This paper deals with a critical issue in the uptake of technology in the developing world.

New technologies are essential to ensure the increased production and reduced environmental impact agriculture needs to achieve. Initiation of a new technology often arises from the recognition of changes in an area wholly unrelated to the problems of a specific industry – for example the uptake of IT in farming, marketing and monitoring outcomes.

A current example is the wish of some UK farmers to use drones to improve the precision of pesticide or fertiliser application.

Crop development provides a classical example. We have 'new' means of generating new cultivars. They are applicable to secure a diversity of purposes such as pest resistance, drought tolerance, palatability and storage requirements.

In all these areas the final test of success is at the point of consumption – will the amount bought at the prices that exist reward the effort involved in development.

For seed the gap between the initial decision to seek a new cultivar and its use is extended in terms of time and the number of other business decisions that have to take place concurrently if the new material is to succeed.

For example, the ability of a Supermarket chain to capitalise on the baseless fears of consumers about a new technology may render all the previous investment valueless.

The thrust of Dr Boettiger's paper is that publicly funded institutions get it wrong and that although successful in generating new cultivars these do not penetrate the market on a scale that justifies the resources committed.

There is an additional element, in that success is judged not simply in aggregates but in terms of its distributional effect – does it serve the needs of the poor?

It may be that this is an example of where the development community puts the cart in front of the horse. Using a model that is over simple but compelling, poverty results from insufficient demand for labour.

Thus, where labour supply is greater than the amount that can be profitably employed people remain without work and depend on entitlements enjoyed either as members of families and local communities or through organised social services.

In reality, an activity that raises real income anywhere in an economy creates demand for more goods and services and indirectly for the labour that produces them.

If improved crops make agriculture more efficient, its income will rise and secondary streams of demand will emerge. This may come about even if the new methods are only directly applicable to the competitiveness of relatively rich farmers or businesses.

Thus focussing on technologies that are directly applicable to the poor may be misguided.

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Professor Sir John Marsh

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Comments