What are Ecosystem Services?

Ecosystem services are the benefits that humankind receive from ecosystems. These services are important for human well-being, and may be especially significant for the poorest who have limited options and choices.
Overview

- Generated new information, knowledge and tools for supporting decision making.
- Holistic and integrated analysis of current conditions and future change.
- Supported the development of cross sectoral policy and implementation programs.
- New tools that are flexible and can be adapted to incorporate new information and understanding of the future.
- Active engagement across government, institutions, scales and sectors.

Implications

Implementation of policy choices heavily dependent on governance quality across sectors and scales;

- Salinity has been statistically associated with poverty.
- Migration is often not an option for the very poor, who may be left behind.
- Models show an increase in monsoonal and coastal flooding.
- Ecosystem services are utilized disproportionately by the poor.
- Climate change is projected to decrease fish production in Bangladesh EEZ by up to 10%.
- These impacts are larger for the two major species (hilasa shad and Bombay duck)
- Over-fishing combined with climate change could reduce Hilisa catches by up to 90% by 2050.
- Good management can achieve higher catches in the more sustainable scenario.

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Why deltas?

Deltas form where river sediments and nutrients are deposited in the sea. Globally these areas support 500 million people reflecting the rich ecosystem services of these areas. These include the supporting services of nutrient recycling, the provisioning services of agriculture and fisheries, the regulating services of protection provided by mangroves and the cultural services of ecotourism. Global (e.g. climate change), regional (e.g. catchment management) and local drivers (e.g., subsidence and land use change) are threatening these ecosystem services and their ability to support human wellbeing.

Figure 1 - Historical trends and trade-offs of ecosystem services in Bangladesh.

Figure 2 - Asset-based poverty map

Figure 3 - Present and future river flows may increase, especially in the monsoon.

Figure 4 - Salinity map for the 2080s.
Goal of ESPA Deltas

To provide policy makers with the knowledge and tools to enable them to evaluate the effects of policy decisions on ecosystem services and people’s livelihoods in coastal Bangladesh.

The coastal fringe appears to contain the poorest people reflecting a combination of high salinity, higher exposure to combined impact of riverine and coastal floods and lower access to economic assets such as towns, road networks.

Figure 5 – Fluvial flooding at the end of the century.

Figure 6. Fish catches under different scenarios. Climate change and over-fishing could cause long term decline in fisheries, but good management can counter this.

To find out more please contact;

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মুনসুর রহমান প্রফেসর, বাংলাদেশ ইন্সটিটিউট অফ হাউট এন্ড ফ্লোড মেনেজমেন্ট বিশ্ববিদ্যালয়ের প্রক্ষেপিত শীত অর্থনীতিতে প্রফেসর হয়েছেন।
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পরিভাষা ও একটি ব্যবস্থাপনা দিয়ে এই পরিভাষা ব্যবস্থাপনা দিয়ে এই পরিভাষা ব্যবস্থাপনা দিয়ে এই পরিভাষা ব্যবস্থাপনা দিয়ে এই পরিভাষা ব্যবস্থাপনা দিয়ে এই পরিভাষা ব্যবস্থাপনা দিয়ে

সোসাইটি অফ দ্য ইন্সটিটিউট অফ ফোরেস্ট সায়েন্স (এসএসএলসি) এর অবদান থাকার জন্য এই পরিভাষা ব্যবস্থাপনা দিয়ে এই পরিভাষা ব্যবস্থাপনা দিয়ে এই পরিভাষা ব্যবস্থাপনা দিয়ে এই পরিভাষা ব্যবস্থাপনা দিয়ে এই পরিভাষা ব্যবস্থাপনা দিয়ে

ESPA Delta
ecosystem services for poverty alleviation

National Environment Research Council

NERC

Science and Environment

UK Aid

ESRC

Economic and Social Research Council