ABSTRACT

This study analyses the virtual water trade pattern of Pakistan agricultural exports and imports. The study analysed the inflow and outflow of water in Pakistan through agricultural crops over the period of 2006 to 2015 for six major crops such as wheat, cotton, rice, barley, maize and millet and vegetables beans, garlic, tomatoes, potatoes, onions and peas. Virtual water of these crops was estimated by multiplying the crop water requirement of each crop with its production quantity and then dividing by the yield of that crop. In order to find the virtual water foot prints of these crops the virtual water content of these crops was multiplied by the imported and exported quantities of these crops. The data was taken from FAO stats and FAO aqua stats. The study built a nexus between the ratio of trade to GDP growth rate and Virtual water exports. The results showed that Pakistan have been an exporter of Virtual water and huge tons of water is going outside the country in form of agricultural crops which is posing a great risk to our scarce water resources. The study concluded that virtual water exports had not a deep relation with trade to GDP growth ratio and trade was stable even during the floods of 2010 when virtual water exports had declined drastically. This clearly depicts that Pakistan can make grow its trade and GDP even by cutting down the agriculture share in its exports. The study recommends that Pakistan should minimise the ratio of its agricultural crops exports in order to overcome water scarcity in the country.