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## Looking Ahead: Mega Trends in the Rice Sector

ACHIM DOBERMANN

*International Rice Research Institute (IRRI), Philippines*

### Abstract

Contrary to earlier predictions, global consumption of rice has hovered around 65 kg per capita since the early 1990s. So far, the global rice equation has not changed much yet: for every additional 1 billion people on Earth, we need to produce another 100 million tons of rice (paddy). Future demand, but also how rice and other food will be grown, will depend on structural transformation processes such as a declining share of agriculture in gross domestic product and employment, rural to urban migration, the rise of an industrial and service economy, and demographic transitions from high rates of birth and death to low rates.

Some mega trends are already emerging in the rice sector. Land is scarce and inputs costs have risen, requiring further increases in productivity as well as greater efficiency of labour, water, fertiliser and energy. This also provides an incentive for more skilful, more precise agriculture through one can also better adapt to the environment, or even control parts of it. Rural to urban migration has made labour in the agricultural sector scarce and expensive, driving mechanisation as well as the development of new service sectors. Traditional smallholder farm management is being replaced with outsourcing of farming operations or the formation of small enterprises. Rice value chains are becoming more tightly integrated because processors and consumers demand more information and control over how food is being produced. Farmers increasingly turn to the private sector as a source of information, but also as a direct buyer of rice and other products, requiring to produce agricultural raw materials with new, higher standards. Access to interactive, tailored information is greatly increasing, creating wider communication networks.

Rice science needs to be re-oriented towards these mega trends. We need to anticipate what is needed 10 or 20 years from now, and we need to take full advantage of these new opportunities, particularly in developing countries.

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