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The role of remote sensing data in mitigation of the impact of establishment and development of refugee camps on the natural environment – examples from Bangladesh and Tanzania

The construction and operation of the forced migrants' settlements have a significant impact on the surrounding natural environment. Issues such as the construction and organisation of such mass refugee settlements, the relations between people living in these camps, and the natural environment seem to be crucial and can impact changes in the local and regional environment. In many countries of the Global South, like Bangladesh or Tanzania, forced migrants living in refugee settlements have limited access to basic resources and rely on humanitarian support. Lack of drinking water, food, or firewood forces them to seek these assets in the surrounding area, which can lead to the degradation of the natural environment and conflicts with the local communities.

The aim of this article is to present the most essential forms of refugee activities that can stimulate changes in the natural environment. The research was conducted within the ARICA *A multi-directional analysis of refugee/IDP camp areas based on HR/VHR satellite data* project in the Kutupalong-Balukhali camp in Bangladesh and the Mtendeli camp in Tanzania. The results are based on a combination of remote sensing data and social qualitative data. More specifically we have carried out a literature review, conducted focus groups and in-depth interviews with experts and local actors as well as in-depth interviews with camp inhabitants and, combined this with satellite data analysis.

The results show the strong influence of the establishment and development of the camp on the changes in the environment. Through investigation of camp inhabitants' and members of the host society's perception and use of the environment within the camp area and in the surroundings of the camp, and how this has changed over time, we will develop recommendations for future camp management.

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