"A STUDY OF RESOURCE TRANSFERS FROM AGRICULTURE WITH SPECIAL REFERENCE TO GUJARAT"

ABSTRACT

I. The Context

India, as a developing country has experienced structural transformation. This is characteristic of modern economic growth. Inter-sectoral resource transfer is one of the important manifestations of this process of structural transformation. The literature on economic development which emphasises the dual character of development process has explicitly recognised the importance and necessity of these inter-sectoral resource shifts, largely on grounds of inter-sectoral productivity and technological differentials. The historical analysis of the process of modern economic growth provides evidence for an increasing share of non-agricultural sector in various dimensions of economic performance. As a result, inter-sectoral resource transfers have favoured non-agricultural sectors as a part of a deliberate design of Governments' economic policies. This tendency has led to a number of scholars to study implications of distortionary effects of the working of the strategy
of economic development biased towards industry. This has given rise to a lively debate on the nature, size and effects of resource transfers from agricultural sector to other sectors of the economy. The debate still persists and empirical evidence from various developing countries in this regard is under active scrutiny.

No systematic study at sub-national level has been undertaken so far. The present study attempts to investigate into some mechanisms through which resource transfers have taken place in a relatively developed state of Gujarat during 1961-62 to 1977-78. The basic hypotheses of this study are as under:

(i) The growth process in a developing economy is characterised by rising inter-dependence between agricultural and non-agricultural sectors reflected in rising inter-sectoral transfers of resources.

(ii) The increasing importance of non-agricultural sector in growth process leads to deterioration of agricultural sector's gains in resource transfer mechanism.

(iii) The changes in inter-sectoral transfers of resources are explained largely by technological considerations and partly by improvements in relative terms of trade.
(iv) Net transfer of resources to agricultural sector is positively influenced by prosperity of non-agricultural sector and negatively influenced by prosperity of agricultural sector.

(v) Compared to non-agricultural sector, agricultural sector is over taxed and budgetary operations of Government have been relatively beneficial to non-agricultural sector.

II. Approach and Methodology of the Study

To examine these above mentioned hypotheses in detail the following important types of resource flows have been analysed.

a) flow of consumer goods, producer goods and net inter-sectoral flow of these two,

b) sectoral income transfers through shifts in terms of trade between sectors,

c) sectoral flow through tax mechanism and plan expenditure.

This study is largely based on the secondary data collected from various Government and non-government agencies such as Bureau of Economics and Statistics, Government of India, National Sample Survey, Central Statistical Organisation.
Some of the methodological aspects taken into account in estimating various types of resource transfers are briefly stated as under:

a) **Net Flow of Consumer and Producer Goods**

The flow of commodities between agricultural and non-agricultural sectors involves the building up of the flows of consumer goods, intermediate goods and capital goods. Mundle, has described this as the balance of trade approach. In estimating the inter-sectoral flow of consumer goods for Gujarat some of the deficiencies of methodology of Mundle's balance of trade approach have been rectified by adding indirect tax burden of agriculture sector to net flow of consumer goods.

For the inter-sectoral flow of producer goods the time series of input-output coefficients were constructed and using the official estimate of SDP for corresponding sector the time series of inter-sectoral flow of intermediate goods were derived. By adding the flow of investment goods from non-agriculture to agriculture (for which independent estimates are available) the estimate of total inter-sectoral flow of producer goods is finally derived.

By adding estimates net transfer of consumer goods to the corresponding estimates of net transfer of producer goods, an estimate of inter-sectoral trade surplus is obtained. Some propositions advanced by Sudipto Mundle on its determinants are also tested for Gujarat economy.
b) **Terms of Trade Changes.**

In the sectoral terms of trade analysis an attempt is made to see how the sectoral distribution of income between the two sector stands in Gujarat caused by changes in gross terms of trade. In estimating net sectoral terms of trade, Kahlon and Tyagi used a more elaborate methodology and attempted to reduce the shortcomings of the earlier estimates. The present study is following more or less the methodology used by Kahlon and Tyagi with some modifications necessitated by restricted data availability at regional level.

c) **For Government's Budgetary Operations**

In this study taxable capacity, tax burden and flow of benefits from public expenditure are taken into account. First, per capita taxable capacity of both the sectors is worked out and then to see which sector has the capacity to bear additional taxation we examined relative per capita tax burden ratios. The study of per capita public expenditure benefits on both the sector is also included. If one has to make such an attempt a large number of methodological problems arise. However, in the present study for Gujarat methodologies of various recognised studies were taken into consideration to work out the burden-benefit distribution between agricultural and non-agricultural sectors.
Finally, linear, cubic and quadratic trend curve are fitted for a time-trend analysis in the different aspects of resource flow study.

III. Some Conclusions

In the present study some selected aspects of resource transfers from agricultural have been studied. The following conclusions emerge from the empirical analysis:

1. The agricultural sector has been an increasing importer of consumer goods while non-agricultural sector has not imported agricultural goods to same extent. The net inflow of consumer goods to agricultural sector although is positive and increasing through passage at time, forms a declining percentage in total consumer expenditure of Gujarat economy.

2. The net transfer of producer goods to agricultural sector reveal a picture of declining dependence of non-agricultural sector and increasing dependence of agricultural sector on non-agricultural sector. This seems to be the effect of diversification of industrial sector in new lines of production. The net outflow of producer goods in agricultural sector is positive through
out. It is positive initially and turns out to be negative in later period as a result of a "Scissor's movements" which is attributable to reversal of movement of technological input-output coefficients in the two sectors. The analysis of the inter-sectoral flow of producers goods underlines the importance of technological interdependence in determining the quantum and direction of resource flows.

3. The analysis of the terms of trade indicates the tendency of fluctuations of favourable terms of trade in agriculture followed by unfavourable periods. The diverse sectoral impact seems to be influencing the movements of terms of trade through their market and institutional pressures.

It is observed that prices of industrial raw materials supplied by non-agricultural sector has not increased faster than prices of food crops contrary to the general findings of other empirical study.

4. It is observed in the analysis of implications of Governments' budgetary operations in all respects viz., taxable capacity, tax burdens and expenditure benefits, the non-agricultural sector is ahead of agricultural sector. However, in
relative terms the relative advantage of non-agricultural sector in taxable capacity is not appropriated as indicated by lower tax burden ratios. In fact the empirical analysis reveals a much larger scope to tax non-agricultural sector to attain inter-sectoral equity in tax burden.

5. The results of empirical analysis undertaken so far adequately supports the view that agricultural sector has not gained relatively in the process of economic development. There are some tendencies which may cause concern for the growth of agricultural sector in future. The declining importance of net consumption goods in agriculture, declining dependence of non-agricultural sector on agricultural sector for supply of intermediate goods, relatively larger and growing tax burden to taxable capacity ratio and lesser benefits from expenditure programmes to agricultural sectors are some of the findings which may require thinking on policy changes on the part of Government. The conclusions emerging from present study and the results of determinant analysis provide a verification of the hypotheses stated earlier.
IV. Policy Implications

The instability and fluctuations experienced by agricultural sector is one of the principal factors in preventing this sector from taking advantages of increasing production and productivity. The area of policy intervention have to be in the following direction:

1. For ameliorating the adverse effects of fluctuations in agricultural sector through income and price support policy, a more conscious procurement price policy and effective crop insurance scheme would help effectively in this respect.

2. Emphasis on promotion of agro-based industries in small scale sector will help agriculture not only in finding market for their commercial product but also provide a means of employment and supplementary income in rural areas. Emphasis on such activities as dairy industries and poultry farming may also help in this respect.

3. For helping agricultural development, Government can initiate programme for input-subsidization so that smaller and marginal farmers too, can also take benefits of the programme. This will help in reduction of inequality in the distribution of income and wealth in rural sector.

4. Agricultural sector suffers from the disadvantage in marketing of their products and purchase of
goods because of wide trade margins. Effective and wide ranging co-operativisation in agriculture, especially in marketing of agricultural inputs and outputs will considerably help the agricultural sector.

5. The evidence from analysis of Government's budgetary operations, necessitates a more equitable tax policy which will require reduction in tax burden on agriculture and matching of expenditures with objectives of agricultural sector's development requirements.
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