

Rice strategy for Nepal

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Rice is the principal food grain crop in Nepal followed by maize and wheat. The total area of Nepal is approximately 1.5 million ha with the average productivity of 3.2 t/ha producing 4.8 million tons of paddy rice. Nepal Agricultural Research Council (NARC) is the sole public organization in Nepal that conducts rice research in the country. Rice research in NARC is coordinated and implemented by National Rice Research Program (NRRP), Hardinath, Dhanusha District in coordination with Regional Agricultural Research Stations (RARS) and Central Disciplinary Divisions, Kathamandu. Department of Agriculture (doA) under the Ministry of Agricultural development (MoAD) is responsible to disseminate rice technologies to farmers' fields.

Presently, the investment in rice research is very low in Nepal with less than 0.1% of the value of rice output being invested in rice research. Rice research program in NARC also receives less share of the agricultural research budget (only 4% of the total research budget) despite the vital share of rice output (20%) in national Agriculture Gross Domestic Product (AGDP). In the past five decades, rice production in Nepal increased nearly 2.2 times from 2.1 million tons in 1961-63 to 4.8 million tons in 2010-15. During the same period, rice production grew at the rate of 1.8% per annum which was below the population growth rate of 2.3% per annum. As a result, the rice self sufficiency ratio declined significantly over time. In recent years, the rice self sufficiency ratio is below 100, which means domestic rice production is not sufficient to meet the domestic consumption.

The production condition of cereals is also almost same to that of rice. The data for 2001-2008 shows that Nepal is the only South Asian country where the growth rate of cereal production trails behind the growth rate of population (Figure 5). Consequently Nepal's domestic production has not been able to fulfill local demand and the country has been a net importer of cereals since the 1980s. Despite slow growth in cereals output, per capita availability of cereals in Nepal is second highest in South Asia due to the food imports especially across the open border with India. Even though Nepal has a relatively high per capita cereal supply, the low income levels is a constraint for adequate food consumption by a large section of the population (IFPRI, 2010).

Irrigated rice accounts for 56% of the total rice area in Nepal. Thus, large rice production still occurs under rainfed condition. Based on the average per capita milled rice consumption of 122 kg per yea and total population of 27.6 million, the total demand for milled rice in Nepal is estimated at 3.37 million tons (5.04 million tons of paddy) in 2012. But the country produced only 2.97 million tons milled rice (4.50 million tons paddy). Assuming that only 80% of total harvest is available for human consumption, the total milled rice produced in the country available for consumption is only 2.38 million tons (3.60 million tons of paddy). This means the country has a shortfall of about 1 million tons of milled rice (1.5 million tons paddy).

In addition to the population growth, income growth also creates additional demand for rice. The current demand for rice may be low due to low levels of income. As income rises, the demand for rice can be expected to increase as rice substitutes for coarse grains that are currently being consumed. In addition, as the country marches towards improved governance, economic growth, and infrastructure development, the food habit likely to change in favor of rice which would increase rice demand. Infrastructure development particularly increased road access to remote hills and mountains will increase demand for rice substantially due to availability of rice in cheaper price.

The following major constraints to rice production in Nepal are included: (a) land constraints, (b) large yield gaps, (c) inappropriate technologies especially in rainfed areas, (d) problems of product quality and timely delivery of inputs (e) limited access to new technology and inefficient technology transfer, and (f) inadequate policy support. Therefore, the priority rice research and development agenda for Nepal, are discussed as: development and promotion of high yielding, stresses tolerant and better grain quality rice varieties, integrated crop and resource management for sustainable rice production, development and promotion of small-scale mechanization and post harvest technologies, socioeconomic and policy research to craft farmer-friendly policies, investment in rice research and extension, and capacity building in strategic frontier areas of rice research.

Biography

B P Tripathi has completed his Ph.D. at the age of 50 years from the University of Philippines, Los, Banos, Philippines. He is the Senior Associate Scientist in the International Rice Research Institute (IRRI), Philippines based in Nepal. He has published more than 20 papers in reputed journals and has been serving as an editorial board member of Nepalese Journals of Agriculture.

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