** of revenue back to CMC to bear recurring expenditure of management.

- Co-management is the main principle of natural resources management as per new Wildlife (Preservation and security) act 2012. for effective implementation of the **Act Co-management Rules is under preparation.**
- CMC is empowered to collect revenue on behalf of forest department.
- Co-management organizations and VCFs are **registered** with the Social welfare Department in the country;
- CMCs are always consulted in **Management Plans preparation of protected areas.**

4 CMCs established.

Village forum of 33,009 people

Training and support for AIG provided.

A target of 45,000 resource users set for self-reliance



Projects implemented in Sundarbans



Name of the Project	Period	Funding	Main activities
1. Integrated Resource Development of the Sundarbans..	1993 - 1995	UNDP	Infrastructures & logistic Improvement.
2. Development of Wildlife Conservation and Management (Revised)	1995 - 1997	GOB	Infrastructure & logistics Improvement
3. Forest Resources Management Project (Partly)	1992- 2000	IDA, GOB	Infrastructure and logistic.
4. Biodiversity Conservation in the Sundarbans Mangrove forests.	1999 to 2005	ADB, GOB	Infrastructures, Vegetation cover, Tourism, Aquatic resource dev & reduce dependency of people.
5. A Study on Behavior and Ecology of the Tigers in the SRF of Bangladesh (TAPP)	2002 to 2006	USAID	Study on Tiger behaviour.
6. Management Assistance for Sundarbans Mangrove forest.	2005 to 2010	GOB	Infrastructures and logistics Improvement.
7. Integrated Protected Area Co-management (IPAC-Nishorgo)	2010 to 2013	USAID, GOB	To reduce dependency of people on SRF resources.
8. Support to Essential Management Capacity in the Sundarban WHS following the passage of Cyclone SIDR-	2008 to 2011	UNESCO	Infrastructural development After cyclone Sidr



On going Projects

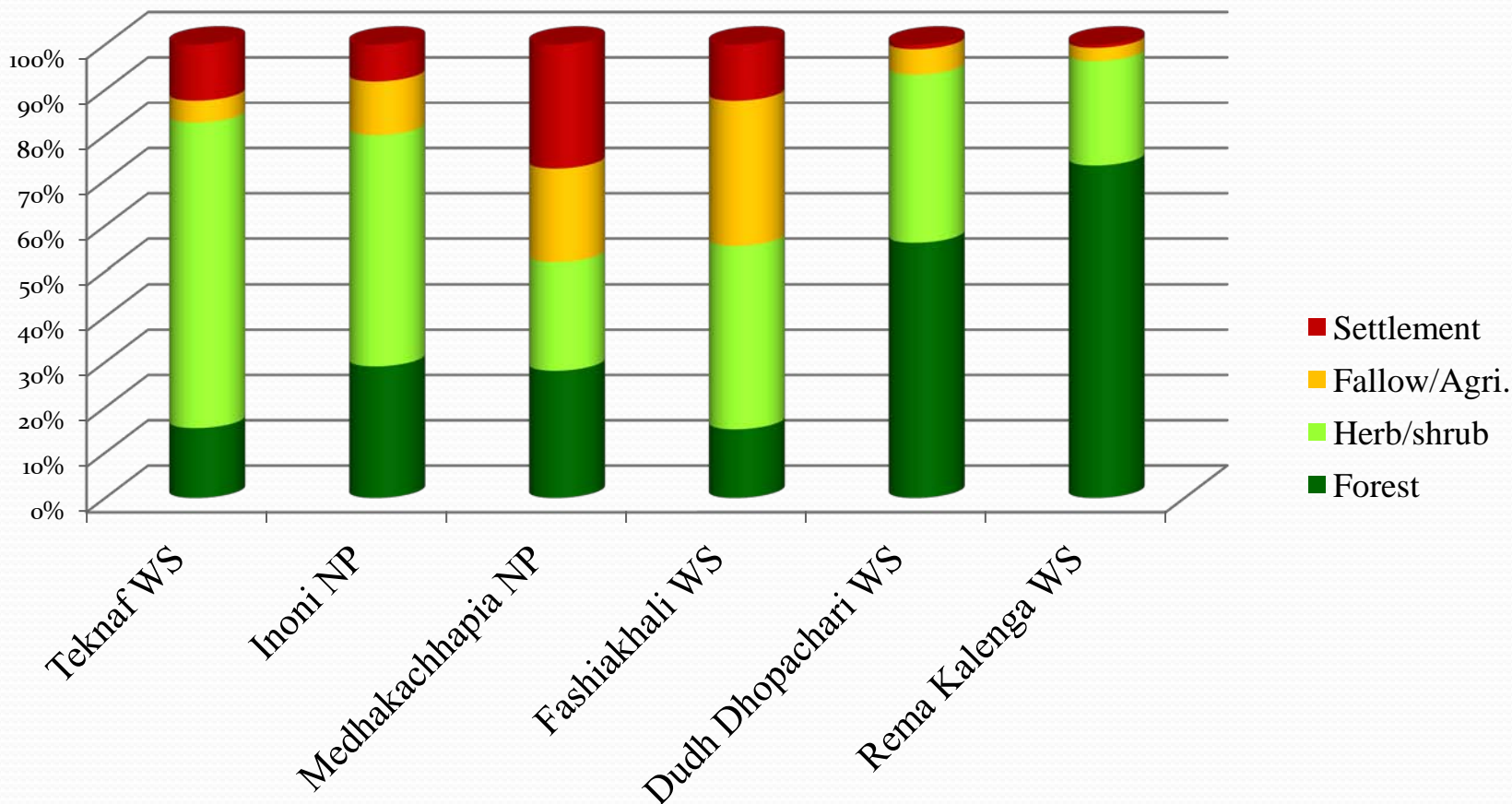


Project Name	Duration	Funding	Main Activities
1. Sundarban Environmental And Livelihoods Security (SEALS) (1 st Revised)	2012-2015	EU, GoB	Reduce pressure on resources, logistics infrastructures
2. Strengthening Regional Co-operation for Wildlife Protection Project (Part)	2011-2016	IDA, GoB	Wildlife Protection & management.
3. Sustainable Development and Biodiversity Conservation in Coastal (Protection) Forest(SDBC-Sundarbans)	2012-15	GoB, GIZ	Plantation on the periphery, training, ect.
4. Climate Resilient Ecosystem and Livelihoods (CREL) (Part)	2012-2015	EU, GoB	To Reduce Pressure of Sundarbans.
5. Bengal Tiger Conservation Activity (Bagh)	2011-2016	IDA, GoB	Tiger conservation





Settlement and Agriculture are unavoidable in PAs (Restricted by law) of Bangladesh.



Sustainable Management of PAs not possible
Without **Active participation of local people and
Economic incentives for their Participation**



Main Activities to reduce dependency of people on Sundarbans. (By NGOs)



- Identifying Sundarbans dependent households, their needs and capacities.
- Formation of community groups, market study for IGAs, Alternative IGAs
- Conservation education, community infrastructure improvement.
- Development of skills and vocational training of the community groups & awareness raising of local community.
- Improvement of disaster, early warning knowledge, develop and train volunteer group
- Access to educational institutions for community members to health clinic & water/sanitation services.
- Women rehabilitation through off farm activities





Thank you
for kind attention

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