ECONOMICS SUPPLEMENTARY PAPER A

B.A. PART-I | **LESSON NO.1**
UNIT-I | **ECONOMICS - A**

LAWS OF CARDINAL MARGINAL UTILITY ANALYSIS

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STRUCTURE

1.1 OBJECTIVES

After going through this unit, you should be able to:

- Understand the laws of cardinal marginal utility i.e. the law of diminishing marginal utility and the law of equi-marginal utility.
- Critically evaluate the laws of cardinal marginal utility.

1.2 INTRODUCTION

Utility means want-satisfying power of a commodity. It is also defined as power of commodities which satisfies the wants of the consumers. It is a subjective entity. The desire for a commodity by a person depends upon the utility he expects to obtain form it. The greater the utility he expects from a commodity, the greater is his desire for that commodity. It is ethically neutral e.g. the utility of cigarette to a smoker can't be questioned on the basis of morality, as he gets satisfaction out of it.

1.3 BASIC PREMISES OF CARDINAL MARGINAL UTILITY ANALYSIS

Cardinal utility analysis of demand is based upon certain important assumptions. These are:

1. Cardinal Measurement of Utility

The Cardinal Marginal utility analysis assumes that utility is quantifiable in cardinal terms i.e. 1, 2, 3, etc. So it is possible to show how much utility a consumer is getting after consuming a commodity. It is measured in imaginary units called Utils.

2. Utilities Are Independent

The Marginal utility analysis assumes that utilities of different commodities are independent of one another. ie., the utility of one commodity does not in any way affect that of another. So, the total utility of all goods consumed by a consumer is simply the sum total of the separate utilities of all the goods consumed by a consumer. Thus, according to this assumption, the utilities of various goods are additive, i.e., separate utilities of the various goods can be added to obtain the total sum of the utilities of all goods consumed.

3. Constant Marginal Utility of Money

It is assumed that while marginal utility of a commodity varies with the quantity of the commodity purchased, the Marginal Utility of a commodity is measured in terms of money.

It is considered desirable that the measure itself should not keep changing. So if the price of goods falls and the real income of the consumer rises, the marginal utility of money to him will fall but Marshall ignored this and assumed that marginal utility of money did not change as a result of the change in price. Likewise, when the price of a good rises, the real income of the consumer will fall and his marginal utility of money will rise. But Marshall ignored this and assumed that marginal utility of money remains the same. Marshall defended this assumption on the ground that "his (the individual consumer's) expenditure on anyone thing is only a small part of his whole expenditure." It may be mentioned here that by assuming the marginal utility of money to remain constant as a result of change in price, Marshall ignored the income effect of the price change.

4. Introspection

The Marginal utility analysis also assumes that from one's own experience (judging what happens in one's own mind), it is possible to draw inference about another person. This is self-observation applied to other persons. It is assumed that the mind of men work identically in similar situations.

Given these assumptions, let us now discuss the two laws of Cardinal marginal utility analysis. These laws are:

(1) Law of Diminishing Marginal Utility and

(2) Law of Equi-Marginal Utility.

1.4 LAW OF DIMINISHING MARGINAL UTILITY

Statement of the law:

The law refers to the common experience of every consumer. Suppose a person starts eating a packet of biscuits. The first biscuit gives him great pleasure. The second biscuit meeting with a less urgent want, yields less satisfaction the satisfaction of the third will be less than that of the second; that of the fourth less than that of the third, and so on. The additional satisfaction will go on decreasing with every successive biscuit. It drops down to zero; and if the consumer is forced to take more, the satisfaction may become negative or the utility may change into disutility.

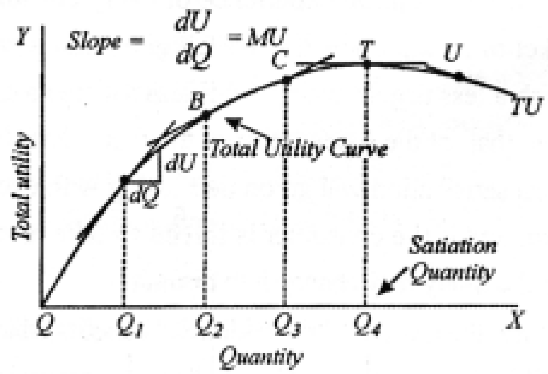
Marshall States the law thus: "the additional benefits which a person derives from a given increase of his stock of a thing diminishes with every increase in stock that he already has". In other words, as a consumer takes more units of a good, the extra utility or satisfaction that he derives from an extra unit of the good goes on falling. It should be carefully noted that it is the marginal utility and not the total utility that declines with the increase in the consumption of a good. The law of Diminishing Marginal Utility means that the total utility increases but at a decreasing rate.

The Table-I presented below shows that when our hypothetical consumer goes on taking biscuits, the extra satisfaction that he gets by the consumption of each successive biscuit goes on decreasing till it goes down to zero at the 6th and then it becomes negative (see colum-3). The total Utility, however, goes on increasing until the consumption of the 5th unit; but it is worth noting that it increases at a diminishing rate.

TABLE –I

UNITS (BISCUITS)	TOTAL UTILITY (UNITS OF SATISFACTION)	MARGINAL UTILITY (UNITS OF SATISFACTION)
1	20	20
2	38	18
3	53	15
4	64	11
5	70	6
6	70	0
7	62	-8
8	46	-16

TOTAL UTILITY AND MARGINAL UTILITY: GRAPHIC REPRESENTATION



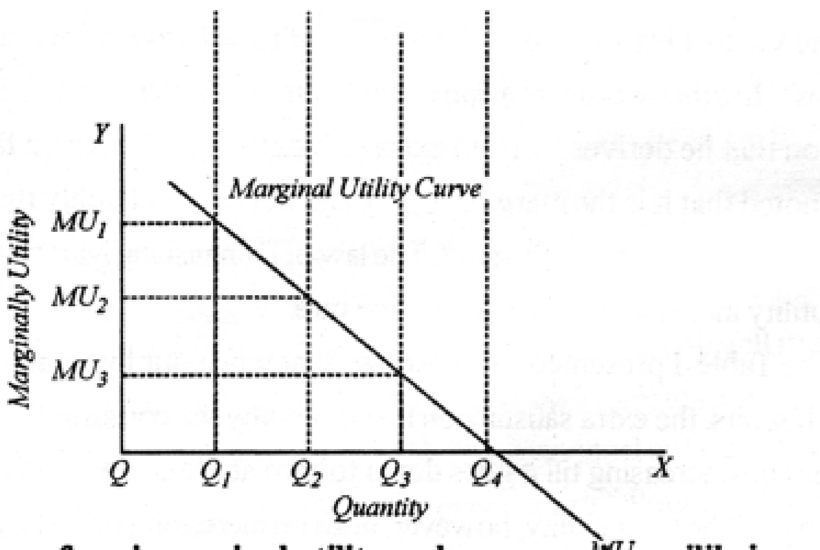


Fig. Law of equi-marginal utility and consumer's equilibrium.

The figure above illustrates the total utility and the marginal utility curves. The total utility curve drawn in the figure is based upon three assumption. First, as the quantity consumed per period increases, the total utility increases but at a decreasing rate. This implies that as the consumption per period of a commodity increases, marginal utility diminishes as shown in the lower panel of the figure. Secondly, as will be observed from the figure that when the rate of consumption of commodity per period increases to Q4 the total utility reaches its maximum level. Therefore, the quantity Q4 of the commodity is called satiation quantity or satiety point. Thirdly, the increase in the quantity consumed of the good per period beyond the satiation point has an adverse affect on the total utility, i.e., the total utility declines if more than Q4 quantity of the good is consumed. This means that beyond Q4, the marginal utility of the commodity becomes negative (as will be seen from the lower panel of figure, beyond the satiation point Q4, the marginal utility curve MU goes below the X-axis indicating that it becomes negative beyond quantity Q4 per period of the commodity consumed.

As we know, marginal utility is the increase in total utility caused by the consumption of an additional unit of the commodity per period. We can directly find out the marginal utility of the successive units of the commodity Consumed by measuring the additional utility which a consumer obtains from successive units of the commodity and plotting them against their respective quantities. However, in terms of calculus, marginal utility of a commodity X is the slope of the total utility function U=f (qx). Thus, we can derive the marginal utility curve by measuring the slope at various points of the total utility curve TV in upper panel of figure by drawing tangents at them e.g., at the quantity Q_1, marginal utility (i.e. $dU/dQ=MU_l$) is found out by drawing tangent at point A and measuring its slope which is then plotted against quantity Q_1 in the panel below of the figure. In the lower panel we measure marginal utility of the commodity on the Y-axis. Likewise, at quantity Q2 marginal utility of the commodity has been obtained by measuring slope of the total utility curve TV at point B and plotting it in the panel below against the quantity Q2. It will be seen from the figure that at Q4 of the commodity consumed, the total utility reaches at the maximum level T. Therefore, at quantity Q4 the slope of total utility curve is zero at this point. Beyond the quantity Q4 the total utility declines and marginal utility becomes negative. Thus, the quantity Q4 of the commodity represents the satiation quantity.

Another important relationship between total utility and marginal utility is worth noting. At any quantity of a commodity consumed the total utility is the sum of the marginal utilities. For example, if the marginal utility of the first, second, and third units of the commodity consumed are 5, 10 and 5 units, the total utility obtained from these three units of consumption of the commodity must equal to 20 units.

This law is based upon two important facts. First, while the total wants of a man are virtually unlimited, each single want is satiable. Therefore, as an individual consumes more and more units of a good, intensity of his want for the good goes on falling and a point is reached where the individual no longer wants any more units of the good. That is when saturation point is reached marginal utility of a good becomes zero. Zero marginal utility of a good implies that the individual has all that he wants of the good in question. The second fact on which the law of diminishing marginal utility is based is that the different goods are not perfect substitutes for each other in the satisfaction of various particulars wants. If the units of one good can satisfy many wants, the marginal utility from it won’t diminish.

1.5 PRACTICAL IMPORTANCE OF THE LAW OF DIMINISHING MARGINAL UTILITY

1. Taxation:

The law of diminishing marginal utility is of great utility in public finance; the progressive system of taxation which means imposing more burden on the rich and less on the poor is based on the law of diminishing marginal utility, as the marginal utility of money is more to a poor person than to a rich.

2. Downward sloping demand curve:

The law of demand is based on the law of diminishing marginal utility. The consumer purchases more units of a commodity only if the price is lowered as higher the stock of a commodity possessed by an individual, lower is the marginal utility of that commodity to the individual.

3. Value-in-use and value-in-exchange:

Free goods like air have great value- in-use i.e. total utility but no value-in-exchange or marginal utility, whereas precious goods like diamond have high value-in-exchange but little value-in-use or total utility. Since price is determined by marginal utility, air is available as a free good and diamond is highly priced.

4. Socialism:

On the basis of this law, the socialists believe that it is desirable to re-distribute the wealth in favor of the poor; the marginal utility of the wealth lost by the rich as a result of redistribution is much less as compared to that of the poor who is going to gain as a result of it.

5. Basis of some economic laws:

Many laws of Economics are based on the law of diminishing marginal utility, e.g., Law of demand, Law of substitution, concept of consumer's surplus, elasticity of demand etc.

1.6 LAW OF EQUI-MARGINAL UTILITY

Every rational person wants to make the best use of resources. This is necessary because resources are scarce in relation to wants. Every consumer aims at getting the maximum possible satisfaction. According to the law of equi-marginal utility, a consumer would so allocate his limited income on the purchase of various goods that maximizes his level of satisfaction. For this purpose, he will substitute the more useful for the less useful things. The law is known by different names like the Law of substitution, the Law of indifference, the Law of economy of expenditure, or the Law of maximum satisfaction. It is called as the Law of substitution as the consumer substitutes more useful things for the less important ones, given the scarcity of resources. At the point of equilibrium, the consumer is indifferent between the various combinations of different goods and the consumer gets the maximum satisfaction. The marginal utility of money spent on different goods is equalized through the process of substitution.

Let us assume a consumer with limited income to be spent on only two goods X and Y. The prices of X and Y are given for the consumer. According to the law of equi-marginal utility, the consumer will distribute his income between goods X and Y in such a way that the utility derived from the last rupee spent on each good is equal. The marginal utility of the last rupee spent on the good (also called as marginal utility of money expenditure) is equal to the marginal utility of the good divided by the price of that good. MUe=MUx/Px

Here MUe means the marginal utility of money expenditure, MUx is the marginal utility of good X and Px is the price of X. In case of more than one good, the consumer will spend his income on different goods in such a way that the marginal utility of each good is proportional to its price. Suppose there are n goods. The consumer is in equilibrium when MUe= MUx /Px= MUy /Py= MUz /Pz= ••••••• MUn /Pn.

The above equation shows that the consumer will go on substituting one good for the other till the marginal utility of money expenditure on each good is the same. At this point, he gets the maximum level of satisfaction and he is in equilibrium.

Let us explain the law of equi-marginal utility with the help of an arithmetic table.

Table-II Marginal Utilities of goods X and Y

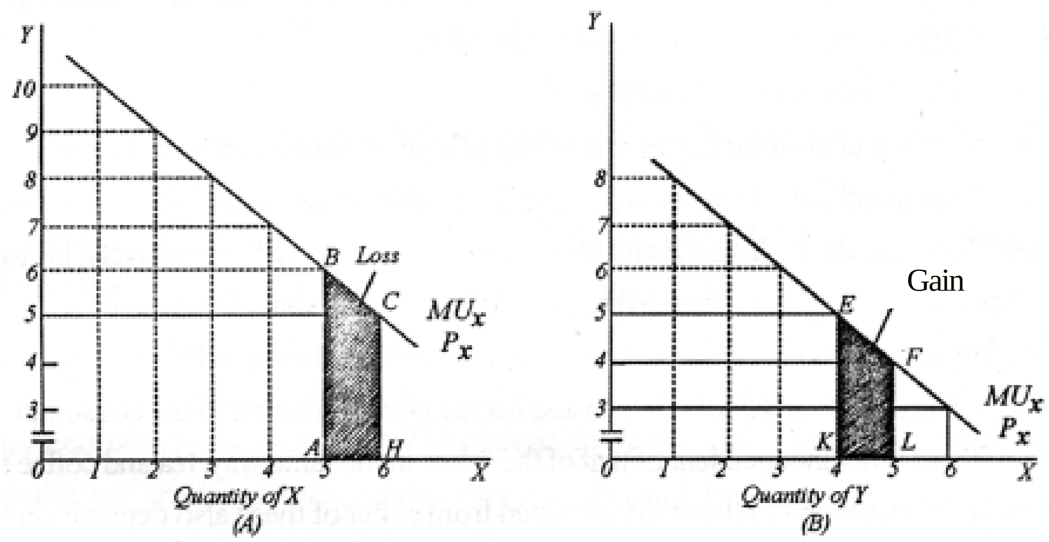
Units	MUx	MUy
1	20	24
2	18	21
3	16	18
4	14	15
5	12	12
6	10	9

Table-II Marginal Utilities of goods X and Y

Units	MUx/Px	MUy/Py
1	10	8
2	9	7
3	8	6
4	7	6
5	6	4
6	5	3

Let the price of X be Rs. 2 per unit and that of Y be Rs. 3 per unit .Let the consumer's income to be spent on the two goods is Rs. 24. The point of consumer's equilibrium is the one where the marginal utility of money expenditure or where the marginal utility of the last rupee spent on these two goods is equal. The above tables show that MUx/Px = MUy/Py =5 utils when the consumer cosumes 6 units of X and 4 units of Y. At this point, the consumer is getting the maximum utility out of his consumption and nothing induces him to move anywhere from this point.

Let us now explain consumer's equilibrium with the help of graphical presentation



The above figure shows that the consumer is in equilibrium when he consumes 6 units of X and 4 units of Y Consumption of one unit less of good X or one unit more of Y will mean loss in total utility. As shown in the figure, consumption of 5 units of X leads to loss in utility equal to ABCH and consumption of 5 units of Y leads to gain in utility equal to the shaded area KEFL. Since the loss in utility exceeds the gain, this rearrangement takes the consumer away from the point of equilibrium. So he will substitute the goods for each other so as to reach his point of equilibrium.

1.7 CRITICAL EVALUATION OF THE CARDINAL MARGINAL UTILITY ANALYSIS:

The cardinal utility analysis of demand has been criticized on the basis of the following grounds:

1. Unrealistic Assumption of cardinal measurability of utility

According to the marginal utility analysis, utility can be measured in absolute, objective and quantitative terms. So the utility of a commodity to a person can be expressed in cardinal terms like, 2, 3 and so on. But according to the critics, it is not quantifiable and varies from person to person i.e. is subjective in nature, utility being a psychic entity. So in real life, the consumer can only order his preferences for the various combinations of goods being enjoyed by him. He can only tell whether a given combination of goods gives him more or less satisfaction as compared to the other.

2. Hypothesis of independent utilities

Cardinal utility analysis assumes that utility of a good consumed by a consumer is a function of that good only. In other words, utility is additive in nature. So if a consumer consumes three goods, X, Y and Z and gets utility of 1 0, 15 and 25 respectively, his total utility after the consumption of these three goods is 50 i.e. the sum of utilities of X, Y and Z. In real life, goods are related to each other and the utility of one good is also dependent on the availability of other goods e. g. pen and ink are complements and the consumption of either of these is not independent of that of the other; in the same way, tea and coffee are substitutes of each other and the utility obtained from either of these also depends on the availability of the other. So the hypothesis of independent utilities is wrong.

3. Assumption of constant marginal utility of money

Another assumption of marginal utility analysis is the constancy of marginal utility of money i.e. the marginal utility of money remains the same irrespective of the level of income or the stock of money available with the consumer. A person spends a part of his money income on the purchase of some commodities; this reduces the money income left with him. So the marginal utility of money income left with him rises. Now suppose the price of a good falls; this raises the real income of the consumer and reduces the marginal utility of the money with him. But Marshall ignored all this and assumed the constancy of marginal utility of money. It is because of this assumption that he could not understand the composite character of the price effect (price effect as a sum of income effect and substitution effect). The assumption of constancy of marginal utility of money along with the hypothesis of independent utilities confines the validity of Marshall's demand theorem to one commodity only.

4. It does not split up the price effect into income and substitution effects

The cardinal utility analysis does not distinguish between income effect and substitution effect of a price change. As we know, if the price of a good falls, it increases the real income of the consumer. So the consumer is now in a position to consume more of this commodity due to income effect of price change. Besides, this commodity becomes relatively cheaper as compared to other commodities; this induces the consumer to substitute this good for the other goods (substitution effect of price change). So as the price of a good rises (or falls), the quantity demanded of it falls (rises) due to income effect and substitution effect. But the marginal utility analysis can't tell us how much change in the quantity demanded of a commodity is due to income effect and how much due to substitution effect. It is because of the assumption of constancy of marginal utility of money.

5. Cardinal analysis fails to explain Giffen Paradox

Because the cardinal utility analysis holds valid in case of one commodity, it can't explain Giffen paradox and Marshall considered it to be an exception to the law of demand. According to Indifference curve analysis, in case of Giffen goods, the price of the commodity and the quantity demanded vary directly i.e. if the price of a commodity falls, the quantity demanded of it also falls as with the increased real income, the consumer likes to switch over to a superior good. In case of a Giffen good, the negative income effect of price change more than counteracts the substitution effect. Because of the assumption of constancy of marginal utility of money and hence the inability to understand the composite character of price effect, Marshall could not explain Giffen paradox.

1.8 LET'S SUM UP

In this lesson, we discussed the laws of cardinal marginal utility analysis.

- Section 1.2 was introductory in nature in which utility was defined.
- Section 1.3 dealt with the basic assumptions on which cardinal marginal utility analysis is based.
- In section 1.4, the discussion pertains to the Law of Diminishing Marginal utility.
- In Section 1.5, the practical importance of the Law of Diminishing Marginal Utility was discussed.
- Section 1.6 dealt with the Law of Equi-Marginal utility.
- In section 1.7, we critically evaluated the cardinal marginal utility analysis

1.9 RECOMMENDED READINGS

- Ahuja, H.L. Advanced Economic Theory, S. Chand, New Delhi.
- Koutsoyiannis, A, Modern Microeconomics, Macmillan.
- Ray, N. C. An Introduction to Microeconomics, Macmillan Company of India Ltd., Delhi.

Self assessment questions

1. Explain how a consumer attains equilibrium with the help of Marshall's utility analysis.
2. Prove, with the help of a diagram that the total utility is maximum when marginal utility is zero.
3. What are the main shortcomings of cardinal marginal utility analysis?

THE KALDOR-HICKS COMPENSATION CRITERION :

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STRUCTURE

2.1 OBJECTIVES

After going through this unit, you should be able to:

- Explain Kaldor - Hicks compensation criterion.
- Critically evaluate it.

2.2 INTRODUCTION

The compensation principle is a post- Pareto development in Welfare Economics. It finds a solution to some problems where Pareto criterion failed. Pareto optimality criterion was based on the principle of making someone better off without making anyone worse off. In other words, Pareto optimum point is the one where no one can be made better off without making someone worse off. Every point on the contract curve is Pareto optimum and hence equally good. Kaldor, Hicks and Scitovsky, the main proponents of compensation principle made efforts to evaluate the changes in economic re-organization which bring gain to some and harm others.

2.3 ASSUMPTIONS OF COMPENSATION PRINCIPLE

The Compensation Principle is based on the following assumptions:

1. The satisfaction of an individual is independent of others and he is the best judge of his welfare.
2. There exist no external effects on production or consumption.
3. Constancy of the individual's tastes.
4. The level of social welfare is a function of production and not distribution.
5. Utility can be measured ordinally and the inter-personal comparision of utility is not possible.

2.4 EXPLANATION

Given these assumptions, let us now discuss the Kaldor- Hicks Compensation principle. To simply put it, let us assume that some economic reorganization has taken place and has affected the people in three ways; some have been made better off, some worse off and some have not been affected. To talk in terms of indifference curves, the people of category 1 have been shifted to a higher indifference curve, those of category 2 to a lower indifference curve and those of category 3 are where they were before the change. According to the compensation principle, if the people of category 1 can restore those of category 2 to their original indifference curve and still gain by moving to a lower indifference curve (than the one where they were after the initial change) which is still higher than their original indifference curve (before the initial change), it is increase in social welfare. In other words, if an economic policy change results in benefits for some and loss for others and if the gainers can compensate the losers and still be better off than before, this is an improvement in social welfare.

In Nicholas Kaldor's own words, "In all cases .... where a certain policy leads to an increase in production productivity and thus in aggregate real income …………it is possible to make everybody better off without making anybody worse off It is quite sufficient ..... to show that even if all those who suffer as a result are fully compensated for their loss, the rest of the community will still be better off than before."

According to Hicks, "If A is made so much better by the change that he would compensate B for his loss and still have something left over, then the reorganization is unequivocal improvement." He further says, "Suppose there are two alternative situations A and B before and after policy changes respectively and there are two categories of people, gainers and losers. If the losers can bribe the gainers into not wanting a change, then policy change may not be considered socially desirable or adding to the social welfare. If the losers can't bribe the gainers, situation B is preferable to A". In other words, a change is an improvement if the losers in the changed situation can't profitably bribe the gainers not to change from the original situation. So Hicks has stated the criterion from the loser's point of view.

These two criteria mentioned by them are generally clubbed together as 'KaldorHicks criterion'.

Diagrammatical presentation of Kaldor-Hicks criterion:

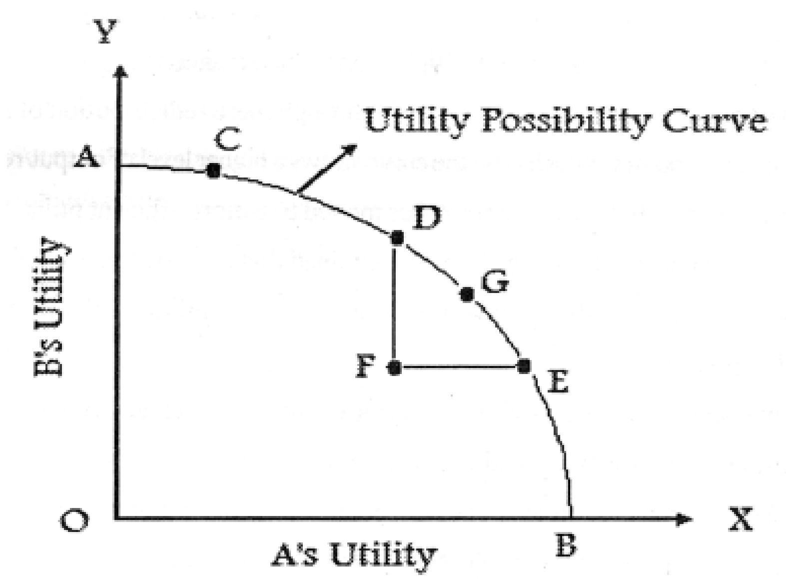

Fig - 1, Kaldor-Hicks Welfare Criterion

In fig-I, AB is the Utility Possibility Curve which represents the various combinations of Utilities of individuals A and B. The X-axis represents A's Utility and the Y-axis represents B's Utility, in ordinal terms. As we move along the curve AB, the utility of one increases and that of the other decreases e.g. movement from C to D increases the utility of A and decreases the utility of B. Let the point F represent the utility of A and B. Point F is not on the Utility Possibility Curve. Let an economic policy change results in the movement of the individuals from F to C on the Utility Possibility Curve. The utility of B has increased as compared to F, whereas share of A has decreased. So B is better and A worse off According to Kaldor-Hicks criterion, individual B who has gained can compensate the loser A and still be better off, social welfare is said to have increased. Let us consider point D on the utility possibility curve. Through redistribution of income, the movement from C to D keeps A at the same level of utility as obtained by him prior to the policy change. So A is better off than at C. B's utility is higher than at F. It means even after compensating A, B is still better. In other words, a movement from point F inside the utility possibility curve to C on utility possibility curve has resulted in improvement in social welfare, as it is possible to move from C to D through mere redistribution of income. It must be noted that point C which is on the curve shows a higher level of output/real income as compared to point F. So the economy has moved to a more efficient point. This is the increase in social welfare. Similarly it can be explained that the movement from point C to point G on the utility possibility curve results in increase in utilities of both A and B, as compared to point F.

What happens to the social welfare when the economy moves, as a result of economic reorganization from a lower to a higher utility possibility curve?

In fig-2 below, the economy moves from point C on a lower utility possibility curve to point D on a higher one. At point D, A is better off and B is worse off than at C. But through redistribution of income, it is possible to move from D to say E which shows an increase in social welfare

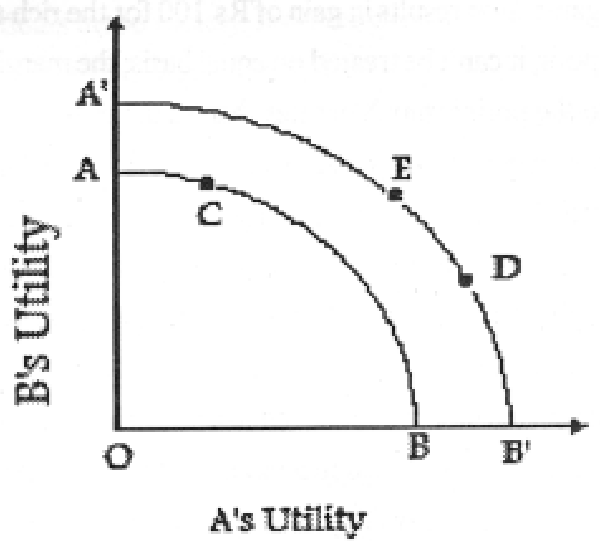

Fig - 2 Kaldor-Hicks Welfare Criterion

2.5 CRITICAL EVALUATION

Kaldor-Hicks compensation principle has been criticized by economists like Little, Baumol and Samuleson. **The principle has been criticized on the basis of the following points:**

1. According to Little, Kaldor didn't find a new welfare criterion, as he assumed welfare to be a function of level of production and not distribution. In Kaldor's own words, "When the production of wealth goes up, some income distribution could be found which makes some people better off and no one worse off than before." So it is not a welfare test but a definition of economic efficiency.
2. It is not free from value judgments. According to Baumol and Little, Kaldor's criterion is based on the changes which enable the gainers to compensate the losers and still be better off; these are good changes and involve value judgments.
3. According to Baumol, ''Kaldor-Hicks criterion is based on unacceptable implicit value judgments. By using a criterion involving potential money compensation, they set up a concealed interpersonal

comparison on a money basis." Suppose the gainer is a rich person and the loser is a poor one. If the economic reorganization results in gam of Rs. 100 for the rich and the loss of Rs. 100 for the poor, it can't be treated on equal basis the marginal significance of one rupee to the poor is much greater than to the rich.

4. Kaldor -Hicks gives more importance to production as a determinant of social welfare distribution being a secondary one. But welfare has dual aspects, absolute and relative. Suppose in an economy, lower output is produced which is distributed on egalitarian basis; all are poor yet satisfied. In another economy, a higher level of output is produced and distributed unequally so that the income remains concentrated in a minority of rich people. It causes restlessness and lack of satisfaction among the poor. So distribution, an equally important determinant of welfare was ignored by Kaldor and Hicks.

5. The compensation criterion is based on the absence of external effects. Suppose some policy change results in gain for A and no change for B. But B is not as well off as before, as A[1]s gain has unfavorable external effect on B's position. So the external effect can't be ignored.

2.6 LET US SUM UP

In this lesson, we have presented to you the Kaldor-Hicks Compensation criterion.

- In section 2.2, we introduced to you the Kaldor- Hicks compensation criterion; it is a post- pareto development in welfare Economics and finds a solution to the problems where Pareto Optimality failed.
- In section 2.3, we discussed the main assumptions of Kaldor- Hicks criterion
- In section 2.4, we explained fully the criterion; this criterion evaluates the changes which take place in the wake of economic-reorganization which makes some people better off, some worse off and leaves some unchanged. According to this criterion, if the gainers are in a position to profitably compensate the losers and still be better off, it is an

improvement in welfare.

- In section 2.5, we critically evaluated the criterion.

2.7 RECOMMENDED READINGS

- Ahuja, H.L. Advanced Economic Theory, S. Chand, New Delhi
- Koutosyiannis, A, Modern Microeconomics, Macmillan
- Ray, N.C. An Introduction to Microeconomics, Macmillan Company of India Ltd. Delhi

2.8 SELF ASSESSMENT QUESTIONS

1. State and explain the Kaldor-Hicks compensation criterion.
2. What are the main assumptions on which the Kaldor-Hicks compensation principles is based ?

BERGSON - SAMULESON SOCIAL WELFARE FUNCTION

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STRUCTURE

3.1 OBJECTIVES

After going through this unit, the student shall be able to :

- Understand Bergson- Samuleson Social Welfare Function.
- Explain the point of maximum Social welfare.

3.2 INTRODUCTION

The social welfare function was first of all worked out by Professor Bergson in his article "A reformation of certain aspects of Welfare Economics" and further developed by Samuleson, among others. According to Bergson- Samuleson Social welfare function, Social welfare function is an ordinal index of society's welfare and is a function of the utility level of all the individuals in the society. It can be expressed as:

W = W (Ua, Ub, Uc, Ud •••••••••••••••••• Un)

Where W represents the social welfare. Ua, Ub, Uc etc. represent the ordinal utility indices of individuals A, B, C etc. Suppose there are n individuals in the society. So the social welfare function is dependent on the utility indices of all the n individuals. According to Bergson, "The value of welfare function is understood to depend on all variables that might be considered as affecting welfare: The amounts of each and every kind of good consumed by and services/performed by each and every household, the amount of each and every kind of a capital investment undertaken, and so on." So the social welfare functions of each individual's welfare which depends not only on his personal well-being, but also on his assessment of the distribution of welfare among all the members of the community. So it is a kind of collective utility function. This dependence of one individual's welfare on others' levels of satisfaction or the inter-relationship of the welfare of different people is what makes Bergson-Samuleson social welfare function different from Kaldor Hicks compensation principle; as we know, in the latter, welfare is a function of production and not distribution.

3.3 SOCIAL WELFARE FUNCTION AND VALUE JUDGEMENTS

Value judgments have been explicitly introduced in Bergson- Samuleson social welfare function. There is no unique social welfare function; its form varies with the form of value judgments incorporated. The value judgments or the judgments regarding the goodness or badness of, say, a given distribution of income are ethical notions introduced from outside Economics. The value judgments required to construct a social welfare function are obtained from individuals through voting or got in a dictatorial manner. Whatever be the form, a social welfare function shows the value judgments of those who give their views regarding the desirability or otherwise of distribution of welfare between individuals. Since the value judgments are being taken by the Economist and nor made by him, they are not obtained through scientific method. So the Economist need not decide which alternative situation is socially most desirable or which is the most desirable distribution of welfare between individuals; he can take them as given from outside Economics.

Now the utility of a good may be different to different individuals, depending on different tastes of different individuals; e.g. the utility of a cigarette is to a smoker, not to others. But a social welfare function depends on the set of explicit value judgments made by an authorized person. In other words, someone must be assigned the job of comparing the various individuals or groups and rank them according to what he thinks best in an impartial or unbiased manner. A democratically elected government can make such judgments acceptable to all.

According to Bergson and Samuleson, all value judgments used to construct social welfare function must fulfill the transitivity assumption i.e. if a situation A is preferred to B and B to C, A must be preferred to C.

3.4 REPRESENTATION OF BERGSON- SAMULESON SOCIAL WELFARE FUNCTION THROUGH SOCIAL INDIFFERENCE CURVES

Let us now explain Bergson-Samuleson Social Welfare Function with the help of Social Indifference Curves or Contours or welfare frontiers. In a society of two individuals, Social Indifference Curves can be used to show whether any policy change increases or decreases social welfare. In Fig. below, X axis represents X[1]s level of utility and Y axis represents that of B. ***A social Indifference curve is a locus of various combinations of utilities of A and B which yields the same level of social welfare.*** The properties are similar to those of consumer's indifference curves. A higher indifference curve shows a higher level of social welfare; so as a result of some policy change, the movement from a point on a lower indifference curve to that on a higher one leads to increase in social welfare, a movement from a higher to a lower indifference curve makes the society worse off and the movement along an indifference curve keeps the level of social welfare unchanged.

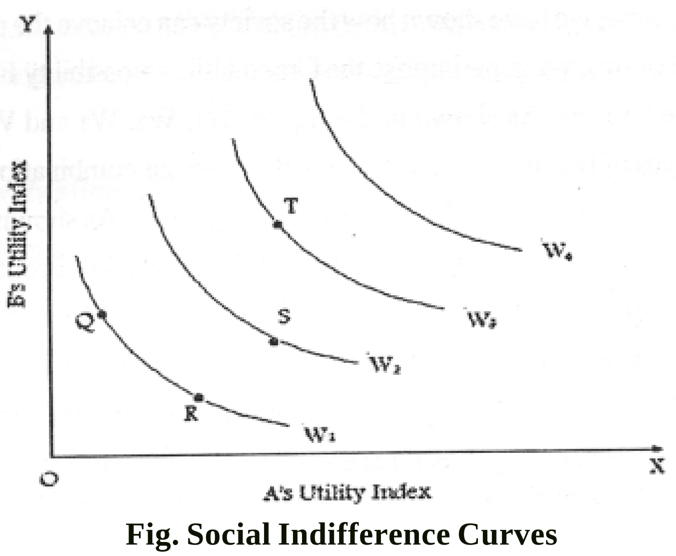

Fig. Social Indifference Curves

As stated earlier, the social indifference curves incorporate ethical value judgments. The distribution of welfare among the individuals is on equalitarian basis. ***The convexity of social indifference curves shows the diminishing Marginal rate of Substitution of A's utility for B's utility;*** in other words, the society is progressively less willing to sacrifice B s utility to increase A[1] s utility.

3.5 MAXIMUM SOCIAL WELFARE: POINT OF CONSTRAINED BLISS

One drawback of Pareto Optimality Criterion was that it failed to provide a 'unique optimum solution' or the point of maximum social welfare. If we talk in terms of Contract Curve in the Edgeworth Box Diagram, every point on the contract curve or Conflict curve is Pareto Optimum or economically efficient. Similarly in terms of Grand Utility Possibility Frontier, all points on it are Pareto Optimum. In other words, Pareto Optimality Criterion does not show us the best point or unique point which represents the maximum level of social welfare. Seeing this indeterminacy in Pareto Optimality criterion, Welfare Economists rely on Bergson- Samuleson Social Welfare Function. As stated earlier, the Social Welfare Function incorporates ethical value judgments with an aim to ensure equitable distribution. This normative aspect of it takes care of proper distribution in the Economy. This combined with the Grand Utility Possibility frontier representing Pareto Optimality enables us to determine the point of maximum social welfare or the best point.

In Fig. below, we have shown how the society can achieve the point of maximum social welfare. For this, we superimpose the Grand Utility Possibility Frontier on the Social Indifference Curves. As shown in the figure, WI, W2, W3 and W4 are four social indifference curves of two individuals showing the different combinations of utilities of A and B and WI shows the Grand Utility Possibility Frontier. As shown, the highest possible indifference curve is tangent to the grand Utility Possibility Frontier at point Q. S_O point Q is the unique point which represents maximum social welfare. It is called the point of constrained bliss, as the economy attains this point, given the constraints of factor endowments and the state of technology. The higher a social indifference curve is, higher is the level of welfare depicted by it. But here W_4 is unattainable by the society, as there are constraints regarding factor endowments and the state of technology.

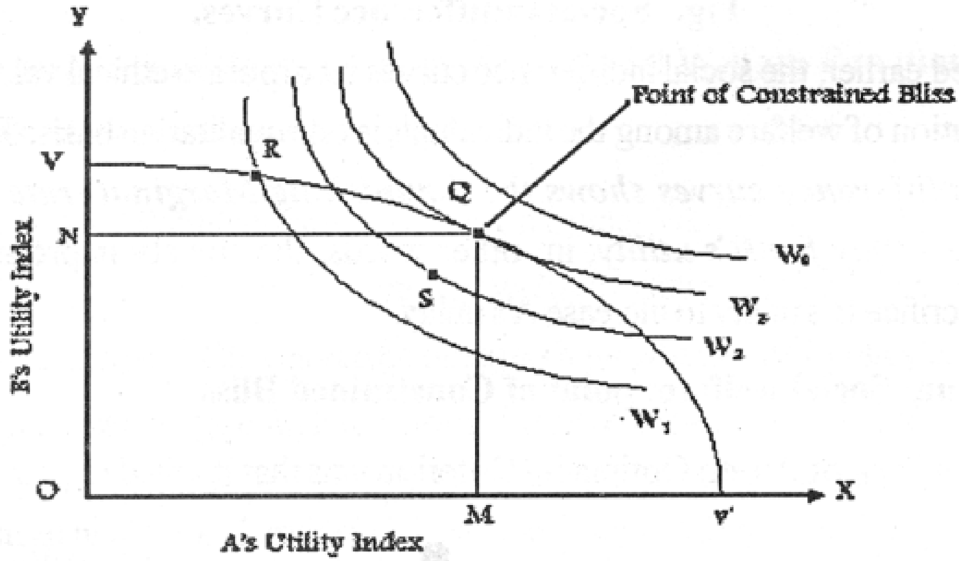

Fig. Point of Constrained Bliss

So point Q is the only point which shows the highest level of social welfare. It represents the unique pattern of production of goods, unique distribution of goods between the individuals and the unique allocation of factors to produce the goods. It shows the best combination of ***Efficiency*** **and** ***Equity***. At times, there is a conflict between Efficiency and Equity. The above figure shows that point R which is on the Grand Utility Possibility Frontier is economically more efficient as compared to point S which is not on the Frontier. In other words, R shows a better allocation of resources than S. But let us now talk in terms of Distribution of welfare or Equity; point S lies on a higher Social Indifference Curve and hence shows more social welfare than shown by point R If the people want an egalitarian distribution of welfare, they are ready to accept a little less efficient allocation of resources.

3.6 A CRITICAL EVALUATION OF BERGSON SAMULESON SOCIAL WELFARE FUNCTION

The Bergson- Samuleson Social Welfare Function, based on explicit value judgments is an improvement over earlier welfare criteria like Pareto-Optimality Criterion, Kaldor Hicks Compensation Criterion etc. But various economists have criticized this social welfare function on many grounds. These are:

1. **Limited practical significance**

According to Little, Streeten and Baumol, the social welfare function is a formal concept with no practical utility. It can neither be used in a democratic state nor in a totalitarian one, as there will be as many social welfare functions as there are individuals. Moreover, it does not tell us how to get or collect the value judgments required for the construction of social welfare function.

2. **Impossible to construct a social welfare function from individual preferences**

Professor Arrow in his 'Social Choice and Individual Values' points out that a truly representative social welfare function can't be constructed on the basis of value judgments arrived at through democratic process of majority rule. A social ordering must be consistent (Transitive) or non- contradictory e.g. if situation A is better than B or preferable to B and B is better than C, we must say, A is better than C. But according to Arrow, majority rule will lead to contradictory results or intransitivity of social choices when a choice is to be made from among more than two alternatives. So a social welfare function based on ordinal preferences can't be constructed from the preferences of all the individuals in the society.

3. **Bergson- Samuleson Social Welfare Function approach is individualistic**

According to some other critics, this social welfare function approach is individualistic in nature. It depends on the welfare of each individual comprising the society. But the individual welfare is a function of his own evaluation of the utility of the goods being consumed by him and not by others. Suppose a person is a smoker or a drug addict; for him, cigarettes or drugs are of great utility and give him satisfaction. But an individual is not the best person in this regard to decide what to consume and what not. Cigarettes are harmful and reduce welfare of the person consuming them and that of others. So the bottom-line is that this individualistic approach is not always desirable in the construction of a Social Welfare Function, as the government has to put necessary restrictions on the people for encouraging the consumption of some goods and discouraging that of others.

4. **Welfare also depends on non-economic variables.**

In Bergson- Samuleson Social Welfare Function approach, the welfare of an individual depends on the utility obtained by him from the consumption of goods and services being consumed by him. But the welfare also depends on other variables like freedom of expression, non- violation of human rights, clean environment and the like. For example, as a result of economic re-organization, the people become well off .If they are forcibly made to convert to a particular religion or have to part with some customs, an essential part of their culture, they would like to go back to the old situation (before re-organization) when they were not so well off but no conditionality was being imposed on them

5. Judging welfare in terms of utility is of limited significance.

According to Prof Amartya Sen, utility is not a true indicator of well-being or welfare. According to him, "A difficulty with welfarism arises from the particular interpretation of well being that utility provides. To judge the well being of a person exclusively in the metric of happiness or desire-fulfillment has some obvious limitations. These limitations are particularly damaging in the context of interpersonal comparisons of well being."

3.7 LET US SUM UP

In this lesson, we discussed the Bergson- Samuleson Social Welfare Function. The main points are as follows:

- The social welfare function is based on explicit value judgments and involves interpersonal comparison of utility in ordinal terms.
- The shape of a social welfare function depends on the type of value judgments incorporated. So there is no unique social welfare function.
- By combining the social welfare function along with the grand utility possibility frontier, it is possible to achieve the point of maximum welfare or the point of bliss or unique optimum solution or the point ensuring both economic efficiency and distributive justice (equity).Pareto optimality criterion alone could not enable the society to reach that point, as Pareto did not include value judgments in his welfare criterion.

3.8 RECOMMENDED READINGS

- Ahuja, H.L. Advanced Economic Theory, S. Chand, New Delhi.

- Koutsoyiannis, A, Modern Microeconomics, Macmillan.
- Ray, N. C. An Introduction to Microeconomics, Macmillan Company of India Ltd., Delhi.

3.9 SELF ASSESSMENT QUESTIONS

1. Write a short note on Bergson- Samuleson Social Welfare function.
2. Briefly explain how Bergson- Samuleson social welfare function is an improvement over Paretian Optimality criterion and Kaldor- Hicks Compensation criterion.
3. Describe how the social welfare function enables the society achieve the point of bliss.

SCITOVSKY'S COMPENSATION PRINCIPLE

(Scitovsky paradox and Scitovsky's double criterion)

By: ***Ms. Neelam choudhary***

STRUCTURE

4.1 OBJECTIVES

After going through this unit, you should be able to:

- Understand Scitovsky's compensation Principle (Scitovsky paradox and Scitovsky's Double Criterion).
- Show how is it an improvement over Kaldor - Hicks Compensation Principle.

4.2 INTRODUCTION

In an article in 1941, Scitovsky pointed *out* an important contradiction in Kaldor Hicks criterion; it is referred to as Scitovsky paradox. To overcome this criterion, he gave Scitovsky's double criterion.

4.3 SCITOVSKY PARADOX

According to Kaldor -Hicks Criterion, suppose position B is more efficient than A; once position B is chosen by the community, on the basis of the same criterion, it can be stated that reverse movement from B back to A is an improvement as well when the losers bribe the gainers to return to the original position A. This inconsistence in KaldorHicks criterion is popularly called as 'Scitovsky paradox' or the 'Reversal Test'

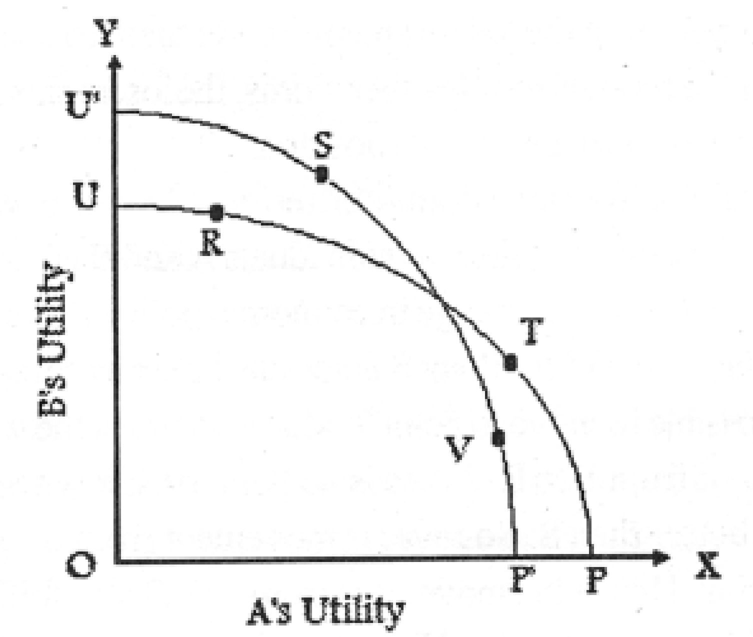

Fig. Scitovsky Paradox.

The above figure shows how Kaldor-Hicks criterion can in some situations lead to contradictions and inconsistent results. Suppose there are two individuals A and B. The utility of A is represented on the X axis and that of B on the Y axis. UP and U^1P^1 are two utility possibility curves intersecting each other. Suppose initial position is at point R on UP. After a policy change, UP shifts to U^1P^1 and the two individuals move to point V. Hence individual A has gained and B has lost. But according to Kaldor-Hicks criterion, movement from R to V is an improvement in welfare as through redistribution, it is possible to move from V to S where B has been compensated and A is still better off as compared to point R. But on the basis of the same criterion, it can also be shown that reverse movement from V to R is equally desirable. Movement from V to R is socially better as redistribution enables the people to go to point T on utility possibility curve UP. As shown in the figure, at T, A is as well off as before the change (point V) and B is better off. So V is socially better than R and R is socially better than V on the basis of Kaldor - Hicks criterion. This inconsistent and contradictory result in Kaldor - Hicks criterion pointed out by Scitovsky is referred to as Scitovsky paradox which formed the basis of Scitovsky's criterion. This is due to the intersection of two utility possibility curves.

4.4 SCITOVSKY'S DOUBLE CRITERION

To over come the contradictory results in Kaldor - Hicks criterion popularly called as Scitovsky Paradox, Scitovsky gave a double criterion or double test for an economic change. First is the Kaldor-Hicks principle that is as a result of change, the gainers must be able to profitably compensate the losers and persuade them to accept the change. 2^{nd} is the non-fulfillment of the reversal test. In other words, the losers should not be in a position to bribe the gainers to revert to the original position.

Let us now explain Scitovsky's double criterion of welfare with the help of utility possibility curves. In figure below, the two individuals A and B are initially at point R on a utility possibility curve UP. Let a change in economic policy shifts them to point S on a higher utility possibility curve U^1P^1. Point S is socially better as compared to R as through redistribution, it is possible to move to point T which increases the welfare of both. Let us now see the movement from S to R . There is no point on UP where the individuals can move to be socially better than S. So reverse movement from S to R is not possible by Kaldor-Hicks Criterion. Hence the movement from R to S also fulfills Scitovsky's criterion. This is popularly called as Kaldor -Hicks-Scitovsky Criterion. This is possible when two utility possibility curves do not intersect at any point and the movement occurs from a lower to a higher utility possibility curve.

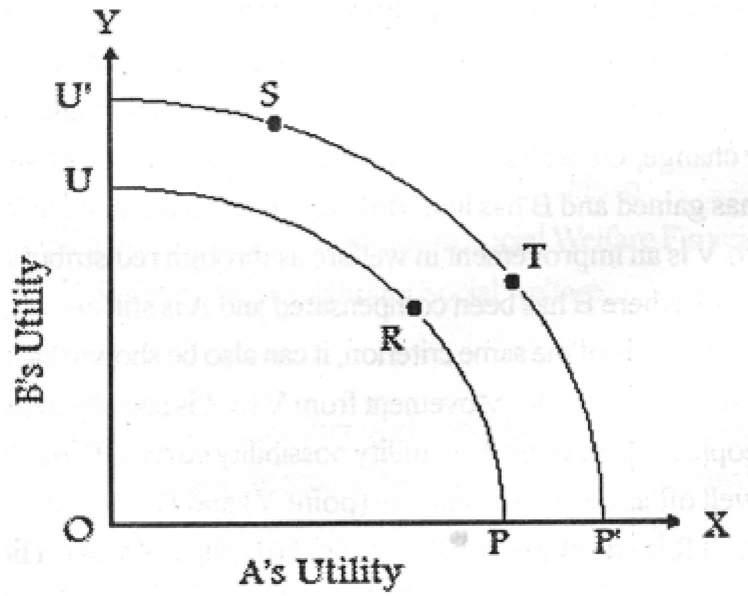

Fig. Scitovsky's Double Criterion

4.5 CRITIQUE OF SCITOVSKY'S COMPENSATION PRINCIPLE

Gorman pointed out a drawback in this compensation principle by saying that the double criterion can avoid contradictory results only when a choice is to be made from two positions. It does not help us if a choice is to be made out of three positions.

4.6 LET US SUM UP

In this lesson, we discussed the Scitovsky's Compensation Principle.

- In Section 4.2, we introduced to you the Scitovsky's Compensation Principle.
- Section 4.3 dealt with Scitovsky Paradox.
- In section 4.4, we discussed Scitovsky'sDouble Criterion.
- In section 4.5, we critically evaluated the Scitovsky's Compensation Principle.

4.7 RECOMMENDED READINGS

- Ahuja, HL. Advanced Economic Theory, S. Chand, New Delhi.
- Koutsoyiannis, A, Modern Microeconomics, Macmillan.

- Ray,N. C. An Introduction to Microeconomics, Macmillan Company of India Ltd., Delhi.

4.8 SELF ASSESSMENT QUESTIONS

1. Write short notes on:
   a) Scitovsky Paradox.
   b) Scitovsky's Double Criterion.

B.A. PART-I **LESSON NO.1**

UNIT-I **ECONOMICS - B**

Economic Consequences of the partition.

By: Ms. Reena Sharma

STRUCTURE

1.1 Objectives: The important Objectives of this unit are:-

1. To understand how partition of the country dislocated the economy
2. To understand economic consequences of the partition.

1.2 Introduction: The partition of India was a partition that led to the creation on 14th August 1947 and 15th August 1947, respectively, of the sovereign states of Dominion of Pakistan (later Islamic Republic of Pakistan) and Union of India (Later Republic of India) upon the granting of independence to British India from the United Kingdom of Great Britain and Northern-Ireland. In particular, it refers to the partition of the Bengal province of British India into Pakistani state of East Bengal (later East Pakistan, now Bangladesh) and the Indian state of West Bengal, as well as the similar partition of the Punjab region of British India into the Punjab province of West Pakistan and the Indian state of Punjab.

Before leaving India, the Britishers gave her another hard blow. The partition of India left the Indian Union with about 77% of the territory and 82% of the population of undivided India.

Partition of the country dislocated the economy. A large-scale movement of the Hindu and Muslim populations took place. Lakhs of people from

Pakistan crossed over to India. Such a large-scale movement of population had never been seen before. It had grave economic and social consequences. It gave rise to serious problems. The most serious problem was that of refugees.

British rule over India came to an end in 1947. Indian Economy experienced far-reaching changes during the British period which transformed it into a colonial, semi feudal, top-sided, stagnant, depleted, amputated and backward economy. The war left plant and equipment worn out and the partition of the country did further damage to it. Independent India inherited grave economic problems from her colonial past.

Dutt and Sundharam have rightly remarked, " In 1947 when the British transferred power to India, we inherited a crippled economy with a stagnant agriculture, an under developed industry and a proletariat and a peasantry steeped in poverty".

1.3 ECONOMIC CONSEQUENCES OF THE PARTITION..

Following are the main problems that arised out of the partition of India:

1. **Dislocation of the Industrial structure:** A major evil consequence of Partition was the dislocation of the entire Industrial structure. This can be explained in terms of the following effects of partition.

Firstly: Many important Industries were deprived of their raw material.

Secondly: Some of the industries lost their markets. The areas, which went to Pakistan, used to consume large quantities of cotton textiles, silk and woolen textile, hosiery, glass, soap, rubber goods, etc. Partition brought about a sudden fall in demand for these goods. Fall in demand was a serious setback of these industries.

Thirdly: Partition was followed by large-scale movement of population.

A very large number of Muslim artisans, craftsmen and other skilled labourers migrated from India to Pakistan. Factories in East Punjab and west Bengal (forming part of the India Union) were left without any trained labour.

Fourthly: Partition adversely affected the location of industries. It became unsafe to locate these industries near border areas. Many such mills had to be shifted from these areas.

In short, the entire industrial structure was dislocated. The problem was more serious in Punjab and Bengal the two states that were divided

2. **Food Shortage:** Food shortage in India began to be felt after the separation of Burma in 1937. Burma was a rice producing areas. The problem became more serious after the partition. West Punjab and Sind were the granaries of India. These areas used to supply large quantities of wheat to the whole country. With partition, these areas went to Pakistan. As a result, food situation became very serious. It has been estimated that food supply in the Indian Union was deficient by about 25 to 30 Lakh tones per year. Pakistan, on the other hand enjoyed a surplus of about 7.5 Lakh tones.

3. **Shortage of Raw materials:** Another serious problem related to the supply of raw materials. Many agricultural raw materials, especially raw jute and raw cotton, were produced in areas that formed part of Pakistan. The mills were located in areas that formed part of Pakistan. The mills were located in areas that formed part of the India union. With partition, the supply of raw materials was cut off for these mills. The two most affected industries were jute and cotton textiles. At the time of partition there were 112 Jute mills in undivided India. All of these were situated in areas that formed part of the Indian Union. On the other hand, raw jute was produced in areas that went to Pakistan. These areas produced about 85% of the total jute in undivided India. Therefore, immediately after partition many of these mills were faced with closure. The same was the fate of cotton textile industry. About 94% of the cotton textile mills were located in the Indian Union, whereas this area produced only 60% of raw cotton of undivided India. Moreover, all good cotton-growing areas were in Sind and West Punjab. Shortage of raw material was also experienced by the Paper, Leather tanning and some chemical industries in India.

4. **Adverse effects on Railways:** The railway network of the undivided India was also disrupted by partition. Out of the total railway length of 31313 miles the Indian union obtained 24565 miles. The main the railway lines that crossed over to Pakistan had to be re-laid, the entire railway system of the border areas had to be reframed. Naturally, it involved huge cost in terms of money, time and effort.

5. **Problem of Debt:** After partition the assets of the Reserve Bank of India (i.e. Gold, Sterling Securities, Rupee coins) were divided between the two countries. Like wise, the burden of the Public debt of India was also shared. On the final accounts,

Pakistan was required to pay Rs.300 Crores to India towards settlement of debt. The debt has not been settled until now.

6. Banking: In 1947 there were 4819 banks (branches) consisting of 2987 scheduled and 1832 non-scheduled banks. The total demand and time liabilities in case of scheduled banks were Rs.978 crores and total advances and bills discounted were Rs.441 Crores.

Partition of the country did some harm to commercial banking in the country, but it did not cause any major crisis in this sector.

7. National Income: During the year 1948-49 India's national income was Rs.8650 Crores and per capita income Rs.247 at current prices. But if we take into consideration the rise in price level the level of rent income (per capita) had been the same as in 1931-32.

8. Foreign Trade: The partition of India affected the composition, direction, value and volume of India's foreign trade. The value of India's foreign trade was Rs.586 crores in 1946-47.

India became deficient in food grains, raw material, cotton, jute and hides and skins. The manufacturing area had fallen in Indian Territory and raw material producing areas went to Pakistan. The excessive dependence on U.K. declined.

In 1947-48, the main items of imports in India (in order of importance) were; machinery of all kinds; oils (vegetables, mineral and animal); grains, pulses and flour, cotton, raw and waste crop, vehicles (Excluding locomotives), cutlery, hardware, implements and instruments; chemicals, drugs and medicines; dyes and colours; other yarns and textile fabrics; Paper, Paper board and stationery; and metals other than iron and steel and manufactures. These imports together constituted more than 70% of all imports.

AT the time of independence, the three most important commodities in India's export basked were jute, tea and cotton textiles. Together they contributed more than 50% of total export earnings.

1.4 Conclusion:

Partition of the country had serious consequences. India's entire economy was completely dislocated. Agriculture, Industries, Trade, Commerce, transportation and Communication are disturbed. The most serious consequence of the partition was that it added to the poverty and misery of the people. India economy was already very weak. Its strength was further shaken with Partition. In short, on the eve of Independence, India economy was a very weak house. It could hardly, stand on its own feet. It required to be nourished properly. Poverty, ignorance and disease were required to be fought on a war footing.

1.5 Further Readings:

- Misra & Puri (2007) Indian Economy
- Ruddar Datt & K.P.M Sundhram, Indian Economy.
- A.N. Agrawal (2007) Indian Economy Problems of Development & Planning.
- Uma & Kapila, Indian Economy.

Self Assessment Questions

1. Discuss the Economic consequences of the partition.
2. Discuss the problems which arose out of partition.

ACHIEVEMENT OF 10TH FIVE YEAR-PLAN

By – Ms. Reena Sharma

STRUCTURE:

2.1 OBJECTIVES

The important objectives of this unit are: -

1. To understand the major achievements of 10th five year plan.
2. To understand the role of 10th five year plan in different sectors of the economy.

2.2 INTRODUCTION

In India, the planned economic development began in 1951 with the inception of the first five-year plan. The theoretical efforts for economic development in Indian economy had already begun before independence. In the year 1934, Sir M. Visheshvraya wrote a book named "Planned Economy for India", which was the first attempt in this direction. In 1938, the Indian National Congress, under the leadership of Pt. Jawahar Lal Nehru, made a national planning committee. Its recommendations could not be implemented due to the beginning of the Second World War and changes in the Indian Political situation. In January 1950, Shri Jai Prakash Narayan published a plan called "Sarvodaya Plan". The government did not accept the entire plan and adopted only a few parts of it. The planning commission was constituted on 15th march, 1950 by the government of India. Uptil now ten five year plans and seven annual plans have been completed. Eleventh plan (2007-12), which was finally approved by NDC (National Development Council) on December 19, 2007 is in operation w.e.f. April 1, 2007.

The Tenth plan (2002-07) has been approved by The National Development Council (NDC). It envisages an ambitious average growth rate of 8% per annum in GDP and doubling the per capita income in ten years. It aims to improve the quality of life by reduction in poverty ratio to 21%. Providing potable water in all villages enrolling all children in school by 2003 and increasing literacy rate to 75% by 2007. It also aims at creating 50 millions jobs during the tenth plan and providing shelter to all by the end of the 11th plan. This will require tremendous efforts for resource mobilization large investment in infrastructure and social sectors improved allocative efficiency of resources eliminating inter state trade barriers investor friendly environment labour law reform efficiency delivery system and people participation.

2.3 MAJOR ACHIEVEMENT OF 10TH FIVE-YEAR PLAN

(A) Major educational achievements during 10th five-year plan

(i) Education in rural areas has experienced fundamental changes and new progress made for the universalization of 9- year compulsory education.

During the 10th five-year plan, the state council held national working conference on basic education and national working conference on education in rural areas, specifying educational development in rural areas as a strategic priority. The central Govt. initiated and implemented a serious of projects and policies aiming to accelerate the development of education in rural areas. Through these projects and policies condition for education provision in rural areas, especially in poverty-stricken areas has been greatly improved and the difficulty of schooling for students from poor families has been further relieved.

(ii) Higher education gains a steady and round growth contributing to the social and economic development in terms of human resource and knowledge.

In 2005 there were 23,000,000 students recruited by various higher education institutions, (HEIs) 10,710,000 more than that of the year 2000.

In 2005, 6,972,500 students newly recruited by HEIs (including regular HEIs, adult colleges and technical colleges), 3,204,900 more than that of 2000 with an average annual increase of 13.1%.

Statistics shows that HEIs play a greater rate in solving important social and economic problem than before. During 10th five-year plan HEIs have won 75 National Natural Science awards, (55.07% of the total), 64 National Invention Awards (64.4% of the total), 433 National Science and Technology Progress Awards (53.57% of the total). Among them, there is one first Prize of the National Scheme Awards and two first Prize of the National Invention Award.

(B) Achievements in the External Sector

There were dramatic changes in the external sector during the plans, which were reflected, in the huge inflow of foreign exchange reserves, growth in exports and imports and to reduction in net external assistance. The stock of foreign exchange reserves reached $ 200 billion on 31 March 2007. This was possible due to reduction in tariff, current account convertibility, foreign investment inflows, market determined exchange rate policy etc.

The actual average growth rate of exports at 23.4% for the plan for exceeded the targeted rate of 12.4% on the other hand, imports grew at 29.1% against the target of 17.1% during the plan.

The current account deficit, which was estimated at 1.6% of GDP has declined to 1.1% at the end of the plan.

(C) Achievement in Industrial Sector

There was impressive growth of the Industrial sector propelled by robust growth in the manufacturing sector. The industrial sector grew at 8.1% per annum as against the plan target of 7.6%. in the last year of the plan, it grew 11.3% a 10-year high within the Industrial sectors, the growth rate of manufacturing was quite satisfactory at 8.8% on an average. In the last years (2006-07) of the plan, it was 12.3%, the highest since 1995-96. But the performance of other sub-sectors, namely, mining and quarrying, and electricity, gas and water supply was disappointing. They grew on an average at 4.3% and 5.2% respectively. Under the use based classification of Industries, the growth rate of capital goods increased from 10.5% in 2002-03 to 17.7% in 2006-07, of basic goods from 4.9% to 10.2% of intermediate goods from 3.9% to 11.7% over the period. But there was deceleration in the growth of non-durable consumer goods industries from 12% in 2002-03 to 8% in2006-07.

(D) Realised Growth Profile

As against the target of 8% growth rate of GDP in the 10th plan, the actual achievement has been only 7.2%.

(E) Sectorial Composition of Growth

Sectorial Composition of growth reveals that the 10th plan witnessed the highest growth rate in services sector of the order of 9.0 percent as against the target of 11.5 percent. As against the target of 4.1% planned in 10th plan for agriculture, the realised growth rate is only 1.7%. The Industrial sector is the second as against the targeted growth rate of 10% the realised growth rate is 8.3%.

(F) Employment Generation in the Tenth Plan

The Tenth plan aimed at the creation of approximately 50 million employment opportunities during a period of five year. The results of the 61st NSSO round show that above 47 million persons provided employment during 2000 to 2005.

Total Employment Generation in the Tenth Plan **(In Million)**

		2001-02	**2006-07**	**Difference**
1.	Labour force	378.21	413.50	35.29
2.	Employment	343.36	392.35	48.99
3.	No. of employed	34.85	21.15	-13.70
4.	Unemployment%	9.21	5.11	-

Source: Complied and computed from Tenth Five Year Plan (2002-07).

2.4 CREDITABLE ACHIEVEMENT OF 10TH PLAN

Firstly, tenth plan has not been able to achieve its target of 8% growth of GDP but has taken the economy to a higher trajectory of growth rate at 7.6% has against

5.5% in the ninth plan. It is also heartening to note that GDP growth in the last year of the plan (2006-07) is expected to be 9.2%. This is a welcome development.

Secondly, gross domestic savings (as present of GDP at market Prices) averaged 28.2% in 10th plan as against 23.1% in the 9th plan. This is also a positive development because this implies that the economy is now moving to a higher level of saving which is a necessity to raise GDP growth a higher level of 8.9%. Domestic saving is estimated by CSO to have climbed to 32.4% of GDP in 2005-06. This is a matter of legitimate pride because it enables the economy to reach the higher levels of investment. Gross rate of investment is expected to be of the order 33.8% in 2005-06 another record achievement.

Thirdly, the economy has been able to reduce its incremental capital output ratio from a level of 4.3 during the 9th plan to a level of 4.2 during the 10th plan. With higher levels of capital formation expected during the 11th plan, the economy will be able to attain the target of average GDP growth of 9% during the 11th plan.

Fourthly, our foreign exchange reserves reached a level of US $ 185 billion on February 2007. This is another indication of the strength of the economy.

Fifthly, foreign investment flows were of the order of US $ 20.2 billion in 2005-06 – US $ 7.7 billion in the form of Foreign Direct Investment (FDI) and US $ 12.5 billion in the form of Portfolio Investment (PI). Since FDI improves the productive capacity of the economy, the share of FDI in total foreign investment inflow is only 35.6%. This needs as improvement, because Portfolio Investment take place is highly speculative activities and is very volatile. The situation has taken a turn in a better direction and in 2006-07 out of total inflows of the order of $ 29.1 billion, FDI accounted for $ 22.1 billion (i.e. 76% of total).

2.5 The other important achievements of 10th five-year plan are given below:

1. Accelerate employment – oriented economic development.
2. According to the latest NSSO data for the year 2004-05. Poverty level in India has come down to 21.8% as compare to 36% in 1993-94.
3. 10th five year plan remains successful in accelerate economic reforms and privatilisation of production activities except of few important sectors.
4. 10th five year plan achieved 7.2% growth rate for the entire plan against 8% targeted growth rate.

5. Indian economy became 12th largest economy of the world on the basis of GDP in absolutely terms with 786.47 billion dollar GDP in 2005. Indian achieved the 12th rank in the world, as per the latest report of the World Bank.

6. As against the target of annual growth rate of 4% during the 10th plan (2002-07), the quick estimates of National Income for 2005-06 released by the CSO on February 7, 2007 has estimated a growth rate of 6.0% for agriculture and allied sectors based on new series (at 1999-2000 prices). But as per the advanced estimates for 2006-07, the agricultural growth rate has been estimated at 2.7%.

7. Milk production and per capita availability of milk in 1950-51 was 17 million tonnes and 124 gm /day which became about 100 million tonnes and 245 gm / day respectively in 2006-07.

8. Industrial Sector has been estimated to have 10% growth rate in 2006-07, which is the highest recorded industrial growth rate since 1995-96. As per quick estimates for 2005-06, Industrial growth rate stands at 9.6% compared with 9.8 of 2005-06.

9. According to the UNCTAD's, (United National Corporation of Trade & Development).

   Trade and Development Report 2006. India has emerged among the 10 major developing countries recipients of Foreign Direct Investment (FDI), but still lags for behind its neighbour China in terms of FDI inflows received.

10. The latest NSSO survey data show the percentage of people living below the poverty line has reduced from 36% in 1993-94 to 26% in 1999-2000 and to 22% in 2004-05.

11. The share of agriculture in total employment has come down from 58.54% in 1999-2000 to 54.19% in 2004-05.

2.6 CONCLUSION:

Indian plans have traditionally focused on setting only national targets. However, the performance of different states has varied significantly – while some states have reregistered fast growth some poor states have seen a declaration in growth.

According to the 10^{th} plan, it is important to recognize that the sharp increase in the growth rate and significant improvement in the social indicators that are being contemplated in the plan will be possible only if there is corresponding improvement in the performance of the laggard states. In order to emphasize this fact, the 10^{th} plan lays down state – specific targets for different development goals consistent with the national plan.

2.7 Further Readings:

1. Deepak Nayyar : Indian Economy at the Cross Roads
2. K. Sundaram & Suresh D. Tendulkar : Financing the setup in plan Investment.
3. Mishra & Puri : Indian Economy (2007)

SELF – ASSESMENT QUESTIONS

Q1. State the main achievements of 10^{th} five-year plan.

Q2. Highlight the major achievements of 10^{th} five-year plan.

STRATEGY FOR 11TH FIVE-YEAR PLAN

By Ms. Reena Sharma

STRUCTURE:

STRATEGY FOR 11TH PLAN

3.1 Objectives

The important objectives of this unit are: -

1. To understand the meaning of Strategy.
2. To understand different Strategy for different Sector of the economy.

3.2 Introduction:

Planning Commission in its meeting held on 8 November, 2007 under the Chairmanship of Prime Minister Dr. Manmohan Singh cleared the draft of the 11th Plan (2007-12) that seeks to step up economic growth rate to 9%.

The draft document, which seeks to make growth more inclusive by significantly increasing the outlay for the priority sector programmes, will now be placed before the

Union Cabinet for Vetting the National Development Council (NDC) has finally approved the plan at its 54th meeting on 19 December, 2007 to raise the average economic growth rate to 9% from 7.6% recorded during the 10th plan.

The total outlay of the 11th plan has been placed at Rs. 3644718 Crore, which is more than double of the total outlay of the previous 10th plan. In this proposed outlay, the contributions of Central Government and State Governments will be Rs. 2156571 Crore and Rs. 1488147 Crore respectively.

Gross Budgetary support (GBS), which is the Centre's support to the plan, has been fixed at Rs. 1421711 Crore up from Rs. 810400 Crore in the previous plan. 74.67% of GBS will be for priority sectors and the rest 25.33% will be for non priority sector. In 10th plan this allocation share was 55.20% and 44.80% respectively.

In order to make growth more inclusive, the 11th plan proposes to increase the agriculture sector growth rate to 4% percent from 2.13% in the 10th plan. The growth targets for industry and services sectors have been pegged at 9 to 11%. The Industrial growth rate in the 10th plan was 8.74 percent, while the services sector grew by 9.28%.

3.3 Meaning of Strategy: -

In the context of development planning strategy refers to a basic long-term policy to realize certain objectives. Resources in underdeveloped countries being scarce, development work cannot be started in all the backward sectors. Leading sectors have to be identified and all resources are to be mobilized to there sectors. This may result in a break through and the economy, which has stagnated for a long period, may start developing. Rosenstein Rodan has rightly averted that an economy if it has stagnated for a long period would not grow unless a big push is given to it. The Indian economy needed exactly this kind of push when the country got independence in 1947. In the words of I.G. Patel "Strategy implies essentially a deliberate choice-choice of the point and timing and manner of attack on the problems at hand."

11^{TH} FIVE-YEAR PLAN INDIA'S EDUCATIONAL PLAN

Prime Minister Man Mohan Singh has termed the 11^{th} five-year plan as "Indian Educational Plan" the 11^{th} plan approved at the meeting of NDC (National Development Council) in Dec 2006 places the highest priority on education as a centered instrument for achieving rapid and inclusive growth. The 11^{th} five-year plan presents a comprehensive strategy for strengthening the education sector covering all segments of education pyramid.

3.4 EDUCATIONAL STRATEGY FOR 11^{TH} PLAN

Strategy for 11^{th} plan is free and compulsory elementary education of good quality to all children up to the age of 14. It must ensure both access and good quality and standards in respect of curriculum and infrastructure irrespective of the parent ability to pay.

(a) **Elementary Education: -** Under the sarva shiksha Abhiyan (SSA) droupout rates for both boys and girls of all social groups must be reduced sharply, if not eliminated altogether.

(b) **Secondary Education: -** A major initiative for expanding secondary education up to class X must be initiated in the 11^{th} Plan and should include access to organized sports and games.

(c) **Technical / Vocational Education: -** 11^{th} plan must pay special attention to devising innovative ways of modernizing the IT's and increasing their number substantially. Vocation training for both men and women should be accorded to priority in the 11^{th} plan.

(d) **Higher and Technical Education: -** 11^{th} plan must undertake a major effort to expand and improve the quality of our higher education system. One university in each state should be made a model university through all round up gradation during 11^{th} plan.

3.4 AGRICULTURAL STRATEGY FOR 11^{TH} PLAN

The approach paper to the 11^{th} five-year plan prepared by the Planning Commission suggested a road map for 9% per annum growth for the economy as a whole and an agricultural growth target of 4% per annum during the plan period. Agriculture is not only an important drivers to macro economic performance it is an essential element of the strategy to make growth inclusive.

The approach paper to he 11^{th} five-year plan has aptly highlighted such a holistic framework and suggested the following strategy to raise agricultural output.

a) Doubling the rate of growth of irrigated area.

b) Improving water management, rain water harvesting and watershed development.

c) Reclaiming degraded land and focusing on soil quality.

d) Bridging the knowledge gap through effective extension.

e) Promoting animal husbandry and fishery.

f) Providing easy access to credit at affordable rates.

3.6 EMPLOYMENT STRATEGY FOR ELEVENTH PLAN

11^{th} plan rightly states "Generation of productive and gainful employment with decent working conditions on a sufficient scale to absorb our growing labour force form a critical element in the strategy for achieving inclusive growth."

The approach paper to the 11^{th} plan targets generation of additional employment opportunities in services and manufacturing in particular, labour intensive manufacturing sectors such as food processing, leather products, footwear and textiles and services sectors such as tourism and construction. As village and small scale enterprises will have to provide most of the new employment during the plan.

3.7 INDUSTRIAL SECTOR

As per planning commission estimates an annual average growth rate of about 12% of the manufacturing sector is necessary to ensure that the targeted average annual growth 10% of Industrial sector is achieved during the 11^{th} plan. Up gradation of infrastructure and enabling fiscal structure, technological modernization, amendment of labour laws and corporate law and enhanced accessibility to institutional credit are some of the crucial policy aspects, which need to be addressed immediately to ensure that the targets are met.

3.8 Other strategy for 11^{th} five year plan are as under: -

- GDP growth rate to be increased to 10% by the end of plan
- Double per capita income by 2016-17

- Create 7 crore new jobs
- Treat all urban waste water by 2011-12 to clean rivers
- Achieve WHO standard air quality in major cities by 2011-12
- Increase forest cover and free cover by 5%
- Roads to all villages with 1000 population by 2009
- Broadband connectivity to all villages by 2011-12
- A telephone in every village by November 2007
- Electricity connection to all by 2009
- Improve sex ratio to 935 by 2011-12 and 950 by 2016-17
- Clean drinking water to all by 2009
- Maternal mortality rate to be cut to 1 per 1000 births
- Infant mortality rate to be reduced to 28 per 1000 births
- Literacy rate to be increased to 80%
- Reduce educated unemployment rate to be below 5%
- Reduce dropout rate of school children to 20% from 52% now.

3.9 CONCLUSION

The 11th plan provides an opportunity to restructure policies to achieve a new vision based on faster, more broad based and inclusive growth. It is designed to reduce poverty and focus on bridging the various divides that continue to fragment our society. The 11th plan aims at putting the economy on a sustainable growth trajectory with a growth rate of approximately 10% percent by the end of the plan period. It aims to create productive employment at a faster pace than before, and target robust agriculture growth at 4% per year. It puts a focus to reduce disparities across regions and communities by ensuring access to basic physical infrastructure as well as health and education services to all. The strategy of the 11th plan recognize gender as a cross cutting theme across all sectors and commit to respect and promote the rights of common person. The first step in this direction was initiated in the middle of the 10th plan based on the National Common Minimum Programme adopted by the Government. These steps have been planned to be further strengthened and consolidated into a strategy for the 11th plan.

3.10 Suggested Readings

1.Deepak nayyar	:	Indian Economy at the Cross Roads
2. K. Sundaram & Suresh D. Tendulkar	:	Financing the setup in plan Investment
3. Misra & Puri	:	Indian Economy (2007)

SELF-ASSESSMENT QUESTIONS

Q1. Discuss the strategy for 11^{th} five-year plan.

Q2. Discuss meaning of strategy.

GROWTH OF INDIA'S FOOD PRODUCTION IN THE WORLD CONTEXT AND FOOD SECURITY

By – Ms. Reena Sharma

STRUCTURE:

4.1 Objectives

4.2 Introduction

4.3 Concept of food security

4.4 Food self-Sufficiency and food security in India

4.5 Growth of India's Food production in the world context.

4.6 Conclusion

4.7 Suggested Readings

4.1 OBJECTIVES:

The main objectives of this Unit are:

- To understand the concept of food security.
- To understand the growth of India's food production in the world context.
- To understand main components of the food security system.

4.2 Introduction:

Agriculture production and productivity trend, the food grains production in India has increased significantly over the period of planning from 50.8 million tonnes in 1950-51 to the peak level of 213.5 million tonnes in 2003-04 (though it declined some what to 204.6 million tonnes in 2004-05). The period after the third plan (generally referred to as the period of Green Revolution) is particularly marked by rapid strides in food grains production (Particularly wheat and in recent years rice as well). This has enabled the economy to overcome the problems of food grains shortages and build up large stocks of food grains to counter any scarcity conditions. There is a consensus among the economists that the food security system in the form of public distribution system that has evolved in the economy since mid-1960 with the setting up of the Food Corporation of India (FCI) has been able to eliminate famines and also bring a substantial measure of relief to the consumer during years of acute scarcity. Because of the increases recorded in food grains production over the years and surplus stocks of food rains with the FCI, the food problem in the sense of inadequacy and shortage of food grains with the FCI, the food problem in the sense of inadequacy and shortage of food grains no longer exists. However, food problem in the normative sense continues to exists as millions of poor suffer from persistent hunger and malnutrition and many others are at the risk of doing so in future.

4.3 Concept of Food Security: -

Food and Agriculture Organisations (FAO, 1983) defined food security as "ensuring that all people at all times have both physical and economic access to basic food they need".

World Development Report (1986) defined food security as "access by all people at all times to enough food for an active healthy life".

Staatz (1990) defined food security as " the ability to assure, on a long term basis that the food system provides the total population access to a timely, reliable and nutritionally adequate supply of food."

From these definitions, the following points emerge.

1. Food security involves adequate physical availability of food to the entire population in a country.
2. People have enough purchasing power so that they can acquire the food they need.
3. For healthy life, the food available should be adequate in quality as well as quantity to meet nutritional requirements.

4. A nation may acquire self-sufficiency in food at a point of time but the concept of food security necessities that timely reliable and nutritionally adequate supply of food should be available on a long-term basis.

This implies that a nation has to ensure the growth rate in food supply so that in takes care of the increase in population as also the increase in demand resulting from increase in the income of the people.

From this point of view, following stages of food security may be visualised for a developing country like India.

Stage 1: The most basic need from the point of view of human survival is to make an adequate quantity of cereals available to all.

Stage 2: In the second stage, we think of food security on the adequate availability of cereals and pulses.

Stage 3: In the third stage food security should include cereals, pulses, milk and milk products.

Stage 4: In the fourth stage, food security should include cereals, pulses, milk and milk products, vegetables and fruits, fish, eggs and meat.

The possibilities for improved food security at both national and house hold level depends largely on the ability of a given national to integrate its economy into the international community and compete in an independent world. Improvement in food security at the house hold level depends on the ability of individual house hold members to gain greater access to food. This in turn requires access to employment opportunities and participation in the rewards of a growing and dynamic economy. For poor house hold without prospects safety net programmes are necessary to assure food security. Food security of a nation is ensured if all of its citizens have enough nutritious food available, all persons have the capacity to buy food of acceptable quality and there is no barrier on access of food. To ensure availability of food to all sections of the society. The Indian government carefully designed food security system, which is composed of two components. (a) Buffer Stock and (b) Public distribution system. In addition to PDS various poverty alleviation programmes were also started which comprised a component of food security. Some of these programmes are Integrated Child Development Services (ICDS), Food for Work (FFW), Mid Day Meals, Antoyada Anna Yojana (AAY) etc. In addition to the role of the government in ensuring food security, there are various cooperatives and NGO's also working intensively towards this direction.

4.4 Food Self-Sufficiency and Food Security in India

The Indian planners right from the beginning realised the need to attain self-sufficiency in food grains as one of the important goals of planning. The government realised that food surplus countries used their food surplus as a weapon to force food deficit countries to submit to their dictates.

In 1965 and 1966 India suffered two severe droughts during 1965 and 1966, then the American president, Lyndon Johnson, restricted food aid to monthly basis under the P.L. 480 programme. This was done to force India not to condemn American aggression in Vietnam.

The government of India under Prime Minister Indira Gandhi went in for seed water fertilizer policy popularly known as the green revolution. This policy ushered in a revolution in food production in India and dispensed with food grains imports altogether. India achieved self-sufficiency in food grains by the year 1976 and since then, Indian imports of cereals have remained neglible (except in 2006-07). Appreciating India's achievements on the food front Gilbert Etienne States.

"Despite the gloomy and perfectly ill founded forecasts about India's future disasters, which were fashionable in 1960's, the country is no longer exposed to real famines."

The Ninth five-year plan (1997-2002) states, "One of the first efforts of the country was to build up a food security system to ensure that the threat of famine no longer stalks the country. The fact that the country has not witnessed famine and acute starvation on a massive scale in the last five decades is the most eloquent testimony for the success of these efforts.

Progress on food grains reveals the following.

a) Between 1950-51 and 2006-07 food grains production had increased from 51 million tonnes to 213 million tonnes more than four fold increase, the production of food grains, however, declined to 174 million tonnes in 2002-03 a massive 38 million tonnes decline compared to the previous year.

b) The various components of cereal production indicate that whereas cereals accounted for 84% in food grains in 1950-51, their share has increased to 94% in 2006-07, the share of pulses, however has declined from 16% to just 6% during the same period.

c) Within cereals the share of the two "superior" cereals, rice and wheat, which was only 53% in 1950-51, has improved to 78% in 2001-02. During the same period, the share of coarse cereals had declined from 30% to 18%. This indicates that even the weaker sections favour rice and wheat as against coarse cereals they normally consumed earlier.

Self-Sufficiency at the National Level

Ninth plan (1997-2002) discussed the problem of food security at the national level and at the house hold level. The planning commission states, "An approach to national food security, which relies largely on domestic production of food needed for consumption as well as for building buffer stocks, can be described as a strategy of self-sufficiency." This strategy was adopted in the early phase of Indian planning. It emphasised the extension of irrigation facilities and later in the sixties adopted seed water fertilizer technology popularly known as the Green Revolution. As a consequence of these concerted efforts, India was able to attain its goal of self-sufficiency in food grains.

There is no doubt that as a result of these efforts India was able to avert famines and acute food scarcities, yet it has not been able to provide food "needed for an active and healthy life" to its population. In other words, the goal of a balanced diet consisting of needed cereals, necessary quantity of pulses, vegetables and fruits is still a distant dream.

Food Security at the Local Level

At the household level, food security implies having physical and economic access to food articles that are adequate in terms of quantity, quality and affordability. This raises the question of prices of food articles and the purchasing power in the hands of the population. To help the poor section, the govt. introduced the Public Distribution System (PDS) and adopted dual price mechanism. At the PDS outlet, the issue price of food articles was kept lower than the market price to enable to purchase subsidized food. But due to political pressures, the government adopted a universal

PDS, rather than a targeted PDS focused on the poor. The result was the non-poor also began to benefit from the PDS and the poor especially the migrant poor were not able to take full advantage of the PDS supplies. The Public Distribution System, which was conceived as a key mechanism in the government's food security system, did not achieve the desired result.

The ninth plan reviewing the situation underlines the stark reality "In spite of mounting food subsidies evaluation studies indicate the supply of subsidized food grains through PDS has not resulted in improvement in house hold level food security. Self-Sufficiency of food grains at national level and availability of food grains at affordable cost at local level have not got translated into house hold level food security for the poor."

To achieve household level food security, efforts should be directed on the following fronts:

(i) Accelerating growth in food and agricultural sectors, which provide direct sources for food and income with which to buy food.

(ii) Promoting rural development that focuses on the poor

(iii) Improving access to land and other natural resources.

(iv) Providing cheap credit for poorhouse holds.

(v) Increasing employment opportunities.

(vi) Introducing income transfer scheme, including provision of Public Distribution System of subsidized cheap food.

Tenth Plan and Food Security

Tenth plan has drawn attention to the changes in consumption pattern that have taken place in the Post Green Revolution period. It states, "Between 1972-73 and 1993-94 the food basket has become much more diversified, with the share of cereals seeing a dramatic decline of ten percentage points in most regions. At the all India level, cereal consumption in the rural areas declined from 15.3 Kg per capita per month in 1972-73 to 13.4 Kg per capita per month in 1993-94. The corresponding decline in the urban areas was more modest from 11.3 Kg to 10.6 Kg over the same period. At the same time, consumption of milk and meat product as well as vegetables and fruits has increased. Such changes are a natural outcome of economic development."

Main components of the Food Security System

The main components of the food security system are the following.

(i) Promoting domestic production to meet the demands of the growing population as also to reduce under nutrition among quite a large section of the population.

(ii) Providing minimum support prices for procurement and storage of food items.

(iii) Operating a public distribution system and

(iv) Maintaining buffer stocks so as to take care of natural calamities resulting in temporary shortages of food and to act as a countervailing mechanism against traders and businessmen who try to push up prices, especially during periods of shortages of food.

4.5 GROWTH OF INDIA'S FOOD PRODUCTION IN THE WORLD CONTEXT

It would be useful to understand the growth of India's food production in the world context to understand to whether we are raising our food output adequately.

Data given in table 1 reveals that the India is way behind China in the growth of food production during 1985 and 1996. The acceleration of growth of food production during 1990 and 1996 was much higher in the case of China. Not only that China has also been able to arrest the growth of its population during the period of 1990-95 to 1.1 prcent per annum as against the Indian growth rate of population at 1.8% per annum. In other words, the Chinese record of food security appears to be better.

Table 1 **Food Production Index (1989-90=100)**

	1985	**1990**	**1996**
Egypt	80.4	101.4	119.6
China	80.0	101.7	152.2
India	83.6	99.9	115.1

USA	102.3	101.1	115.1
Brazil	87.1	97.2	112.2
Australia	93.5	102.3	114.3
World	90.7	100.8	114.1

Source complied from FAO year book (1996) Vol - 50 Production

Scope of increasing yield

Table 2 provider comparative figures of yield per hectare in selected countries in four important crops, viz Wheat, Rice, Maize and Pulses. The data indicate that not to speak of the developed countries, India has failed to keep pace even with China in raising productivity. In case of rice, China's yield of 6062 Kgs is more than double that of India's meager 2811 Kgs.

In case of Wheat China's yield of 3759 Kgs in 50 Percent higher that the Indian yield of 2493 Kgs. The situation in Maize is much worse china produced 5173 Kgs. Per hectares as against India's low yield 1408 Kgs. Chinese yield being 3.7 times as compared to India.

In pulses, the major source of protein, Chinese yield is 1579 Kgs while the India's yield is 602 Kgs, 2.5 times as compared to India.

The overall record of China on food security appears to be much better than that of India. If we compare with developed countries of the world, India has miles to go. There is a tremendous hidden potential, which India needs to exploit. It appears that the green revolution has petered out. A big push in needed to revive green revolution in the laggard states of India as well as in the so-called green revolution states like Punjab, Haryana, Western Uttar Pardesh and Tamil Nadu.

Table 2 Yield per hectare in selected Countries (1996)

Wheat	**Kgs/ha**	**Rice**	**Kgs/ha**
India	2493	India	2811
China	3759	China	6062
UK	8113	Egypt	8291
Netherlands	8961	Australia	8544

Australia	13279	USA	6860
World	2451	World	3730

Maize		**Pulses**	
India	1408	India	602
China	5173	China	1579
France	8357	Japan	1833
Italy	9151	Ireland	4524
UAE	18636	France	4769
World	4117	World	799

Source compiled from FAO Year book (1996) Vol – 50 Production.

FAO – Food and Agriculture Organisations

In India 52% of total land is cultivable as against 11% in the world. All 15 major climates of the world, snow bound Himalayas to hot humid southern peninsula, Thar Desert to heavy rain areas all exists in India. There are 20 agro climatic regions and nearly 46 out of 60 soil types in the country. Sunshine hours and day length are ideally suited for round the year cultivation of crops. India is the centre for biodiversity in plants animals, insects micro organism and accounts for 17% animal, 12% plants and 10% fish genetic resources of the globe. In the live stock sector India has 16% of cattle, 57% of buffalo, 17% goats and 5% of sheep population of the world. Agriculture contributes 24.2% to GDP 15.2% of total exports and provides employment to 58.4% of Country's work force. As mentioned in the FICCI report of October 2004 India is the

(a) Second highest fruit and vegetable producer in the world (134.5 millions tonnes) with cold storage facilities available only for 10% of the produce.

(b) Second highest producer of milk with a cold storage capacity of 70000 tonnes.

(c) Fifth largest producer of eggs.

(d) Sixth largest producer of fish and harvesting volumes of 5.2 millions tonnes.

In spite of the vast natural resources and abundant agricultural produce India ranks below 10th in the export of food products. Conservative estimates put processing levels in the fruits and vegetables sector at 2% meat and poultry at 2% milk by way of modern dairies at 14% fish at 4% bulk meat deboning is to the tune of 21%. Currently, the food-processing sector though in the ascent stage, constitutes 14% of manufacturing GDP amounting to products value of Rs. 2,80,000 Crores. It employs 130 Lakh persons and is supposed to increase at annual rate of 7%.

4.6 Conclusion:

India is all set to become the food supplier of the world. It has the cultivable land, all the seasons for production of all varieties of fruits and vegetables well developed agribusiness system that works in its own way.

The business system is turned to food habits (Cooking at home) and convenience of rural and urban folks of the pervious generation. Factors such as rapid growth in the economy the technological innovations in home appliances such as refrigerators, microwave ovens, rise of families with dual incomes and the changing food habits of the population all point to the increasing need for healthy process and food. The supply chain sector is very weak with no process owner and this can spell disaster. The food supply chain needs the attention of the academics, the Industry and the Government.

4.7 Further Readings:

1. Prakash Vohra and Rakesh Mehta : Economic Planning & Development
2. M.L. Jhingan : The Economics of Development & Planning.
3. Ruddar Datt & P.M. Sundhram : Indian Economy
4. S.K. Mishra & V.K. Puri : Indian Economy
5. A.N. Aggarwal : Indian Economy Problems of Development and Planning

Self-Assessment Questions

Section – A

(Short Answer Type Questions)

Q1. Define food security.

Q2. Discuss food Self-Sufficiency in India.

Section – B

(Medium Answer Type Questions)

Q1. Discuss the growth of India's food production in the world context.

Q2. Define food security. Also discuss food self-sufficiency and food security in India.

UNIT-IV ROLE OF INDUSTRIALIZATION IN ECONOMIC DEVELOPMENT.

Ms. Reena Sharma

Structure

5.1 Objectives: The main objectives of this unit are

- To understand the meaning of Industrialization.
- To understand how Industrialization plays an important role in economic development of a country.
- To understand different types of Industry.

5.2 Introduction: For a predominantly agricultural country like India, development of Industries is a must and some industrial development in the country has taken place. A look at the progress made and an assessment of the same is taken up in this unit. However, as a preliminary to this, let us recapitulate major arguments in favour of industrialization, as also form an idea of the present state of the Indian Industries.

5.3 Classification of Industries:

Industries may be classified in more than one ways according to various dimensions given below:

A) **Ownership basis:** On ownership basis the classification is in to Mixed sector,

Public sector, Private sector and Co-operative sector.

B) **On role or function basis:** The Industry is divided into basic or key and consumer industry.

C) **Size of Industry:** The classification is into large scale, small scale & Village and Cottage Industries.

D) **Bulk and Weight of Raw Material and Finished products:** The classification is into Heavy Industry & Light Industry.

Heavy Industries consume heavy and bulky raw materials and manufacture bulky and heavy goods. They usually consume large quantities of Power. Hence heavy industries are located near the source of power and raw materials, for example Iron and Steel, Fertilizer, Cement.

Light Industries consume little raw material, manufacture goods of small bulk and can possibly employ female labour. A light industry heavily depends on skilled workers and the urban market and is mostly located in a city or town, for example Radio, Television, Sewing machines & Watches etc.

E) **Origin of Material used:** The Industry is divided into agro-based mineral based etc.

F) **Labour or Capital Intensive:** In labour intensive Industries, the cost of labour per unit of production is more than all other costs put together. Obviously these industries employ a large labour force and require less capita. They make use of relatively less costly machinery, which is largely hand operated. Examples are glassware industry, Watch making & electronic goods industry.

Capital-intensive industries involve huge capital investment for their establishment, mainly for purchasing sophisticated plants and machinery. Such industries usually consume large quantities of raw materials or power. Their production too is huge. Examples are Iron and Steel Industry, Synthetic Fibre Industry, and heavy chemicals.

5.4 Meaning of Industrialization

Industrialization may be defined a process in which more and more industries are being established in a country. In the process of Industrialization old and outdated tools are replaced by electric or mechanical power.

5.5 Role of Industrialization.

Industrialisation has a major role to play in the transformation of predominantly agriculture economy of India into a modern self-reliant economy. IN India 60-70 percent of population is engaged in agricultural pursuits with relatively low returns and hence suffers from poverty, malnutrition and various diseases, it has therefore been argued that industrialization of Indian economy is fundament for the eradication of poverty and unemployment. In the pre-independence period, the British Government has deliberately discouraged the industrialization process and as a result the industrial sector of the Indian economy was not only underdeveloped but also nearly non-existent, there were only a few industries in the private sector producing mainly consumption goods. Thus, often independence it was visualized that not only the pace of industrialization is to be accelerated but also its structural deficiencies are to be removed. The importance of industrialization in India can be justified on the following grounds.

1) Absorbing Surplus Labour: Indian economy is characterized by surplus labour and rapidly growing population. To absorb all this surplus labour, as also to provide work/jobs at a rate commensurate with the addition to the labour force it is essential to industrialize the country and that too quickly. It is the establishment of Industries alone that can generate employment opportunities on an accelerated rate.

Indian cultivator is un-occupied any where from four to six months on account of seasonal character of agricultural operation. This has caused the wastage of rural labour force, which could be gainfully employed in small-scale and cottage industries.

Industrial development will have to be on a much grander scale than envisaged in the development of mere export Industries to earn foreign exchange or to establish mere import substituting industries to save foreign exchange. It must accord with the large manpower the vast and varied resources of the country and the massive and diverse demand patterns of continental India.

2) Providing for Security: Industrialization is needed to provide for country's security. This consideration becomes critical when some international crisis develops. Dependence on foreign sources for defence materials is a risky affair in such situations. To provide against such contingencies as also to keep the country's security arrangements in perfect form during all times, India must have all sorts of Industries, which cater to these needs. It is only through industrial development in a big way that the national objective of self-reliance in defense materials can be achieved.

3) Bridge the Gap between Export and Import: An alternative to the development of Industries is to concentrate on the products of primary goods, export them, and get Industrial goods from Industrially developed countries. This argument would be valid if it could be established that these countries would always earn foreign exchange to import their manufactures. But, this is fact is not the case. On the contrary, these countries face a difficult situation. The income elasticity of export goods of agricultural countries is low, while the income elasticity of import goods is high. As in the case of domestic demand, the demand for agricultural product in other countries, in particular advanced countries is very low. Infact, developed countries have surpluses in agricultural products for exports. As against this the demand for the import of manufactured goods by underdeveloped countries is very intense.

The disparities in elasticities, therefore point to difficulty of earning adequate foreign exchange. India is one of those underdeveloped countries, which cannot export to earn enough foreign exchange from the export of its primary product alone. Where this is so says Jagdish Bhagwati "Industrialization is a rational consequence". This situation, characterized by disparities in the elasticities of foreign trade can therefore, be corrected only by Industrialization such industries may be established which are in the nature of import substitutes so that the gap between the elasticities of imports and exports is being bridged or industrial exports will need to be added to the export of primary goods. Infact, both of these methods i.e. Import substitution and export of goods will have to be used. Handicraft products bring foreign exchange. We don't face any foreign competition in handicraft goods. Their exports can be promoted and foreign exchange can be earned & used for the import of most required goods, machinery & petroleum.

4) **Strengthening the Economy:** The industrial development imparts to an economy dynamic element in the form of rapid growth and a diversified economic structure, which make it a progressive economy. In this connection, one may refer to four major things. One, the development of Industries producing capital goods i.e. machines, equipments etc. enables a country to produce a variety of goods in large quantities and at low cost, make for technological progress and change in the outlook of the people. This results in bringing about an industrial civilization or environment for rapid progress so necessary for any healthy economy. Two, it makes possible the production of goods like railways, dams, etc., which are in any case non-importable. These are by and large of the nature of economic infrastructure for the future growth of the economy. Three, it is through the establishment of Industries that one can impart elasticity to the system and overcome the historically given position of a primary producing country with this we can change the "Comparative advantage" of the country to suit its resources and potentialities of manpower. Four, the requirements for the development of agriculture can be met e.g. improved farm impediments, chemical fertilizers, storage & transport facilities etc, appropriate to our own conditions (e.g. Small farm size, abundant labour, etc.) Can be adequately provided only by our own industries. Five, the Industrial development imparts to an economy dynamic element in the form of rapid growth and a diversified economic structure, which make it a progressive economy.

5. **Capital formation:** Industrialization promote capital formation & hence play a important role in economic development of the country. The spreading of Industries over the countryside would encourage the habit of thrift and investment in the rural as well urban areas.

6. **Meeting high-Income demands:** Beyond certain limits, the demands of the people are usually for Industrial products alone. After having met the needs of food, incomes of the people are spend mostly upon non-food items.

7. **Raising Income:** Industrial development can provide a secure basis for a rapid growth of income. Industries produce products, which are largely, depend upon man's efforts, as against agriculture where man's hard work is restricted by the

limiting factor of nature. In the sphere of industries, man can, by putting in more effort & application of ever improving technology push on with the objective of producing more & more economic goods. Again it is in this sphere that it is possible to enlarge the scale of production so as to reap the benefits of large-scale production. The empirical evidence suggests a close correspondence between the high level of income and industrial development.

8. Inculcation of Industrial culture & civilization: Industrialization promotes labour mobility due to division of labour which in turn cuts across the geographical, linguistic, social and cultural barriers as against agricultural activities which are of localized nature. This industrialization promotes social understanding and social cohesiveness and thus strengthens national integration.

9. Utilization of local resources: The exports of goods at low prices and import of manufactured product (consumption, capital, defense) at high prices places the economy in a disadvantageous position. Industrialization therefore will not only reverse the situation but will also promote effective utilization of domestically produced minerals. It will thus strengthen capital goods sector, which is one of the most important indicator of economic power.

5.6 Conclusion: Thus we can say that Industrialization of the developing countries like India can alone provide the necessary elements to develop these countries. There is a strong case for the industrialization of countries like India with vast manpower large & varied resources and continental dimensions.

5.7 Suggested Readings:

- Misra & Puri (2006) Indian Economy
- Ruddar Datt & K.P.M Sundhram (2006), Indian Economy.
- A.N. Agrawal (2007) Indian Economy Problems of Development & Planning.
- Jagdish Bhagwati and Padma Desai (1970), India: Planning for Industrialization.

Self-Assessment Questions:

1. What is industrialization?

2. How Industrialization helps the development of developing countries?

3. How Industrialization strengthening the Economy of underdeveloped countries?

4. Discuss the role of Industrialization in the development of under-developing countries.

MAJOR CHANGES IN THE POLICY DIRECTION OF THE GOVT. TOWARDS PUBLIC SECTOR ENTERPRISES (PSES) IN INDIA.

By Ms. Reena Sharma

Structure

6.1 Objectives

6.2 Introduction

6.3 Meaning of Public Sector.

6.4 Problems of Public Sector Enterprises.

6.5 Role of Public Sector in India.

6.6 Public Sector Reform.

6.7 New Directions of Policy of the Public Sector.

6.8 Conclusion

6.9 Suggested Readings

6.1 Objectives: The main objectives of this unit are:

- To understand the meaning of Public Sector.
- To understand what are the main problems faced by Public sector in India.
- To understand importance of Public Sector in Indian economy.
- To understand major changes in the policy direction of the Government towards public sector enterprises in India.

6.2 Introduction : The expansion of the Public Sector was based on the Industrial Policy Resolution of 1956 which assigned a strategic role to the Public Sector.

Development of heavy and basis industries and the provision of infrastructure were the main tasks of the public sector. Massive investments were made over the past 45 years to build the public sector. Many of these enterprises successfully expanded production opened up new areas of technology and built up a reserve of technical competence in a number of areas. There is no doubt that the Public Sector established an Industrial base of the economy, which enabled the private sector to undertake investments in other areas of infrastructural facilities were made available by the Public Sector.

6.3 Meaning of Public sector: The part of the economy, which is not privately owned and is controlled by one of the tiers of the government. Examples of public sector enterprises are Telecom a common wealth authority and state instrumentalities such as an electricity commission or water board. The public sector has become a large part of western Industrialized economies accounting for more than 20% of gross domestic product in the US, UK and most European countries although many governments have divested themselves of state run enterprises through selective privatization programmes. The public sector is by its nature often unprofitable creating an excess of expenditure over receipts, which has to a large public sector borrowing requirement.

6.4 Problems of public sector enterprises:

The most important criticism levied against the public sector has been that in relation to the capital employed the level of profits has been to low even the government has criticized the public sector enterprises on this count. For instance the eighth five-year plan notes that the public sector has been unable to generate adequate resources for sustaining the growth process. Of the various factors responsible for low profit in the public sector the following are particularly important.

1. Price policy of public enterprises: Private sector enterprises are operated with the sole aim of maximizing profits. Accordingly prices are determined at a level that could cover total cost and provide a sufficient net return over and above as against this the purposes of setting up and operating public sector enterprises are varied and price policy is determined by the objectives, which they are expected to serve. In order to tackle this problem, the government has announced changes in the pricing policy of public sector enterprises in recent years.

2. Problem related to planning and construction of projects: As for as the phase of planning and construction of projects is concerned following problems had to be faced.

   I. Selection of site was not based on detailed soil investigation.

   II. There were serious omissions and understatements of several elements of the projects.

   III. The actual costs of projects far exceeded the original estimates.

   IV. The projects took much longer time to complete than originally envisaged and

   V. The projects often embodied inappropriate technology or product mix.

3. Problems of labour personnel and management:

Public sector enterprises are often plagued with undue political interference in their day to day working and this has demoralizing effect on the management and other personnel of there enterprises. Many appointments at the top are not made on grounds of professional competence or suitability but are determined by various political considerations. Often the management at the top is constituted of the traditional administrative services of ICS and IAS. These non specialized non technical people are often unequal to the task of providing the requisite managerial competence in the complex capital intensive industrial projects in the public sector. Also as noted by Bhagwati and Deasi, with their civil services background these official inevitable tended to act with bureaucratic caution and unimaginativeness rather than in bold and inventive ways.

4. Under utilization of capacity:

Under-utilization of installed capacity is another reason for the low level of profitability in public sector enterprises. A large number of these enterprises have operated to less than 50% of their capacity for a number of years. The important factors, which are responsible for under utilization of capacity in public sector enterprises, include inefficient operation and poor management of some enterprises political interference in day today working labour disputes etc.

6.5 Role of the public sector in India:

After the attainment of independence and the advent of planning there has been a progressive expansion in the scope of the public sector. The passage of industrial policy resolution of 1956 and the adoption of the socialist pattern of society as our national goal further led to a deliberate enlargement of the role of public sector. Development of heavy and basic industries and the provision of infrastructure were the main tasks of the public sector. Massive investments were made over the part 45 yrs to build the public sector. Many of these enterprises successfully expanded production, opened up new area of technology and built up a reserve of technical competence in a number of areas. There is no doubt that the public sector established an industrial base of the economy, which enabled the private sector to undertake investments in other areas, as infrastructure facilities were made available by the public sector.

6.6 Public sector reforms:

The national Common Minimum Programme is committed to a strong and effective public sector whose social objectives are met by its commercial functioning for this there is need for selectivity and a strategic focus in which the future plans of the public sector enterprises must be matched with both restructuring where required and enhanced competitiveness. Towards this end government is pledged to devolve full management and commercial autonomy to successful profit making PSEs operating in a competitive environment and review all case of sick companies for possible revival. In order to review the road map for this process the department of heavy industries is organizing its annual conference of the CEOs of public sector enterprises on the 14th of Sept. 2005 at Vigyan Bhawan New Delhi. The theme of the conference this year is “Improving competitiveness of public sector enterprises”.

As the Indian economy integrate more and more with the global economy over PSEs need to be competitive and efficient at a global level. In the face of global competition which is getting increasingly stiff day by day the public sector enterprises will have to continuously upgrade their performance to match global standards through adopting appropriate system of management they must also access globally competitive technology through technology acquisition on strategic alliances on their own research and development. The present Government has brought about a radical change in the policy relating to public sector enterprises and is resolute in the thinking that the capital and valuable human resources deployed in public sectors should effectively be canalised to achieve growth in a sustained manner for the larger good of the nation.

6.7 New Direction of policy of the public sector:

To improve the performance of the public sector the government of India announced in July 1991 the new industrial policy, which contained the following decisions pertaining to the public sector.

i) Portfolio of public sector investments will be reviewed with a view to focus the public sector on strategic hi-tech and essential infrastructure. Whereas some reservation for the public sector is being retained there would be no bar for area of exclusivity to be opened up to the private sector selectively. Similarly the public sector will be allowed entry in areas not reserved for it.

ii) Public enterprises which are chronically sick and which are unlikely to be turned around will for the formulation of revival/rehabilitations schemes, be referred to the board for Industrial and financial reconstruction (BIFR) or other similar high level institutions created for the purpose. A social security mechanism will be created to protect the interests of workers likely to be affected by such rehabilitation packages.

iii) In order to raise resources and encourage wider public participation a part of the government share holding the public sector would be offered to mutual funds financial institutions general public and workers.

iv) Boards of public sector companies would be made more professional and given greater powers.

v) There will be greater thrust on performance improvement through the memorandum of understanding (MOU) system through which managements would be granted greater autonomy and will be held accountable

vi) Technological up-gradation through an integrated R&D efforts and import of technology.

vii) Changes in management in specific enterprises to promote leadership resourcefulness and innovation.

viii) State Govt. to promote reforms in their public sector enterprises.

ix) Restructuring involving modernization rationalisation of capacity product mix changes selective exit and privatization

x) The PSEs have not been able to raise the projected borrowings on account of their past record of not being run on commercial basis with rationalization of the tax structure in the recent budgets such as uniform Excise Duty of 15% on capital good components reduction in duty on Aluminium 15% and lowering of peak customs duty to 50% it is expected that the PSEs would be able to generate internal resources for their sustenance and growth.

Revival of sick PSUs:

In pursuance of the policy announced in 1991the government brought out a monograph on the performance of the central public sector enterprises and decided to refer the chronically sick enterprises to the BIFR (Board For Industrial Finance And Reconstruction) for the formulation of revival/rehabilitation schemes. Till the end of October 2006, 66 PSUs have been referred to BIFR which has so far sanctioned revival packages in respect of 36 PSUs. The Govt. has approved the proposals of 21 CPSEs involving a total cost of Rs.5610 crores. The Government has also been opening out certain important and strategic areas to the private sector. The power sector is being opened to the foreign companies. Similarly, the Government has to invite multinationals in the telecommunication sector. As there is very strong resistance by the trade unions to moves of privatization, the Government pushes its policy of opening out areas hitherto reserved for the public sector to private sector.

VRS to shed the load of excess workers:

Secondly, the Government had been making an effort to shed the load of excess workers in the public sector. It initially toyed with the idea of exit policy but abandoned it due to the strong resistance by the trade unions. It followed a policy of offering package for voluntary retirement scheme (VRS) and it has succeeded. As a result of the VRS, the number of regular employee, which stood at 22.19 lakh in 1990-91, has been brought down to 16.49 lakh in 2005-2006. The Government is now concentrating on retraining and deployment of VRS workers during 2001-2002 to 2005-2006 nearly 89,000 were retrained and 40480 were re-deployed.

Memorandum of Understanding (MOU)

The Government on the recommendations of the "Committee to Review the policy for the Public Enterprise (Arjun Sengupta Committee, 1985) has entered into Memorandum of Understanding (MOUs) with a number of PSUs. The main aim of the MOU is to bring about a balance between autonomy and accountability leaving the Public enterprises which were to be referred to the BIFR, the Industrial Policy (1991) extended the scope of Memorandum of Understanding (MOU) to all Public Sector Enterprises (PSEs). The main goal of the MOU policy is to reduce the "Quantity" of control and increase the "Quality" of accountability. This is sought to be done by specifying in clear terms the measurable goals and giving each PSE greater operational autonomy to achieve them. The real purpose of MOU is to manage PSEs by management by objectives rather than management by control.

By holding them accountable for procedures not only has the scope of MOU policy enlarged significantly but the focus of MOU policy has also become market oriented and in tune with other reforms initiated by the Government. For the first time since the inception of the Public sector an attempt has now been made to free them from the administrative control of the ministries and permit them to operate autonomously in a competitive environment.

102 Public sector enterprises (PSEs) have signed MOUs for the year 2005-2006. According to the Public Enterprises Survey (2005-2006) on the basis of the self evaluation by 102 PSEs, 44 were rated excellent, 36 very good, 14 good and 8 fair.

Policy for Navratnas:

In 1997 the Govt identified 11 Public Sector Enterprises as Navratnas and decided to give enhanced powers to the Board of Directors of these enterprises to facilitate their becoming global players. These enterprises are BHEL, GAIL, HPCL, IOC, IPCL, MTNL, NTPC, ONGC, SAIL and VSNL. Two of these namely IPCL and VSNL have since been privatised and presently there are only 09 Navratnas. The Board of these Navratna enterprises have been professionalised by induction of non-official Part-time professional Directors. These PSUs have been delegated substantial enhanced autonomy and operational freedom, which include:

1. Incurring capital expenditure.
2. Entering into joint venture.
3. Effecting organizational restructuring.
4. Creation and winding up of posts below Board level.
5. To raise capital from the domestic and international markets and
6. To establish financial joint ventures subject to equity investments with special limits.

The Govt. has also granted financial and operational autonomy to some of the other profit making PSUs subject to fulfilling certain conditions. These enterprises are categorized as Miniratnas. The enterprises, which have made profits continuously for the last three years and have earned a net profit of Rs.30 Crore or more in one of the three years with positive net worth, are categorized as Miniratnas I.

Category II: Miniratnas should have made profits for the last three years continuously and should have a positive net worth. Both these categories of Public sector enterprises are granted certain autonomy like incurring capital expenditure without Govt. approval up to Rs.300 Crore or equal to their net worth whichever is lower (for category I Miniratna Companies) and up to Rs.150 Crore or up to 50 percent of their net worth whichever is lower (for Category II Miniratna Companies). These enterprises can also enter into joint ventures subject to certain conditions, setup subsidiary companies and overseas offices, enter into technology joint ventures etc. As on March 31, 2005, 45 enterprises had been categorized as Miniratnas.

6.8 Conclusion:

It may be stated that Public Sector Enterprises have turned the corner. The approach to the 11^{th} Five-year plan notes "Public Sector Enterprises have made a major contribution to the economic growth of the country by creating a diversified industrial base. They have been major providers of organized sector employment. Some of the public Sector Enterprises have had strong financial results over many years and recently some more have turned the corners". In 2005-2006, the number of profit making Public Sector Enterprises increased to 157 from 119 in 2002-03 and aggregate profit rose to Rs.76240/- Crores from Rs.43316/- Crores. The number of loss making enterprises declined from 105 in 2002-2003 to 58 in 2005-2006. Moreover, the total loss of loss making enterprises declined sharply from Rs.10972 Crores in 2002-

2003 to Rs.5952 Crores in 2005-2006 indicating the new directions of policy. The Approach mentions, “ The necessary conditions for further improvements in the performance of the PSEs are ensuring autonomy, delegation of more powers to PSE Boards, Freedom from informal level of control exercised by the administrative ministries and a clear statement of future ownership. If these conditions are met, PSEs do not need to the supported by measures such as administered prices, or price or purchase preference in Govt purchases”.

6.9 Suggested Readings:

- Misra & Puri (2007) Indian Economy
- Ruddar Datt & K.P.M Sundhram (2006), Indian Economy.
- A.N. Agrawal (2007) Indian Economy Problems of Development & Planning.
- Uma & Kapila, Indian Economy

Self-Assessment Questions:

1.What is public Sector?

2. What are the important problems of Public Sector Enterprises in India?

3. What are the important Public Sector Reforms in India?

4. Bring out the major change in the policy direction of the government towards Public Sector enterprises in India?

RATIONALE OF DISINVESTMENT

By Ms. Reena Sharma

STRUCTURE:

7.1 OBJECTIVES

The main objectives of this unit are: -

- To understand the meaning of Disinvestment
- To understand reasons for Disinvestment
- To understand the important objectives of Disinvestment

7.2 INTRODUCTION

Privatisation is a process by which the government transfers the productivity activity from the public sector to the private sector. Many countries of the world –

Industrial Market economies, the former socialist economies, (Belonging to central and Eastern Europe and Soviet Union) and a large number of developing countries belong to Asia, Africa and Latin America – have launched massive programmes of privatilisation during the period of last two – three decades or so. While many industrial market economies have carried out the programs of privatilisation on their own accord, former communist countries and many developing countries were force by the IMF and World Bank to carry out privatilisation as condition for assistance under the economic stabilization and structural adjustment programmes.

7.3 MEANING OF DISINVESTMENT

Investment and Disinvestment are two sides of the same coin when we deal with the investment management, it automatically encompasses disinvestments also as what is investment for one is disinvestment for another particularly in the secondary market. In other words we can say that investment refers to conversion of money or cash into securities, debenture bonds or another claims of money. At the same time disinvestments involves the conversion of securities, bonds, debenture in to money or cash.

The government policy on 'Disinvestment' has evolved over the last decades and has been generally announced through the Budget. Disinvestments of government equity in CPSE's (Central Public Sector Enterprises) began in 1991-92. Till 1999-2000, disinvestment was primarily through sale of minority shares in small lots. From 1999-2000 till 2003-04 the emphasis of disinvestments changed in favour of strategic sale. At present, the emphasis is to list large, profitable CPSE's on domestic stock exchanges and selectively to sell small portions of equity in listed, profitable CPSE's (other than the Navratnas).

The National Common Minimum Programmme (NCMP) stipulates a strong and effective public sector whose social objectives are met by its commercial functioning. Efforts are being made to modernize and restructure sick CPSE's and revive sick industry. Only the chronically loss making CPSE's may be closed on sold off after all the employees are paid their legitimate dues.

7.4 RATIONALE OF DISINVESTMENT

The term disinvestment is used to indicate the process of privatilisation. Since the beginning of 1980' the functioning of the public sector began to be questioned. It was held that the public sector began to be questioned. It was held that he public sector performed well only when protected through state monopolies, entry reservations high tariffs and quotas etc. Since quite a large number of public enterprises incurred losses year after year, it was argued that the state should not be called upon to meet the losses of these enterprises out of tax payers money since in our country, the public sector had entered into too many areas, the question of withdrawing from these areas was also raised. Consequently, the question of privatilisation of the public sector was debated. Disinvestments is the process through which privatilisation could take place.

According to the supporters of Disinvestment the rationale for Disinvestment is as follows.

1. The private sector introduces the 'Profit – Oriented' decision-making process in the working of the enterprise leading to improved efficiency and performance. Moreover, private ownership establishes a market for managers, which improves the quality of management.
2. While personnel in the public enterprises cannot be held responsible (or accountable) for any lapse, the areas of responsibility in the private sector are clearly defined. This makes it possible to take people to task in the private sector units for any blunders committed by them whereas in public sector units, it is easy to pass the buck. Even when responsibility is defined in the Public Enterprises, there are too many pressures and forces operating to reduce its effective implementation.
3. Private Sector firms are subject to capital market disciplines and scrutiny by financial experts. Infact, the ability to raise funds in the capital market is crucially dependent on performance. Not so in the case of public enterprises. On account of government ownership of these enterprises, they easy access to credit and budgetary support irrespective of their performance. Thus there is no compulsion for these enterprises to perform well.
4. According to Bimal Jalan, Political interference in unavoidable is public corporations and is a major cause of decline in operation efficiency. "Such political decision-making reflects itself in the less than optimal choice of technology or location, inefficient use of input and purchase or price

preferences for certain suppliers." Most government also impose non economic objectives on Public Enterprises.

5. Many public sector enterprises remain 'headless' for long periods to time. This causes confusion and delay in decision-making as nobody is sure how the new incumbent will act (or react) on the policy decision being undertaken. Such a situation does not exist in private sector enterprises as the heir- apparent is identified early on and groomed to take over the reins when the time actually arrives.

6. In a quick changing business environment it often becomes necessary to take spot decisions without having to worry too much about not having consulted others. Infact, "delayed decision-making is often equivalent to making no decision at all". In public enterprises, the concept of response time is almost totally absent as no one is willing to disturb the status quo. Not so in the case of private sector enterprises. Because of the very nature of management in these units, it becomes easier to react to changing situation fast.

7. Private sector firms are more subject to liquidation threat of takeover and loss of assets for owners than public sector enterprises. When owners stand to lose control over assets, there is greater likelihood of remedial measures being taken earlier.

8. According to Bimal Jalan, efforts to improve managerial efficiency in Public Enterprises by Administrative measures are generally short lived and unsustainable as, sooner or later, political considerations take precedence over economic or commercial consideration. This has happened in many countries including Italy, France, Korea, India and Pakistan.

9. The very survival of private sector enterprises depends on customer satisfaction since only such satisfaction can ensure more widespread and repeat buying. As against this, so the argument goes, caring for the customer is generally not a priority with public sector enterprises. Once privatization occurs, the needs to create and sustain markets will lead to sea change in the attitude of these enterprises towards customers. Hence, quality of services will improve.

7.5 DISINVESTMENT OF PUBLIC SECTOR UNDERTAKINGS

The Indian approach towards disinvestments seems to have gone totally wrong even since the reform process was initiated in the early 90's. The country now has lost the opportunity and its way as the pace of the entire process is very slow and lethargic in nature.

Indian approach towards disinvestments seems to have gone totally wrong ever since the reform process was initiated in the early 90's. The country now has lost the opportunity and its way as the pace of the entire process is very slow and lethargic in nature.

The whole process of disinvestments is not encouraging as the total proceeds realized in just 35% as against the target set for the decade of 1991-92 to 2001-02. Though 49 companies so far have been disinvestment but in reality only a few have been genuinely privatized. On the other hand, the countries like Taiwan, Hungary, Thailand, Philippines, Turkey, Poland, Eastern Europe, West Asia and even China have marched ahead with the disinvestments programme with a professional approach.

Disinvestment is a wider term extending from dilution of the stake of the government to a level where there is no change in the control to dilution that results in the transfer or management. The transfer of ownership may occur when in an enterprise the dilution of government ownership is beyond 51%.

7.6 REASONS FOR DISINVESTMENT

The public sector in India at present is at cross roads the new economic policy initiated in July 1991 clearly indicated that the public sector undertakings have shown a very negative rate of return on capital employed. On account of this phenomenon many public sector undertakings have become burden to the government. They are in fact turning out to be liabilities to the government rather than being assets. This is a sector, which the government clearly wants to get rid off. In this direction the government has adopted a new approach to reform and improve the public sector undertakings.

Disinvestment Policy: -

This has gained a lot of importance especially in latter part of 90's. At present the government seriously perceives the disinvestments policy as an active tool to reduce the burden to financing the public sector undertakings.

7.7 PROBLEMS OF PSU's

The most important criticism levied against public sector undertakings has been that in relation to the capital employed, the level of profits has been too low on this various factors responsible for low profits in the public sector undertakings.

The following are particularly important

1. Price policy of public sector undertakings.
2. Under-utilization of capacity.
3. Problem related to planning and construction of projects.
4. Problem of Labour personnel and management.
5. Lack of Autonomy.

The government in order to put an end of these problems decided to disinvest its stake in the PSU's. The companies traditionally established as pillars of growth have now become a burden on the economy. Except few mightly oil and petroleum companies al most all other PSU's are incurring losses. The national gross domestic product and gross national savings are also adversely effected by low return from PSU's.

7.8 OBJECTIVES OF DISINVESTMENT

The following are the main objectives of disinvestments policy of the Govt.

1. To reduce the financial burden on Govt.
2. To improve public finances
3. To introduce competition and market discipline
4. To find growth
5. To encourage wider share of ownership
6. To depoliticise essential services

7.9 PRIMARY OBJECTIVES OF DISINVESTMENT

Giving the rationale for disinvestments, the ministry of Disinvestment has outlined the following as the **Primary Objectives**

1. Releasing the large amount of public resources locked up in non strategic PSE's for redeployment in areas that are much higher on the social priority, such as basic health, family welfare, primary education and social and economic infrastructure.
2. Stemming further outflow of these scarce public resources for sustaining the unviable non – strategic PSE's.
3. Reducing the public debt that is threatening to assure unmanageable proportions.
4. Transferring the commercial risk to the private sector wherever the private sector is willing and able to step in and
5. Releasing other tangible and intangible resources, such as large manpower currently, locked up in managing PSE's and their time and energy, for deployment in high priority social sectors that are short of such resources.

7.10 Conclusion

The Government Policy on 'Disinvestment' has evolved over the last decade and has been generally announced through the Budget. Disinvestment of Government equity in CPSE's began in 1991-92. Till 1999-2000, disinvestment was Primarily through sale of minority share in small lots. From 1999-2000 till 2003-04 the emphasis of disinvestments changed in favour of strategic sale. At Present, the emphasis is to list large, Profitable CPSE's on domestic stock exchanges and selectively to sell small Portions of equity in listed, Profitable CPSE's (other than the Navratnas)

The National Common Minimum Programme (NCMP) stipulates a strong and effective Public sector whose social objectives are met by its commercial functioning. Efforts are being made to modernize and restructure sick CPSE's and revive sick industry. Only the chronically loss making CPSE's may be closed or sold off after all the employees are Paid their legitimate dues.

7.11 Further Readings

Mohan Prasad Shrivastava, Pradeep Kr. Pandy & V.P. Vidyarthi	:	Globalisation
Prakash Vohra, Rakesh Mehta	:	Economic Planning & Dev.
Bimal Jalan	:	India's Economic Crisis
Kushik Basu	:	Structural Reform in India
R. Nagraj	:	Indian Economy Since 1980

SELF-ASSESSMENT QUESTIONS

Q1. What is Disinvestment?

Q2. Discuss the Rationale for Disinvestment.

Q3. What are the Primary Objectives of Disinvestment?

Directorate of Distance Education

UNIVERSITY OF JAMMU
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SELF INSTRUCTIONAL MATERIAL

FOR

ECONOMICS (SUPPLEMENTARY)

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