CHAPTER - I

INTRODUCTION
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Rice is the major staple food crop of India. It accounts on an average for 39 percent of the total area under cereals and 31 percent of the area under foodgrains. It also occupies 22 percent of the gross area sown in the country. Paddy may be raised in all the three seasons viz. Kharif, Rabi and zaid. The Kharif is the main paddy raising season and accounts for nearly 48 percent of the total production. The autumn crop commands 45 percent of the area as well as production. The share of the summer crop has been nearly 5 percent in area and 7 percent in production. The study conducted by the Programmes Evaluation organisation in 1968-1969 conclude that the rate of the adoption of High Yielding varieties was 54 percent (cultivators) in Rabi Season and 28 percent
(cultivators) in Kharif Season. High Yielding varieties commanded nearly 51 percent of the area under Rabi and 22 percent of the area under Kharif paddy. Due to adoption of H.Y.V. of paddy the irrigated area has increased by 17 percent, during the decade 1960-1961 to 1970-1971. The increase in the cultivated area under paddy was 9 percent during the 1961-62 to 1971-72. Simultaneously, the adoption increased the fertiliser consumption from 70 thousand tonnes (N.P.K.) to 2740 thousand tonnes in 1972-73. All these factors thus lead to an all round growth of paddy as 1.08, 0.77 and 1.10 per cent in production, area and yield, respectively.

Thus, paddy has assumed a Significant place in the crop calendar of the nation. In view of adoption of High Yielding varieties of paddy associated with the very large area under the crop, the disposal of paddy poses innumerable problems. The extent and pattern of disposal of paddy as a major food crop is not only important in the context of economic development, but also, it has influenced the relationship between the rural and urban sector of the population. The major impact of disposal of paddy could be visualised into these broad direction of economic development. (1) it would contribute to the capital formation in non-agricultural sectors by the farmers, (ii) This would help in raising the living standard of farm population by making
available the industrial goods for consumption purposes, (iii)
Finally, it would lead to higher investment in agriculture in
the form of crucial inputs as well as farm equipments to raise
the productivity of the land, thereby, increasing the
propensity to save and invest, so necessary for a balanced and
steady economic growth.

In Uttar Pradesh, paddy is grown mainly in Eastern
central part of the state. The area under paddy is 5.14
million hectares which is about 23% of the total food grain
area. The production of paddy in this state is 5.96
milliiontons. In Varanasi, paddy is one of the most important
food crop and occupies a very significant place in the
agrarian economy of the district. The production is set
in motion and action to serve one ultimate objective, that is, to
satisfy the countless need and desire of the cultivators and
the human races. Production of commodity has no meaning unless
they are exchanged profitably for money. In other
words, maintenance of equilibrium between production and
distribution is necessary. This will ensure economic stability.

In case of agricultural commodities, the distribution
system depends mostly on production and thereby the surplus
left after meeting the different needs of the cultivators.

It is in view of the increasing importance of marketable
surplus of farm produce the present study has been undertaken to examine the various economic factors associated with the problem. This would be one of the chief endeavour to Study the nature of relationship between the volumes of production and the extent of marketed and marketable surplus on different categories of farms.

CONCEPT

Marketed surplus refers to the sale by the producer sellers either for cash or for other commodities of necessity on barter. It is different from marketable surplus in as much as it includes quantities to be purchased back by them later in the year. The total production minus farmer's retention for seed, wages, personal consumption etc. is equal to marketable surplus.

The panel of experts pointed out on the basis of the recommendations of the Price variation enquiry committee 1956, that the arrivals from producing area out of the new crop as the measure of marketable surplus. Market arrivals in so

for as it relates to the quantities sold, represented the marketed surplus and not marketable surplus to be sold under normal circumstances after meeting the consumption and the requirements of the cultivators.

Marketed surplus may be less than equal to, or more than the marketable surplus depending upon the external factors operating on the market economy. Only in the situation where there are no distress sales along with the price stability, marketed and marketable surplus can be equal. On the other hand, when the farmers might have anticipated higher price or they anticipate a lean agricultural season for which they would like to provide for themselves, the amount actually sold may be less than the amount they could sell. This might be true in the case of large farmers, who have retaining capacity and have large surplus to sell and could retain a part of it. Marketed surplus could be more than marketable surplus, when the farmers sell their produce in distress. Cash need force them to sell a part of their unsalable produce. The amount, which is sold in post-harvest months at low prices, are again bought back by the farmers for their consumption purposes in off season at higher prices.

Three sub of sectors could be distinguished within the agricultural sector of a developing economy. Viable sub-sector of large holdings with new technology where the normal income
offers adequate living standards. Response to relative price changes is normal, so the farm prices should offer higher incentives for higher production. The other one is the subsistence sector of small holdings unaffected by new technology, normal income or inadequate even to offer quantitatively adequate diets. With lower farm prices the standard of living and maintenance of land and equipment have deteriorated. This has caused permanent harm to land, cattle and men. The relative prices have a strong influence also in this sector on production. In between these two, exists medium holding sector, whose behaviour seems to be between the viable and subsistence sectors as far as the marketed surplus was concerned. Some medium sized cultivators who are unaffected by the new technology, too, have no holding capacity and a majority of them were forced to sell just after the harvest. The remaining farmers of this group who are adopters of new technology, attempted to store something more than it is necessary for their own needs, with the hope that selling this surplus on some future date at better prices than what it is prevalent at the time of harvest.

The influence of distance of farms from the market on marketed surplus is mainly indirect through its influence on production be due to (1) Cost of transportation giving rise to price differential (2) external capital rationing being
severe in places away from the market centre and (3) lack of 
market information in distant places. This traditional 
marketing channel are typically effective in transmitting 
price information, where the information of price can by a 
word of mouth reach the farmers as the distance involved is 
not large.

"Surfaced roads appear to be important in explaining productivity and income differences among districts...... The absence of roads in heavy rainfall areas, such as, Eastern Rice Region has the effect of raising input prices paid by them due to higher transportation costs. Also the elasticity of production on surfaced roads is more than (about 0.208) those farmers which are not on the surfaced roads. Output of other crops would also increase due to situation of farms on the surfaced roads. Moreover, the supply of marketing

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service would be readily available to farms on the surfaced roads. For example, the storage facility may become more specialised, and the method of transportation may become more capital intensive. Some hypothetical cases could take place by the interaction of marketing services supply curve and farm supply caused by the development of surfaced roads.

(A) The market supply curve shifted, but not the farm supply curve. Assumed that the development on surfaced roads, decreased the marketing costs, but did not affect the input prices. As a result product price had decreased in urban areas and increased in rural areas.

(B) The farms supply curve had shifted but not the marketing supply curve. Assumed that more roads decrease input prices but had no affect on marketing costs as a result product prices had decline both in rural and urban areas.

(C) Both farm supply curve and marketing services supply curve had shifted, the impact was that farm prices remained unchanged. As a result, farm prices of output did not change, but the urban price of the products had decreased.

7. Ruttan, V.W. op.Cit.
Considering the result obtained under assumption (a) was that more roads had resulted in greater output. This was assumed to occur only because the increase in roads had increased the cost of transferring products from the farm to non-rural consumers. The situation would lead to a loss of consumer surplus in rural areas but more gain would be in economic surplus.

The above situation which is analysed by the authors are of micro-economic nature. The higher marketing cost could be considered a problem even at the micro-level, if a cross-sectional study be considered where the farms were located very near to the market and distant from the markets. Besides, the good conditions and developed roads do not exist. In these two situations, first output of the paddy will be more in nearer farms than on distant farms. This had taken place due to more accessibility to inputs of traditional nature, irrigation, fertilizer etc. Secondary, nearer farmers would be more efficient in reducing the marketing cost than those of distant farms. Transportation cost would necessarily differ between the two farms, due to the bad condition of surfaced roads and distance from the market. The nearer farms could be in a perfect competitive condition as they would confront a large number of market functionaries to unload their produce and also the marketing cost be much less
whereas, the distant farms would face an oligopsonistic competition (i.e.) large number of sellers and few market functionaries, in the villages. Thus changes of price discrimination would be always more in this situation in addition, the factors which will effect the marketed surplus in the two situations were, production, family size, size of farms, consumption, farm income and level of prices.

Thus, the present study intends to analyses the nature and extent of marketed and marketable surplus of paddy in district Varanasi of U.P. under different situations on different categories of farms.

OBJECTIVES

The present study had the following specific objectives.

1. To examine the different factors affecting the marketed and marketable surplus of paddy at the farm level.
   (i) Volume of production
   (ii) Size of farms.
   (iii) Consumption habit.
   (iv) Level of prices.
   (v) Extent of adoption of new technology.

2. To study the following factors at the farm level in mobilising the surplus.
   (i) The involvement of different agencies in the disposal
of paddy.

(i) Transportation, its modes and cost involved in marketing of paddy in relation to the choice of agency and the venue of sale.

(ii) The available storage facilities in the area of study.

3. To determine the relationship of marketed and marketable surplus with the help functional analysis.

HYPOTHESIS

On the basis of the review of literature the following hypotheses have been formulated and are proposed to be tested in the present study under the different category of farms.

(1) Marketed and marketable surplus are positively related to the volume of farm output.

(2) Marketed surplus increases with:

(i) The increase in size of farm.

(ii) The higher level of prices.

(iii) Increase in the adoption of new technology.

(iv) Smaller size of families.

(3) Marketable surplus is poorly mobilized due to:

(i) Poor transportation condition, higher costs involved in it.

(ii) Inferior facilities of storage.

(iii) Other marketing facilities like agents, wholesalers, resident agents, co-operative organization and the
facilities of market information at the village level.

**Sampling Design**

In order to examine the objectives and to test the formulated hypotheses a multi stage stratified random sampling has been adopted for the purpose of the study.

**Selection of Block**

There are 22 development blocks in the district of Varanasi. Out of these, Chandauli block is one of the most progressive block in which paddy is grown as the most important crop enterprise. The block is closely connected with the city of Varanasi and is one of the two blocks in the district of Varanasi where intensive agricultural area programme in respect of paddy is in operation. The soil of the block is plain, fertile and well served by a network of canals, providing a secure system of irrigation. It has been recognised as one of the most suitable and potential area for paddy cultivation. The block is very well served by two of the major Regulated markets of the district. Thus the chandauli block has been purposively selected for the study of this nature. The higher level of productivity and production is a significant factor for generating marketable surplus.

**Selection of Village**

The selection of villages were made by stratified
random sampling method. The villages have been stratified into three categories according to proportionate area of paddy as given below:

(i) villages having area under paddy up to 25 per cent of the gross area sown,

(ii) villages raising paddy between 25 to 50 per cent of the gross area sown, and

(iii) villages having 50 per cent or more of the gross area sown under paddy.

Out of the three categories five per cent villages were selected randomly.

SELECTION OF FARMERS

From each selected village a list of owner cultivators was prepared and arranged in ascending order of their operated area and these were stratified into three size groups, i.e.

(i) first size groups below 1.00 hectare,

(ii) second size group from 1.00 to 2.00 hectares and

(iii) third size group from 2.00 hectares and above.

10 per cent cultivators were selected randomly from each size - group. Thus the sample included 140 farmers distributed in three size - groups and located in different parts of the block.

PERIOD OF ENQUIRY

The present enquiry relates to agricultural year 1989-
1990.

SCHEDULES OF ENQUIRY

The following schedules of enquiry were prepared and their suitability were pretested in the area before they were finalised.

i:- Market Schedule

To study the pattern of arrivals of paddy/rice by different agencies.

ii:- Block Schedule

To study the various aspects of socio-agro-climatic conditions in the Chandauli Block of the district.

iii:- Family Schedule

To study the various Agro-economic aspects of paddy specially in relation to the disposal of marketed and marketable surplus by different size of farms.

METHOD OF COLLECTION OF DATA

Primary as well as secondary data have been collected for the present study. The survey method was used for the collection of primary field data. Various books, journals and official records at market, district and block level have also been consulted for the secondary data related to the present study.
COVERAGE:-

The study relates to the district Varanasi covering two markets, one block, Nine villages and families distributed in three size groups and located in different parts of the block.

ANALYTICAL PROCEDURE:-

The primary and and secondary data related to the study have been processed, tabulated and analysed with the help of cross-tabulations. The popular statistical methods in the form of simple averages and "t" tests have also been used. In order to study the impact of different selected variables on Marketed and Marketable surplus of different categories of farms, Suitable functional analysis has also been undertaken.