Report on Environmental Impact of Rohingya Influx

Executive Summary

The Rapid Environmental Assessment Study was initiated by the Ministry of Environment and Forest (MoEF) of Bangladesh and by UNDP and UN Women to assess the environmental impacts of the Rohingya influx into Bangladesh and propose a series of actions to address the high environmental risks related to the influx. The study received additional support from the environmental emergency response mechanism of the UN Environment/OCHA Joint Unit, through the Swiss Agency for Development and Cooperation.

The UNHCR Environmental Guidelines (1996) state that the environmental impacts of an influx of asylum seekers in host countries include: "*uncontrolled fuelwood collection, poaching, and overuse of limited water supplies. These impacts have placed serious strains on the ecosystems in many regions, including some unique areas set aside by local governments as parks or reserves or even sites recognized by UNESCO as World Heritage Sites. In the worst case, these activities, if continued, could result in irreversible losses of productivity, the extinction of species of plants or animals, the destruction of unique ecosystems, the depletion or long-term pollution of ground water supplies, or a variety of other destructive outcomes".*

The Rapid Environmental Impact Assessment (REIA) team found this description to be an accurate reflection of the situation with regard to the Rohingya influx, where the consequences of the influx are unfolding at an alarming rate and on an enormous scale.

The study addresses environmental and related gender-based issues and health risks. It aims to: establish a baseline of the environmental context in which Rohingya asylum seekers have sought refuge;[1] identify the current and potential environmental impact of the influx; and propose measures that the Government of Bangladesh, UN and other partners can implement to mitigate or offset the current crisis.

The assessment methodology was informed by UNDP's Social and Environmental Standards (2015) and UNHCR's Environmental Guidelines. The study draws on existing information, stakeholder feedback, results from reconnaissance survey to the influx area and limited field surveys, including surface and ground water sampling and analyses, and the responses of residents from host communities and Rohingya to a questionnaire about use of wood for fuel and construction, encounters with wildlife and poaching. The scope of the study was limited by the short period of time available for the collection of baseline information, and by the scarcity and quality of this information.

The assessment was conducted on a qualitative level for physical environmental impacts and on a semi-quantitative level for cumulative impacts on ecosystems (using aerial photos, satellite images, ground truthing, GIS data and maps). The description of environmental baseline conditions is based on available information and the description of the current state of the environment after the Rohingya influx is presented as part of the baseline. A simple model using the available biomass, land cover information and cooking fuel demand was developed and

[1] The detailed baseline conditions can only be defined within a full scale environmental assessment work. This rapid assessment provides only indicative findings and is based on a limited set of available data.

used to assess the speed of potential forest degradation caused by excessive fuelwood collection.

Eleven environmental impacts were identified that have been or could potentially be exacerbated by the Rohingya influx. Six of these were physical environmental impacts on: ground water; surface water; acoustic levels; indoor air quality; solid waste management; and soils and terrain; and the remaining five were impacts on ecosystems: natural forests; protected areas and critical habitats; vegetation; wildlife; and marine and freshwater ecosystems. Key risks were pinpointed and assessed based on the rating of their impact. The following risks associated with the physical environmental impacts were assessed as high: ground water depletion; ground water contamination; poor indoor air quality; poor management of sewer sludge; removal of soils and terrain; and changes in terrain. Impacts on ecosystems with high associated risks were: deforestation and forest degradation; encroachment onto and resource extraction from protected areas; changes in land cover; rapid biomass reduction; loss of species; loss of wildlife habitat and shrinkage of wildlife corridor; and mortality risks for wildlife.

Most of the physical environmental impacts appear to be reversible, although those on soils and terrain may require considerable time to return to their baseline levels. The denuded landscape will have reduced water retention capacity which may impact ground and surface water in the area. Paramount to any reversal will be the implementation of closure of the Rohingya camps and the initiation of land reclamation plans.

The study identified the following gender-based issues: the health risks of inhaling smoke from cooking inside poorly ventilated shelters; the physical demands of firewood collection; and a lack of separate bathing and toilet facilities for women. Overuse of natural resources such as the unregulated collection of firewood and the extraction of ground water may give rise to conflicts between the Rohingya and the host communities, which could disproportionally affect women as one of the most vulnerable groups of the population.

The study outlines a number of recommendations to implement mitigation measures and offset programmes.

One crosscutting mitigation measure to address the physical impacts of the influx is to provide alternative fuel and cooking stoves and/or a dedicated space for community cooking. This would improve air quality in the shelters, eliminate the need for fuelwood collection from forests and protected areas, and remove the associated gender-based health and safety risks. Improved planning and living standards would address issues of access to potable water, sanitation and solid waste management.

The immediate impact on ecosystems in the area is cumulative in nature and less visible than the physical impacts of the influx. Proposed mitigation, for example strict rules of resource use in protected areas, requires addressing the land and resource use patterns of both the host communities and Rohingya. To improve the degraded forest habitat and compensate for the forest areas lost beneath the camps' footprint, proposed actions include assistance to community/social forestry, reforestation and artificial natural regeneration of shrub dominated areas, afforestation along the coastal line and agroforestry in the village common forests. Other measures include: to develop and implement closure and reclamation plans for abandoned

camps, including landscaping, turfing in barren hills, improve drainage, soil restoration, and reforestation; to establish designated areas for bamboo afforestation and promote bamboo regeneration projects; and to consider enhancement of natural habitats in other areas of Bangladesh to ensure no net loss in biodiversity.

Current experience in managing influxes shows that at the stage when asylum seekers become repatriated or integrated, funds are scarce for the closure and reclamation of the abandoned camps and associated facilities as well as for the reforestation of degraded lands and the conservation of wildlife habitat. Sufficient resources will need to be secured to ensure that reinstatement of the land is adequately supported after the Rohingya repatriation.

Extensive environmental management and detailed long-term monitoring programmes are recommended to confirm and quantitatively define the results of this indicative Rapid Environmental Assessment Study, and mitigate the environmental loss and damage from the influx. The programmes will be integrated in the UN Humanitarian Response Plan process and led by the Ministry of Environment and Forest (MoEF) and the Ministry of Disaster Management and Relief with support from the Department of Environment (DoE), the Forest Department and the Department of Disaster Management and other associated line agencies.