

# Importance of Roadside Tree Planting in Bangladesh

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Bangladesh Forest  
Department

# Context

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- Bangladesh is among the most densely populated countries in the world, with scarce land and resources (160m people, 148,460 km<sup>2</sup> (92nd), i.e. 1,000+ people per sq km on average, 70 percent of population is rural;
- Some 19 million Bangladeshis are dependent on forests for their livelihoods
- Country is undergoing rapid urbanization, with poverty incidence has declined from 44.2 percent in 1991 to 13.8 percent in 2016
- GDP grew averaging 6.5 percent since 2010 driven by manufacturing and services
- Country is extremely vulnerable to climate change and natural disasters
- Proportion of land under forests (11 percent) is substantially lower than the average in Asia (26 percent), and growing stock with an average of 48 m<sup>3</sup> per hectare, is also low compared to other countries in the region
- Direct drivers of forest degradation include clearing for agriculture and infrastructure development, unmanaged fuelwood and timber extraction, fires for shifting cultivation
- Fuelwood is a major source of cooking energy, accounting for 60 percent of total energy consumption



# Social Forestry Program

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- Social forestry was initiated by Bangladesh Forest Department (BFD) in early 1960s through the forest extension programmes for socio-economic development and poverty alleviation of rural communities
- Social Forestry Rules were approved in 2004 to give a legal basis for benefit sharing among the government and local people (participants), with further amendments in 2011
- Roadside tree planting and Trees outside Forest (ToF) are major components of the Social Forestry Program





# Implementation Arrangements

- BFD has signed MoUs with Roads and Highways Department;
- Land along local roads (right of way) remains in custody of Roads and Highways Department, but the trees are planted and managed by the communities;
- BFD invests into a 1<sup>st</sup> rotation of plantations and provides technical expertise, engages and organizes local communities for roadside tree planting;
- Each community participant (family) is entering into a 10-year MoU with the BFD, which specifies the credentials, particular strip of right of way, tree species for planting, management plan, and conditions for harvesting and benefits sharing;
- BFD harvests the trees (usually after 10-year rotation period), sells on auctions and shares sell proceeds according to the Social Forestry Rule 2004 with the community participants and land-owning agency;
- On average, a participant can receive between \$3.5 thousand to \$17.7 thousand over a 10-year period rotation of strip plantation (3 lac to 15 lac Taka );
- Tree Farming Fund is established (10% of sell proceeds) for replanting after the 1<sup>st</sup> rotation of strip plantations



# Summary Statistics

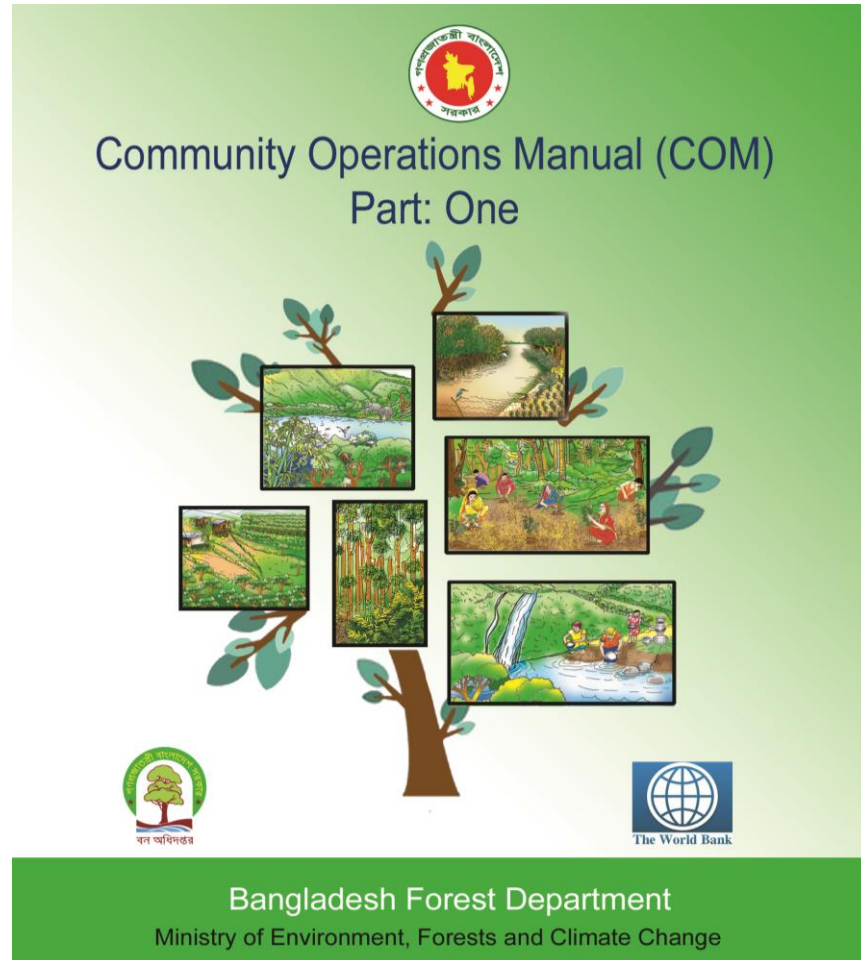
- Strip plantations (roadside trees) were established on about 73,223 km in total since the program was established.
- About 2,664 km of strip plantations was established under the Government's Climate Change Trust Fund.
- More than 700,000 beneficiaries/participants have been involved in the Social Forestry Program, of which 134.5 thousand participants are women
- About 104 m saplings were sold to the participants at a minimum price from forest nurseries or distributed between 2009-2020 to increase the country's tree cover
- Country's timber growing stock is 384 m cub m and 66 percent of it is accounted from trees outside forest
- About another 15 thousand km of strip plantations will be raised during the 8<sup>th</sup> Five-Year Plan period (2020-2025).

# Summary... Revenues

- Roadside trees were felled from 18,362 kilometers and from 43,943 hectares of plantations till 2018-19 under the Social Forestry Program in Bangladesh.
- About \$145m were earned by selling wood, fuel wood and poles (1227 crore 82 lakhs 18 thousand 9 hundred 10 taka).
- About \$45m or 31% was distributed among 191 thousand beneficiaries/participants (383 crore 23 lakh 5 thousand 45 taka).
- About \$13m has been deposited as Tree Farming Fund (TFF) to plant trees in the felled areas (110 crore 20 lakhs 17 thousand 3 hundred 85 taka).
- So far, the BFD deposited \$51.2m as revenue (433 crore 58 lakhs 45 thousand 2 hundred 32 taka); in addition, \$25.7m was distributed to the landowners, the Union Councils, and among others (218 crore 49 lakh 73 thousand 214 taka).



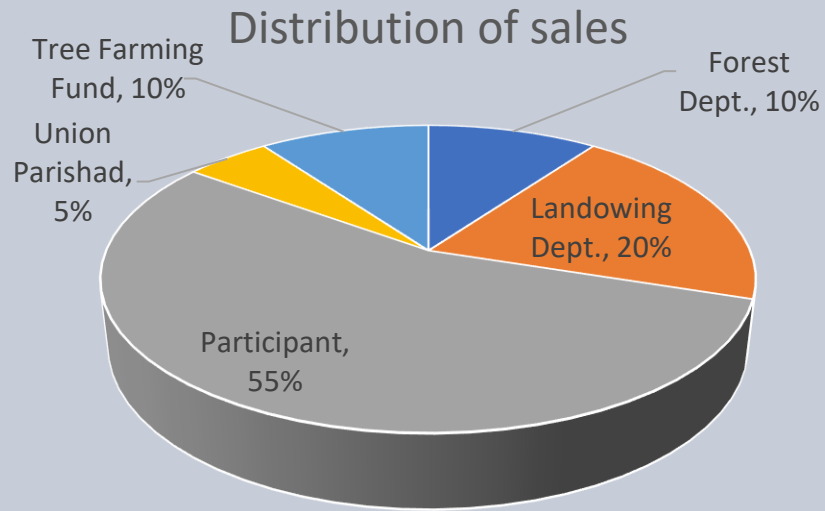
# Sustainable Forests & Livelihoods Project (SUFAL, P161996)



- Development Objective: to improve collaborative forest management and increase benefits for forest dependent communities in targeted sites.
- Implementation period: 2019-2023, US\$175.0m IDA credit with GoB financing of US\$ 3.9m
- **3,665 km of strip plantations established** (by March 2021)

Component Name	Component Cost (USD millions)
Strengthening Institutions, Information Systems and Training	16.24
Strengthening Collaborative Forest and Protected Areas Management	96.45
Increasing Access to Alternative Income Generating Activities (AIGAs), Forest Extension Services & Trees outside Forests (TOF)	54.14
Project Management, Monitoring and Reporting	12.07

## Benefits & Lessons



- Significant income-sharing opportunities
- Captures carbon and provides embankment stabilization
- Provides critical raw material for local SMSEs and green value chains
- Substitutes for fossil fuel, heavy materials, such as concrete, steel, plastic etc., locks in carbon
- Trees need management/maintenance (windblow can damage roads)
- Over emphasis on fast growing species for quick returns, less on native trees and creating habitats
- Lack of land means strips are too narrow





# Good Practices

## Engaging communities

Participants are selected from within one square kilometre distance of the plantation based on following **criteria**, as given under Social Forestry Rule 2004

- Landless
- Distressed women
- Backward community group
- Forest villager
- Poor people
- Poor freedom fighter

## Management of strip plantations

- Forest Department identifies roads and invests in establishing strip plantation
- Planting is by 1-year old seedlings at 2m x 2m spacing, with tending operations for next two years
- A watcher is engaged immediately after planting for two years to protect young trees
- Participants are selected and agreements signed for 10 years, 5 participants per kilometre
- A Forest Management Committee is formed to take care of the plantation, with regular meetings at least once in three months
- Participants take the all harvested thinning material at the age of 7 years
- Forest Department harvest the trees and sells through an organized auction
- Distribute sell proceed according to Social Forestry Rule 2004
- Participants are allowed up to three rotations for social forestry practices

## Contact Information

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