



Enhancing conservation law enforcement and monitoring in the Sundarbans mangrove forest through the Spatial Monitoring and Reporting Tool (SMART)

Management of the Sundarbans Mangrove Forests for Biodiversity Conservation and Increased Adaptation to Climate Change Project (SMP)

Implemented by:

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Introduction

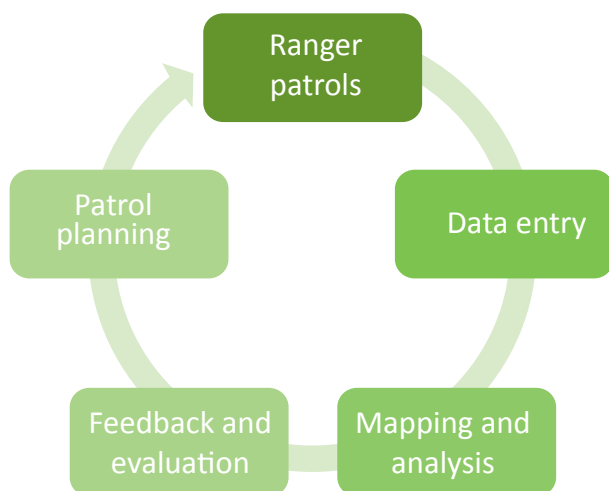
The Sundarbans are the world's largest mangrove forest and a UNESCO World Heritage Site harbouring globally important biodiversity. Limited resource harvesting and access to the forest is regulated through a permit system. However, the unique Sundarbans ecosystem is threatened by illegal activities such as poison fishing, logging and poaching. A lack of strategic biomonitoring data is likewise hampering effective conservation management in the Sundarbans.

Conservation law enforcement and monitoring in the Sundarbans Mangrove Forest

An immediate priority for protecting the Sundarbans and its wildlife is to move from the current reactive law enforcement approach to prevention of illegal activities. A critical component of a proactive approach to protecting wildlife and its habitat is to strengthen the capacity and accountability of law enforcement and monitoring patrols.

What is SMART?

The SMART (Spatial Monitoring and Reporting Tool) approach combines a cutting edge biodiversity conservation management tool with capacity building and a set of best practices. The SMART software makes it possible to collect, store, communicate and analyse ranger-collected data on illegal activities, biodiversity, patrol routes, and management actions to understand where efforts should focus, and evaluate ranger performance. When used in combination with Cybertracker, a mobile data collection app, SMART permits automated field data collection, analysis and reporting, and is fully customizable by local users. SMART is the product of a consortium of nine global conservation agencies in close collaboration with government authorities and other key stakeholders, committed to its long-term support. For more information, please refer to the official SMART website: <http://smartconservationtools.org/>



Why SMART?

The Sundarbans as a biodiversity hotspot of global importance are at the conservation frontline of efforts to protect species and habitats from poaching and other threats. To respond effectively, the Bangladesh Forest Department (BFD), as official custodian of the Sundarbans Mangrove Forest, needs information on where threats are occurring and the capacity to address them quickly. Facing challenges such as the vastness of the Sundarbans and limited resources for law enforcement, SMART can effectively help the BFD in law enforcement monitoring through

- Empowering and motivating rangers in their day-to-day work by optimizing the data collection process for patrol teams
- Ensuring accountability and good governance through clear and standardized measures of law enforcement performance for rangers and managers
- Demonstrate the impact of patrolling through rapid and accurate reporting of patrol data
- Strengthens the ability of the BFD to strategically plan and execute a response to combat illegal activities and prioritise resources through patrolling data from SMART



Who is involved?

Management of the Sundarbans Mangrove Forests for Biodiversity Conservation and Increased Adaptation to Climate Change (SMP) is a project of the Ministry of Environment and Forests of the Government of the People's Republic of Bangladesh, supported by the German Federal Ministry for Economic Cooperation and Development and jointly implemented by the BFD, and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. SMP's support to the BFD for SMART is being implemented in collaboration with the Wildlife Conservation Society (WCS). To leverage synergies and establish a joint approach SMP cooperates with other SMART initiatives in the Sundarbans. These include the USAID supported Bagh project and the former World Bank financed SRCWP project. Strong coordination among relevant actors is essential for effective law enforcement and efficient use of resources in the Sundarbans mangrove forest.

Activities & achievements

- A multi-stakeholder technical working group on SMART was established and is meeting regularly. This is an important platform to harmonise SMART related processes and to develop a joint approach for SMART in the Sundarbans.
- A joint approach to data collection and processing was developed and is being applied.
- Three Trainings of Trainers on SMART for 41 participants from BFD frontline staff were held.
- Certified trainers in turn supported ten basic trainings for 174 participants who are charged with front-line efforts to patrol the Sundarbans.
- Comprehensive training material was developed and provided to support SMART trainings. In situ mentoring support is being provided to SMART trainers, rangers and managers to ensure accountability and good governance.



- SMART operating procedure (SOP) and handbook were jointly developed with the BFD and includes valuable contributions by SMART working group members. The SOP constitutes a crucial milestone and presents a uniform and practical framework for implementing SMART in the Sundarbans.
- SMART patrols for the first time covered the entire Sundarbans. So far, trained rangers have conducted 30 12-14 day long patrols covering 31,664 km along channels.
- 177 offenders were arrested during patrols and the BFD has initiated legal action.
- During patrols, 8,324 live animals of 21 key wildlife species were recorded.
- The use of a handheld device equipped with the CyberTracker software was introduced to move from paper-based data collection to a much more efficient e-system.

The experiences with SMART in the Sundarbans have convinced the BFD of the usefulness of the tool. The Government is strongly committed to the SMART approach and has made it its priority for conservation law enforcement and monitoring in the Sundarbans.



Outlook

SMP with technical support of WCS will continue supporting the BFD in conservation law enforcement and monitoring through SMART in the Sundarbans. Further training and strong mentoring will empower the BFD staffs to independently conduct effective and fair patrolling. As a response to the findings from patrols so far, targeted educational outreach for local community members will be conducted to increase awareness about fisheries rules and regulations. Thereby, the aim is to decrease the number of offences related to illegal resource harvesting. By further digitising the SMART process, reporting will be made more efficient and the time between management responses and observations during patrols can be greatly reduced. Sufficient human and financial resources combined with technical skills related to data management are indispensable for proper functioning of SMART. Only when data is analysed and communicated in a consistent and timely manner, the full potential of the SMART approach can be utilised for better informed decision making by conservation managers. Recognising the need for improved data management, SMP intends to incorporate capacity development of SMART data managers in its overall support to the BFD.

Since different agencies are involved in law enforcement in the Sundarbans, SMP will continue promoting coordination



and joint actions among them. Strong commitment by the managing authority is essential for utilising the full potential of the SMART approach. Availability of human and financial resources remains a challenge for the BFD considering the sheer size and other logistic challenges in the context of the Sundarbans. To ensure effective law enforcement on the long term, a strategy for SMART patrolling, given the available resources, will be jointly developed and institutionalised.

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