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## Climate-friendly Practices on Agriculture in Bagmati Province of Nepal

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## Abstract

The provincial structure of Nepal considers the balanced and proportional development and explore and utilise the inherent potentialities for economic and social prosperity by preparing action plans. The geographic/topographic diversity of the country and of the different provinces allows to produce a variety of agricultural commodities. Bagmati Province, a major contributor to the gross domestic product (GDP), is also rich in agroclimatic diversity. The agriculture is characterised by a high level of diversification in terms of climatic and geographic variations. Climatic factors such as rainfall, temperature, humidity, sunshine hour are major determining factors for agricultural production in the province. Due to the high range of altitudes and temperature throughout the province, agriculture in Bagmati Province has peculiar characteristics. At different places in northsouth (thirteen districts), all kinds of temperature and crops/commodities could be found. Different niches and climatic zones are suitable for different commodities to produce due to the presence of preferable environmental settings. Indeed, climatic knowledge on farming is very necessary. When farming is done in accordance with climate, the productivity of products shall be increased. To get the knowledge of suitable climate for different agricultural products, adoption of the appropriate agriculture practice in different climatic conditions is necessary. The study aimed to identify the appropriate climate-friendly agriculture practices in Bagmati Province. There are some innovative technologies adopted by farmers and allied institutions to cope with the adverse impacts of climate change and ensure the agricultural production in the province. Some of the suitable climate-friendly technologies include assured irrigation system, rainwater harvesting and recycling, cultivation of climate resilient crops and crop varieties, use of solar power for pumping irrigation water, integrated farming system, multi-storey cropping and agro-forestry systems, organic farming system, integrated pest management, site-specific integrated nutrient management, development of climate-smart village, crop rotation, development of seed banks, mulching, seed priming, intercropping with legumes, mixed cropping, zero/minimum tillage, organic recycling, agricultural insurance, institutional coordination, proper land use planning, weather forecasting, capacity building of farmers and service providers, and mainstreaming climate-smart agriculture into national policies and programs.

Keywords: Agriculture, climate-friendly practices, Nepal

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