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PHOKSUNDO SULIGAAD WATERSHED BRIEFER

Community Vision:

For a healthy Phoksundo Suligaad Watershed,
supported by sustainable management of
natural resources and biodiversity,
responsible eco-tourism, and
improved opportunities for
inclusive economic
growth.



THE PHOKSUNDO SULIGAAD WATERSHED

Situated within Dolpa district in the northwestern section of Nepal, the Phoksundo Suligaad is a sparsely populated area of just 2,258 people, the watershed is almost wholly contained (98%) within Shey Phoksundo National Park (SPNP).

SPNP is protected area of mostly coniferous forest, and home to numerous animal species. The park also hosts a large crop of yarshagumba, a prized fungus that fetches high prices in foreign markets, and thus draws many people to the region each year for harvesting. Yarshagumba is the source of revenue to the national park and residents in the watershed.

In the southwest area of SPNP, the Sagar and Ghyampo Kapuwa rivers from the Tibetan Autonomous Region meet and create Phoksundo Lake, which has significant cultural importance for local residents. At Rigmo, the lake releases water southward into the Phoksundo River and merges with the Maduwa, Pugma, and Ankhe rivers before its confluence with the Thuli Bheri River at Suligaad.

In terms of fish and other aquatic life, the high elevation means the water is too cold to sustain large populations. In the study, only three fish species were recorded in the lower stretches of the Phoksundo River. Local residents could not provide the names of these species. This finding speaks to the need for more aquatic research in the region.

PHOKSUNDO SULIGAAD BY NUMBERS	
WATERSHED	Phoksundo Suligaad
PROVINCE	Number 6
TOTAL DRAINAGE AREA	964.3 km2
NUMBER OF STREAMS	34
MAJOR RIVERS	Phoksundo Khola, Sagar Khola, Pugma Khola, Phaksu Khola, Aankhe Khola
LAKES AND WETLANDS	Phoksundo Lake, Chhonakyo, Chhokarpu, Chhononyo, Chholukhal Lake, Tangalanga Lake, Chhokarpu, Chhamkuni Lake, Gyalbara Lake, Majhban Bhimchaur, Mate Lake, Simeni Raithana, Rato Panera Dabuchaina, Parba Raman.
LAND USE	Snow/glacier (55%), grazing/pasture (34%), forest (6%), water (4%), agriculture (1%)
MUNICIPALITIES	Shey Phoksundo Rural Municipality, Tripurasundari Municipality, Thulibheri Municipality, Kaile Rural Municipality.
POPULATION	2,258 (51% male; 49% female)
ETHNIC GROUPS	Brahmin/Chhetri/Thakuri/Sanyasi (51%), Janajati (42%), Dalit (6%), Newar (1%)

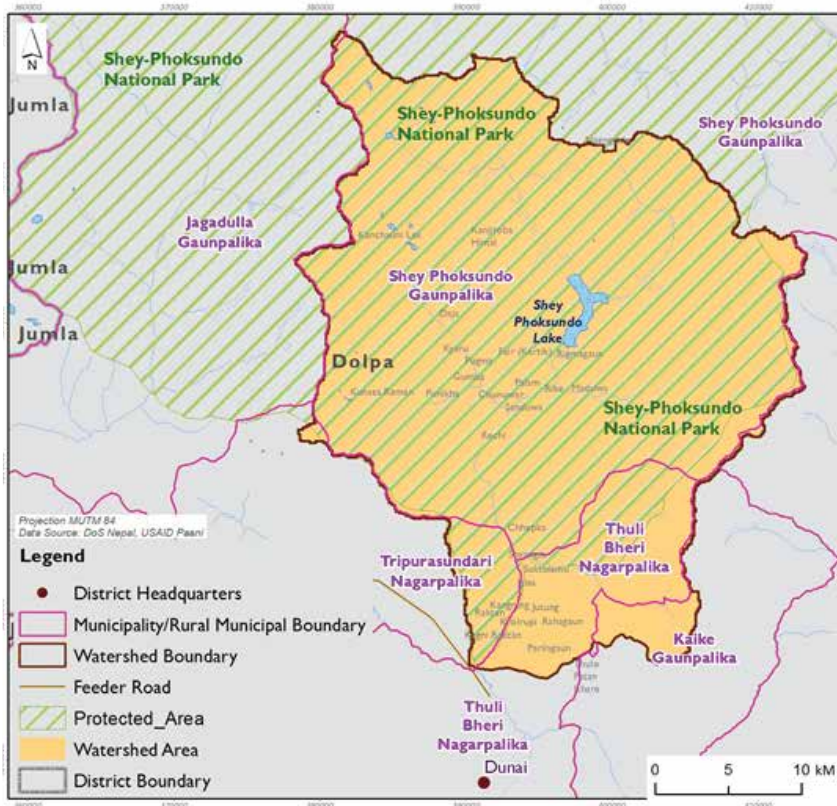
Location Map

Watershed Name: Phoksundo Suligaad

River Basin: Karnali River Basin

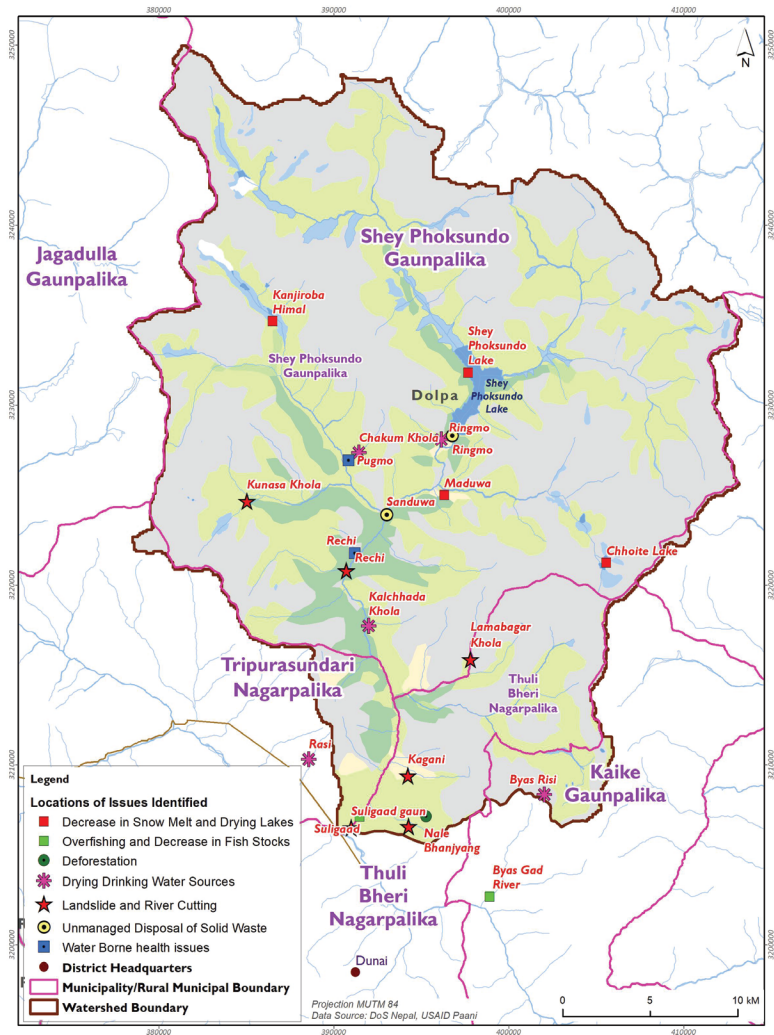
Watershed Code: 888

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ENVIRONMENTAL ISSUES IN THE PHOKSUNDO SULIGAAD WATERSHED

The environmental issues identified in this map were provided by watershed stakeholders who participated in Paani-sponsored entry and exit workshop. By identifying these issue "hotspots" it is hoped local governments and constituencies will be able to draw on this information to make short- and long-term plans to insure clean water, robust biodiversity, and sustainable use of natural resources.



ENVIRONMENTAL REPORT CARD FOR THE PHOKSUNDO SULIGAAD WATERSHED

This health report card illustrates watershed health conditions measured against a set of pre-defined indicators chosen through a multi-stakeholder consultation process. These indicators show the current health status of Phoksundo Suligaad using a color code for the threats, opportunities, and challenges facing the watershed.

WATERSHED HEALTH CONDITIONS

GOOD

FAIR

POOR



GOVERNANCE AND EQUITY

Households engaged in local level planning

Community active in NRM groups

Conflicts over NRM

Women and marginalized groups in leadership positions

Equitable access and benefit sharing with natural resources

People comply with environmental laws and regulations

Government enforces laws and regulations

Coordination between local and provincial government



SUSTAINABLE INFRASTRUCTURE

Hydropower

Gravel mining

Irrigation



CLIMATE RESILIENCE AND DISASTER RISK REDUCTION

Areas vulnerable to landslides, floods and landslides

Use of climate resilience adaptation practices

Households with access to early warning systems



BIODIVERSITY AND HABITAT

Household sanitation

Quantity of fish

Fishing Practices

Land use and land cover

Solid waste disposal

Invasive species

Species diversity



WATER

Water availability

Water accessibility

Water quality



SUSTAINABLE AGRICULTURE

Agricultural productivity

Climate and physiography

Soil management and fertility

WAYS FORWARD IN THE PHOKSUNDO SULIGAAD WATERSHED

Numerous stakeholders from the watershed formulated these recommendations that represent a variety of viewpoints, from government officials to local business owners and residents. In that way, these actions and commitments seek to address environmental issues in Phoksundo Suligaad that provide remediation or improvements for all groups in the watershed.

ISSUE	ACTION/RECOMMENDATIONS
LOW KNOWLEDGE OF CONSERVATION-RELATED LAWS AND POLICIES	<ul style="list-style-type: none"> Assess the knowledge levels of each group individual; Design and implement trainings on conservation-related policy; Encourage formation of conservation groups to build local response to environmental challenges.
FLOODS AND LANDSLIDES	<ul style="list-style-type: none"> Provide training and support for low-cost slope stabilization techniques (e.g., Gabion boxes); Provide improved support to control water runoff; Raise awareness about forest fires and open grazing; Strengthen the early warning system of the watershed to allow increased response time to impending disaster; Disseminate information through print and radio about best practices for watershed management; and Promote cooperative maintenance of foot trails in the watershed.
LOW LEVELS OF EVIDENCE-BASED RESEARCH AVAILABLE RELATED TO LOCAL BIODIVERSITY	<ul style="list-style-type: none"> Increase biodiversity research for the watershed and bathymetry of Phoksundo Lake, and encourage local participation in these efforts; Build management capacity in the Phoksundo Lake Management Committee; and Prepare a Phoksundo Lake Management Plan.
LOW COORDINATION BETWEEN NATIONAL PARK AND NATURAL RESOURCE MANAGEMENT ORGANIZATIONS	<ul style="list-style-type: none"> Establish regular coordination meetings between SPNP management, BZMCs and BZUCs; Build capacity of buffer zone organizations on SPNP rules and regulations; and Provide trainings to buffer zone organizations on proper book keeping.
WASTE MANAGEMENT	<ul style="list-style-type: none"> Improve waste management at local levels; Promote awareness about dangers of waste dumping in rivers; Construct drinking water tanks equipped with water purification technology; Train government representatives in health and sanitation standards Increase water quality monitoring of the Phoksundo River and tributaries. Promote improved waste management programs specifically for hotel and restaurant managers; and Develop waste management plan tailored to the unique context where yarshagumba is harvested.
DECREASING FISH NUMBERS	<ul style="list-style-type: none"> Promote research on fish diversity and fish population dynamics; Promote local awareness on the importance of aquatic biodiversity conservation; and
DRYING WATER SOURCES	<ul style="list-style-type: none"> Promote re-forestation on barren land for water retention; Construct water recharge ponds; Promote rainwater harvesting by household; and Coordinate workshops to educate local residents about the value of soil erosion control and means for avoiding water conflict.