

Geospatial indicators assessment in community forests in Bungdal, Nepal

The Forest and Farm Facility (FFF)¹ in Nepal focuses on strengthening the capacities of forest and farm producer organizations (FFPOs) to ensure inclusive governance and strategic intervention in policy dialogue through advocacy, business incubation and resilient livelihoods. The FFF Nepal program, led by Federation of Community Forestry Users Nepal (FECOFUN) in collaboration with the Ministry of Forests and Environment (MoFE), operates in the western region of the Churia landscape focusing on five districts (i.e., Makwanpur, Nawalpur, Nawalparasi, Kapilvastu and Dang) of Bagmati, Gandaki and Lumbini Provinces.

A monitoring system is being operationalized to track progress of the FFF efforts using geospatial technologies. The results for selected FFF geospatial indicators are presented for the community forests in Bungdal (Figure 1) where FFF is supporting livelihood activities such as Turmeric plantation since June 2020. The total area of the community forests under FFF interventions in Bungdal is about 78 ha with a mean elevation and slope of 600 m and 23 degree, respectively. Dominant species available in the area are Sal (*Shorea robusta*), Asna (*Terminalia elleptica*) and Chilaune (*Schima wallichii*). Total beneficiary households are 110 with a population of 544. About 0.55 ha of community forest land was used as demonstration plot managed by subgroup comprising of seven women. Table 1 presents the initial results for selected indicators of accessibility, soil, land, forest and water resources within the area of interest.

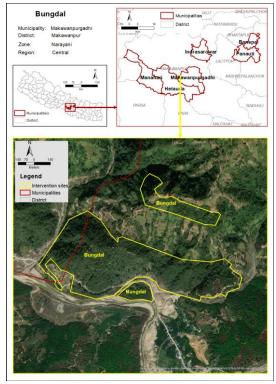


Figure 1: Geographic extent of intervention sites in Bungdal community forest, Nepal²

Table 1: Initial results from Forest and Farm Facility geospatial indicator assessment

Indicators	Time period	Value	Unit
Distance from settlement	2022	300	m
Distance from road ³	2022	0	m
Mean soil organic carbon content at 0 cm depth	2018	2.6	%
Water body area	2019	0, 0	ha, %
Cropland area	2019	24, 31	ha, %
Forest land area	2019	53, 68	ha, %
Net change in forest area	2000-2019	0.85, 1.09	ha, %
Net change in cropland area	2000-2019	-0.76, -0.97	ha, %
Tree cover loss	2001-2021	0.09, 0.11	ha, %
Aboveground living biomass carbon stock density (max, mean, min)	2010	113, 60, 2	Mg C/ha
Belowground living biomass carbon stock density (max, mean, min)	2010	25, 15, 0.66	Mg C/ha

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³ Difficult to reach the demonstration plot during rainy season.

¹ The FFF, a global partnership between FAO, IIED, IUCN and Agricord, is aimed at strengthening FFPOs representing smallholders, rural women, forest communities and indigenous peoples as a means for achieving the Sustainable Development Goals (SDGs) and responding to climate change. The FFF, in its second phase, is working in ten countries: Bolivia (Plurinational State of), Ghana, Madagascar, Togo, Viet Nam, Ecuador, Kenya, Nepal, United Republic of Tanzania and Zambia.

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