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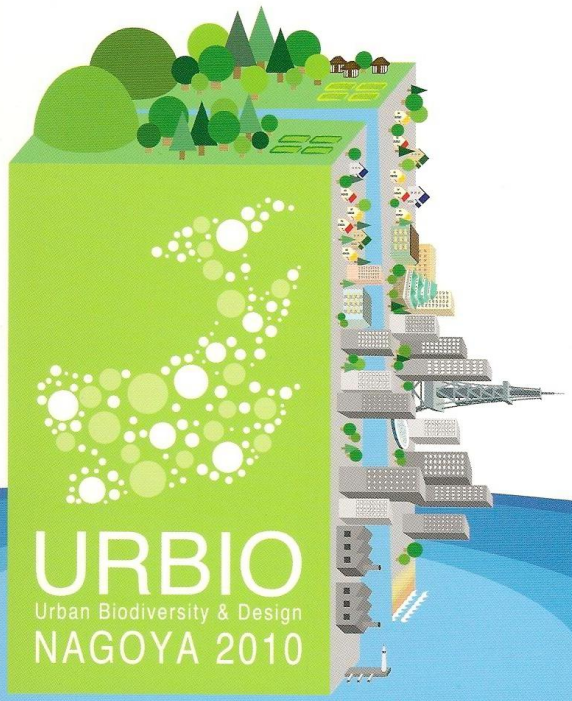

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Urban landscape dynamics and consequences on local biodiversity in a north-eastern district of Bangladesh: an analysis of small farm owners' preferences and attitudes

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Being one of the world's most densely populated countries, Bangladesh has relatively poor forest coverage and per-capita land designated for conservation. The rapidly increasing population also exerts tremendous pressure on country's limited land resource alike many other resources. Consequently, over the last years, the country experienced a rapid change in its' conventional land use practices, which evidently most conspicuous in urban areas where people from countryside's have been gathering for better living facilities. We conducted an exploratory study to understand the urban landscapes dynamics and their perceived impact on local biodiversity in Sylhet city - one of the fastest growing urban areas in the north-eastern Bangladesh. Thirty small urban farm/homestead owners were selected randomly and interviewed through a pre-structured questionnaire. The farm/homestead situations of the respondents were analyzed and data regarding landowners' perceptions and attitudes towards different land use systems, their probable impacts on biodiversity and the changing role of plants were collected. Study revealed a noticeable change in the land-use pattern of the area, most of which took place within the last decade. A rich farm composition was also evident during the study noticing 52 different tree species with highest proportion of trees under age group 15 to 20 years. Survey also indicated that respondent's maintained trees in their farm/homesteads mainly for aesthetics (64%), followed by fruit production (17%), timber (7%) and to hold the ownership of the land. Study identified a negative attitude of the respondents to maintain their farm/homestead only for plants, since in a changing perspective they consider it not an economically viable land-use practice. The respondents also opined that, avifauna are the most adversely affected community in the area by the present trends of land-use change. A reserved green zone to minimize the negative impact resulted by changing urban land-use trends/practices that should be managed by local government and conservation agencies is necessary to reduce the vulnerability of local biodiversity and ecosystem health.

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