Rural Entrepreneurship through Restructuring State Finances: A Note for Policy

Subrata Dutta

If India's rural economy is considered to be demand deficient (due to low per capita income) then there is the need to raise the level of income of rural people through encouraging rural economic activities (both agricultural and non-agricultural); rural entrepreneurship needs to be encouraged. Better rural infrastructure removes supply-side bottlenecks and helps enterprises to grow. For rural infrastructure not only the level of capital outlay has to be increased, but a clear-cut policy also needs to be adopted. If a significant proportion of the capital outlay is diverted towards infrastructure in 'core' urban areas, mitigation of income disparity between rural and urban areas will continue to remain a far-cry.

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Demand Deficiency or Supply-side Bottlenecks?

In this paper we are concerned with the problem of how to woo small-scale entrepreneurship in rural India through restructuring of state finances. Rural India is often characterized as a demand deficient economy and thus often fails to offer conducive environment that would promote growth-induced local entrepreneurship. Let us first try to understand the demand mechanism in the rural sector in a simplistic manner and this would help us to delve into the discussion further. Here we follow Rakshit (1983) and construct an equation of aggregate demand for non-agricultural products. Let us divide our rural economy into two sectors — agriculture and non-agriculture. It is generally considered that our rural economy is a labor-surplus economy.[1] The urban sector is excluded from this model. In our rural economy, demand for the

[1] In a labor-surplus rural economy, "employment of more labor (or extra production) in the non-agricultural sector does not call for any decrease in output in the agricultural sector; and …. increased employment of labor (under the wage system) does not involve any increase in the wage rate, w" (Rakshit, 1983: 19).

products of non-agricultural sector generates from three sources: the peasants, the landlords and the rest (i.e. the whole non-agricultural community).

The peasants spend the whole of their income for two products — agricultural products and non-agricultural products. For agricultural products, they spend a fixed fraction, α, of their income, while they spend $1-\alpha$ for non-agricultural products. Let us consider that the individuals do not save and only family labor is used by the tenants. If the wage rate, w, is fixed and N is the number of employment, then peasants' income is given by wN. Thus, the peasants' demand for non-agricultural products is expressed by:

$$wN(1-\alpha)$$

Since the total agricultural output, X, is distributed between landlords and peasants in terms of 'corn', the landlords' income can be expressed as $X-wN$. The landlords spend a fixed fraction, β, of their income for agricultural products, and they spend $1-\beta$ for non-agricultural products. Hence, the landlords' demand for non-agricultural products is given by

$$(X-wN)(1-\beta)$$

Now, if the income of the working population other than the peasants and the landlords is denoted by Y and if these people spend a fixed fraction, γ, of their income for agricultural products and $1-\gamma$ for non-agricultural products, then their demand for non-agricultural products is expressed by

$$Y(1-\gamma)$$

Now, aggregate demand, E, for non-agricultural products can be obtained by adding the above three components:

$$E=wN(1-\alpha)+(X-wN)(1-\beta)+Y(1-\gamma)$$

In rural economy, growth in agricultural income would lead to growth in demand for non-agricultural products (at least, by those who are not in acute poverty). For example, if incomes of landlords and peasants (i.e. wN and X-wN) go up, that would reflect on the demand for non-agricultural products. So, there is clear-cut and direct linkage between agriculture and non-agriculture. But, growth in agriculture is often constrained by lack of proper infrastructure such as irrigation, electricity, roads, banking, etc. However, if growth in agricultural income leads to growth in E , then E would, in turn, lead to growth in Y (since a part of Y comes from local non-agricultural entrepreneurship). This means, a part of increase in E will be responded by an increase in local (rural) non-agricultural entrepreneurship. However, as far as non-agricultural entrepreneurship is concerned, the issue of shortfall of proper infrastructure again comes in. That is, growth of both agricultural and rural non-agricultural activities is partly and crucially contingent upon the condition of rural infrastructure. More importantly, whether solution to demand deficiency

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lies in removal of supply-side bottlenecks is a feasible proposition and thus key to rural economic development as far as policy matters are concerned.

Rural Infrastructure &Rural Entrepreneurship

If India's rural economy is considered to be demand deficient then what should precisely be done to remedy the situation? A simple answer is that there is the need to raise the level of income of rural people through encouraging rural economic activities (both agricultural and non-agricultural). However, for this, supply-side bottlenecks have to be removed from the rural areas. It is likely that there is a positive correlation between the problems of supply-side bottlenecks anddemand deficiency. The former induces the latter. How? For example, if rural economic activities are not supported by removing supply-side bottlenecks — i.e. poor rural infrastructure such as inadequate irrigation system, inadequate power supply, poor or limited roads (in other words, poor links between production centers and markets), inadequate growth centers (markets), limited storage, inadequate small-industrial clusters, poor transportation system, poor communication, etc. — then the process of elevation of levels of income of rural population gets grossly inhibited. The supply-side bottlenecks deprive many local opportunities as well as local talents from flourishing. In similar vein, low level of supply of rural produces may cause inflationary pressure to go up. Also, inclusion of rural economic activities into different types of value chains — which have been opening up due to the effects of liberalization and globalization — may get constrained. In this context, Sidhu (2005: 3058) argues that "strategies for diversification of agriculture would [need] a separate road map for value addition and processing in the fruits and vegetable sector. The creation of infrastructure for preservation, cold storage, refrigerated transport, rapid transit, grading, processing, packaging, and quality control would be the key area for such strategy." There should be substantial emphasis on improving and strengthening domestic economy. An economy which has a strong and growing domestic market is not grossly affected when there is turmoil or depression in external economies. A dualistic economy with two different sectors — one, urban-linked sophisticated large industry sector, and, two, poorly developed rural sector — needs adequate alterations so that rural economic activities can grow faster and stronger and thereby contribute to develop a robust domestic economy. If rural areas are endowed with adequate infrastructure, rural economic activities may get strengthened. Also, these activities may connect themselves with different routes of new possibilities (e.g. new technologies, new markets, new value-chains, etc.). Furthermore, for rural economic progress, the scope of rural transformation process — from agriculture to non-agriculture — is required to be enhanced. This would increase employment opportunities in rural areas, especially in rural growth centers and small rural towns (Mellor, 1976; Bendavid-Val, 1991). Since agriculture has limitations in absorbing uninterrupted flow of huge labor, transformation of out-

put structure from agriculture to non-agriculture in rural areas is considered instrumental due to much greater labor absorption capacity of non-agriculture through division of labor (Smith, 1776). However, in such a process of transformation, processing industry based on agriculture, horticulture, and floriculture is expected to play an important role and, therefore, also needs to grow. For all this, rural entrepreneurship needs to be encouraged. However, rural entrepreneurship is a function of rural infrastructure. Better rural infrastructure removes supply-side bottlenecks and helps enterprises to grow.

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Let,

$$R_{ent} = f(R_{infra})$$

where R_{ent} stands for rural enterprise sector and R_{infra} stands for rural infrastructure.

But, how to finance rural infrastructure? Due to relatively very low return (and consequently slow recovery of costs), private sector is not keen to invest in rural infrastructure. So, public sector may play an important role in this (Dasgupta, 1993). The higher the level of capital outlay, the higher the possibility of public investment in rural infrastructure. Here, we assume that the increased part of capital outlay (CO) will not be fully invested in "core" urban areas. Thus,

$$R_{infra}=f(CO)$$

State Finances & Rural Infrastructure

Rural infrastructure consists of both physical and social infrastructure. Physical infrastructure includes road, electricity, dams, bridges, cold storage, warehouses, R & D centers, incubation centers, innovation centers, banking, etc., whereas social infrastructure includes health centers, schools, colleges, management institutes, and vocational/technical training centers, among others. Their availability is a precondition for the growth of anonymous markets, and for the production and distribution of raw materials and outputs (Rogers & Shoemaker, 1971). Thus, infrastructure entails huge investment, for which, as already indicated, greater capital outlay from public exchequer is required. But, before we try to understand the mechanism of financing permanent public asset or infrastructure through state funding, let us first present a brief overview of overall pattern of state budget. The patterns of expenditures and revenue receipts are as follows.

If we consider

Total expenditure = TE
Revenue Expenditure = RE
Capital Expenditure = CE
Revenue Receipt = RR
Tax Revenue = TR (including share of central taxes)
Non-Tax Revenue = NTR
Central Grant = CG

then the total expenditure (TE) and revenue receipts can be written in the form of following two equations:

$TE = RE + CE$

$RR = TR + NTR + CG$

Three types of budget equations, as we know, are as follows:

Balanced budget $\rightarrow TE = RR$

Deficit budget $\rightarrow TE > RR$

Surplus budget $\rightarrow TE < RR$

However, we may want to revise the above three budget equations. More specifically, we may want to replace TE by RE. The reason is that we need to divide the whole budget between revenue account and capital account. If there is any surplus on revenue account, that can feed the capital outlay. Before the FRBM (Fiscal Responsibility & Budget Management) Bill was enacted, most of the states had been running in deficit on their revenue account. Consequently, the expenditure consisting of the whole capital outlay and the revenue deficit part was to be financed by borrowing. The post-FRBM situation is quite different. Since surplus revenue is being generated, the states are able to finance a part of their capital outlay from their own revenue; and thus either they are in a position to reduce the burden of borrowing, or increase the size of capital outlay, or both. Let us try to understand the situation in further detail.

As indicated above, if we divide the whole budget into two parts, i.e. revenue budget and capital budget, and would like to show the revenue budget only, we get

Balanced budget $\rightarrow RE = RR$

Deficit budget $\rightarrow RE > RR$

Surplus budget $\rightarrow RE < RR$

As already said, deficit budget leads to borrowing, and consequently to debt accumulation, whereas a surplus budget in revenue account helps build fund for capital outlay, i.e. development of infrastructure. A rural development policy can be adopted which would prefer to use such capital outlay for building infrastructure in rural areas which greatly fall short of many basic amenities. If this spending policy is biased towards core urban areas then rural economy will continue to lag behind urban economic growth.

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Now, while defining revenue deficit (RD) and fiscal deficit (FD), we can write:

$RD = RE - RR$ = Borrowing

$FD = RD + CO + NL$

Thus, FD determines the size of borrowing. However, in case of revenue surplus situation, we can revise the FD equation and write:

FD = a part of $CO + NL$

because the other part of capital outlay is funded by surplus revenue. If the amount of this surplus is sufficient enough to finance the entire capital outlay, then FD can be expressed as:

$$FD = NL$$

If net lending (NL) is in balance or surplus then there is no need for borrowing at all. And the state has greater resources for various kinds of spending, including rural infrastructure. Thus, restructuring of state finances needs to be carried out with the objective of growth of rural economy.

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If rural infrastructure is emphasized, rural economy will be boosted through generation of new economic activities in remote places. Urban India contributes over 55 per cent of the country's GDP (Government of India, 2009) whereas majority of population live in rural areas. Income disparity between rural and urban areas needs to be eradicated by raising the level of income in rural sector. A structural shift is required, for which structural adjustment in public budget may be instrumental. Furthermore, budgetary adjustment should be favorably directed towards rural sector. Thus, structural shift in expenditure pattern (towards higher capital outlay as well as rural infrastructure) will lead to structural shift in income pattern (towards rural areas). When we talk about "structural shift in expenditure pattern", we do not necessarily mean a cut in expenditure in urban sector for greater investment in rural sector. Rather, we would like to emphasize a saving in overall revenue account (through innovative means) and then investment of a considerable part of that surplus revenue in rural infrastructure through higher capital expenditure. Thus, the share of rural income in GDP would go up since rural infrastructure is expected to connect the rural production centers with the value chain that appears to exist throughout a long route starting from the nearest small town to the global level. If the level of rural income goes up, the phenomenon can be characterized as a kind of "inclusive growth" and such a situation, in turn, will have a positive impact on state's exchequer due to the following functional relationship:

$$S_{OTR} = f(R_{ent})$$

where S_{OTR} is a state's own tax revenue. Thus, a virtuous circle is expected to set in motion in the economy. This is as follows: higher capital outlay enhances the level of infrastructure in rural areas. Higher level of infrastructure induces rural economic activities (both agricultural and non-agricultural) to grow and flourish. In consequence, the level of rural income goes up. This, in turn, has a positive reflection in state revenue. The increased revenue is then spent for further development.

The Way Forward

Once some fund is generated for rural infrastructure that can be then spent

for different purposes such as rural roads and transport, water and sanitation, power, telecommunication etc. But, how to select a geographical area for allocation of the money? Since the government has limited resources for spending on rural projects in a particular geographical area (say, a district), potential districts can be ranked according to the economic benefits that would be generated and the social equity weights. The social equity right reflects the level of poverty in the community which is going to be benefited by the rural infrastructure project. The greater the poverty, the greater the social equity weight.

Now, following NCAER[2] (2007), the decision of selecting a district for a particular rural infrastructure project (say, road project) is expressed by the priority index (P_i):

$$P_i = S_i B_i N_i$$

Where subscript *i* stands for the road project, *S* for the social equity weight, *B* for the estimated economic benefits to be generated by the project and *N* for the population to be benefited by the project. Once the priority measures for potential road projects for all the districts are estimated, then the districts can be ranked according to their priority index. The government would then select the district which has ranked first for providing the finances. In this way, it continues to select projects and provide finding until the entire budget kept for this purpose is spent.

[2] NCAER stands for National Council of Applied Economic Research.

If certain pricing rules are fixed by the local authority (Panchayat Samiti or Jilla Parishad), then a part of the maintenance cost can be borne by the local authority, the rest being borne by the state government with a provision of raising revenue by general taxation.

Concluding Remarks

We need to keep in view that such structural adjustment, if not done properly, will have adverse impact on rural economy. For example, it is not imperative to focus on physical infrastructure only; rather social infrastructure deserves similar attention. Any compromise with education and health would result in unfavorable productivity consequences, even if a region is endowed with adequate physical infrastructure. In that case, suitable labor has to be hired/imported from other geographical regions. This may hamper the growth of employment in local area. In this respect, we need to mention that building up of social infrastructure would not only require capital expenditure, but also revenue expenditure. For example, if a government builds a school or a hospital, it has to keep adequate annual financial provision in its budget for the running of such institutions. A hospital or school or college will have to incur regular expenditure for its employees and many other purposes. Thus, essential revenue expenditure in

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social sector cannot be curtailed just for the sake of achieving surplus on the revenue account. However, if required, the unnecessary expenditures may be identified and curtailed through strict austerity measures.

References

Bendavid-Val, A. (1991), Rural Area Development Planning: Principles, Approaches and Tools of Economic Analysis (Vol. 1); Rome: Food and Agriculture Organization (FAO) of the United Nations.

Dasgupta, Partha (1993), An Inquiry into Well-Being and Destitution, New York: Oxford University Press Inc.

Government of India (2009), India: Urban Poverty Report, New Delhi: Government of India (Ministry of Housing and Urban Poverty Alleviation) and Oxford University Press.

Mellor, John W. (1976), The New Economics of Growth: A Strategy for India and the Developing World, NY: Cornell University Press.

NCAER (2007), India: Rural Infrastructure Report, New Delhi: Sage Publications.

Rakshit, Mihir (1983): The Labor Surplus Economy: A Neo-Keynesian Approach; USA: Humanities Press Inc.

Rogers, E.M.& F.F. Shoemaker (1971), Communication and Innovations, New York: Free Press.

Sidhu, M.S. (2005), "Fruit and Vegetable Processing Industry in India: An Appraisal of the Post-Reform Period", *Economic and Political Weekly*, 40, July 9: 3056-61.

Smith, Adam (1776), An Inquiry into the Nature and Causes of the Wealth of Nations, London: Methuen and Co. Ltd.