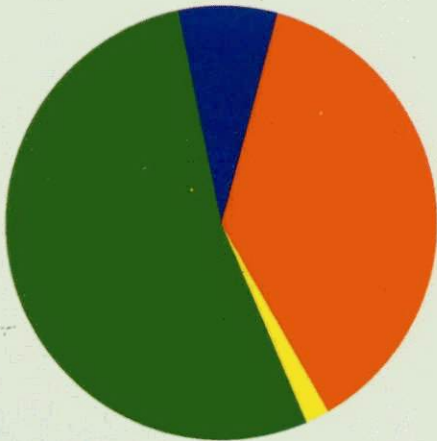
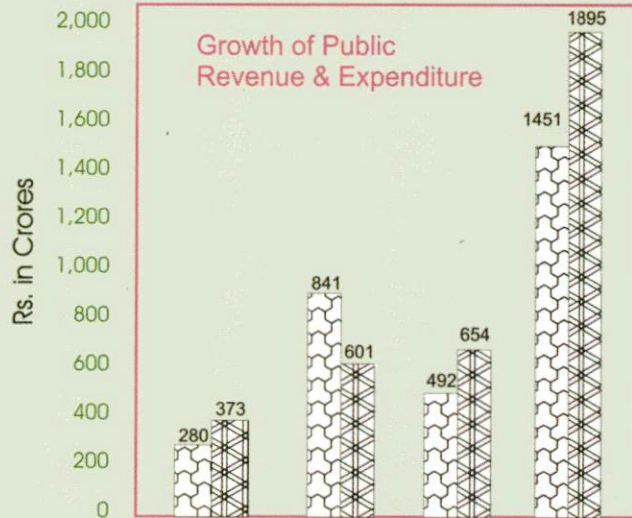




COURSE : 4

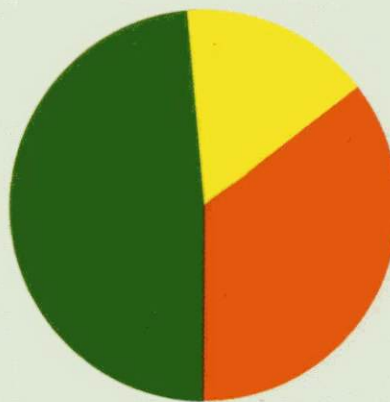
**M.A. (PREVIOUS)
PUBLIC ECONOMICS**

629



ALLOCATION OF RESOURCES

- Agriculture
- Tertiary Sector
- Industry
- Other Sector



DISTRIBUTION of PUBLIC GOODS

- Public Sector Goods
- Private Goods
- Joint Goods

ಉನ್ನತ ಶಿಕ್ಷಣಕ್ಕಾಗಿ ಇರುವ ಅವಕಾಶಗಳನ್ನು ಹೆಚ್ಚಿಸುವುದಕ್ಕೆ ಮತ್ತು ಶಿಕ್ಷಣವನ್ನು ಪ್ರಜಾತಂತ್ರೀಕರಿಸುವುದಕ್ಕೆ ಮುಕ್ತ ವಿಶ್ವವಿದ್ಯಾನಿಲಯ ವ್ಯವಸ್ಥೆಯನ್ನು ಆರಂಭಿಸಲಾಗಿದೆ.

ರಾಷ್ಟ್ರೀಯ ಶಿಕ್ಷಣ ನೀತಿ 1986

The Open University system has been initiated in order to augment opportunities for higher education and as instrument of democratizing education.

National Education Policy 1986

ಮುಕ್ತ ವಿಶ್ವವಿದ್ಯಾನಿಲಯವು ದೂರಶಿಕ್ಷಣ ಪದ್ಧತಿಯಲ್ಲಿ ಬಹುಮಾಧ್ಯಮಗಳನ್ನು ಉಪಯೋಗಿಸುತ್ತದೆ.ವಿದ್ಯಾಕಾಂಕ್ಷಿಗಳನ್ನು ಜ್ಞಾನ ಸಂಪಾದನೆಗಾಗಿ ಕಲಿಕಾ ಕೇಂದ್ರಕ್ಕೆ ಕೊಂಡೊಯ್ಯುವ ಬದಲು, ಜ್ಞಾನ ಸಂಪತ್ತನ್ನು ವಿದ್ಯೆ ಕಲಿಯುವವರ ಬಳಿ ಕೊಂಡೊಯ್ಯುವ ವಾಹಕವಾಗಿದೆ.

ಡಾ. ಕುಳಂದೈಸ್ವಾಮಿ

"The Open University system makes use of Multimedia in distance education system. it is vehicle which transports knowledge to the place of learners rather than transport to the place of learning.

Dr. Kulandai Swamy

ಸುವರ್ಣ ಕರ್ನಾಟಕ ವರ್ಷ 2006

ವಿಶ್ವ ಮಾನವ ಸಂದೇಶ

ಪ್ರತಿಯೊಂದು ಮಗುವು ಹುಟ್ಟುತ್ತಲೇ - ವಿಶ್ವಮಾನವ. ಬೆಳೆಯುತ್ತಾ ನಾವು ಅದನ್ನು 'ಅಲ್ಪ ಮಾನವ'ನನ್ನಾಗಿ ಮಾಡುತ್ತೇವೆ. ಮತ್ತೆ ಅದನ್ನು 'ವಿಶ್ವಮಾನವ'ನನ್ನಾಗಿ ಮಾಡುವುದೇ ವಿದ್ಯೆಯ ಕರ್ತವ್ಯವಾಗಬೇಕು.

ಮನುಜ ಮತ, ವಿಶ್ವ ಪಥ, ಸರ್ವೋದಯ, ಸಮನ್ವಯ, ಪೂರ್ಣದೃಷ್ಟಿ ಈ ಪಂಚಮಂತ್ರ ಇನ್ನು ಮುಂದಿನ ದೃಷ್ಟಿಯಾಗಬೇಕಾಗಿದೆ. ಅಂದರೆ, ನಮಗೆ ಇನ್ನು ಬೇಕಾದುದು ಆ ಮತ ಈ ಮತ ಅಲ್ಲ; ಮನುಜ ಮತ. ಆ ಪಥ ಈ ಪಥ ಅಲ್ಲ; ವಿಶ್ವ ಪಥ. ಆ ಒಬ್ಬರ ಉದಯ ಮಾತ್ರವಲ್ಲ; ಸರ್ವರ ಸರ್ವಸ್ವರದ ಉದಯ. ಪರಸ್ಪರ ವಿಮುಖವಾಗಿ ಸಿಡಿದು ಹೋಗುವುದಲ್ಲ; ಸಮನ್ವಯಗೊಳ್ಳುವುದು. ಸಂಕುಚಿತ ಮತದ ಆಂತಿಕ ದೃಷ್ಟಿ ಅಲ್ಲ; ಭೌತಿಕ ಪಾರಮಾರ್ಥಿಕ ಎಂಬ ಭಿನ್ನದೃಷ್ಟಿ ಅಲ್ಲ; ಎಲ್ಲವನ್ನು ಭಗವದ್ ದೃಷ್ಟಿಯಿಂದ ಕಾಣುವ ಪೂರ್ಣದೃಷ್ಟಿ.

ಕುವೆಂಪು

Gospel of Universal Man

Every Child, at birth, is the universal man. But, as it grows, we turn it into "a petty man". It should be the function of education to turn it again into the enlightened "universal man".

The Religion of Humanity, the Universal Path, the Welfare of All, Reconciliation, the Integral Vision- these *five mantras* should become View of the Future. In other words, what we want henceforth is not this religion or that religion, but the Religion of Humanity ; not this path or that path, but the Universal Path ; not the well-being of this individual or that individual, but the Welfare of All ; not turning away and breaking off from one another, but reconciling and uniting in concord and harmony ; and, above all, not the partial view of a narrow creed, not the dual outlook of the material and the spiritual, but the Integral Vision of seeing all things with the eye of the Divine.

Kuvempu



Block

4

Introduction

Unit 12

**Wagner's law of increasing state Activity and
wise man-peacock Hypothesis Pure Theory of
Public Expenditure Structure and Growth of
Public Expenditure** 1 to 12

Unit 13

**Social-cost-Benefit Analysis Project Evaluation-
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Budgeting, Programme budgeting and Zero-base
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M.A. Economics
Block - 4
Introduction

The Block - 4 Consists of Three Units

- Unit 12 Deals with Wagner's law of increasing state Activity and wise man-peacock Hypothesis
Pure Theory of Public Expenditure Structure and Growth of Public Expenditure
- Unit 13 Deals with Social-cost-Benefit Analysis
Project Evaluation-Estimation of costs Discount Rate
- Unit 14 Deals with Reforms in Expenditure Budgeting
Performance Budgeting, Programme budgeting and Zero-base budgeting



M.A . ECONOMICS (PRREVIOUS)

COURSE-IV BLOCK-IV

**UNIT-12: WAGNER'S LAW OF INCREASING STATE ACTIVITY AND WISEMAN-
PEACOCK HYPOTHESIS-PURE THEORY OF PUBLIC EXPENDITURE-
STRUCTURE AND GROWTH OF PUBLIC EXPENDIT**

- 12.0 Objective of the Unit
- 12.1 Introduction
- 12.2 Meaning and Scope
- 12.3 Theories of Public Expenditure
 - 12.3.1 Pure Theories
 - 12.3.1.1 Ability to Pay Theory
 - 12.3.1.2 Benefit Principle
 - 12.3.1.3 Samuelson's Theory
 - 12.3.1.4 Johnson Theory
- 12.4 Reasons for the Growth of Public Expenditure
- 12.5 Control and Accountability of Public Expenditure
- 12.6 Let us sum up
- 12.7 Some Useful Books
- 12.8 Check your progress

12.0 OBJECTIVES

By studying this unit you should be able to understand

- The meaning and scope of public which are responsible for continuous increase in public expenditure.
- Pure and general theories of public expenditure along with their limitations.
- The need and justifications for the control and accountability of public expenditure.

The concept of public expenditure plays a very prominent role public finance. In the 19th Century it did not receive much attention. Then the functions of the government were restricted to justice, police and arms. However, with the passage of time the situation has altogether changed and this has forced the economists to pay greater attention to public expenditure. Thus in modern times, the subject of public expenditure. Thus in modern times, the subject of public expenditure has earned great significance.

12.2 MEANING AND SCOPE

Public expenditure is the expenditure incurred by public authorities i.e., central government, state government and local bodies for the promotion of economic and social Welfare of the community. Over a period of time the economic activities of the state have increased manifold and therefore the nature and volume of public expenditure increased substantially.

Generally speaking public expenditure refers to the expenses which a government incurs for its own maintenance, the society and the economy and helping other countries. However, in practice with expanding state activities it is becoming increasingly difficult to separate the portion of public expenditure meant for the maintenance of the government itself from the total.

Historical, public expenditure has recorded a continuous increase over time in almost every country. Public expenditure is not merely a financial mechanism but it also aims at securing social objectives. Traditional economists held the rigid viewpoint that the government should make least interference in the general activity. But after the great the depression of the thirties, J.M.Keynes revoultioned economic policy prescriptions based on the concept of public expenditure. Now it has occupied a crucial place in public economics.

According to Prof. Musgrave public expenditure is an instrument to

- maximum social and economic welfare.
- Control the depressionary tendency in the economy.
- To maintain economic activities by providing the necessary infrastructure and other support service.

- to ensure optimum allocation of resources.
- To reduce socio-economic inequalities etc.

12.3 THEORIES OF PUBLIC EXPENDITURE

Classical economics did not pay much attention to frame any theory regarding the public expenditure. They simply regarded it as an administrative institution which only concerned with performing certain protective functions. The states were not supposed to provide a wide range of public Services. But in the 20th century the concept of government changed altogether. The modern state is termed as welfare state in which the government has enormous functions to perform. For the first time, Adolph Wagner, a fiscal theorist propounded an empirical theory. Thereafter a number of economists have tried to theories public expenditure. These theories can be broadly divided into two groups.

- Pure theories of public expenditure and
- General theories of public expenditure.

12.3.1 Pure Theories

The pure theories of public expenditure may be further divided into four theories.
They are

1. Pigou's Ability to Pay.
2. Lindahl's Benefit Analysis
3. Samuelson's Theory.
4. Johnsen Theory.

12.3.1.1 Pure Theories: A Review Ability to Pay

Prof. Pigou gave a most comprehensive treatment to ability to pay theory in the determination of optimum level of public expenditure. The optimum amount of government expenditure is determined at the point where the satisfaction obtained from the last rupee spent is equal to the satisfaction lost in respect of the last rupee. According to pigou, government expenditure could be larger when.

- (a). the aggregate income of the community is greater.
- (b). new opportunities for public expenditure are opened up.
- (c). the concentration of income in the hands of a few rich persons increase etc.

12.3.1.2. Benefit Principle

The optional determination of public expenditure on the basis of benefit principle finds its clear statement in the voluntary exchange theory of Erik Lindahl (1919). It was further developed and refined by Johnsen and Bowen. The most recent analysis micro economic price mechanism has been used to construct a theory of public expenditure.

According to Lindahl public expenditure is determined in connection with the distribution of the corresponding tax burden among the groups within the community.

12.3.1.3. Samuelson's Theory

Samuelson's pure theory of public expenditure is based on the ideas of Italian and Australian writers who revived the benefit approach. They also dealt with the issue of efficient resource allocation. According to this theory in a democratic society the optimal justification for the provision of public goods is the desire of the members of the society for assumes given preference and distribution of income.

12.3.1.4. Johansen Theory

It is an improvement over Samuelson's theory. In this Johansen has tried to correct some of the lapses of Samuelson's theory.

12.3.2. General Theories

In this category there are three important theories of increasing public expenditure. They are

- Adolph Wagner's Hypothesis
- Peacock-Wiseman Hypothesis and
- Colin Clark's Hypothesis

12.3.2.1. Adolph Wagner's Hypothesis

Adolph Wagner (1835-1917) was a German economist who based his "Law of Increasing State Activities" on historical facts, primarily of Germany. According to Wagner, there are inherent tendencies form the activities of different layers of and extensively. There is a functional relationship between the growth of an economy and government activities grows faster than the economy. He opined that relative growth of the public sector is an inherent characteristic of industrializing economics.

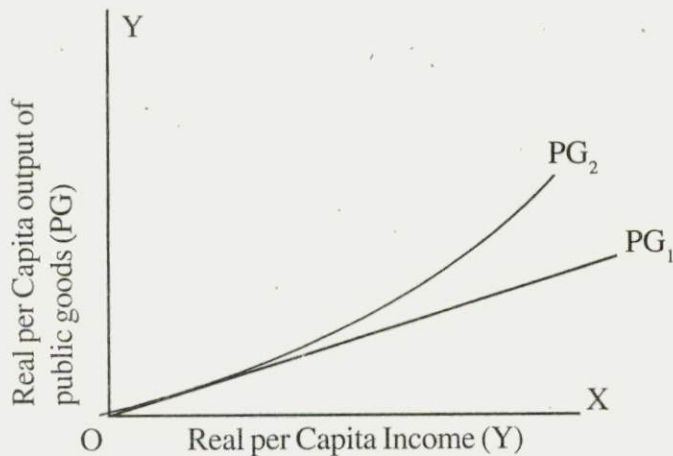
Wagner believed that social progress was the basic cause of the relative growth of government in industrialising economies. The chain-reaction circumstances described by Wagner are that social progress lead to a growth in government functions which in turn leads to the absolute and relative growth of governmental activity. This hypothesis is clearly secular i.e, long term in nature.

A number of reasons can be enumerated for this inherent long-term tendency.

- (i) An expansion in the traditional functions of the state, defence becoming increasingly more expensive over time, with the progress of society, Administration of the government and its service have become more extensive and expensive.
- (ii) The state activities are increasing in their coverage. Most governments have also taken measures to ensure distributive justice by reducing income inequalities.
- (iii) There is an increasing emphasis public goods in recent years. In turn this has necessitated an expansion of the investment activity of government.
- (iv) Many societies are experiencing a growing population which is contributions to the growth of public expenditure.
- (v) Many countries are experiencing rapid urbanization. Urbanisation implies a much larger per capita expenditure on civic amenities.
- (vi) Prices have a secular tendency to go up and this also adds to public
- (vii) The size and nature of public services necessitate an increasing specialisation. This also implies a higher cost of providing public services.
- (viii) Modern governments have shown a tendency to run into debt and this leads to a subsequent increase in public expenditure.
- (ix) Popularity of philosophy of planning and economic growth.
- (x) Recent investigations have brought into focus productivity and efficiency dimension of government organs and public undertakings and also the manner in which these dimension push up public expenditure. Allan Peacock and Baumol have explained that public sector is less efficient and productive than the private sector and gradually tends to be more inefficiency, rent seeking behaviour creep in due to lack of effective supervision and absence of accountability.

Diagrammatic Representation of the Theory

The Wagner's hypothesis of increasing government activity is demonstrated in the following figure. In the graph, the real per capita output of public good (PG) is measured along the vertical axis and real per capita income (Y) is measured along the horizontal axis. Time is an important third dimension implicit in the graph, because the growth in the real per capita output of public goods and real per capita output goods and real capita income is assumed to take place over a period of time.



Line PG₁ represents a situation in which the public sector maintains a constant proportion of the total economic production of the society over time. As real per capita income increases because of economic development, the real per capita output of public goods remains at the same proportion of total economic activity.

Along line PG₂, the proportion of resources devoted to the output of public goods is measured and the slope of the line represents that increasing proportion of resources is devoted to produce a given amount of public goods. In other words, the income elasticity of expenditure for public goods is elastic.

Critique of the Theory

Although the Wagner hypothesis has many attributes, it also has several defects.

- (1) The hypothesis deals with interdisciplinary phenomena, even though it is not sufficiently interdisciplinary in its analytical framework. Other disciplines like political Science, Economics and Sociology must be involved in any theory of public expenditure.
- (2) Though the hypothesis makes an attempt to accumulate data and partially explain the same, it lacks a comprehensive analytical framework. However, it does provide a convenient framework for discussion and further research.
- (3) Alan Peacock and Wiseman have observed that the theory is based on an organic self-determining theory of the state, which is not prevailing theory in most western nations, it has ignored the influence of war on governmental spending and it stresses along-term trend of public economic activity which tends to overlook the significant process of public expenditure growth.

12.3.2.2. Peacock-Wiseman Hypothesis

The second thesis dealing with the growth of public expenditure was put forth by Wiseman and Peacock in their study of public expenditure in the UK for the period 1890-1955. The hypothesis explains that public expenditure does not in jerks or steplike fashion. At times, some social or other disturbance takes place, creating a need for increased public expenditure which the existing public revenue cannot meet. While earlier, due to an insufficient pressure for public expenditure, the revenue constraint was dominating and restraining an expansion in public expenditure, restraint gives way.

The approach has made use of three important concepts.

- * Displacement effect
- * Inspection effect
- * Concentration effect

Peacock and Wiseman observed that the relative growth of the public sector in the UK followed a discrete step-like pattern rather than a continuous growth pattern. Most of the upward steps in taking and spending have taken place during periods of major social disturbances. This has created a “displacement effect” by which the previous lower tax and expenditure are replaced by new and higher budgetary levels. After the social disturbance has ended, the newly emerged level of tax tolerance make the society realise that they are capable of carrying a heavier tax burden that it previously had. In this way, the public expenditure and revenue gets stabilised at a new level and still another disturbance occurs to cause a displacement effect.

The inadequacy of the revenue as compared with the required public expenditure creates an “inspection effect” for eg: war and other social disturbances frequently force people and their government to find out the solutions for problems which previously had been neglected. The government and the people review the revenue position and the need to find a solution of the important problems that have came up and agree to the required adjustments to finance the increased expenditure. They attain a new level of tax tolerance.

In this way, the public expenditure and revenue get stabilized at a new level till another disturbance occurs to cause a displacement effect. Thus each major disturbance leads to the government assuming a larger proportion of the total national economic activity. In other word. There is a concentration effect also refers to the apparent tendency for central government. Moreover , this aspect of concentration effect is also closely connected with the political set up of the country.

Critique of the Theory

Peacock-Wiseman hypothesis looks quite convincing than Wagner's hypothesis. It does not claim to be an immutable economic law or principle but tries to point out some pivotal characteristics of the growth pattern in the industrial set up.

It is quite natural that in the course of advancement and structural changes in the economy there will be constant and systematic expansion in public expenditure. Further population explosion, urbanisation and demand for a wide range of civic amenities gradually lead to an upward movement of public expenditure. Empirical data for the British economy are consistent with this hypothesis during the 20th Century.

12.3.2.3 Colin Clark Hypothesis or Critical Limit Hypothesis

Another hypothesis of the growth of public expenditure was put forward by Colin Clark in his "Public Finance and Changes in the Value of Money". He called it as "the critical limit" hypothesis regarding tax-tolerance. He developed his theory using inter-war empirical data of several western countries. According to him, when the share of government sector exceeds 25% of the total economic activity in the economy, inflation occurs even in balanced budget.

Colin Clark opines that

* When the government's share in aggregate economic activity reaches the critical limit of 25% , the community behaviour pattern changes and produce less because now incentives to produce more are affected (In a progressive tax system with increase in income people must pay higher taxes).

* People became less resistance to various inflationary mean of financing government expenditure which in turn reduces aggregate supply. At the same time increased purchasing power tends to expand aggregate effective demand and this causes a mismatch between supply and aggregate demand.

Clark's hypothesis did not receive much attention in academic circles, however business community welcomed his thesis. The main limitation of the theory is that it has set 25% as critical limit. But empirical evidences reveal that several countries have crossed this limit during recent past because of inflationary tendencies. And it is a known fact that quite often budgetary activities lead to inflation.

These are some important theories of public expenditure. All these theories have explained that there is an increasing trend of public expenditure. Now let us examine why public expenditure has increased manifold in the recent past and why it continues to be on increasing trend in almost all countries of the world. In the next section let us try to examine the reasons for the growth of public expenditure.

12.4. REASONS FOR THE GROWTH OF PUBLIC EXPENDITURE

The important factors which are responsible for the growth of public expenditures are as follows.

1. Welfare States

Modern state arte welfare states. The governments have taken up many new activities to promote socio-economic welfare of the community. These activities were never performed in the past. Today there is no activity which the state cannot undertake, no sphere in which it cannot enter and this is true in all types of governments. State intervention is increasing through legislative and administrative measures to enhance production and improve distribution system. Keynes and his followers made out a strong case for state intervention and increased public expenditure to keep the economy moving along the growth path.

2. Defence and War expenditure

Revolution in the area of science and technology and the sphere of nuclear weapons, there are threats of foreign attacks are important reasons. The strained international relations and aggressive behaviour of the neighbouring countries inducer every country to incur huge amounts on defence to protect the country, manufacture weapons, impart training etc. In the 20th Century it was the most important single factor causing an increase in public expenditure and in many countries if accounts for 50% of the total expenditure. Further defence expenditure includes not only outlays on men, materials and maintenance during and between wars but also pensions to war veterans and interest on war debt and so on. According to an estimate, the USA sp ends nearly 85% of all its income on defence which includes even benefits to retired soldiers, atomic research, foreign aid and interest on debt incurred during the wars.

3. Growth of Population and Urbanisation

Rapid increase in population and massive urbanization are also responsible for increase in public expenditure. Increasing population has necessitate increased levels of many governmental activities and diversified needs have also led to a steep increase in public expenditure. The increasing pace of urbanization and increase in the number of people residing in urban areas has also caused an increase in public expenditure. The expenditure incurred on civic amenities, public services, welfare oriented activities and general administration has gone up by leaps and bounds.

4. Democratic and Socialistic Principles and Institutions:-

The growth of democracy and socialism everywhere in the world has been responsible for rapid increase in public expenditure. A democratic form of government is more expensive. Expenditure incurred on elèction, by election, administrative set up at central, state and local levels is increasing. To capture vote banks usually ruling party resorts to populist schemes which involve huge public expenditure.

Besides they have to maintain diplomatic and consular relations with all parts of the world. And nowadays all countries are members of different international organisations like UNO, IMF etc which means annual subscriptions and other expenses . Further, promotion of social justice also involves huge public expenditure. Eg: measures to control and regulate private enterprises through licensing , permits prices, use of fiscal policy and other programmes to ensure redistribution of income etc.

5. Rural Development Schemes

In many developing countries agriculture is the main occupation and therefore agricultural and rural development have received the priority. Recognising the importance of agriculture and its impact on employment , industrial development and other sectors the government is providing liberal loans, subsidies, special incentive and concessions and also encouraging research and development and extension services. Apart from this, for the development and extension services. Apart from this, for the development of rural areas and people , government have launched various schemes and programmes. Undoubtedly, all these have raised public expenditure to a very large extent.

6. Development and Maintenance of Infrastructural Facilities:-

It is known fact that generally it is the responsibility of the government to develop and maintain a wide variety of infrastructural facilities. Eg: transport, communication, irrigation, power, banking, marketing, drinking water, sanitation, protection, long gestation period and low profitability. Therefore private sector does not show any interest in developing these facilities. Since availability of all these facilities is a necessary pre-condition to initiate any economic activity, it has become obligatory on the part of the government to provide these facilities and this has increased public expenditure by manifold.

7. To check the business fluctuations

It is a known fact that fiscal policy is being used as a measure to control cyclical fluctuations. This became popular after the publication of Keynes General Theory. In accordance with this the government has to spend huge amounts of money during depression and recession. In developing countries public expenditure policy is also used to create gainful employment opportunities and to manipulate the level of aggregate demand.

8. Increasing Role of the State in Economic Development

In the process of economic development state plays an important role. As a result the government has to encourage and support a wide range of economic activities.

12.5 CONTROL AND ACCOUNTABILITY OF PUBLIC EXPENDITURE

When we consider the rapid increase and growth of public expenditure, it seems that need for control and accountability of public expenditure. Control does not necessarily mean reduction. According to Taylor “it means that expenditures are justified in terms of the financial means at the disposal of

government. Control implies that expenditures are economically which we mean that resources not unlimited in quantity are devoted to their most productive uses”

The most important controls of public expenditure are

- * budgetary control
- * legislative control
- * administrative control
- * audit control
- * debt and tax limitation etc

Accountability of Public Expenditure in India

Indian constitution under Article 148 to 152 a provision for a Supreme Audit Institution to act as the watchdog of public financial operations of the government at all levels of the federation and other authorities spending public funds. The constitution entrusts the responsibility of prescribing duties and powers of the audit organisation by enacting a law so as to guarantee its independence. But its functioning leaves much to be desired. Quite often the methods of audit work, detailed audit report, remedial measures against financial irregularities and frauds etc are not disclosed to the public. Thus there is need for reorienting the functioning and restructuring of the audit organisation.

12.6. LET US SUM UP

- Public expenditure refers to the expenses to the expenses incurred by different
- With expanding state activities, it is becoming increasingly difficult to separate the portion of public expenditure meant for the maintenance of the government itself from the total.
- Due to the changing role of the state in the economy and intensive and extensive changes in its traditional functions, public expenditure has recorded a continuous increase.
- In spite of its growing role of the state in the economy and intensive and extensive changes in its traditional functions, public expenditure has recorded a continuous increase.
- In spite of its growing role and importance in national economies, the area of public expenditure remains relatively unexplored .
- Wagner’s hypothesis explains that there is a functional relationship and government activities with the result that the government sector grow faster than the economy .
- Peacock-Wiseman hypothesis states that public expenditure does not increase in a jerks or steplike fashion.
- Colin Clark’s critical limit hypothesis argues that when the share of governmental sector exceeds the critical limit i.e., 25% of the total economic activity in the economy, inflation occurs even in balanced budget.
- Given this tendency of public expenditure there is every justification for its control and accountability to avoid wastage and misuse.

12.7. KEY CONCEPTS

1. Public Goods:

Goods or services which are provided, are open to use by all members of society. Eg: defence, law and order, public parks, monuments etc. As nobody can be excluded from using them. Public goods cannot be provided for private profit. Generally public goods are financed through taxation.

2. Urbanisation:

It is a multidimensional process. It refers to continuous increase in the proportion of urban population to total population.

3. Business Fluctuations

These fluctuations refer to fluctuations in the level of economic activities. It is a tendency for alternating periods of upward and downward movements in the aggregate level of output and employment.

12.8 SOME USEFUL BOOKS

1. David N.Hyman, "The Economics of Government Activity"
2. R.K.Lekiln, "Public Finance".
3. Bernard P.Herber, "Modern Public Finance"
4. K.P.M.Saudaram and K.K.Audley, "Public Finance: Theory and Practice".
5. H.L.Bhatia, "Public Finance".
6. Musgrave and Musgrave "Public Finance in Theory and Practice".

12.9 CHECK YOUR PROGRESS

1. "Public expenditure has a tendency to grow very fast in recent times". Substantiate.
2. Examine the need for control and accountability of public expenditure.
3. Critically review Wagner's theory of increasing state activities.
4. State and criticise Peacock-Wiseman hypothesis
5. Explain the following concepts.
 - (i) Public expenditure
 - (ii) Public goods
 - (iii) Urbanisation
 - (iv) Business fluctuations

**UNIT-13: SOCIAL COST- BENEFIT ANALYSIS-PROJECT EVALUATION:
ESTIMATION OF COSTS-DISCOUNT RATE**

- 13.0 Objectives of the Unit
- 13.1 Introduction
- 13.2 Origin of cost-Benefit Analysis
- 13.3 The Element in a Cost Benefit Analysis
 - 13.3.1. Statement of objectives
 - 13.3.2. Statement of alternatives
 - 13.3.3. Analysis and Valuation of Benefits
 - 13.3.4. Analysis and Valuation of Costs
 - 13.3.5. Discounting future net social benefit
- 13.4 The Objective Function of SCBA
 - 13.4.1 Benefit measurement: Social Perspective
 - 13.4.2 Benefit measures to the poverty population
 - 13.4.3 Project Costs
- 13.5 Difficulties in the Valuation and Measurement of Benefits and Costs.
 - 13.5.1. Intangible items
 - 13.5.2. Social benefits and costs
 - 13.5.3. Private benefits and costs
 - 13.5.4. Intermediate goods and services
- 13.6. Shadow Pricing in SCBA.
 - 13.6.1. Shadow wage rate
 - 13.6.2. Shadow price of natural resources
 - 13.6.3. Shadow exchange rate
- 13.7. Critical Evaluation of SCBA
- 13.8. Let Us Sum Up
- 13.9. Key Concepts
- 13.10. Some Useful Books
- 13.11. Check Your Progress

13.0. OBJECTIVES

By studying this unit you should be able to understand

- The importance of SCBA in public project element in SCBA evaluation
- The important element in SCBA and the objective function of SCBA
- The difficulties in the measurement and valuation of costs and benefits
- The theoretical, conceptual and empirical difficulties that arise while calculating the net social costs and social benefits.

13.1. INTRODUCTION

Cost-benefit analysis represents a practical technique for determining the relative merits of alternative governmental projects over time. Although cost-benefit analyses are often conducted by individual agencies themselves as a method to evaluate their own outputs, such analyses represent the interagency aspect of PPBS (planning-programming -budgeting-system). This is the most popular method of project evaluation to consider the cost-benefit analysis of different projects and then to select the one involving minimum costs and maximum benefits. Thus, cost-benefit analysis purports to describe and quantify the social advantages and disadvantages of a policy in terms of a common monetary unit.

13.2. ORIGIN OF COST BENEFIT ANALYSIS

The origin of cost benefit analysis can be traced back to welfare economics of 19th century. The first practical embodiment of the maximization of net benefit occurred in 1936 in the realm of water resources. According to Flood Control Act of 1936, "it is the principle of comparing benefits to whomsoever they may accrue with the estimated costs". This reveals the social nature of the public investment decision. In 1950 and 1952 some serious attempts were made to define precisely and consistently the concept cost-benefit analysis. The real turning point came in 1958 with the simultaneous publication of works by Eckstein, McKean and Krutilla. These publications attempted to formalize public investment criteria in relation to the established criteria of welfare economics. Thus benefits were related back to the consumers' surplus criteria of Dupont, Marshall and others, and ranking in terms of net social benefits was justified in terms of Pareto criteria for welfare maximization.

13.3. THE ELEMENTS IN A COST – BENEFIT ANALYSIS

Cost – Benefit analysis is a method of setting out the essential and important factors that should be considered in making certain economic choices. The rationality of economic choice implies maximization of value. CBA aims at maximization of the present value of net benefits i.e., aggregate benefits - aggregate costs of an economic programme subject to specified constraints.

A scientific cost – benefit study involves several major steps like

- (i) statement of objectives,
- (ii) statement of alternatives,
- (iii) analysis and valuation of benefits,
- (iv) analysis and valuation of costs and
- (v) discounting future net social benefits by choosing an appropriate rate in order to compare present and future returns from alternative projects.

13.3.1. Statement of objectives

In the first stage the goals of the particular programme must be defined i.e., what does the activity seek to attain in conformity with the overall objective of seeking the highest possible level of welfare. Some programmes may have a single and definite goal and other projects may have multiple goals. In this case prioritisation of goals is important. However, the relative importance of these goals is not a question for cost-benefit analysis to answer, but rather a general government decision making.

13.3.2. Statement of alternatives

For every programme or economic activity there will be various alternatives Eg: different locations, different methods of construction. CBA seeks to determine relative benefits and costs of the major alternatives. For every possible alternative, benefits and costs are measured within the specified constraints and ultimately the alternative with the highest positive net benefit coefficient is selected.

13.3.2 Analysis and Valuation of benefits

With the objectives defined and alternatives established, analysis proceeds to a consideration of the benefits, which may be defined as the present value of the benefits. Determination of benefits involves two major questions i.e, which benefits are to be included and how are the benefits to be valued?

Many projects yield two types of benefits i.e, direct and indirect benefits. Direct benefits accruing directly to the users of the service and indirect benefits are positive externalities. For eg: an irrigation project may lead to an increase in investment, employment, income and output in and around the command area. Without much difficulty direct benefits can be measured, but problems center around the measurement and valuation of indirect benefits. These benefits alter the physical conditions of production or consumption for persons other than those directly using the services.

There are also a number of technical and conceptual difficulties in the valuation of benefits. Due to lack of perfectly competitive market conditions or collecting prices on a monopoly basis may show an increase in the revenue from the sale. As a result valuation of benefits on the basis of revenue receipts may give a misleading upon future trends in population, production and consumption patterns. The uncertainties with some activities are so great that any precise conclusions are impossible.

13.3.4. Analysis and Valuation of Cost

Costs of the project may be defined as the present value of resources that will be used in the project, valued at their opportunity cost. Analysis of costs involves the same type of problems as that of benefits, although costs are more easily calculable. The direct costs include capital costs and operating and maintenance costs over the years. Indirect costs include those created for other governmental agencies and overall costs to society not directly borne by the government. For eg: Additional expressways in urban areas will increase air pollution by increasing motor traffic, they may aggravate traffic congestion in downtown areas and increase delays and accidents in these areas. In a sense, these are negative externalities, air pollution is a good example. There are a number of difficulties with regard to measurement and valuation of costs.

13.3.3. Discounting future net social benefit

Cost benefit analysis is primarily employed for long-range projects. Costs will be incurred currently, whereas benefits are obtained in the future over a number of years. Therefore the choice of an appropriate discount rate is of crucial importance. This is due to existence of positive interest rates in the economy. Positive interest rates imply that \$1 of benefits in the future will be worth less than an equivalent dollar of present benefits. When interest rates are positive it takes less than a dollar of resources invested "today" to produce a dollar of resources "tomorrow". Therefore some appropriate mechanism must be used to adjust benefits and costs on the basis of the year in which they occur. This process is referred to as discounting. Even determining the discount rate is also a problem. There are several possible alternative rates like

- The marginal productivity of capital in private investments i.e, the return the investment would have earned had it invested in private sector.
- Social rate of time preference i.e, discount rate should be the figure of the rate of time preference i.e, the compensation necessary to induce consumers to refrain from consumption and save.
- Government borrowing rate without reference to time preference i.e, the rate of interest at which the particular government can borrow.

The problem of selecting an appropriate social discount rate is a significant one. There is a danger that the public sector will set a social discount rate lower than would be set by the market sector. The lower the social discount rate applied, the greater will be the number of governmental investment projects adopted. This encourages reallocation of resources in favour of the public sector.

13.4. THE OBJECTIVE FUNCTION OF SCBA

The objective function of SC B may be stated in symbolic terms as follow.

$$\text{NSB} = \text{TSB} - \text{TSC} \text{ where}$$

NSB	=	Net social benefits,
TSB	=	Total social benefits
TSC	=	Total social costs

However, this formulation is not so simple as it appears to be. Much of the outcome of a cost-benefit analysis depends upon the specification of the objective function. Should net efficiency gains and net income generation be the sole consideration, or should the distribution of these gains among the relevant members of society be taken into account. What type of considerations should enter into cost-benefit calculus? If the project is localized i.e., its effects are confined to a particular place, should the project be evaluated from the perspective of the local government, the state government or the nation as a whole?

The answer to any of these questions is not simple and depends upon the overall government decision making process.

To understand the complexities of cost-benefit analysis let us assume that the government has the following elements in its objective function (a) the overall value of the net benefits, the net benefits accruing to the urban poor and energy conservation. Since funding typically comes from the union government, we will assume that the decision making perspective is made on the basis of the nation as a whole.

In this case, the objective function can be written as

$$a_r(B_r - C_r) > a_p(B_p - C_p) + a_e B_e$$

Where B_r represents the discounted benefits accruing to society as a whole,

B_p represents the benefits accruing to the poverty population and

B_e represents energy conservation.

C_r and C_p respectively represent the project costs assigned to society as a whole and the poverty population.

a_r , a_p and a_e represent the weights attached to the relevant objectives.

Since the poverty population is also included in society as a whole if $a_p > 0$, this implies that the poverty population is accorded relatively more weight than the other numbers of society.

The values of a_r , a_p and a_e are determined in principle by the political process and should not be established within the cost-benefit analysis. However, these weights are never made explicit, it may be useful to incorporate a range of weights in the cost-benefit analysis and consider the sensitivity of the project evaluation to the specification of the weights.

It follows, thus that SCBA offers no substitutes for the fundamental problems of evaluation and value judgement involved in the decision making process. It only helps in the expedition of efficient decision-making once the basic problem of evaluation is dealt with.

13.4.1 Benefit Measurement: Societal Perspective

When public works project benefit the society as a whole, benefit measurement is not that simple. The construction of a major mass transit facility will presumably have an impact upon the entire structure of urban transportation. It not only affects accident rates, comfort and convenience of trip takers, employment patterns, investment levels and pollution levels in addition to affecting the time and money costs of commuters. Therefore all these should be taken into consideration while measuring the benefits.

The monetary cost savings to the urban transportation users are probably the easiest benefits to determine. But even in this there are a number of practical difficulties. One should know the demand function for the transit facility, the demand function for competing transit facilities, demand function for urban automobile usage and the inter relationships among all of these functions. Although these have been estimated for a number of cities, precise and extensive analysis is difficult. Quite often authentic and adequate information may not be available.

Further, the estimation of the time and convenience cost savings present the difficulties, because there is no direct market for these. Therefore indirect means must be found to assign a money value to these benefits. However, such valuations are always questionable and debatable.

Similar problems exist pertaining to accident reduction benefits, it involves difficult issues relating to the value of human life and morbidity. In addition to the direct user benefits, the facility may generate new employment investments, and so forth. If the resources used in these activities would not have been used otherwise, a clear net benefit accrues

When we view these benefits from the societal perspective one can notice that a given public investment or project merely diverts resources from one activity to another, as a result net benefits, overall employment and investment remain the same. In practice there are a number practical difficulties in the measurement and valuation of benefits.

13.4.2. Benefit measures to the poverty population:

The measurement of benefits to the poverty population follows considerations similar to those of the population as a whole. Thus they include direct cost saving benefits, time and convenience benefits, accident benefits, employment benefits etc. But here the problem is that the demand function should be disaggregated between the poverty and the general population. Naturally it requires different values and related measures for precise measurement. In this case the employment generating effects should not be considered as general benefits, because they represent specific gains for poverty population. For instance let us assume that an urban area has a large number of unemployed persons and they will get employment

because of this particular project. Therefore their employment and income should be considered as specific benefits to the poverty population. But the problem is that, unless the benefits specifically accrue to the poverty population they cannot be considered as real income gains.

13.4.3. Project Costs

Direct project costs include elements like acquisition costs, construction costs and maintenance costs. These are typically based on detailed engineering analysis. However, cost escalations are quite common in large construction projects and they tend to change with every modification in the design of the project and delays in the design of the project and delays in the completion of the project.

In terms of allocation of costs to the poverty population, the method of financing is of crucial importance. If the project is financed through general revenues, it would be difficult to allocate a share to the local poverty population.

From this it is clear that for a scientific and precise project valuation there should be distinction of benefits and costs as

1. Real benefits and costs
2. Pecuniary benefits and costs

In turn real benefits and costs may be

- (a) direct or indirect
- (b) tangible or intangible
- (c) final or intermediate and
- (d) internal or external

Real benefits are the benefits derived by the final consumers of the public project. They reflect an addition to the community's welfare. These benefits are to be balanced against the real cost of resource mobilized from different sources.

Pecuniary benefits and costs arise because of changes in relative prices which occur as the economy adjusts itself to the provision of the public service. As a result gains or losses accrue to some individuals but offset by losses or gains which are experienced by losses or gains which are experienced by others. They do not reflect net gains or costs to society as a whole. Therefore they should be distinguished from real benefits or costs.

The question of measurement would be simple if all values could be observed in terms of market prices. But costs and benefits are frequently in intangible form and even where market prices are observable they should be suitably adjusted because markets are not perfect and distortions must be allowed for.

13.5. DIFFICULTIES IN THE VALUATION AND MEASUREMENT OF BENEFITS AND COSTS

13.5.1. Valuation of intangible Items:

We begin with the valuation of intangible items. They may arise with regard to certain benefits or costs and most of them are private in nature. Eg: benefits of education . Therefore they cannot be measured precisely and their value cannot be expressed in money terms.

13.5.2. Social Benefits and Costs

Tangible benefits and costs evaluation is relatively simple, but proper estimation of indirect benefits and costs calls for different mechanisms. It is also true that all such indirect benefits and costs cannot be attributed to the public project in question.

13.5.3. Private Benefits and Costs:

Many problems arise in connection with benefits and costs which are private in nature and are not amenable to market evaluation. Eg: Time saved and convenience due to construction of highways.

13.5.4. Evaluation of Intermediate goods and services

Some projects provide final goods and services and some others intermediate goods and services. Therefore while measuring and valuing the benefits this distinction should be taken into consideration. They need different approaches. Even while calculating the spillover benefits, estimation should be done scientifically.

13.6. Shadow Pricing in Cost Benefit Analysis

Wide market imperfections suggest that social cost benefit analysis of a public investment project is impossible on the basis of market prices since they are diverged from the proper measure of social costs and benefits. In developing countries market imperfections are more and prices fail to reflect actual opportunities foregone or the lost best use. To calculate these shadow prices, two modifications should be done in the evaluation methodology.

- * Market prices of inputs and outputs of the projects have to be replaced by some other prices that can measure their actual value to society.
- * A measure of external economies or diseconomies arising out of the investment project has to be provided for in the evaluation process.

Such valuations replacing market prices in the cost-benefit analysis are generally termed as shadow prices or accounting prices. Thus it is possible to calculate shadow wages, shadow foreign exchange rate, shadow cost of capital, shadow price of output etc., to reveal the valuation that society attaches to the inputs and outputs of the project.

13.6.1. Shadow Wage Rate

Actual wage rate in the labour market is a poor measure of the scarcity of labour. Evaluation of labour cost creates difficulties due to variations in efficiency, skill and other attributes. Within each class of labour there are large variations. When we consider the disguised unemployment of skilled labour, it is clear that the market wages are less than the real social wages or the marginal product of labour. But the wide-spread disguised unemployment among unskilled workers particularly in agricultural sector indicates that their social real wage is zero i.e., even if they are withdrawn from agriculture, farm produce and productivity do not fall.

13.6.2. Shadow Price of Natural Resource of Land:

Land is a resource. The economic valuation of land is the difference between the net present value of the output and of the input. Several economists have given different formulations for the shadow price of land.

13.6.3. Shadow Exchange Rate:

It is a known fact that quite often exchange rates do not reflect scarcity value of the same. In developing countries generally they are distorted. Estimates are made of earnings of foreign exchange from exportable output and savings of foreign exchange due to import substitution production. But in practice a wide range of activities earn or save foreign exchange. The valuation of the same at domestic costs may not give a true picture of foreign exchange earnings. Different weights have to be given to these earnings in order to calculate their real scarcity i.e., shadow exchange rate.

13.7. CRITICAL EVALUATION OF COST-BENEFIT ANALYSIS

The CBA can enlighten the choice among alternative public projects. Alternative Projects can be considered, comparisons can be made and alternative allocational instruments can be assessed. The systematic and rational calculation of project costs and benefits, inclusion of time preference considerations increase the efficiency of budgetary decisions. Even it also considers the opportunity cost of time and resources employed in public projects. In this way it determines the way in which the scarce resource are put to the most efficient use.

However it involves some sticky theoretical and empirical problems. Some of them are discussed in the following paragraphs.

1. Difficulties in Benefit Assessment:

The correct estimation of benefits from a project is difficult due to uncertainty regarding the future demand and supply of products from a new project and their prices. Another difficulty arises from the existence of external economics. Due to presence of a large number of indirect and intangible benefits proper estimation of net benefits is really difficult. Quite often the authorities exaggerate the benefits. In most of the cases shadow pricing is not done properly.

2. Arbitrary Discount Rate

The social rate of discount assumed for any project is arbitrary; on subjective considerations it is determined. The arbitrarily assumed discount rate alters the inability of project and leads to erroneous calculation of benefits.

3. Ignores opportunity cost

Though shadow pricing is an integral component of CBA, quite often it is simply ignored. As a result it is not possible to get a precise estimate of the opportunity cost of the resources.

4. Problem of Externality:

Every public project generates a number of positive and negative externalities. It is very difficult to assign a monetary value to these externalities. For eg: effects of flood control by an irrigation project, time saved by a new urban transport system etc.

5. Ignores Income Redistribution effects:

One danger of CBA is that its emphasis on allocational matters may cause its distributional aspects to be ignored. For eg: the benefits of government investment may primarily accrue to one group of persons, but the tax costs of financing the investment may be largely incurred by another group of persons. Yet traditional CBA would focus on the allocational gains and ignore the income redistribution effects. Therefore it is recommended that equity i.e., distribution be included as a subset of efficiency i.e., allocation goal in CBA.

6. Difficulties in Selecting Appropriate Decision Rules:

There are three decision rules for the evaluation of project. These are NPV criterion, IRR criterion and SRD criterion. All these have their own advantages and disadvantages. Depending the nature of the project and its objectives, suitable criterion has to be selected; wrong selection will lead to misleading conclusions.

7. Difficulties in cost Assessment:

Cost estimates are made on the basis of the choice of techniques, locations and prices of factor services used. Shadow price are calculated on the basis of market prices, but in many countries market prices are distorted and therefore they fail to reveal true scarcity value of the factors of production.

8. Adjustment for Risk and Uncertainty:

It is done in three ways, at the time of calculating the length of project life, the discount rate and by making due allowance in benefits and costs. While using these methods and making the necessary adjustments a numbers of difficulties arise.

13.8. LET US SUM UP

- * In recent years i.e., since the sixties CBA has become one of the most lively branches of fiscal economics at both the practical and analytical levels.
- * CBA like all issues in allocation economics involves determination of the ways in which the scarce resources are put to the optimum use.
- * Where projects are freely divisible, the best solution is reached by equating the marginal benefits from the last dollar on each project. Lumpy projects should be chosen so as to maximise the sum of net benefits.
- * In measuring the social benefits and social costs of public projects, different types of benefits and costs should be distinguished and suitable approaches should be adopted for their valuation.
- * Shadow pricing is of special importance in developing countries where resources are scarce and priorities are competing.
- * SCBA raises some theoretical, conceptual and empirical problems mainly with regard to measurement and valuation of costs and benefits and social discount rate.
- * SCBA is systematic in principle as it entails a scientific approach. It is useful because it applies the tenets of theoretical welfare economics to actual decision making.
- * It is a necessary analysis but not sufficient analysis for evaluating a range of projects of a similar nature and goal.

13.9. KEY CONCEPTS

(1) Welfare Economics:

The part of economics concerned with the effects of economic activity on welfare and development of principles for maximizing the societal welfare.

(2) Social Benefits:

The total benefit from any activity. This includes not only benefits accruing directly to the person or firm conducting the activity, but also external benefits accruing to other people who cannot be charged for them.

(3) Social Costs:

The total cost of any activity. This includes not only private costs which fall directly on the person or firm conducting the activity, but also external costs, which fall on other people, who are not able to exact any compensation for them.

(4) Cost escalations:

It refers to continuous increases in the budgeted expenditure due to delays and modifications the commissioning of the activity.

13.10. SOME USEFUL BOOKS

1. David N.Hyman "The Economics of Governmental Activity"
1. R.K. Lekhi, "Public Finance"
2. Bernard P.Herber, "Modern Public Finance"
3. K.P.M.Sundaram and K.K.Audley, "Public Finance: Theory and Practice"
4. Musgrave and Musgrave "Public Finance in Theory and Practice".
5. John F.Due & Ann F. Friedlaender, "Government Finance: Economics of the Public Sector".

13.11. CHECK YOUR PROGRESS

1. Justify the need for cost-benefit analysis.
2. Write a note on the difficulties in the valuation and measurement of benefits and costs.
3. What do you mean by shadow pricing?
What is its significance in social cost benefit analysis?
4. Explain the mechanism of social cost benefit analysis.
5. Explain the following concepts.
 - a. Social Costs
 - a. Social Benefits
 - b. Social discount rate
 - c. Secondary or indirect benefits.

**UNIT-14: REFORMS IN EXPENDITURE BUDGETING PERFORMANCE BUDGETING-
PROGRAMME BUDGETING – ZERO BASED BUDGETING**

- 14.0 Objectives
- 14.1 Introduction
- 14.2 The Budget and Budgetary Process
- 14.3 Classification of Budget
 - 14.3.1 Economic classification of budget
 - 14.3.2 Functional classification of budget
 - 14.3.3 Limitations of economic and functional classification
- 14.4 Programme Budgeting
- 14.5 Programme Budgeting: Rationale
- 14.6 Planning-Programming –Budgeting System
 - 14.6.1 Advantages of PPBS
 - 14.6.2 Limitations of PPBS
- 14.7 Zero Base Budgeting
 - 14.7.1 What is Zero Base Budgeting?
 - 14.7.2 Distinguishing features of ZBB
 - 14.7.3 Pre-Conditions of ZBB
 - 14.7.4 Advantages of ZBB
 - 14.7.5 ZBB in India
 - 14.7.6 Limitations of ZBB
- 14.8 Let Us Sum Up
- 14.9 Key Concepts
- 14.10 Some Useful Books
- 14.11 Check Your Progress

14.0 OBJECTIVES

After studying this unit you should be able understand

- The importance of budget and budgetary process in optimizing public expenditure,
- Significance and limitations of economic and functional classification of budget,
- Emergence of programme and performance budgeting, their importance and limitations,
- The evolution of Planning-Programming-Budgeting System, its mechanism, advantages limitations and
- The latest concept of Zero-base budgeting, its viability and difficulties in its implementation.

14.1 INTRODUCTION

A government's budget represents a summarization of the public expenditure plans for a given year. It is a comprehensive listing of the costs of governmental activity and the revenue sources financing that activity. The budgetary process is a system through which the wishes of the electorate are translated into concrete projects and programmes designed to satisfy the demand for public goods. The process is of considerable importance in determining the actual size of the public sector. In view of its importance, it is worth while to study the process and the various budgeting techniques employed by the government for the purpose formulating expenditure plans.

14.2 THE BUDGET AND THE BUDGETARY PROCESS

One must distinguish between the budget itself and the budgetary process. The budget represents the recommendation of the Union Government for Public expenditures during the coming fiscal year.

The budgetary process comprises all stages of planning for the budget and the procedures by which proposed expenditures are approved and execute . The budgetary process establishes priorities for public expenditure through interaction among the legislature and the executives.

14.3 CLASSIFICATION OF BUDGET

Keeping in view the multiple functions and objectives of modern public sector transactions, modern economists have classified the budget into two categories i.e.,

- * Economic classification of budget
- * Functional classification of budget

This type of classification helps to determine the impact of government transactions upon the level of economic activity. The classification of the expenditure, the mode of its financing and various types of functions performed by the government help to assess the actual impact of the budget. This type of classification is useful in providing scientific, adequate and authentic information of government transactions which are taken up with laudable objectives.

14.3.1 Economic Classification of Budget

Classification of the expenditure and the mode of its financing in terms of economic categories is called economic classification of budget. This classification enables us to gather a variety of economic information relating to generation of savings, investment, consumption, creation of financial assets and liabilities from various budgetary items. For this purpose budget accounts are classified into different categories corresponding to individual department, ministries and sections. It reveals the total expenditure of government on the basic functions, programmes and activities. Sweden was one of the first countries to adopt this type of classification. In India this classification was introduced during the year 1957-58. The budget was divided into six different interrelated accounts and it was designed in a way to establish a link between the system of national income and expenditure accounts.

This classification provides the necessary information to examine the impact of public expenditure on the whole economy and also relationship between the government transactions and the rest of the economy.

14.3.2. Functional Classification of Budget

Functional classification refers to the distribution of the government expenditure on the basis of the different functions which the government performs such as defence, education, health, transport etc. It explains the total expenditure of government on its basic functions, programmes and activities.

The functional classification was introduced in the US Federal Budget. In 1959 the UN Bureau of Economic Affairs, New York in its Manual for Economic and Functional Classification of Government Transactions identified five types of functions and services namely.

- Social services
- Community services
- Economic services and
- Unallocable services

The Government of India also adopted this pattern and split up its expenditure under different heads. The salient features of this classification are

- (i) it cuts across different departments, agencies and economic categories and
- (ii) it covers only the expenditure and not the receipts of the government. The total government expenditure is equivalent to the sum of current expenditure, capital expenditure and financial assets, loans and advance.

14.3.3. Limitations of Economics and Functional Classification

This classification is of immense helping in measuring the magnitude of government activities and assessing their impact on the economy. Therefore in the formulation and implementation of fiscal policy this classification assumes crucial importance. However, there are some limitations. Some of them are as follows

- (1) These classifications lack scientific break-up of aggregates, therefore results could be arbitrary. The accounts are highly aggregative.
- (2) These classifications do not provide complete picture of the economic system. There are other general regulatory devices which indirectly influence the working of the economy.
- (3) It ignore the effects of the distribution of income and wealth in the community
- (4) It fails to measure precisely the overall impact and repercussions of public expenditure. For eg., the dampning effect of growing public investment on private investment.

Despite all these limitations, this classification has helped a lot in measuring the impact of public expenditure and the role of budget therein. This innovation provided the basis for the evolution of performance budgeting and programme budgeting system.

14.4. PERFORMANCE BUDGETING

The traditional budgeting system laid major emphasis on the financial aspects of the government operations. It is a known fact that the resources at the disposal of the government are always scarce in relation to competing priorities. It involves the question of choice-making. All the alternative proposals should be weighed in terms of their respective costs and benefits. No doubt, the government can collect the information from various agencies but it is difficult to link the information. Even the United Nations observed that “the lack of information reduces the usefulness of the budgetary approach even for the purpose of legislative review and appropriation”. Hence the performance budget concept was developed and introduced.

The major break-through in the performance budgeting was noticed after the publication of the first Commission Report in 1949. The Report observed that the whole budgetary concept should be based upon functions, activities and projects initiated by the government. In 1951 the US government introduced performance budgeting. Later on other countries have also followed this approach. In India also since 1975-76, on the basis of the recommendation of the Administrative Reform Commission, different departments and ministries of the Government are preparing performance budget. The technique has been developed to help bureaucrats plan their expenditure in order to avoid waste.

14.5 PROGRAMME BUDGETING: RATIONALE

The test of efficiency must be applied to activities within the public sector. The resources withdrawn from private use to finance public expenditures must not be wasted. It is a well known fact that the goal of efficiency is more difficult to attain in the public sector than it is in the private sector. The reason for this stems from the fact that most governmental agencies do not operate in markets. The concept of profits is not applicable to the outputs of most agencies because their products usually have public-good attributes and therefore they are not marketed services. Indeed, the concept of outputs for many governmental agencies is rather elusive. It is not an easy task to define the output of Defence Ministry. Therefore to achieve efficiency within the public sector the technique of programme budgeting has been developed to help bureaucrats plan their expenditures in order to avoid waste.

According to Burkhead “performance budget is one which presents the purposes and objectives for which funds are requested, the costs for programmes proposed for achieving these objectives and quantitative data measuring the accomplishments and work programmes under each programme”. “Therefore in developing countries with mixed economy composition the importance of performance budget is quite high.

The performance budget involves object classification on the basis of functional classification. The aggregate outlay on account of a particular type of government services or function is further subdivided and expenditure is shown against different objects. The object classification is a device to facilitate departmental accountability to legislature.

Under programme budgeting classification the budget would frame a programme structure to attain a particular objective and specify spending to realise it. For eg: if the objective is poverty removal, the expenditures would constitute the poverty removal programme. However, it should be noted that since these expenditure agencies are inter-related, some programme would draw support from a number of agencies.

14.5.1. Limitations

The technique of performance and programme budgeting is suffering from certain limitations.

- (a) The technique involves quantitative and financial evaluation of government functions activities and programmes which is absolutely impossible. It ignores qualitative evaluation.
- (b) For the effective implementation of the technique, departments should be well organised with definite activities, projects and programmexs.
- (c) The technique lacks universal applicability. In case of operations like law and order, defence, external affairs etc, it is difficult to quantify and measure.
- (d) Obviously, programme and performance budgets are interlinked and neither has any useful meaning without the other.
- (e) There is also the problem of multiplicity. A given objective may be the target of more than one programme. While a given programme may aim at more than one targets
- (f) Effectiveness of programme and performance budgeting is closely linked with its conformity with the institutional framework of the economy.
- (g) For a proper programme and performance budgeting an efficient functional classification of the budget and the accounting system are of great help. It needs a detailed analysis and break-up of governmental functions. It cannot be implemented with aggregative categories at the national level such as agriculture industry, public health, education etc.,

From this it is evident that to introduce the above discussed budgeting techniques there must be complete integration of budgetary and accounting a classification and there must be adequate, authentic and timely information and data for the appraisal of various programmes and the performance of different departments. Ideally all the components of a programme should be at one place and under one control for an effective programme and performance budgeting. Due to these conceptual and practical problems this technique cannot be introduced effectively. At the most, it can be introduced only in phases.

14.6. PLANNING-PROGRAMMING-BUDGETING SYSTEM

A major change in the federal approach to budgeting expenditures occurred in 1965 with the introduction of the planning- programming-budgeting system by president Lyndon Johnson. This system of planning represents an attempt to introduce programme budgeting as a consistent tool of analysis at all levels of federal expenditures. A distinguishing feature of this budgeting is its focus on the output of an agency. A programme can be defined as a combination of governmental activities that produces distinguishable outputs.

PPBS may be described by five steps.

- * Identification of national goals
- * Establishing priorities among these goals
- * Computation of the costs of alternative programmes over
- * Measurement of benefits of alternative programmes over time.
- * Selecting those programmes that effectively reach the selected goals at leastcost.

In order to aid the implementation of PPB, governmental activities are reclassified to reflect the types of programmes undertaken by the government. The classification cuts across different agencies and departments.

14.6.1 Advantages of PPBS

The PPBS has many advantages to its credit . Some of them are discussed below.

***Assessment of performance:**

The PPBS provides certain criteria for the quantitative assessment of achievements. This technique facilitates complete integration of budgetary and accounting classification and perfect integration between different activities.

*** Reliable guide for both executive and legislature:**

There is lack of automatic mechanism in conventional budgetary techniques. Whereas PPBS attempts to give scientific guidance to the executive and legislature of the country.

***Good base for decision making:**

Government decision making is a highly complex and rigid because it requires high degree of co-ordination between decision making agencies. But PPBS helps in making choices on the basis of pure economic and technical considerations.

*** Knowledge of Economic Problems:**

This techniques makes an attempt to examine the causes, dimensions and extent of economic problems. It helps in working out strategies to combat the same.

*** Future Programming**

PPBS helps to plan for development projects and various programmes for a long period.

14.6.2. Limitations of PPBS

The PPBS is not free from limitations. The important among them are listed below.

- The system fails to define the objectives and priorities of value Judgements.
- It does not provide sufficient scope for innovations in budgetary techniques.
- It makes decisions only on the basis of economic efficiency and does not consider non-economic factors.
- In a political system like ours the technique cannot be effectively implemented.
- Here the focus is on only rational decision making about the public expenditure.
- With many governmental activities, the output are services and they cannot be clearly distinguished or measured. In some cases a single activity may serve more than one objective.
- Precise and scientific definition of objectives and establishing priorities of objectives is very difficult.
- It tends to centralize decision-making in government.
- Many times the PPBS may fail to adjust with the existing administrative organisation. It requires participation by several departments and it may impair the effective implementation of PPBS.

On the whole, the PPBS may make very significant contributions to rational decision making but cannot solve all problems.

14.7. Zero-Base Budgeting

Zero base budgeting (ZBB) is an innovative technique to guard against wastage in public expenditure. This technique was designed by Peter Pyhrr in early 1970s in the context of corporate industrial organisations. This idea caught the imagination of Jimmy Carter who after becoming the president of the USA applied it for the preparation of the budget for the year 1979. Thereafter various governments have been adopting ZBB in various degrees depending upon their local requirements.

14.7.1. What is Zero Base Budgeting?

It insists for the justification of each item of expenditure and thus recognises no base or minimum expenditure presumed for any activity . ZBB means the past is cut-off, the present is regarded as a clean slate and all departments have to start from a scratch.

It proposes that the budgets of government and other organisations should be designed starting from first principles, defining the aims of the organisation and adopting the best method of achieving them. This is contrasted with normal budgetary procedure, which starts from the previous period's budget and makes marginal changes.

In the words of Prof. R.A. Musgrave, it considers the budget as a whole rather than to examine incremental change only. Thus it calls for justifications from the bottoms up, evaluating alternative programme packages and ranking them to select the best alternative and allocate resources. In this system neither the base year nor the minimum level of expenditure is taken as given which is quite in contrast with the prevailing system of incremental budgeting. All the financial requirements of the various units of an organisation are critically assessed as against the traditional budgeting system in which the financial allocations are just increased.

14.7.2. Distinguishing Features of ZBB:

The important distinguishing features of ZBB are as follows.

- * Here each and every activity is subject to careful scrutiny, it also examines possible alternative ways of financing with a clean thrust on social costs of public expenditure. This helps that each department has to justify its existence and continuation on the basis of cost-benefit analysis.
- * The underlying rationale of ZBB is economy in public expenditure. Thus each programme is closely examined and public spending is minimised without affecting the current level of benefits of public services.
- * ZBB requires prioritizing among competing services for budgetary allocation. The ranking is done by listing all elements of a package and financing is also done on the basis of priority.
- * The ZBB has three essential principles- should we spend? –How much should we spend and – where should we spend?

14.7.3. Pre-Conditions of ZBB:

The successful implementation of ZBB requires fulfillment of certain conditions. It requires a tremendous paper work and detailed analysis.

- Identification and sharpening of objectives
- Selection of best alternative through cost benefit analysis
- Examination and selection of ways and means to realise the stated objectives
- Scientific prioritization
- Shifting of resources from programmes with low priority to high priority

The fulfillment of these conditions is absolutely necessary. Above all the availability of the necessary information and data is equally important. Moreover the acceptability of the concept in letter and spirit by the organisation is more important.

Naturally ZBB involves various steps like,

- ☞ identification of objectives
- ☞ rational decision for operation
- ☞ developing and designing decision package
- ☞ meteculous analysis of costs and benefits
- ☞ selection and approval

14.7.4. Advantages of ZBB:

ZBB is a revolutionary concept and is relatively a new management tool for planning and control of public expenditure and activities. The plans and budgets based upon ZBB are much improved than those based upon traditional budgeting. The important advantages of ZBB are as follows.

- (i) Proper allocation of funds,
- (ii) Improves efficiency,
- (iii) Identification of economical activities and consideration of alternative courses of action,
- (iv) Optimum utilisation of resources,
- (v) Determines the utility of each and every activity and
- (vi) Useful to attain organisational goals,

14.7.5. ZBB in India

This was adopted in India in 1987 by a few departments as a measure to control public expenditure. There are better prospects for its rigorous pursuit in the economy. By strengthening and sharpening multi-level decision making, proper and adequate information, effective participation by different organisations, clear priorities still more serious efforts can be made for its comprehensive implementation.

However, the successful implementation of ZBB calls for the overall review of the various activities of different departments and organisations. People who are responsible for budget formulation and implementation should be trained and oriented to the new system. If the system is implemented with adequate preparation and safeguards it goes a long way in effectively regulating public expenditure.

14.7.6. Limitations of ZBB

In spite of all its advantages, there are very many limitations. Important among them are as follows.

- (1) Computation of cost benefit analysis, which is an integral part of ZBB is a task full of difficulties. In certain activities it is not possible to calculate cost benefit analysis. Eg: Defence, law and order, maintenance of international relations etc.
- (2) There are difficulties in the formulation and ranking of decisions. Further certain activities and public expenditure cannot be brought within the purview of ZBB. Eg: emoluments of the President of India, Speakers, Supreme Court and High Court judges etc.,
- (3) It is very time consuming and cost of operating ZBB is also very high. Despite all its limitations, it has to be accepted that the basic idea behind the ZBB is to optimize the benefits of expenditure in every area of activity. In any case, ZBB is long-term budgetary reform and its implementation has to be spread in a phased manner over a number of years.

14.8 LET US SUM UP:

- * Budget and budgetary process play an important role in optimizing public expenditure. It also determines the actual size of public sector.
- * The economic and functional classification of budget facilitates break-up of expenditure, the mode of financing and various types of functions performed by the government.
- * The traditional budgeting system focuses only on financial aspects of government operation. But there is also a question of choice making. Pursal of this objective led to the introduction of programming and performance budget.
- * Programming and performance budgeting systems aim at efficiency in public expenditure. Therefore in developing countries their importance needs no emphasis.
- * Another major development in public expenditure reforms is planning-programming-budgeting system. It facilitates objective performance of different public activities and prioritization of public expenditure. But there are many conceptual and practical problems in its formulation and implementation
- * The latest fiscal innovation is ZBB, it guards against wastage in public expenditure. But the effective adoption of ZBB is not an easy task.

14.9. KEY CONCEPTS

1. Public Sector

Those parts of the economy which are not controlled by individuals, voluntary organisations or privately owned companies. Thus the public sector includes government at all levels, government owned firms and parastatal agencies. It is thus exclusive of the household business segments which comprise the private sector.

2. Mixed Economy:

An economy with a mixture of state and private enterprises. Some economic activities are carried on by individuals or firms taking independent economic decisions, co-ordinated by markets. Others are carried on by organisations under state ownership and control, with some degree of centralised decision making. There are varying forms and degrees of mixed economies.

3. Institutional Framework:

Institutional framework refers to different types of institutions like banking, insurance, marketing etc to create a conducive environment for economic development.

4. Value judgements:

An opinion about the relative merits of two or more alternatives which cannot be empirically tested.

5. **Public choice:**

The choice of the kind quantity and quality of public goods to provide and how to pay for them. The state can levy taxes to cover the cost, but still has to decide what public goods to provide.

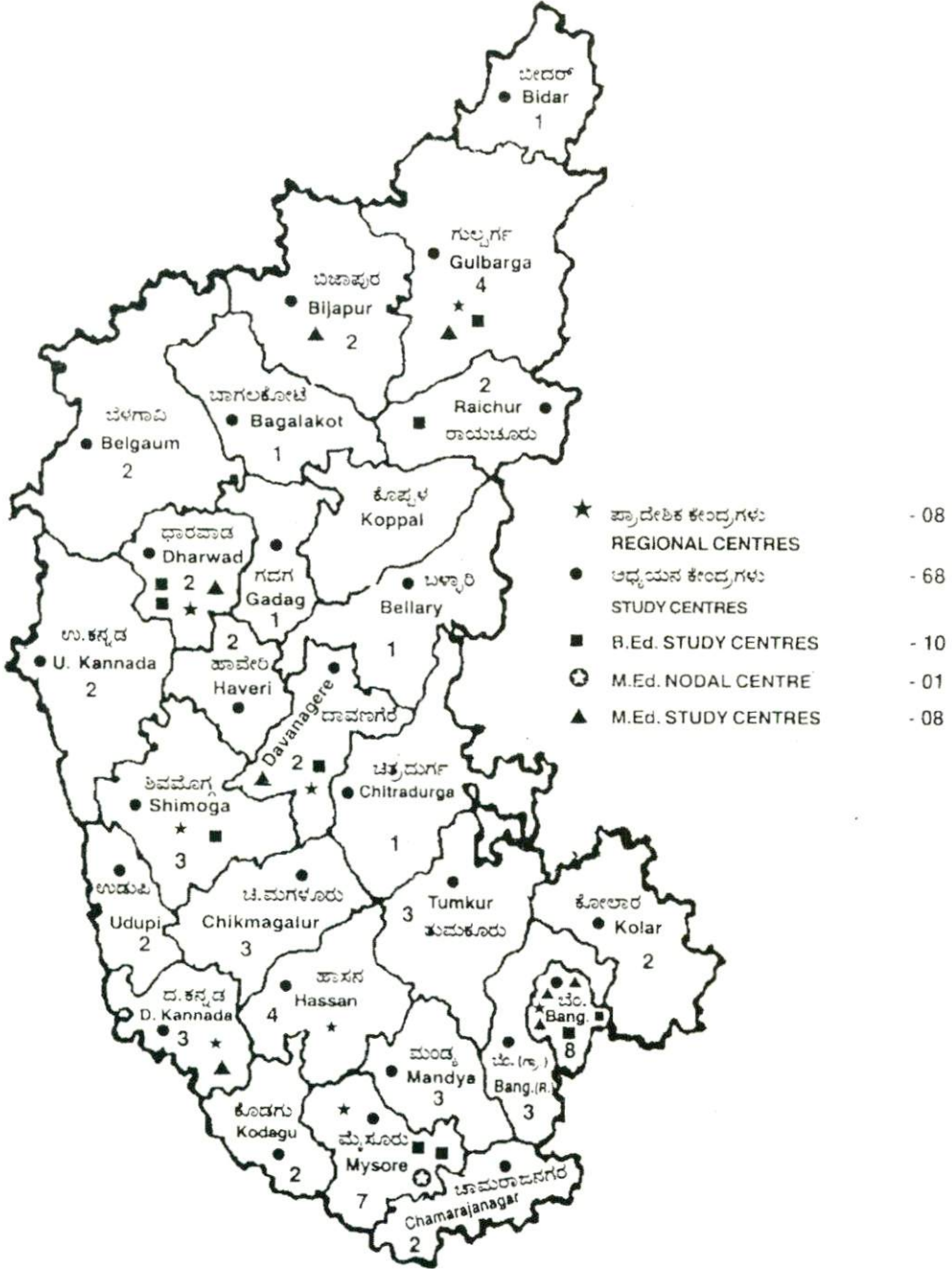
14.10. BOOKS FOR STUDY

- (1) David Hyman, "The Economics of Governmental Activity",
 - (2) H.L. Bhatia, "Public Finance",
 - (3) R.K. Lekhi, "Public Finance",
 - (4) Jhon F. Due & Ann F. Friedlaender, "Government Finance: Economics of the Public Sector",
 - (5) Rudder Datt and K.P.M. Sundharam, "Indaian Economy",
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14.11 CHECK YOUR PROGRESS

- (1) Explain the importance of budget and budgeting
- (2) Distinguish between economic and functional classification of budget.
- (3) What do you mean by programme budgeting?
- (4) Discuss the importance of performance budgeting in developing countries.
- (5) Define PPBS. Show how it optimizes the benefits of public expenditure.
- (6) "Zero-base budgeting is an improvement over the conventional budgeting. "substantiate",
- (7) Examine the feasibility of ZBB in India.
- (8) Explain the following concepts.
 - a. Public Sector
 - b. Mixed economy
 - c. Value Judgements and
 - d. Public Choice

ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮುಕ್ತ ವಿಶ್ವವಿದ್ಯಾನಿಲಯದ ಪ್ರಾದೇಶಿಕ ಹಾಗೂ ಅಧ್ಯಯನ ಕೇಂದ್ರಗಳು
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