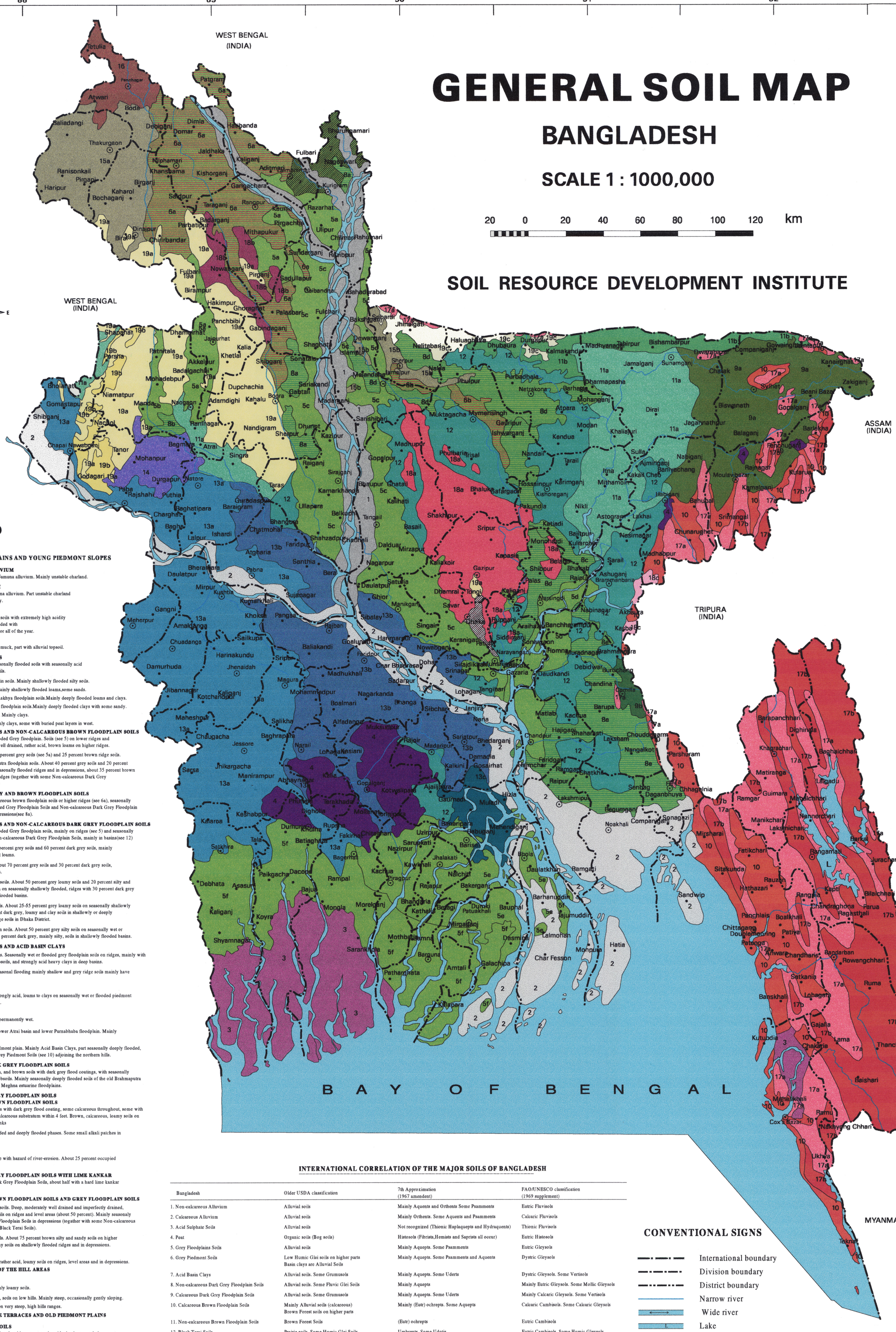
GENERAL SOIL MAP

BANGLADESH

SCALE 1 : 1000,000

20 0 20 40 60 80 100 120 km

SOIL RESOURCE DEVELOPMENT INSTITUTE



LEGEND

SOILS OF THE FLOODPLAINS AND YOUNG PIEDMONT SLOPES

1 NON-CALCAREOUS ALLUVIUM
Recent Tista, Brahmaputra and Jamuna alluvium. Mainly unstable charland.

2 CALCAREOUS ALLUVIUM
Recent Ganges and lower Meghna alluvium. Part unstable charland
Part saline in the Meghna estuary.

3 ACID SULPHATE SOILS
Sunderbans (mangrove swamp) soils with extremely high acidity (potential or actual). Tidally flooded with brackish or saline water for part or all of the year.

4 PEAT
Permanently wet basin peat and muck, part with alluvial topsoil.

5 GREY FLOODPLAIN SOILS
Grey, finely mottled brown, seasonally flooded soils with seasonally acid topsoils and near –neutral subsoils.

5a. Tista and Little Jamuna floodplain soils. Mainly shallowly flooded silty soils.
5b. Middle Atrai floodplain soils. Mainly shallowly flooded loams,some sands.
5c. Jamuna,Karatoya-Bangali and Lakhya floodplain soils.Mainly deeply flooded loams and clays.
5d. Middle and lower Meghna river floodplain soils.Mainly deeply flooded clays with some sandy.
5e. Non-saline tidal floodplain soils. Mainly clays.
5f. Saline tidal floodplain soils.Mainly clays, some with buried peat layers in west.

6 GREY FLOODPLAIN SOILS AND NON-CALCAREOUS BROWN FLOODPLAIN SOILS
Seasonally wet or shallowly flooded Grey floodplain. Soils (see 5) on lower ridges and in depression,with moderately well drained, rather acid, brown loams on higher ridges.

6a. Tista floodplain soils. About 75 percent grey soils (see 5a) and 25 percent brown ridge soils.
6b. Mixed young and old Brahmaputra floodplain soils. About 40 percent grey soils and 20 percent Non-calcareous Alluvium on seasonally flooded ridges and in depressions, about 35 percent brown silty and sandy soils on higher ridges (together with some Non-calcareous Dark Grey Floodplain Soils in depressions)

7 MIXED GREY, DARK GREY AND BROWN FLOODPLAIN SOILS
Tista floodplain soils. Non-calcareous brown floodplain soils or higher ridges (see 6a), seasonally wet or flooded, mainly silty,mixed Grey Floodplain Soils and Non-calcareous Dark Grey Floodplain Soils on lower ridges and in depressions(see 8a).

8 GREY FLOODPLAIN SOILS AND NON-CALCAREOUS DARK GREY FLOODPLAIN SOILS
Seasonally wet or shallowly flooded Grey floodplain soils, mainly on ridges (see 5) and seasonally shallowly or deeply flooded Non-calcareous Dark Grey Floodplain Soils, mainly in basins(see 12)

8a. Tista floodplain soils.About 40 percent grey soils and 60 percent dark grey soils, mainly seasonally shallowly flooded silt loams.
8b. Lower Atrai floodplain soils.About 70 percent grey soils and 30 percent dark grey soils, mainly deeply flooded silty soils.
8c. Young Brahmaputra floodplain soils. About 50 percent grey loamy soils and 20 percent silty and sandy Non-calcareous Alluvium on seasonally shallowly flooded, ridges with 30 percent dark grey loamy and clay soils in deeply flooded basins.
8d. Old Brahmaputra floodplain soils. About 25-55 percent grey loamy soils on seasonally shallowly flooded ridges and 45-75 percent dark grey, loamy and clay soils in shallowly or deeply flooded basins. Some sandy ridge soils in Dhaka District.
8e. Old Meghna estuarine floodplain soils. About 50 percent grey silty soils on seasonally wet or shallowly flooded ridges and 50 percent dark grey, mainly silty, soils in shallowly flooded basins.

9 GREY FLOODPLAIN SOILS AND ACID BASIN CLAYS
9a. Surma Kusiyara Floodplain Soils. Seasonally wet or flooded grey floodplain soils on ridges, mainly with slightly to medium acid clay subsoils, and strongly acid heavy clays in deep basins.
9b. Comilla basin soils as 9a, but seasonal flooding mainly shallow and grey ridge soils mainly have near-neutral subsoils.

10 GREY PIEDMONT SOILS
Grey, mottled, red or brown, strongly acid, loams to clays on seasonally wet or flooded piedmont plains adjoining the eastern hills.

11 ACID BASIN CLAYS
Strongly acid heavy clays, part permanently wet.
11a. Soils of Sylhet basin, Arial bil,lower Atrai basin and lower Purnabhaba floodplain. Mainly seasonally deeply flooded.
11b. Soils of part of the northern piedmont plain. Mainly Acid Basin Clays, part seasonally deeply flooded, with some sandy and Loamy Grey Piedmont Soils (see 10) adjoining the northern hills.

12 NON-CALCAREOUS DARK GREY FLOODPLAIN SOILS
Dark grey, finely mottled brown, and brown soils with dark grey flood coatings, with seasonally acid topsoils and near-neutral subsoils. Mainly seasonally deeply flooded soils of the old Brahmaputra Karatoya-Bangali (part) and old Meghna estuarine floodplains.

13 CALCAREOUS DARK GREY FLOODPLAIN SOILS AND CALCAREOUS BROWN FLOODPLAIN SOILS
Mainly dark grey or brown clays with dark grey flood coating, some calcareous throughout, some with seasonally acid topsoils and a calcareous substratum within 4 feet. Brown, calcareous, loamy soils on highest ridges and near river-banks
13a. Mixed highland, shallowly flooded and deeply flooded phases. Some small alkali patches in Jessore District.
13b. Mainly deeply flooded pahse.
13c. Mainly Shallowly-flooded phase with hazard of river-erosion. About 25 percent occupied by Calcareous Alluvium.

14 CALCAREOUS DARK GREY FLOODPLAIN SOILS WITH LIME KANKAR
Mainly leached Calcareous Dark Grey Floodplain Soils, about half with a hard lime kankar layer at 2 –6 feet.

15 NON-CALCAREOUS BROWN FLOODPLAIN SOILS AND GREY FLOODPLAIN SOILS
15a. Old Himalayan piedmont plain soils. Deep, moderately well drained and imperfectly drained, rather acid, sandy and loamy soils on ridges and level areas (about 50 percent). Mainly seasonaly wet or shallowly flooded Grey Floodplain Soils in depressions (together with some Non-calcareous Dark Grey floodplain soils and Black Terai Soils).
15b. Old Brahmaputra floodplain soils. About 75 percent brown silty and sandy soils on higher ridges and 25 percent grey loamy soils on shallowly flooded ridges and in depressions.

16 BLACK TERAI SOILS
Seasonally wet, dark-coloured, rather acid, loamy soils on ridges, level areas and in depressions.

SOILS OF THE HILL AREAS

17 BROWN HILL SOILS
Brown, very strongly acid, mainly loamy soils.
17a. Mainly deep, brown (some red), soils on low hills. Mainly steep, occasionally gently sloping.
17b. Deep and shallow brown soils on very steep, high hills ranges.

SOILS OF THE TERRACES AND OLD PIEDMONT PLAINS

18 RED-BROWN TERRACE SOILS
Well to moderately well drained, red and brown, strongly acid, clay loams and clays, part over compact Madhupur clay at 1 –3 feet, part over deeply weathered mottled clay substratum.
18a. Madhupurtract soils, Mixed Deep and Shallow Red –Brown Terrace Soils (with some Acid Basin Clays and grey Terrace soils in valleys and depressions)
18b. Barind tract soils. Deep Red –Brown Terrace Soils on terrace edges and Grey Terrace Soils (together with some Brown Mottled Terrace Soils) on lower interior sites.
18c. Akhaura terrace soils. Mainly Deep Red-Brown Terrace Soils.

19 GREY TERRACE SOILS
Poorly drained grey, mottled, acid, silty soils over a grey, mottled, clay substratum.
19a. Mainly levell terrace soils.
19b. Closely dissected terrace soils,mainly with map levelled fields.
19c. Old piedmont plain soils,part deep,part shallow,(with some Grey Piedmont Soils and Acid Basin Clays).

INTERNATIONAL CORRELATION OF THE MAJOR SOILS OF BANGLADESH

Bangladesh	Older USDA classification	7th Approximation (1967 amendent)	FAO/UNESCO classification (1969 supplement)
1. Non-calcareous Alluvium	Alluvial soils	Mainly Aquents and Orthents Some Psamments	Eutric Fluvisols
2. Calcareous Alluvium	Alluvial soils	Mainly Orthents. Some Aquents and Psamments	Calcaric Fluvisols
3. Acid Sulphate Soils	Alluvial soils	Not recognized (Thionic Haplaquepts and Hydraquents)	Thionic Fluvisols
4. Peat	Organic soils (Bog soils)	Histosols (Fibrists,Hemists and Saprists all occur)	Eutric Histosols
5. Grey Floodplains Soils	Alluvial soils	Mainly Aquepts. Some Psamments	Eutric Gleysols
6. Grey Piedmont Soils	Low Humic Glei soils on higher parts Basin clays are Alluvial Soils	Mainly Aquepts. Some Psamments and Aquents	Dystric Gleysols
7. Acid Basin Clays	Alluvial soils. Some Grumusols	Mainly Aquepts. Some Uderts	Dystric Gleysols. Some Vertisols
8. Non-calcareous Dark Grey Floodplain Soils	Alluvial soils. Some Fluvic Glei Soils	Mainly Aquepts	Mainly Eutric Gleysols. Some Mollic Gleysols
9. Calcareous Dark Grey Floodplain Soils	Alluvial soils. Some Grumusols	Mainly Aquepts. Some Uderts	Mainly Calcaric Gleysols. Some Vertisols
10. Calcareous Brown Floodplain Soils	Mainly Alluvial soils (calcareous) Brown Forest soils on higher parts	Mainly (Eutr) ochrepts. Some Aquepts	Calcaric Cambisols. Some Calcaric Gleysols
11. Non-calcareous Brown Floodplain Soils	Brown Forest Soils	(Eutr) ochrepts	Eutric Cambisols
12. Black Terai Soils	Prairie soils. Some Humic Glei Soils	Umbrepts. Some Udotis	Eutric Cambisols. Some Humic Gleysols and Haplic Phaeozems
13. Brown Hill Soils	(Acid) Brown Forest Soils	(Dyst) ochrepts	Dystric.Cambisols
14. Shallow Red-Brown Terrace Soils	(Acid) Brown Forest Soils.Very shallow soils are Regosols	(Ust) ochrepts. Very shallow soils are Orthents	Dystric(some Eutric)Cambisols.Very shallow soils are Eutric Rhegosols
15. Deep Red-Brown Terrace Soils	Mainly intergrodes between (Acid) Brown Forest soils and Red-Yellow Podzolic. Rare Reddish–Brown Lateritic soils	(Ust) ochrepts. Some Ustults and Ustalfs	Dystric(some Eutric)Cambisols. Some Ferric Acrisols and Luvisols. Rare Nitosols
16. Brown Mottled Terrace Soils	Mainly intergrodes between (Acid) Brown Forest and Red-Yellow Podzolics,but also intergrading to Groundwater Laterites	Do	Dystric (some Eutric) Cambisols
17. Grey Terrace and Valley Soils	Low Humic Glei soils and Grey Hydromorphic soils	Not satisfactorily classified included with Aquepts, some Aquents	Not satisfactorily classified Some Dystric Gleysoils(or Planosols)

CONVENTIONAL SIGNS

- International boundary
- Division boundary
- District boundary
- Narrow river
- Wide river
- Lake
- Urban
- District Head Quarters
- Thana Head Quarters

Source :
SRDI (1:1000000)
Projection : Lamberts Conformal Conic

GIS Unit,SRDI.
October 1997