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GLOBAL EXPERIENCE ON IRRIGATION MANAGEMENT UNDER DIFFERENT SCENARIOS

Abstract

This study aims to assess global experience on agricultural water management under different scenarios. The results showed that trend of permanent crops to cultivated area, human development index (HDI), irrigation water requirement, and percent of total cultivated area drained is increasing and trend of rural population to total population, total economically active population in agriculture to total economically active population, value added to gross domestic production (GDP) by agriculture, and the difference between national rainfall index (NRI) and irrigation water requirement is decreasing. The estimating of area equipped for irrigation in 2035 and 2060 were studied acc. to the three scenarios: I – the values of the main indices would be changed by the same slope of the past half of century, II and III – the slopes would be decreased by 30% and 50% respectively. The minimum and maximum values of pressure on renewable water resources by irrigation, are related to the third and first scenarios by 2035 (6.1%) and 2060 (9.2%), respectively.

Key words: irrigation, sustainable agriculture, water, world agriculture