

Agriculture and poverty

AGRICULTURE IS THE BACKBONE OF Pakistan, every prime minister and president since ZA Bhutto has said. Have these PMs and presidents done anything to improve the backbone? What is the state of agriculture?

At the time of independence it was okay, with even an exportable food grain surplus of over 500,000 tonnes (at that time India had a deficit of 2.5 million tonnes). Since then we have imported wheat for 47 years out of 57 and have repeatedly imported other agricultural products (cotton, edible oil, pulses, milk, and so on). Meanwhile, India has not only become self-sufficient in many of these products, but is now exporting them. India has improved its agricultural productivity through well-planned public investment (like almost every other country who has done it). Pakistan, on the other hand, has now increased its public sector spending on agriculture to 1.7 percent of the total public expenditure.

So is increasing public expenditure on agriculture the answer? Not entirely. Let's look at agriculture in a very simplistic and generalised way. To improve agriculture and at the same time making it pro-poor (because almost 80 percent of the poor live in rural areas), we need to look at the state of inputs (seeds, water, fertilisers, pesticides, labour, credit, knowledge), outputs (staple foods, cash crops, niche products, livestock), and the medium (land and society).

The PRSP advocates that farmers should adopt high-yield varieties of improved and hybrid seeds which the government will develop. But until now certified seeds are usually unavailable, inaccessible (too expensive for so many poor farmers) and of poor quality (often adulterated). To make things worse, multinationals are now pressuring the government to privatise the Punjab Seed Corporation. This will potentially leave farmers at the mercy of these multinationals.

Pakistan has the largest canal irrigation system in the world. Unfortunately, it is one of the most inefficient as well (with 35 percent water lost from canals, 24 percent from watercourses and 25 percent from field application). Pakistanis tend to use water extravagantly and in an unplanned manner (plants need water, not the whole field). Add to this the cost (of tubewells which only the rich landowners can afford) and elite capture (a very distorted allocation of water — in favour of the rich landlords). The government's solution: more than 3/4 investment for new dams, hydropower capacity, new canals, plus techniques like laser land levelling, bed and furrow cultivation and zero tillage. Not a word on rainwater harvesting (some countries harvest 90 percent of rain, Pakistan 25 percent) let alone changing the *status quo*.

When plants aren't thirsty anymore, they become hungry. So we need to apply fertilisers. Essentially nitrogen (N), phosphorus (P), potassium (K), and then some minor and micronutrients. You would be amazed with the number of farmers who don't know this (they also don't know which fertiliser to apply, when, how and how much). Still, since the Green Revolution in the '60s Pakistan has increased

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14 times the use of synthetic fertilisers — this can potentially increase the yield by at least 50 percent. It didn't. Why? Because synthetic fertilisers are expensive, of poor quality (quite often adulterated), and not subsidised (ordered by IMF and their lot, to free market forces). Well-off farmers (a minority) having large land holdings do have access to good fertilisers and know how to apply them. But neither information nor inputs trickle down to the small farmers (so much for trickle-down).

Plants, like animals and humans, can get sick. What happens when you are sick, do you first go to a doctor or do you start taking loads of medicine? You might go for the first option, but our farmers go for the second. An example, 85 percent of the area under cotton production is filled with pests and diseases, despite pesticide use. Again, farmers face problems of quality, price, timely accessibility, knowledge, safety standards (nearly 10,000 farmers die every year after getting poisoned by pesticides), and a weak early-warning system.

In the 19th century Europe, agriculture started becoming mechanised due to lack of labour in the farms, after people started moving into the cities to work in factories. In Pakistan and many other poorer nations, lack of employment (mainly due to mechanisation of agriculture) has led rural people to move to cities.

The exodus is helped by little access to services — hospitals, schools, drinking water and electricity. If you live in a village and can't get a job on a farm, what else is there to do? Ever heard of rural development? Our decision-makers haven't.

How can farmers afford all the inputs? Well you have banks. But they tend to lend money according to the size of the farm. Which leaves small farmers dependent on middlemen to lend them money and buy their products (and dictate their prices). Add to this an unplanned (and haphazard) implementation of support prices for the main crops (usually announced after sowing) and you can guess how much money small farmers make.

The PRSP does mention micro-credit banks, but one seriously wonders if they can reach all small farmers (and how much would farmers get at the end of the day, taking into consideration the burden of excessive documentation needed and potential corruption in loan distribution).

Finally, farmers need to know how to use the inputs. That's why Pakistan needs strong departments of agricultural research, education and extension. The country has four universities of agriculture, three colleges, two faculties, 200 research institutes, stations and sub-stations, and many excellent agricultural scientists. But research and extension is poor, mainly due to politics rather than policies. This is the state of the inputs. I guess you can't wait to see the outputs.

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