

# **Impact of Climate on Agriculture**

Changes in 1) average temperatures, 2) rainfall, and 3) climate extremes (heat waves); 4) pests and diseases; 5) atmospheric carbon dioxide and 6) ground-level ozone concentrations; 7) nutritional quality of some foods would affect agriculture.

- Changes in **crop phenology** provide important evidence of the response to recent regional climate change.
- **Droughts** have been occurring more frequently because of global warming. It has aggravated the increased water demand, population growth, urban expansion, and environmental protection efforts in many areas. Droughts result in **crop failures** and the loss of pasture grazing land for livestock

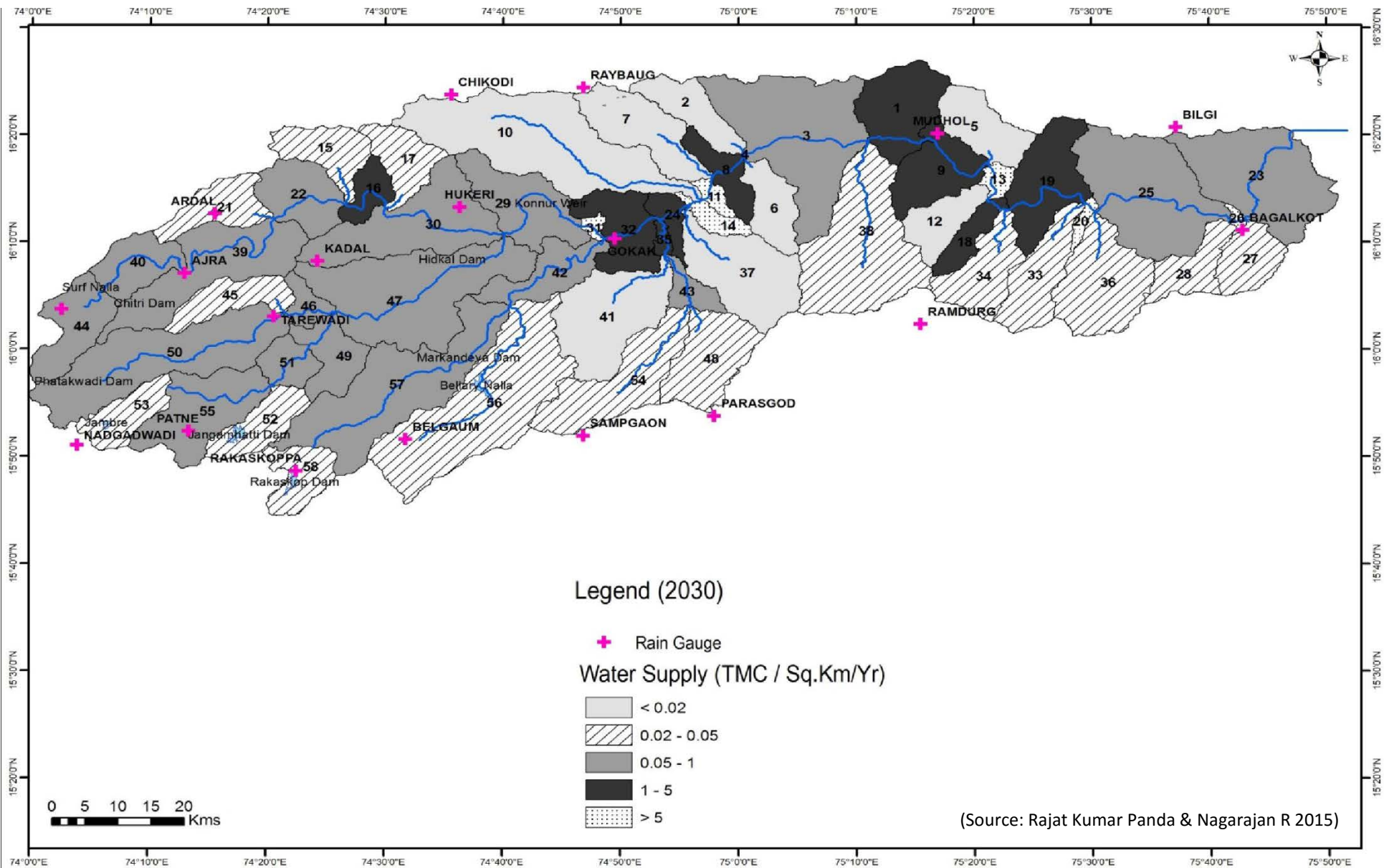
Impacts on agriculture :

**Productivity** - quantity and quality of crops

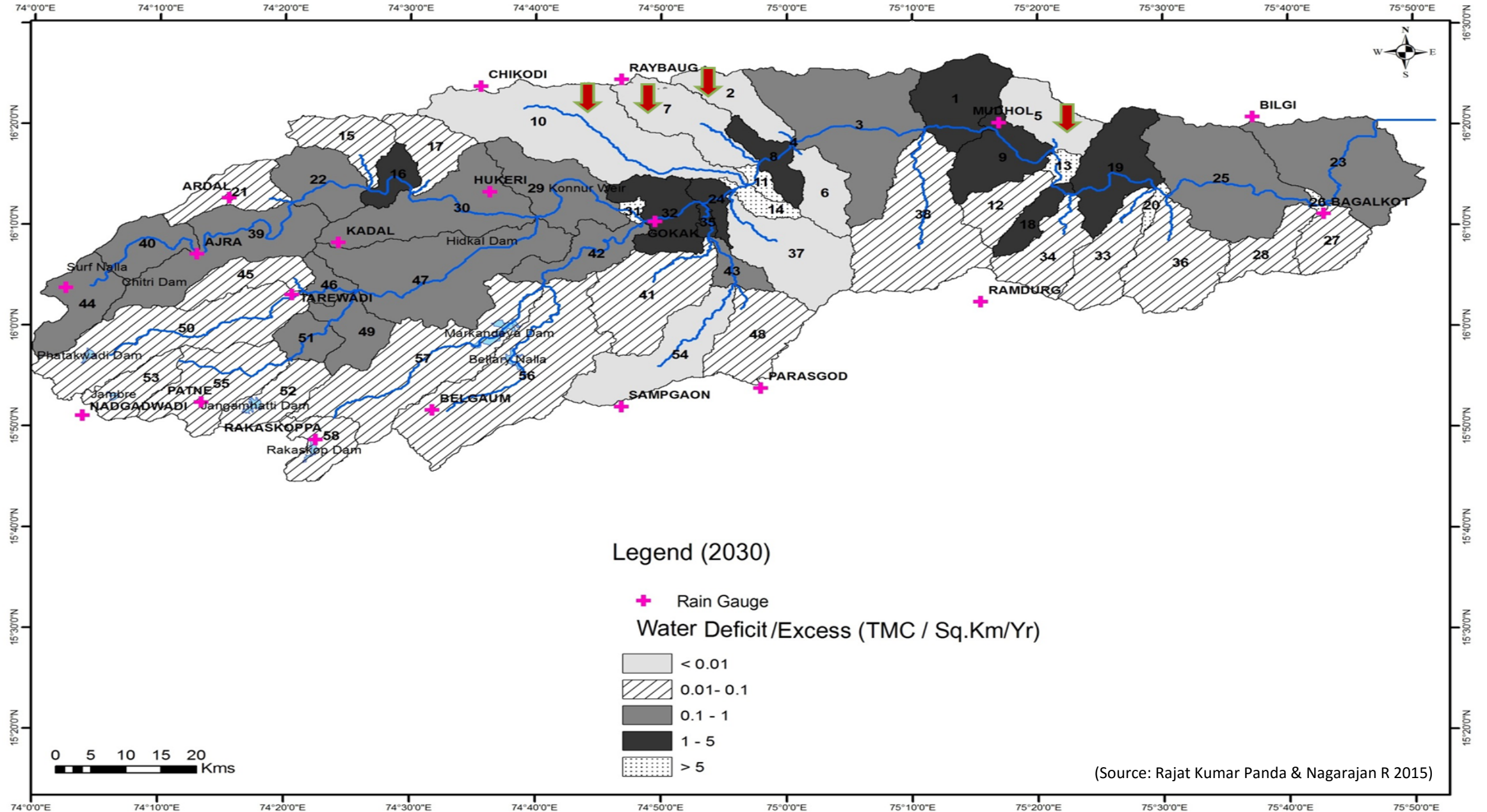
**Agricultural practices** - changes in irrigation and agricultural inputs such as herbicides, insecticides and fertilizers

**Environmental** - frequency and intensity of soil drainage (leaching), soil erosion, reduction of crop diversity

**Rural** - loss and gain of cultivated lands, land speculation & renunciation



# Projected water deficit / excess in 2030



**Thank you**