

Agriculture serves as the primary source of livelihood in Meghang Rural Municipality, where farmers primarily engage in vegetable cultivation (tomato, cabbage, cauliflower, cucumber, potato as primary crops), livestock rearing, and diverse farming practices. The grown vegetables are sold via local collection systems, cooperatives, and middleman to nearby urban areas such as Kathmandu which is around a distance of 80 km.

The study area was selected purposively because the region has developed into a growing hub for vegetable production as part of the National Agriculture Modernization Program (NAMP) with a rise in the use of plastic tunnels for commercial vegetable farming.

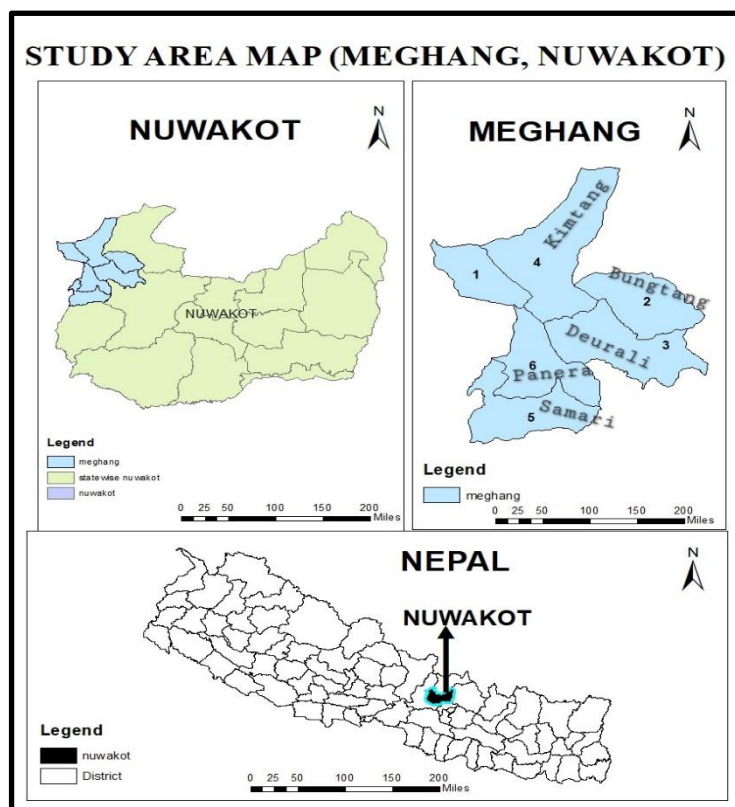


Figure 1 Map of Meghang Rural Municipality, Nuwakot, Nepal

2.2 Sample size

A household was considered as the sampling unit for the study. A total of 100 households were selected using a simple random sampling technique and the data were recorded from the respective farmers involved in vegetable production under plastic tunnels. The sample size was selected considering the availability of tunnel based vegetable growers, feasibility of household level data collection, time constraints and available resources while maintaining adequate representation of farmers involved in protected vegetable cultivation.

Due to the absence of a complete publicly available database, 100 households were selected using simple random sampling based on the available list of active tunnel vegetable growers and the feasibility of household level data collection. The chosen sample consisted of farmers with various socioeconomic status and farming sizes to reflect differences in tunnel structures, production methods, income generation, and marketing strategies.

2.3 Data collection

Primary data were acquired by direct personal interview and household survey using semi-structured questionnaires. An objectively prepared survey questionnaire was created to collect necessary primary data and information on the socioeconomic profile of vegetable growers under plastic tunnels, demographic information about family members, farmer landholdings, farming practices, and income status.