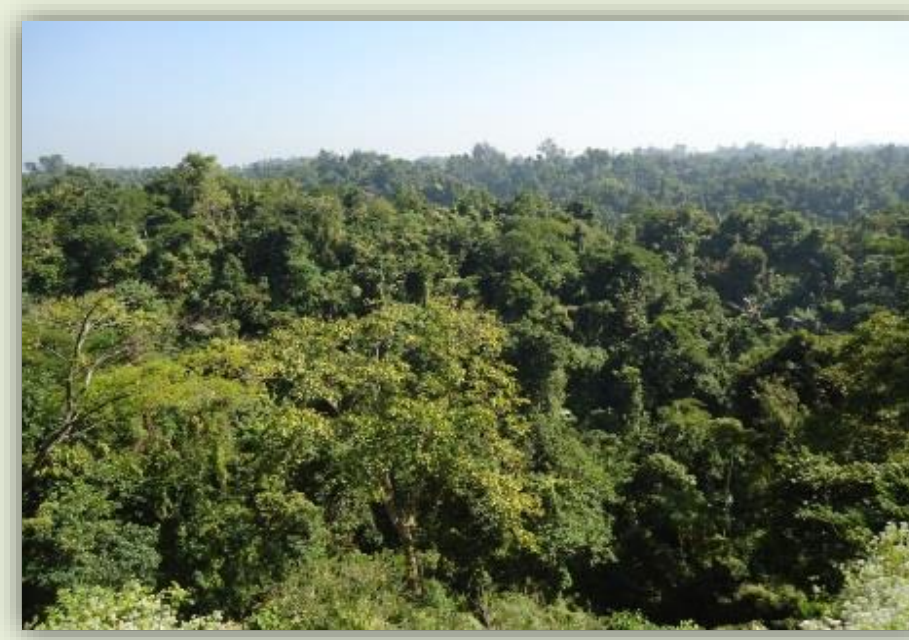


# Legend for National Land Cover Map 2015

## Terrestrial Vegetated Classes



**Code: FH**  
**Hill Forest**  
The natural forest area located in the mountainous tracts of the greater Chittagong, Chittagong Hill Tracts (CHTs) and Sylhet districts is known as hill forest. It consists of moist tropical evergreen, semi-evergreen trees and deciduous trees and generally uneven-aged. Shrubs and herbs occur fewer to medium in number as undergrowth in this forest. The tree cover is ranging from 10% - 100% and tree height is ranging from 5-35 m.



**Code: FP**  
**Forest Plantation**  
The geographic area where trees are planted under long-term or short-term management for production of high volume of timber and fuel wood is known as forest plantation. Trees are generally even-aged, planted and managed in rows, consist of a single species and cover a large area. Tree height is ranging from 5- 45 m and its coverage is ranging from 10% - 100%.



**Code: SF**  
**Swamp Forest**  
The Land dominated by evergreen trees, which is inundated in monsoon with freshwater, is known as swamp forest. Roots of these trees are in two levels. One is in the ground, and another is in the mid-level, which is used while the forest is flooded in the monsoon period. Trees grow to about 5 - 35 m in height with a large canopy.



**Code: FDP**  
**Plain Land Forest (Sal Forest)**  
Land dominated with tropical moist deciduous forests is known as plain land sal forest. The main species is Sal (*Shorea robusta*) and its height is 5 - 35 m. It covers ranging from 10% - 100%. Sal forests have a fairly wide but interrupted distribution in drier central and northern part of the country, mostly occurring in Gazipur, Tangail, Mymensingh, Jamalpur, Comilla, Dinajpur, Thakurgaon, Rangpur and Rajshahi districts.



**Code: FPr**  
**Rubber Plantation**  
This class includes the geographic areas where rubber (*Hevea brasiliensis*) is planted for latex production. It is broadleaved, deciduous in the drier month for a very short period. It is monotype forest and trees area generally even-aged, planted and managed in rows. It grows 5-45m and cover ranging from 10% - 100%.



**Code: NMF**  
**Mangrove Forest**  
The geographical area which is dominated by halophytic natural trees and the forest floor is inundated twice daily by brackish water is known as mangrove forest. The canopy cover of mangrove forest varies from 10% to 100% and the tree height varies from 5m - 33m. The undergrowth is mostly seedlings of the mangrove trees. The forest area is intersected by numerous rivers and creeks.



**Code: BF**  
**Bamboo Forest**  
Bamboo forest is woody grass of more than 5m and it covers more than 80% within a patches. It is perennial evergreen and it grows up to 15m. The bamboos in the rural areas are not included in this class. Major species of bamboo are Muli (*Melocannabaccifera*), Mitenga (*Bambusa tulda*), Dalu (*Neohouzeauadulloo*) etc. This class is located in the hilly areas of Chittagong, Chittagong Hill Tracts and Sylhet.



**Code: OT**  
**Orchard and Other Plantation (Trees)**  
This class includes the geographic areas dominated by fruit trees. Trees are even-aged, planted and managed in rows, and cover a large area. Plantations in marginal land (roadside, railway line, embankment, and canal side) are also included in this class.



**Code: SWr**  
**Swamp Reed Land**  
The geographical area which is dominated by reed shrub and the root system is influenced by the fresh water is known as Swamp Reed Land. The swamp reed lands are scattered over five upazilas of the Sunamganj and Sylhet Districts of the Sylhet Division of Bangladesh.



**Code: ShT**  
**Shrub with Scattered Trees**  
The shrub dominated area is natural woody vegetation of less than 5m in height and its cover exceed 10%. The uppermost canopy layer may be dominated by trees. The shrub foliage can be either evergreen or deciduous.



**Code: OS**  
**Orchards and Other Plantations (Shrubs)**  
The land areas where shrubs are planted for fruits and leaf are called orchards and other Plantations. This class mainly includes tea gardens. The use of shade trees in tea cultivation is a vital and integral component.



**Code: FMP**  
**Mangrove Plantation**  
This class includes mangrove plantations on newly accreted land in the estuaries of the Bay of Bengal to provide protection against natural calamities and land erosion. Major species are Keora (*Sonneratia apetalla*), Baen (*Avicinia alba*), Gewa (*Excoecaria agallocha*). In older plantations other species like *Rhizophora* Sp., *Ecochorea* Sp., *Ceriops* Sp. are also found.



**Code: H**  
**Herb Dominated Area**  
The geographic area, which is dominated by grass with very little to no woody vegetation, is called herb dominated area. These types of vegetation are generally found in newly accreted land, year round fallow land or adjacent to the international boundary of Bangladesh. The coverage is 20 - 100%.



**Code: PCs**  
**Single Crop**  
This class includes agriculture lands cultivated with a single herbaceous crop in a year and the same herbaceous crop is cultivated in the same land for several years. This class includes both herbaceous rice fields and non-rice fields (pineapple, banana, sugarcane etc.) where only one crop is practiced in a year. The rice crop fields may be flooded in the growing season or in the monsoon period after harvesting.



**Code: FSp**  
**Swamp Plantation**  
The Land dominated by evergreen trees, which are cultivated and inundated in monsoon with freshwater, is known as Swamp Plantation. Trees grow to about 5 - 45m in height with a large canopy. Most of the trees of this forest are Koroch (*Milletia pinnata*) and Hijal (*Barringtonia acutangula*).



**Code: SC**  
**Shifting Cultivation**  
This class includes lands where herbaceous crops are cultivated temporarily, then abandoned and allowed to return to their natural vegetation while the farmer moves on to another area.



**Code: PCm**  
**Multiple Crop**  
This class includes agriculture lands which are cultivated with more than one herbaceous crop (two or three) in different growing season sequentially (crop diversified in time) within a year and the same crop rotation is practiced in the same land for several years. Some of these agricultural lands are flood free and others are flooded due to river flood or rainfall flood in monsoon period after harvesting the crops.



**Code: R**  
**Rivers and Khals**  
The rivers and khals are natural water courses which are serving as water drainage channels.

## Terrestrial Non-vegetated Classes



**Code: MF**  
**Mud Flats or Intertidal Area**  
Mud flats or intertidal areas are wet land soil near the estuary. It is submerged and exposed twice daily by tidal water.



**Code: BNL**  
**Built-Up Non-Linear**  
The artificial and impervious surfaces which is paved with hard materials and functionally linked with vegetated areas, recreational parks and water bodies are built-up non linear.



**Code: Ba**  
**Baor**  
Baors or oxbow lakes are old river channels. Those have limited connection to their parent rivers in the monsoon season. It is created when a wide meander from the main stem of a river is cut off, creating a free-standing body of water. The persistence of staying water ranges from 11 to 12 months.



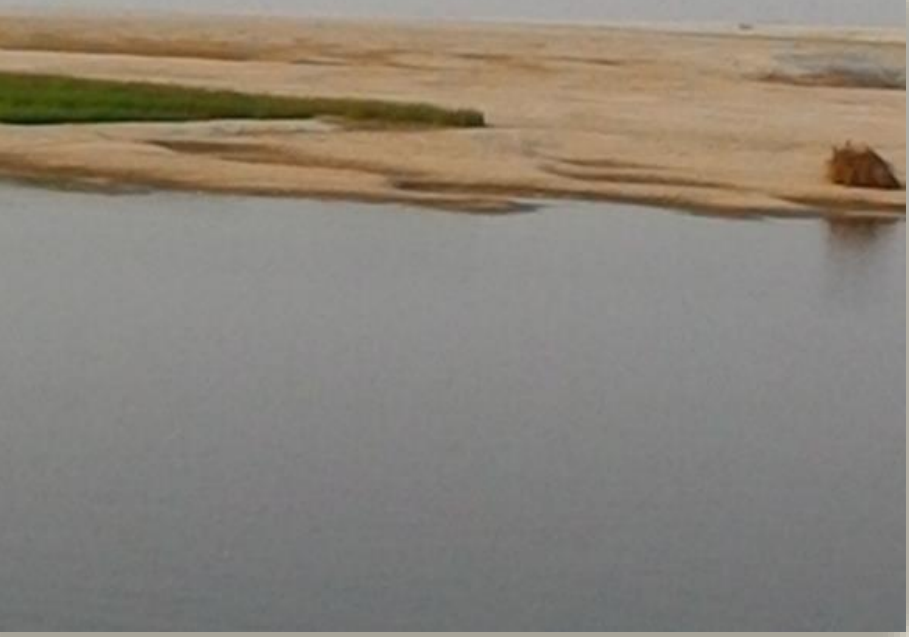
**Code: BS**  
**Sand**  
Sand are soil, sand deposits within the river channels or in the estuary, which are emerging as islands.



**Code: DS**  
**Dump Site/ Extraction Site**  
Land used for disposal of waste materials is known as dump sites. Extraction sites are defined by the absence of the original land cover which is removed by human activity or machinery for extraction of sand, stone, minerals or coal.



**Code: BH**  
**Perennial Beels/Haors**  
The standing water bodies located in the low-lying depression on the flood plain where water persists 12 months are known as perennial (core) beels and haors.



**Code: RB**  
**River Banks**  
The river bank is the land alongside the bed of a river which is usually consists of soil and sand deposits and inundated when the river flows with full capacity.



**Code: B**  
**Brickfields**  
The brickfields are geographic areas, which are used for bricks production.



**Code: L**  
**Lake**  
A lake is an artificial surface of standing water that is usually bigger (> 50 ha) than a pond and have irregular shape.



**Code: SP**  
**Salt Pan**  
The artificial land surfaces which are used for salt production from seawater by solar evaporation.



**Code: Ap**  
**Airport**  
The airport is built-up nonlinear area which is used for flights to take off and land.



**Code: P**  
**Pond**  
A pond is an artificial surface of standing water that is usually smaller than a lake and has a regular shape. The ponds more than 0.3 hectares were included in this class. The ponds functionally related with rural settlement were included in the "Rural Settlement (RS)" class.

## Other Class



**Code: RS**  
**Rural Settlement**  
The rural settlement are geographic areas of clustered or linear rural dwellings which are covered by fruit trees and other plantation and functionally linked with small scale vegetables gardens, open spaces and ponds around the dwellings. Rural markets or growth centers within the rural environment are also included in this class.



**Code: Bwa**  
**Brackish Water Aquaculture**  
This class includes the geographic areas, which are used for year round brackish water aquaculture. This class may include the areas where it is practiced after harvesting the rice crop.



**Code: Fwa**  
**Fresh Water Aquaculture**  
This class includes the geographic areas which are used for year round fresh water aquaculture. This class may include the areas where fresh water aquaculture is practiced after harvesting the rice crop.

### Development process of National Land Cover Legend

The legend classes for the national land cover map 2015 have been derived from the National Land Representation System (NLRS) of Bangladesh which is developed based on ISO standard (ISO 19144-2) Land Cover Meta Language (LCML). The classes were distinguished from satellite image interpretation, availability of ancillary data, and expert knowledge. To assure identification of all possible land cover classes of Bangladesh, existing legends from different national land cover maps and gaps in them were considered. From the NLRS the initial classes for national land cover map 2015 were derived during a national workshop with experts from different organizations working in relevant fields. Multi-spectral ortho (Level 3) SPOT6/7 images of 6-meter spatial resolution were used and Object-Based Image Analysis (OBIA) technique was adopted for identifying the land cover classes. Some of the classes were extended from the NLRS, while some other classes were merged when distinctions among these classes were not discernable from the images.

## Aquatic Vegetated Classes

## Aquatic Non-vegetated Classes