Title of dissertation
Assessment of Sites’ Suitability Using MCE Method and GIS for Poultry Microenterprises and Value Chain Development: A Study in Gazipur District, Bangladesh

RONPAKU Fellow
Name | Khaleda SYEDA
Position | Manager
Department | Research & Publication Department
Institution | Pall Karma-Sahayak Foundation
ID No. | UGC11038
Nationality | Bangladesh

Japanese Advisor
Name | Yuji MURAYAMA
Position | Professor
Institution | University of Tsukuba

In recent years, many commercial poultry MEs have flourished in Bangladesh. These have created employment for a significant number of the poor population, thus playing a significant role in poverty reduction. Gazipur district, where many households—especially of the poor—depend fully on poultry MEs for their earnings, has the highest concentration of poultry MEs/farms in the country, which can exist on small amounts of land. Poor microentrepreneurs have developed poultry MEs extensively, utilizing their inherited homestead land with the help of microfinance. Thus, not all of these MEs are located in suitable places, resulting in poor input supply and marketing facilities for their products in most cases and thus causing higher transport costs and lower profits. On the other hand, the Government, apex funding agencies, NGOs, and donor agencies apply the same policy in providing support services to all these poultry MEs/farmers, irrespective of their location. Thus, the primary objective of this study is to identify the poultry value chain and constraints, mainly those related to the physical and infrastructural environment in Gazipur district, to facilitate institutions to design interventions to help all the microentrepreneurs in those areas with potential or unfavorable areas to increase their profit and be sustainable. Consequently, to help the government, apex funding agencies, donor agencies, and NGOs to select the areas in which to provide more support—financial/technical/infrastructural—instead of following homogeneity in their assistance efforts, this study delineates suitable sites (or sites that lack suitability) for poultry MEs’ development, with respect to factors such as flood-free land and infrastructures related to the poultry business-enabling environment of the value chain in Gazipur district, an area of 1741.53 square kilometers, using a multi-criteria evaluation (MCE) technique within a geographic
information system (GIS) context. Microentrepreneurs in highly suitable areas require minimum effort and investment in order to develop poultry microenterprises. If the suitability level is worse, the effort or cost, or both, is too great to be worthwhile for poultry farming.

The study also verifies the potential of MEs through an analysis of the geographic concentration of poultry MEs/farms and their production competence with respect to sites enjoying different levels of suitability. Hence, the analysis—a combination of field survey data with a site suitability map of ME/farm concentration—potentially enables the Government, apex funding agencies, and donor agencies to reach a greater understanding of the degree of concentration of poor microentrepreneurs/farmers in several areas. This could help these actors to decide where to allocate more funds or where to direct support services. Thus, the study will not only help policy makers to grasp the potential of poultry sub-sector development but also support the verification of suitability levels. Consequently, by providing greater certainty around demand-driven interventions, the study will aid the Government and apex funding agencies/NGOs in arranging preferential and required support services and infrastructure for unsuitable sites, on which relatively numerous farms are developed. The study reveals that there is a high concentration of poultry MEs/farms at sites that are deemed to be suitable and to contain potential, while there is a considerable concentration in unsuitable areas too. However, these farms/MEs might have limited productivity due to their unsuitable location, as the analysis shows that there is a limited portion of large poultry MEs/farms at these sites. The study makes recommendations to help vulnerable microentrepreneurs to enjoy better access to facilities and support services, to reduce their production and marketing costs and add more value, and thus to increase their profit. Therefore, the microentrepreneurs would be able to expand their business and create more employment opportunities for the poor, as long as proper initiatives are taken by the Government and apex funding agencies/NGOs. This would create a kind of homogeneous opportunity for all microentrepreneurs in the district to achieve a competitive advantage and thus maintain the sustainable development of the poultry sub-sector.