

Biodiversity in grassland: Bangladesh perspective

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Keywords: Bangladesh, grassland, biodiversity, policy

Grassland in Bangladesh The rapidly increasing human population in Bangladesh has caused widespread damage to and disturbance of natural habitats and a loss of indigenous wildlife. There are now very few, if any, extensive patches of grassland in Bangladesh and any that might remain are inundated for two-thirds of the year with no alternative refugia available. Most remaining grassland areas are fragmented, heavily used and harvested up to three times a year. Furthermore, the reed lands of northeast Bangladesh were leased out for paper production and are reported to have been entirely destroyed and settled by encroachers. Tall grasslands around rivers and lakes were also utilised in Bangladesh, and were dominated by ekra (ikora) *Erianthus ravaneae*, nal "Orundo karka" (presumably either *Phragmites karka* or *Arundo donax*), ullu *Saccharum cylindricum* (possibly *Saccharum* or *Imperata cylindrica*), hogla *Typha elephantina* and hargoza *Acanthus ilicifolius*.

Unfortunately, there has been no extensive study or analysis of the ecological need and importance of grassland in Bangladesh and there is no current research focusing on grassland flora and fauna and its conservation.

Problems in relation to biodiversity Population growth, overuse of resources, unplanned building projects and expansion of agriculture on to less productive lands have destroyed critical habitats, decreased biodiversity and created erosion and run-off. There has been massive deforestation and most surviving tropical forests and freshwater floodplains have been negatively affected by human activities. These developments have had adverse effects in the income of the poor. Fish catches have been drastically reduced and loss of biodiversity in the forests has meant less food, fodder, medicine and shelter for the poor.

Biodiversity policies After the UNCED event in 1992, and in the face of growing campaign pressure by environmental organisations, the government took actions to ensure the conservation and sustainable use of biological and genetic resources and related knowledge, culture and practice. Actions were required in order to maintain and improve diversity as a means of sustaining the life support and healthcare system of the people of Bangladesh and to protect biological and genetic resources and the related knowledge from pollution, destruction and erosion. It was also necessary to protect and maintain indigenous knowledge in these areas.

Initial small efforts to conserve biodiversity was started after the independence of Bangladesh. In 1973 the Government declared the Bangladesh Wildlife (preservation Amendment) Order by repealing the previously enacted Wild Animal Laws to protect flora and the Government declared the Brick burning (control) Act. in 1990 and amended the Forest Act (1927) by imposing provisions for heavier punishment in 1990. In 1998 the government enacted a law entitled 'Biodiversity and Community Knowledge Protection Act of Bangladesh'.

As a part of the policy actions, to conserve, breed and develop flora and fauna under the laws the Government established three national parks, three wildlife sanctuaries, one game reserve (for elephants) and two botanical gardens in different parts of Bangladesh. The primary objective of the national park is to protect and preserve scenery, flora and fauna in the natural state. The objectives of the wildlife sanctuaries are to create undisturbed breeding grounds for wildlife, vegetation and soil and water. By the end of 2015 the Government will establish 10% of the total reserved forest as national parks, wildlife sanctuaries, game reserves and natural reserved areas in the Chittagong Hill Tracts.

An action plan has been developed for biodiversity conservation. This will include the preparation of an inventory and a management plan for three areas of tropical forest in south-east Chittagong, Jinjira Island and Tanguar Haor of Sunamganj. The main objectives of the projects are (i) promotion of sustainable development through institutions at the national level and the national planning process; (ii) improvement of environmental management of biodiversity and (iii) raising the level of environmental awareness of various sections of society. To protect and support the rights, knowledge, innovations and practices of local and indigenous communities, it is now the practice to involve the local communities in a number of biodiversity conservation steps and projects. The participation of local communities in the Sundarban Bio-diversity Conservation Project (SBCP) is notable in this regard.

The full beneficial effects of these measures to protect biodiversity have, however, still to be realised.