Agronomic Afflictions

By Varna Sri Raman

The budget was out a couple of days ago, most people are excited by the steady increase in the growth rate which now stands at a 9.2%. By all counts, this is a good reason to be optimistic. From a 2% growth just-post independence to a 9.2% is an impressive achievement, especially considering inflation has not been galloping away either.

Despite the reasons for optimism, I believe we still ought to be concerned about Indian agriculture a tad more. The reason statistically is rather straightforward– The agricultural sector still employs 2/3rds of the population, its contribution to total income (GDP) is 1/5th though– roughly about 18%. Contrast this with the contribution of the industrial sector at 27% and the much celebrated services sector at about 54%.

The contribution of agriculture to India's GDP has declined from 39% to 22% from 1979 to 2004 and has continued to fall ever since. There are two ways to look at this, the first is to understand that the agricultural sector **contributes** only so much to the GDP; the second way is to recognise that it also only **earns** so much!

The reason that this distinction is vital is because, ordinarily if a bigger economic pie was all that mattered, then who contributes how much to a GDP growing at 9.2% is an irrelevant question.

Unfortunately, the size of the pie is not all that matters– in this case it means that 2/3rds of the Indian population earns only 1/5th of the GDP which is the amount of income available to them. Far too little to support 1/5th of a billion plus people!

One of the most important microeconomic principles is; Ceteris Paribus, if you increase a factor of production, output will rise at a declining rate till such time until it absolutely declines. Put that lesson along with the idea that wage rate is equal to the marginal productivity of labour and you'll see why the Indian agricultural scenario is a complicated task that needs looking at.

To understand look at the IT sector in India as against the agricultural sector. Relative to other sectors, capital is abundant in the IT sector; labour on the other hand is scarce. The marginal productivity of labour is therefore high and hence highly paid too. This example holds for all sectors of the economy.

Obviously the marginal productivity of labour in the IT sector is also a reflection and the result of highly skilled labour. The connection between skilled labour and higher wage rates is something that cannot be over-emphasized. The agricultural sector on the other hand suffers from a relative over-abundance of labour.

Indian economic analysis traditionally chooses to ignore two important factors of production- entrepreneurship and land. Agricultural entrepreneurship, unfortunately in India is neither encouraged nor allowed by circumstances. Land is considered fixed in supply. Despite this, one

can point out that India has vast amounts of un-arable land, much of which is arable given sufficient capital investment and agricultural R&D.

Assuming that the argument about the relative over-abundance of labour in agriculture holds, one must discuss removing surplus labour from agriculture. To do so one must ponder upon two questions viz. why is there excess labour in the agricultural sector and to where can we relocate this labour?

Neither question is easy to answer. One answer to the causal question is readily provided by the un-skilled labour argument. Moving excess labour to the service sector, where labour is relatively scare and demand for labour is high is impossible- at least till we manage to get universal primary education going and can convert a large pool of unskilled labour to minimally skilled labour.

The answer in the meantime is to perhaps shift excess labour from agriculture to the manufacturing sector that employs semi-skilled labour. What kind of manufacturing sector industry? Certainly not steel and allied industries that require at the very minimum a polytechnic diploma. One industry that meets the requirement for un-skilled and semi-skilled labour is food processing and agricultural products.

The demand for semi-processed and processed foods like ready-made idli and dosai mava, heat-only rotis, pre-cooked pulao and rajmas is increasing. The advantages of the food processing industry are many; the first being that it solves the excessive employment problem in agriculture, it addresses a growing urbane goods demand and most importantly achieves all of this without requiring relocation of agricultural labour from rural areas.

The foremost problem of the farmer is the perishability of his products, food processing addresses this too. Consider this; for any other good a producer can typically wait for the right buyer willing to pay the right price. A farmer however cannot afford to wait for the right price, food processing increases the shelf-life of agricultural products by reducing perishability thus giving the farmer more of a time margin and the ability to bargain price.

Anyone who has ever bothered to investigate the difference between market prices and wholesale prices knows that the differences are huge. The benefits of this difference normally accrues to middle-men operating in the warehousing and storing of agricultural products. By getting agricultural labour to become a part of food processing-the benefits are likely to shift to the farmer.

Having said all this, all is not hunky-dory with food processing. Those of us who argue constantly about the roll-back of the state recognise that in some cases market failure takes place. One such instance is when the private provision of a public good or a service is unlikely. Typically, such goods are roads and other such public utilities whose costs are private and benefits are public.

In this context, setting up food processing industries in rural India and transporting them to their market-urban areas involves a substantial cost. One which the private sector will not willingly

undertake. The role of the government then is to then actively encourage such industry and more vitally concentrate on marketing such products.

Eventually the market will take over thanks to the economies of scale. The presence of the government till such a transition takes place is essential, just as Modern Bread was in the bread market until not so very long ago. Perhaps one of the best things that the UPA government has done then is to concentrate on food processing with up to 30% subsidies available along with incentives to set-up food processing industries. I doubt, however, if this is enough.

One way to find out is to understand the role of credit in the agricultural sector. The role of credit is to ease out the difference between periods of income and consumption. This is particularly true of agricultural income, which is available in spurts while consumption is a constant and regular feature.

This fact is better understood in the light of agricultural seasons. All farmers' plant in the same season and harvest in the same season. At that particular point in time, supply of agricultural products is high, demand pretty much is what it was (since agricultural products are relatively demand inelastic and necessary goods) which implies that prices fall.

With electricity, the same analogy applies. The supply of electricity is continuous; the demand however fluctuates during the day. With electricity, as is the case with agriculture there is a storage problem. The solution too in this case is to create capacities for greater power supply in times of high demand. To cover this cyclical phenomenon, rural agricultural credit becomes an important issue to tackle.

Now, if the income of farmers rise the benefits will accrue first to corporate firms in the form of an increased demand for goods and services. Think of this as Engel's law in practice, with higher incomes the proportion of spending on necessary goods comes down.

The point then is to create such industries that can employ unskilled labour; this is a direct result of the fact that a negative marginal productivity of labour can only mean a rise in productivity in the agricultural sector sans excess labour.

From the capital point of view, if productivity goes up the farmer will borrow and invest in the credit market. This will happen if and only if there is a functional credit market in place. Historically, money lenders have filled the need for a credit market in rural areas. A money lender though is only the second best alternative to a functional credit market; they represent for the farmer a whole host of problems not just obscenely high interest rates. Hence, the importance of micro-credit in rural areas.

Spreading out risks between people i.e. insurance is equally important for farmers. The budget now includes new schemes for farmers insurance and rural insurance. Insurance for the farmer is literally a way to avoid debt-traps. A farmer may have had five whole years of good crops and yet be destroyed by one year of poor crop thanks to the lack of access to a credit market and any form of savings. The problem is so critical, that it is a question of survival not just making a living.

Consider the deadly mix that Indian agriculture stands at now; variable rains, no insurance, no credit, fixed land supply, perishable goods and so on. The time is ripe; it appears to me to ensure a sort of safety-net for farmers.

One way to do all of the above (and perhaps the most efficient since the government does not appear to want to seriously do anything about agriculture) is to corporatise agriculture.

Invite private players to take over agricultural production. Farmers will still be employed by the MNC and farmers can lease their land. The advantages are clear- there is no problem of lack of credit, insurance or marketing that clearly the state faces.

One could ask of course, what about the marginal farmer, the subsistence farmer? My answer is what is the situation of the marginal or subsistence farmer now? The state does not care about them in any case, because they do not contribute the GDP in any case. Under a corporatised system, the productivity of a famer might actually be the bridge between subsistence and low profits.

From an ethical perspective, it is completely unfair for 2/3rds of the population to be **always** left behind in a 9.2% growth. Let the government stand counter-guarantor to land leases. The point is not to replace a public monopoly with a private monopoly or to allow for a cartel to develop and dictate prices– which is why rule of law and a regulatory framework is vital.

One only has to look at why FDI in retailing is opposed in India. The argument is that small business holders will lose out, these are Kinara shops. Let me ask, what percentage of the population are small business holders anyway? There is evidence that Walmart (when it entered new markets) caused prices to drop by whopping 15 to 20% in places, this is a significant benefit to everyone not just the upper-middle class!

Ultimately it all boils down to the Kaldor-Hicks criteria, which says that an outcome is more efficient if those that are made better off could (in theory) compensate those that are made worse off and lead to a Pareto optimal outcome. All public policy benefits one section over another. The art and science lies in juggling the relative priorities. Efficiency as a criterion for social justice suggests that though some may suffer a bit, progress is still progress.

The Indian story of a country with billion strong population, facing severe under-employment in some sectors and over employment in another, is the story of a paradox like no other. How is that for a theory of agricultural justice?