Long-Term Agricultural Statistics in South Asia

<Overview>

October 2012

Aim: This database includes long-term agricultural statistics in major South Asian countries (India, Pakistan, and Bangladesh) from the early 20th century onward. The data are compiled at the macro (nation and province/state), semi-macro (district), and micro (household and holding) levels to provide basic information on the relationship among agricultural production, consumption demand, and market development.

Person in charge: Takashi Kurosaki (Hitotsubashi University, PRIMCED project leader)

Coverage: Variables include land use; area, production quantity, and price of major crops; livestock and agricultural equipment; agricultural labor force, rainfall, etc. The periods encompassed are the agricultural years from 1901/02 to 2001/02.

Data source: Government statistics (agricultural statistics, agricultural census, livestock census, population census, national accounts, etc.); Report on the Season and Crops; Farm Accounts in the British Province of Punjab, etc.

Remaining task: Adjustment of district boundaries for the semi-macro dataset; data cleaning for micro data.

Major research findings:

Around 1950, there was a turnaround of growth rates in India, Pakistan, and Bangladesh.

The main source of growth changed from area expansion to land-use intensification and then to improvement in per-acre productivity. The exact timing of the change differed substantially across the three countries.

Land productivity levels and its growth rates were highest in Pakistan and lowest in Bangladesh, while acceleration in the growth rate in land productivity was the highest in Bangladesh and lowest in Pakistan.

A substantial portion (approximately 1/3) of the improvement in aggregate land productivity was attributed to crop shifts in India, Pakistan, and Bangladesh. In India and Pakistan, the crop-shift effects were particularly important in the 1950s and 1990s. The contribution of crop shifts to agricultural growth in Bangladesh would be underestimated if three varieties of rice were treated as a single crop.

A new regional classification of Indian districts has been proposed on the basis of their

similarity in the initial cropping and land-use patterns, rainfall, and the initial conditions and changes in irrigation. The proposed classification provides a better explanation of the spatial patterns of long-term changes at the district level than the existing classifications.