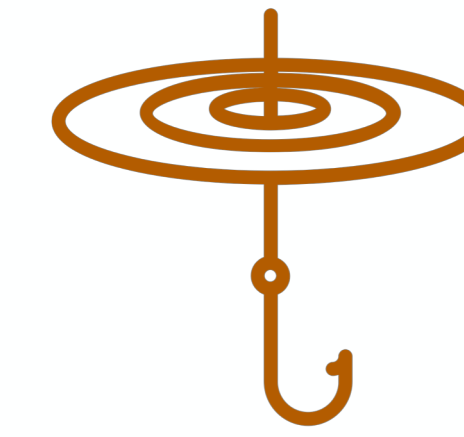


ILLEGAL FISHING AND THE POTENTIAL EFFECTS ON MAHSEER

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The remoteness of many of the rivers in Bhutan and the inaccessible terrain make it particularly difficult to oversee illegal fishing.

Illegal fishing is just one of the current threats that Mahseer face, including the loss of habitat due to hydropower development, the degradation of habitat due to road building or sand mining, or other anthropogenic effects. Illegal fish harvesting is expected to increase with expanding populations and improved road access to more remote areas of the country. Understanding the extent of illegal fishing as well as the level of harvest success could play a role in their conservation and management.



Several methods are used in illegal fishing, such as cast netting, basket trapping, gill netting, and single or multiple lines with baited hooks.



ILLEGAL FISHING IN BHUTAN

- **Evidence** – Observation of illegal fishing has been observed throughout Bhutan.
- **Access to Rivers** – New roads provide new access point along rivers. Road and construction workers have direct access and can provide opportunities to fish.
- **Challenging Landscape** – Steep mountains and deep river valleys make monitoring very difficult.



SMART Patrolling

The SMART system (Spatial Monitoring and Reporting Tool), has been implemented in Bhutan to improve the management of forested areas. SMART software assists rangers in their reporting of illegal activities and provides basic knowledge for the management and protection of conservation areas, including data management. Since its launch in 2011, SMART has been adopted at a national level by 8 countries including Thailand, Bhutan, and Madagascar, and has been adopted by 147 conservation areas in 31 countries. Using the SMART system in reporting and control prohibited fishing is an important method to combat illegal fishing activity.



Mahseer are vulnerable to illegal land-based fishing, as they often gather at the mouths of tributaries.

STRATEGY FOR DECREASING OR ELIMINATING ILLEGAL HARVEST

- **Incentives** – Establish conservation-oriented recreational fishing and community conservation programs
- **Education** – Develop community initiatives, school curricula, awareness programs
- **Conservation** – Provide protected status for key habitats
- **Biology** – Understand behavior of Mahseer (movement along shorelines, omnivorous feeding, etc)
- **Management** – Establish population monitoring, expand/tighten community fisheries
- **Enforcement** – Develop focused team, devise new strategies, increase funding, SMART

