UNIT 4 SYSTEMS APPROACH

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4.0 OBJECTIVES

This unit deals with one of the modern approaches regarding Comparative Government and Politics. It is the Systems Approach. After studying this unit, you should be able to:

- explain the meaning, genesis and historical background of this approach;
- distinguish between general systems theory, system theory and political system theory;
- state the characteristic features and objectives of the systems theory;
- amplify some of the derivatives (such as input-output, structural-functional, cybernetics models) of the systems theory; and
- evaluate the systems theory in its proper perspective.

4.1 INTRODUCTION

The traditional approaches and characteristics of their own limitations, by and large, proved irrelevant in making the study of comparative governments and politics fruitful. These approaches, in their analysis of comparative governments and politics, have been largely, historical, formalistic, legalistic, descriptive, explanatory and thus, have become proverbial, static and more or less monographic. These are narrow in the sense that their description is confined to the study of western political system; they are formal legal in the sense that their analysis is inclined excessively to the study of only and merely legal institutions; and they are subjective in the sense that they do not put the political systems in any objective, empirical and scientific test.

The modern approaches to the study of comparative governments and politics, while attempting to remove the defects inherent in the traditional approaches, seek to understand in a clearer perspective, and objectively review the major

paradigms, conceptual frameworks and contending models so to understand and assess their relevance. Obviously, the modern approaches are, rather scientific, realistic, analytical and those that have brought revolution in comparative politics, Sidney Verba sums up the principles behind this revolution, saying, "Look beyond description to more theoretically relevant problems; look beyond the formal institutions of government to political processes and political functions; and look beyond the countries of Western Europe to the new nations of Asia, Africa and Latin America." The revolution was directed, as Almond and Powell rightly point out, toward (a) the search for more comprehensive scope, (b) the search for realism, (c) the search for precision, (d) the search for the theoretical order.

The modern approaches to the study of comparative governments and politics are numerous. One such approach is the systems approach, also called the systems theory or the systems analysis. This approach is, and in fact, has been the most popular way of looking at any political activity. According to **Prof. Kaplan** it is, the study of a set of inter-related variables, as distinguished from the environment of the set and of the ways in which this set is maintained under the impact of environment disturbances. It focuses on sets of patterned relations involving frequent inter-actions and a substantial degree of interdependence among the members of a system as well as established procedure for the protection and maintenance of the system (William A. Welsh: Studying Politics, 1973, p.65).

You have already studied institutional approach to comparative politics in the last unit. In this unit, an attempt shall be made to study, review and examine the systems approach, another modern approach to the study of comparative politics. While discussing the systems approach, its various aspects such as the geneses of the approach, its historical context, its distinction from the general systems theory, its characteristics and its strength and weaknesses shall be taken into view. Political system as say the input-output analysis and structural-functional analysis as the two salient derivatives of the systems approach shall be elaborately discussed.

4.2 SYSTEMS APPROACH

4.2.1 What is the Systems Approach?

The Systems approach is the study of inter-related variables forming one system, a unit, a whole which is composed of many facts, a set of elements standing in interaction. This approach assumes that the system consists of discernible, regular and internally consistent patterns, each interacting with another, and giving, on the whole, the picture of a self-regulating order. It is, thus, the study of a set of interactions occurring within, and yet analytically distinct from, the larger system. What the systems theory presumes include:

- i) the existence of a whole on its own merit;
- ii) the whole consisting of parts;
- iii) the whole existing apart from the other wholes;
- iv) each whole influencing the other and in turn, being influenced itself;
- v) the parts of the whole are not only inter-related, but they interact with one another and in the process creating a self-evolving work;
- vi) the parts relate themselves into a patterned relationship, while the whole exists, and keeps existing.

The emphasis of the systems theory is on the articulation of the system and of its components and the behaviours by means of which it is able to maintain itself over time.

4.2.2 Genesis of the Systems Approach

The systems approach has its origins traced to natural resources, though numerous movements aimed at the unification of science and scientific analysis may be said to have worked for this approach. The original idea of systems analysis came from biology and then adopted by the social scientists. The German biologist Ludwig Van Bertalanfly was the first to state the formulations of the general systems theory way back in 1930s, and it was from the general systems theory that the social scientists evolved and formulated the concept of the systems theory. Bertalanfly defined system in a set of 'elements studying in interaction'. Elaborating the concept of system, Anatol Rapport says, that it is

- i) something consisting of a set (finite or infinite) of entities,
- ii) among which a set of relations is specified, so that
- iii) deductions are possible from some relations to others or from the relations among the entities to the behaviour or the history of the system.

The application of the 'systems' approach to politics, Professor S.N. Ray points out, "allows one to see the subject in such a way that 'each part of the political canvas does not stand alone but is related to each other part' or that 'the operation of one part cannot be fully understood without reference to the way in which the whole itself operates. David Easton (A system Analysis of Political Life, 1965), Gabriel Almond (Comparative Politics: A Developmental Approach, 1978), David Apter (Introduction to Political Analysis, 1978), Karl Deutsch (Nation and World: Contemporary Political Science, 1967), Morton Kaplan (System and Process in International Politics, 1957 or with Harold Lasswell, Power and Society, 1950) and other leading American social scientists pioneered the systems analysis in Political Science. More specifically, Easton was one of the few Political Scientists to suggest the utility and importance of the systems analysis for politics while defining a political system as that "behaviour or set of interactions through which authoritative allocations are made and implemented for society".

4.2.3 Historical Context

The systems approach, like any other modern approach, has evolved in a historical perspective. As the traditional approaches to the study of comparative politics proved futile, the need to understand it in a scientific manner became more important. The influence of other disciplines, both natural and social sciences and their mutual inter dependence gave a new impetus for looking out these disciplines, comparative politics including, afresh and brought to the fore the idea that scientific analysis is the only way to understand politics. The study of political systems became, as times passed on, more important than the study of Constitutions and governments, the study of political processes came to be regarded more instructive than the study of political institutions. The post-second World War period witnessed, in the USA particularly, a fundamental shift in the writings of numerous American scholars when they began to borrow a lot from other social and natural sciences so as to give new empirical orientation to political studies which helped ultimately to examine numerous concepts, out in the process enriched their findings. The Social Science Research Council (USA) contributed a lot to provide an environment in which scientific analysis in comparative politics could be carried on. Some other American foundations such

as the Ford Foundation, the Rockfellar Foundation, and the Carnegie Foundation provided liberal funds for studies in comparative politics. Thus, it was possible to introduce new approaches, new definitions, new research tools, in comparative politics. All this led to what may be conveniently termed as revolution in the discipline: a revolution of sorts in the definition of its mission, problems and methods' (See Michael Rush and Philip Althoff, An Introduction to Political Sociology).

The introduction of the systems analysis, like other modern approaches, in comparative politics by writers like Easton, Almond, Kaplan was, in fact, a reaction against the traditional tendency of uni-dimensionalisation, impeding, in the process, the patterns of scientific analysis which make possible the unification of all knowledge. The systems approach is one of the modern approaches that helps to understand political activity and political behaviour more clearly than before. It looks out the social phenomenon as a set of interactive relationships so considered, the systems analysis covers not only the science of politics but also virtually all social sciences.

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	ii) Check your answer with the model answer given at the end of this unit.
1)	The idea of the systems approach comes from
	a) Astronomy
	b) Biology
	c) Astrology
	d) Economics
2)	The emphasis of the systems approach is on:
	a)
	b)
	c)
3)	One of the following is not the proponent of the systems theory:
	a) David Easton
,	b) Morton Kaplan
	c) Harold Laski
	d) Gabriel Almond
4)	State briefly the inherent defects of the traditional approaches. (State only three)
	a)
	b)

4.3 GENERAL SYSTEMS THEORY AND SYSTEMS THEORY

4.3.1 General Systems and Systems Approaches: Distinctions

It is usually the practice to confuse the systems approach with the general systems theory. The systems analysis may have sprung from the general systems theory, but the two are different in many respects. To identify the systems theory with the general systems theory amounts to committing the philosophical error of the first order. While the general systems theory gives the impression of a system as one which is as integrated as the parts of the human body together, the systems theory does recognise the separate existence of parts. What it means is that the general systems theory advocates organised unity of the system whereas the systems theory speaks of unity in diversity. That is one reason that the general systems theory has been rarely applied to the analysis of potential and social phenomena. The systems theory has been successfully applied to the political phenomenon. David Easton, for example, has applied the systems theory to politics. Professor Kaplan has brought out the distinction between the general systems theory and the systems theory. He says, "... systems theory is not a general theory of all systems. Although general systems theory does attempt to distinguish different types of systems and to establish a framework within which similarities between systems can be recognised despite differences of subject matter, different kinds of systems require different theories for explanatory purposes. Systems theory not only represents a step away from the general theory approach but also offers an explanation for why such efforts are likely to fail. Thus the correct application of systems theory to politics would involve a move away from general theory toward comparative theory." Furthermore, it has not been possible to make use of the concepts of general systems theory in social sciences such as political science while the systems theory has been able to provide concepts (such as input-output, stability, equilibrium, feed-back) which have been well accepted by the empirical political scientists.

4.3.2 Systems Analysis: Characteristic Features

Systems analysis implies system as a set of interactions. It is, as **O.R. Young** says, "a set of objects, together with relationships between the objects and between their attributes." To say that a system exists is to say that it exits through its elements, say objects; and its elements (objects) are interacted and they interact within a patterned frame. A systems analyst perceives inter-related and a web-like objects and looks for ever-existing relationships among them. He is an advocate of the interactive relationship, among the objectives his major concerns are

- i) to emphasise the patterned behaviour among the objects of the system,
- ii) to explain the interactive behaviour among them,
- iii) to make a search for factors that help maintain the system.

Systems analysis elaborates, for understanding the system itself, a set of concepts. These include system, sub-system, environment, input, output, conversion process feedback, etc., System implies persisting relationships, demonstrating behavioural patterns, among its numerous parts, say objects or entities. A system that constitutes an element of a larger system is called a sub-system. The setting within which a system occurs or works is called environment. The line that separates the system from its environment is known as boundary. The system obtains inputs from the environment in the form of demands upon the system

and supports for its functioning. As the system operates, inputs are subjected to what may be called conversion process and it leads to system outputs embodying rules to be forced or policies to be implemented. When system outputs affect the environment so to change or modify inputs, feedback occurs.

Systems approach has, therefore, characteristic features of its own. These features may be summed up briefly as under:

- i) A social phenomenon is not what exists in isolation; it is not just numerous parts joined together to make a whole. It is a unit, a living unit with an existence and goal of its own.
- ii) Its parts may not be and in fact, are not organically related together, but they do make a whole in the sense that they interact and are inter-related. Specific behavioural relationships pattern them into a living system.
- iii) It operates through a mechanism of inputs and outputs and under/within an environment which influences it and which, in turn, provides feedback to the environment.
- iv) Its main concern is as to how best it can maintain itself and face the challenges of decay and decline.
- v) It implies patterned relationships among its numerous parts, explaining their relative behaviour and role they are expected to perform.

4.3.3 Systems Approaches: Concerns and Objectives

The system analysis is concerned with certain objectives. It addresses itself to the nations order, change and goal realisation as Welsh points out. The first concern of the systems approach, Welsh says, is 'maintenance of the system's integrity' which, he asserts, depends on system's ability to maintain order. Obviously, the system would evolve 'regularised procedures,' 'by which society's scarce resources' would be so distributed that its members are sufficiently satisfied and would, in no case, permit a situation of chaos and collapse.

The second concern of the systems approach, as indicated by Welsh, is how the system meets the challenge of change in its environment. Changes in the environment are natural, so is natural the environment's effects on the system. It is the system that has to adapt itself to the realities the environmental changes especially to the technological and economic changes. The systems approach identifies the conflict between system's necessity of responding to the changes and the already engineered changes as provided by the environment, and also the capacities to remove the conflict.

The third objective of the systems approach is the importance it gives to the goal-realisation as the central aspect of the system. Why do people organise themselves? Why do people indulge in persistent patterns of interaction and interdependence? Why do people accept particular modes of attitude so as to demonstrate specific behaviour? Obviously, they do so because they want to pursue certain goals that they feel are important. No system can exist over a substantial period of time without articulating, determining and pursuing some specific identifiable goals. Welsh concludes, "The process by which these goals come to be defined for the system as a whole, and by which members of the system pursue these goals, are important foci in the systems approach."

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4.4 DERIVATIVES OF THE SYSTEMS ANALYSIS

4.4.1 Political System Derivative

Political system or the input-output approach is one derivative of the systems analysis. David Easton has been one of the early political scientists to have introduced the systems approach to politics. He has been able to provide "an original set of concepts for arranging at the level of theory and interpreting political phenomena in a new and helpful way" (Davies and Lewis: Models of Political Systems). He selects the political system as the basic unit of analysis and concentrates on the intra-system behaviour of various systems. He defines political system as "those interactions through which values are authoritatively allocated and implemented for a society". It would be useful to highlight some of the characteristic features of Easton's concept of political system and these, briefly, are:

- a) Political system implies a set of interaction through which values are authoritatively allocated. This means the decision of those, who are in power, are binding.
- b) Political system is a system of regularised persistent patterns of relationships among the people and institutions within it.
- c) Political system, like any natural system, has in it a self-regulating system by which it is able to change, correct and adjust its processes and structures.
- d) Political system is **dynamic** in the sense that it can maintain itself through the feedback mechanism. The **feedback mechanism** helps the system to persist though everything else associated it may change, even radically.
- e) Political system is different from other systems or environments physical, biological, social, economic, ecological, but in coverable to their influence. Boundary lines separate them.
- f) Inputs through demands and supports put the political system at work while outputs through policies and decisions throw back what is not accepted as feed-back.

O.R. Young sums up the essentials of Easton's political system, saying: "Above all, the political system is seen as a conversion process performing work, producing output and altering its environment, with a continuous exchange between a political system and its environment based on the steady operation of the dynamic processes. At the same time, this approach provides numerous concepts for dealing both with political dynamics in the form of systematic adaptation processes and even with purposive redirection in the form of goal-changing feedback."

Easton's political system approach has been severely attacked. Professor S.P. Verma regards it as an abstraction whose relation to empirical politics (which is classic) is impossible to establish. Eugene Meehan says that Easton does less to explain the theory and more to create the conceptual framework. His analysis, it may be pointed out, is confined to the question of locating and distributing power in the political system. He seems to be concerned more with questions such as persistence and adaptation of the political system as also with regulation of stress, stability and equilibrium and thus advocates only the status quo situation. There is much less, in Easton's formulation, about the politics of decline, disruption and

breakdown in political system as Young points out. Despite all claims that the political system approach is designed for macro-level studies, Easton has not been able to go beyond North America and the Western World. Easton's political system or input-output would deal only with the present and has, therefore, no perspective of future and has less study of the past.

The merits of the input-output or political system approach can not be ignored. The approach has provided an excellent technique for comparative analysis. It has also provided a set of concepts and categories which have made comparative analysis more interesting and instructive. Young has admitted that Easton's analysis is "undoubtedly the most inclusive systematic approach so far constructed specifically for political analysis by a political scientist." According to Eugene Meehan, "Easton has produced one of the few comprehensive attempts to lay the foundation for systems analysis in political science and to provide a general functional theory of politics."

4.4.2 Structural - Functional Derivative

The structural functional analysis is another derivative of the systems approach. Coming in through sociology and originating mainly in the writings of anthropologists like Malinowski and Radeliffe-Brown, and adopted in political science, especially in comparative politics by Gabriel Almond, structural-functional analysis is basically concerned with the phenomenon of system maintenance and regulation. The basic theoretical proposition of this approach is that all systems exist to perform functions through their structures. The central question of this approach, as Young says, is: 'What structures fulfil what basic functions and under what conditions in any given society"?

The basic assumptions of the structural-functional derivative of the systems approach are :

- Society is a single inter-connected system in which each of its elements performs a specific function and whose basic goal is the maintenance of the equilibrium;
- 2) Society, being a system as a whole, consists of its numerous parts which are inter-related;
- 3) The dominant tendency of the social system is towards stability which is maintained by its own in-built mechanism;
- 4) System's ability to resolve internal conflicts is usually an admitted fact;
- 5) Changes in the system are natural, but they are neither sudden nor revolutionary, but are always gradual and adaptive as well as adjustive;
- 6) System has its own structure, with its own aims, principles and functions.

The structural-functional derivative speaks of the political system as composed of several structures as patterns of action and resultant institutions with their assigned functions. A function, in this context, means, as Plato (Dictionary of Political Analysis) says, 'some purpose served with respect to the maintenance or perpetuation of the system', and a structure could be related to "any set of related roles, including such concrete organisational structures as political parties and legislatures." So the structural-functional analysis, Plano continues, "involves the identification of a set of requisite or at least recurring functions in the kind of system under investigation. This is coupled with an attempt to determine the kinds

of structures and their interrelations through which those functions are performed."

Gabriel Almond's classic statement of structural-functional analysis is found in the introduction to *The Politics of the Developing Areas, 1960*. Briefly summed up: All political systems have a structure, i.e. legitimate patterns of human interactions by which order is maintained; all political structures perform their respective functions, with different degrees in different political systems;

Input functions include

- a) political socialisation and Recruitment;
- b) interest articulation;
- c) interest aggregation;
- d) political communication;

Output functions include

- i) rule-making,
- ii) rule-application,
- iii) rule-adjudication.

Almond, while considering politics as the integrative and adaptive functions of a society based on more or less legitimate physical coercion, regards political system as "the system of interactions to be found in all independent societies which perform the functions of integration and adaptation by means of the employment or threat of employment of more or less legitimate order-maintaining or transforming system in the society." He is of the opinion that there is interdependence between political and other societal systems; that political structures perform the same functions in all systems; that all political structures are multi-functional; and that all systems adapt to their environment when political structures do have behave dysfunctionally.

There is a basic difference between Easton's input-output model and Almond's structural-functional approach. While Easton lays emphasis on interaction and interrelationship aspects of the parts of the political system, Almond is more concerned with the political structures and the functions performed by them. And this is perhaps the first weakness of the structural-functional analysis which talks about the functions of the structures and ignores the interactions which are characteristics of the numerous structures as parts of the political system.

Almond's model suffers from being an analysis at the micro-level, for it explains the western political system, or to be more specific, the American political system. There is undue importance on the input aspect, and much less on the output aspect in his explanation of the political system, giving, in the process, the feedback mechanism only a passing reference. Like Easton, almond too has emerged as status-quoist, for he too emphasised on the maintenance of the system. While commenting on Almond's insistence on separating the two terms - structures and functions, Sartori says, "The structural-functional analysis is a lame scholar. He claims to walk on two feet, but actually on one foot - and a bad foot at that. He cannot really visualise the inter-play between 'structure' and 'function' because the two terms are seldom, if even, neatly disjointed, the structure remains throughout a kin brother of its inputted functional purposes."

And yet, merit of the structural-functional model cannot be ignored. The model has successfully introduced new conceptual tools in political science, especially in

comparative politics. So considered, the structural-functional analysis has really enriched our discipline. It has also offered new insights into political realities. And that is one reason that this model has been widely adopted, and is being used as a descriptive and ordering framework.

4.4.3 Cybernetics Derivative

Cybernetics or communication approach is another derivative of the system analysis. Karl Deutsch (The Nerves of Government, 1966) may rightly be called the chief exponent of the Cybernetics model. Cybernetics is defined as the 'science of communication and control'. Its focus is "the systematic study of communication and control in organisations of all kinds. The viewpoint of Cybernetics suggests that all organisations are alike in certain fundamental characteristics and that every organisation is held together by communication." Because 'governments' are organisations, it is they where information-processes are mainly represented. So are developed Deutsch's concepts in his Cybernetics approach, especially information, communication and channels. Information is a patterned relationship, between events, Communication is the transfer of such patterned relations; and channels are the paths or associative trails through which information is transferred. Deutsch rightly says that his book, the Nerves of Government, deals less with the bones or muscles of the body politic and more with its nerves its channels of communication. For him, the 'core-area of politics is the area of enforceable decisions, and the ensure of politics' is the 'dependable coordination of human efforts for the attainment of the goals of society'. Hence, he looks at the political system, which according to him is nothing but a system of decision-making and enforcement, as a network of communication channels.

Drawing largely from the science of neuro-physiology, psychology and electrical engineering, Deutsch is able to perceive similarities in processes and functional requirements, between living things, electronic machines and social organisations. "the brain, the computer, the society, all have characteristics which make them organisations: they have the capacity to transmit and react to information" (Davies and Lewis: *Models of Political Systems*, 1971).

The characteristic features of the cybernetics model of the systems analysis can be, briefly, stated as under:

- 1) Feedback constitutes a key concept in the cybernetics model. It is also called a servo-mechanism. By feedback, Deutsch means a communications network that produces action in response to an input information.
- All organisations, including a political system, are characterised by feedback mechanisms. It is feedback that introduces dynamism into what may be otherwise a static analysis.
- 3) Cybernetics introduces certain sub-concepts of the feedback concept and there are negative feedback, load, lag, gain and lead.

Davies and Lewis explain these terms

"A negative feedback is one which transmits back to itself information which is the result of decisions and actions taken by the system and which leads the system to change its behaviour in pursuit of the goals which it has set itself. Load indicates the total amount of information which a system may possess at a particular time. Lag indicates the amount of delay which the system experiences between reporting the consequences of decisions and acting on the information

received. Gain is an indication of the manner in which the system responds to the information that it has received. Load illustrates the extent to which a system has the capacity to react to predictions about the future consequences of decisions and actions."

4) What types of systems emerge in the light of meaning given to the subconcepts of feedback concepts may be stated as: **Deutsch** says that all political systems are goal-seeking entities; the chances of success in goal-seeking are related to the amount of load and lag; up to a point they may be positively related to the amount of gain, although at high rates of gain, this relationship may be reversed, and they are always positively related to the amount of load (Young, *Systems of Political Science*, 1997); A system may over-respond to information received and it is likely that any increase would be dysfunctional to the realisation of the system's goals.

Deutsch's cybernetics model deals with communication, control and channels against Easton's input-output model of interactions and interrelationships and Almond's structural-functional analysis of stating structures and their functions, All these seek to explain the functioning of the system — its ability to adapt itself amidst changes and its capacity to maintain itself over time.

Deutsch's model has numerous drawbacks: it is essentially an engineering approach which explains the performance of human beings and living institutions as if they are machines, the cybernetics are concerned more with what decisions are then how and why they are concluded and towards which ends; the approach is quantity-oriented, and hence is not quality-oriented; it seeks to store information and overlooks its significance; the approach is sophisticated in so far as it is complex, it is complex in so far as it does not help understand the phenomenon.

As a derivative of the systems approach, cybernetics analysis has helped in the search of analogies which has, in turn, contributed to development of hypotheses concerning human behaviour. To that extent, the approach has added to our understanding of the system scientifically. Furthermore, the **cybernetic devices**, such as *computing* and *data processing*, proved to be extremely useful to political scientists in their research efforts.

No	te: i)	Use the space given below for your answer.
	ii)	Check your answer with the model answer given at the end of this unit.
1)		any three characteristic features of Easton's input-output model.
2)		the strength and weakness of Easton's political system model.
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3)	Which of the following is the chief characteristic of the Structural-Functiona Analysis				
	a)	values to be authoritatively allocated.			
	b)	rule-making, rule-application, rule-adjudication.			
	c)	nerves, rather than bones and muscles, are important features of the body politic.			

!)	State briefly the chief demerits of Deutsch's cybernetics theory.
5)	Compare the Easton's, Almond's and Deutsch's derivatives of the Systems Approach.
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4.5 SYSTEMS THEORY: AN EVALUATION

4.5.1 Limitations of the Systems Approach

The systems approach in Political Science, and especially in Comparative Politics provides a broader and a clearer view of things that surround not only political activity but also politics as well. This is so because the systems approach takes political phenomena as one unit, a system in itself, not merely the sum-total of its various parts, but all parts standing in interaction — with one another. To view any number of parts as a whole is to make the whole something artificial. To insist on the interactions among the parts as always continuing and in the process, building the system is to presume something already granted or given.

The **systems theorists** have drawn much from *biology* and other *natural* sciences and have equated the organic system with social system. Indeed, there are similarities between the two systems, but analogies are only and always analogies. Any attempt to extend the argument amounts to falsification. To relate a hand to human body is not when we relate an individual to the society or a legislature to the executive organ of the government. The systems theorists have only built an extended form of organic theory which the individualists had once argued.

All the systems theorists have committed themselves to building and maintaining the system. Their concern has been only to explain the system as it exists. What they have, additionally, done is to state the causes which endanger its existence and factors which can strengthen it. They are, at best, the status-quoits who have little knowledge about past and perhaps no concern for the future. All the concepts that systems theorists have developed do not go beyond the explanation and understanding of the present. The entire approach is rooted in conservation and reaction. (Verma, Modern Political Theory, 1966).

The systems theorists, in Political Science or in the field of Comparative Government and Politics, have substituted political system in place of the state by

arguing that the term political system explains much more than the term state. Indeed, the point is wide and clear. But when these theorists come to highlight the characteristics of political system, they do not say more than the political power or force with which the conventional word 'State' has been usually associated.

What the systems analysists have done is that they have condemned the traditionalists for having made the political analysis descriptive, static and non-comparative. What they have, instead, done is that they have introduced the numerous concepts in both natural and other social sciences in Political Science or Comparative Politics so as to make the discipline more inter-disciplinary. The claim that the systems theorists have evolved a scientific and empirical discipline is too tall.

4.5.2 Strength of the Systems Approach

If the idea behind the systems approach is to explain the concept of system as a key to understand the social web, the efforts of the systems theorists have not gone waste. It is important to state that the influence of the systems analysis has been so pervasive that most comparative politics research makers use of the systems concepts. It is also important to state that the systems approach has well addressed and well-directed itself to numerous meaningful questions — questions such as the relationships of systems to their environment, the persistence of the system itself and overtime, stability of the system, function assigned to the structures as parts of the system, dynamics and machines of the system.

Professor S.N. Ray has summed up the merits of the systems theory very aptly, saying, "It (the system theory) gives us an excellent opportunity for fusing microanalytical studies with macro-analytical ones. The concepts developed by this theory open up new questions and create new dimensions for investigation into the political processes. It often facilitates the communication of insights and ways of looking at things from other disciplines. It may be regarded as one of the most ambitious attempts to construct a theoretical framework from within political Sciences."

4.6 LET US SUM UP

Systems approach is one of the modern approaches which has been introduced in Political Science, especially in Comparative Governments and Politics by scholars like **Kaplan**, **Easton**, **Almond**, **Apter**, and **Deutsch**. Accordingly, they have seen system as a set of interactions, interrelations, patterned behaviour among the individuals and institutions, a set of structures performing their respective functions and one that seeks to achieve certain goal and attempts to maintain itself amidst vicissitudes.

The systems approach, though claims to provide a dynamic analysis of the system, remains confined to its maintenance. It claims to have undertaken an 'empirical research, but has failed to provide enough conceptual tools for investigation. It has not been able to project system, particularly political system more than the state. The approach is, more or less, conservative in so far as it is status-quoist.

Yet the systems approach is unique in many respects. It has provided a wider scope in understanding and analysing social behaviour and social interactions. It has drawn a lot from natural sciences and has very successfully used their concepts in social sciences. It has been able to provide a degree of methodological sophistication to our discipline.

4.7 KEY WORDS

Analysis: An object of inquiry to study the various constituent parts so to know their nature and relationship of the parts to each other and to the whole.

Approach: A mode of analysis which provides a set of tools and develops concepts for the study and comprehension of any political phenomena.

Concept: It is an abstraction to which a descriptive label is attached so to carry out an investigation and analysis.

Cybernetics: It is the science of communication and control.

Equilibrium: It is a state of balance ascribed usually to a political or any other system.

Feedback: It is the process by which information about the functioning of a system is communicated back to the system so that corrections and adjustment may be made.

Homeostasis: Homeostasis is the tendency toward maintenance of stability in a system through self-adjustments which provide responses to disruptive and/or destability influences.

Input: It is something that influences and affects the functioning in a system. Inputs originate in the environment of the system and within the system itself.

Output: Outputs are the results which come in the form of governmental policies, decisions, and programs as well as implementing actions.

Paradigm: It is a model, pattern or say example that helps organise thought and give direction to research.

Political System: The persisting pattern of human relationships through which authoritative decisions are made and carried out for a society.

Process: It is a sequence of related actions/operations. It denotes activity, 'movement' and relatively rapid change as distinguished from the more stable and slower elements in a situation.

Social System: It is an aggregation of two or more persons that interact with one another in some patterned way.

Stability: It is a condition of a system where components tend to remain in, or return to, some constant relationship with one another.

System: It is any set of elements that exist in some patterns relationship with one another.

4.8 SOME USEFUL BOOKS

Almond, G.A. and Powell, GB, (1978) "Comparative Politics: A Development Approach", Oxford

Apter, David E., (1977) "Introduction to Political Analysis", Cambridge

Charlesworth, J. (ed.), (1967) "Contemporary Political Analysis", New York

Dahl, Robert A., (1979) "Modern Political Analysis", Englewood Cliffs

Davies M.R. and Lewis, V.A., (1971) "Models of Political Systems", London

Deutsch, Karl, (1963), "The Nerves of Government", Glencoe

Easton, David, (1965) "A System Analysis of Political Life", Chicago

Macridis, R.C. and Ward, R.E., (1964) "Modern Political Systems" Englewood Cliffs

Ray, S.N., (1999) "Modern Comparative Politics" New Delhi

Verma, S.P. (1975) "Modern Political Theory", New Delhi

World Encyclopaedia of Political Systems, London, 1983

Young, Oran, R., (1966) "Systems of Political Science" Englewood Cliffs

4.9 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) Biology
- 2) a) on the articulation of the system,
 - o) on the articulation of the components of the system;
 - c) on the behaviour by means of which the system is able to maintain itself;
- 3) c)
- 4) a) The traditional approach is historical and mostly descriptive;
 - b) It is parochial;
 - c) It is more or less monographic.

- 1) a) The General Systems Theory has been rarely applied to the social sciences while the systems theory has been successfully applied;
 - b) The General Systems Theory, developed as it is from natural sciences (biology particularly) treats the systems as more or less organically integrated from within while the systems theory lays emphasis on the interactions aspect of the elements of the system.
- 2) i) Inputs are demands made upon the system and those which usually originate from the environment.
 - ii) Outputs are the results which come about when the inputs are subjected to a conversion process. They are in the form of policies, decisions and actions which are to be implemented.
 - iii) Sub-system is a part of the system, a part of the whole.
 - iv) Feedback occurs when outputs affect the environment so as to modify inputs.
- 3) The two characteristics of the systems theory are:
 - i) The systems theory regards the social phenomenon as a unit, a living unit at that;
 - ii) It denotes the system as a set of interactions of various elements.

- 4) The systems approach is concerned with the following notions
 - i) Order
 - ii) Change
 - iii) Goal-realisation.

Check Your Progress 3

- 1) a) system is regarded as a part of interactions;
 - b) through the system, values are authoritatively allocated; and
 - c) system is self-regulating one and is able, in itself, to change and correct and adjust in accordance with the environmental changes.
- 2) Easton's political system has provided an excellent technique for comparative politics. Its another merit is that it has provided a set of concepts and categories which has helped in comprehending the system more clearly. The weakness of Easton's model is that it does little to explain the political system and more to establish it. Easton is concerned with the maintenance and regulation of the system, and hence he is a status-quoist.
- 3) b)
- 4) Deutsch's model is an engineering approach and has been unduly imposed another social system. He is concerned with decisions and not with how and why have these decisions been concluded. His model seeks to store information and ignores its importance.
- 5) The derivates of the systems approach, as have been developed by Easton, Almond and Deutsch, lay emphasis in different aspects of a system. Easton regards the interactions and inter relationships as characteristics of any system; Almond is concerned with the structures of the system and the functions they perform; Deutsch's derivative is, more or less, a device of communication, control and channels.

BIBLIOGRAPHY

Amatya, Panna Kaji (1997), "Nonalignment and its relevance in today's world", NCWA Annual Journal, Kathmandu, August, 115-28.

Appadorai, A. and Rajan, M.S. (1985) *India's Foreign Policy and Relations*, New Delhi: South Asian Publishers.

Benerji, Malabika (1981), "Institutionalization of the Nonaligned Movement", *International Studies*, New Delhi, Vol.20, Nos. 3-4, July-December 1981.

Baral, J.K. (1989), "Nonaligned Summit Diplomacy", *India Quarterly*, New Delhi, Vol. 45, No.1, January-March, 1-20.

Baral, J.K. and Mohanty, Sujata (1991), "The Growth and Pattern of NAM" Ibid., Vo.47, No.3, July-September, 21-38.

Chhabra, Hari Sharan (1991), "Relevance of NAM in a Unipolar World", *The Times of India*, New Delhi, June 13.

Dubey, Muchkund (1997), "Nonalignment: India's Matter", *The Hindu India I*, Chennai, August 15, 121-23.

Faranjalla, Samaan Boutros (1984), "Nonalignment: Ideological Pluralism", *India Quarterly*, Vol.40, No.2, April-June, 198-206.

Guha, Seema (1997), "What is there in the NAM?", The Times of India, April 16, 15.

Hune, Shirley and Singham, A.W. (1993), "Nonaligned Movement", in Krieger, Joel, ed., *The Oxford Companion to Politics of the World*, New York: Oxford University Press, 645-46.

Jayaramu, P.S. (1992), "New World Order, Nonaligned Movement and *India*" *India Quarterly*, New Delhi, Vol. 47, No.1 & 2, January-June, 23-30.

Khilani, N.M. (1987), "Nonalignment: New Trends in The Eighties", Ibid. Nos.43, No.2, April-June, 162-67

Mehta, Jagat S. (1991), "Nonalignment: Mission Accomplished", *Indian Express*, New Delhi, September 3, 6.

Nanda, Prakash (1997), "Does NAM Matter", The Times of India, March 6, 11.

Pillai, K. Raman, ed. (1997) *India's Foreign Policy in the 1990s*, New Delhi: Radiant Publishers.

Prasad, Bimal (1983), "The Evolution of Nonalignment", *India Quarterly*, Vol.39, No.3, July-September 299-309.

Quraishi, Zaheer M. (1994), "Relevance of Nonalignment", Ibid., Vol.50, Nos.1-2, January-June, 1-22.

Rai Chouwdhary, Satyabrata (1995), "Future of NAM: Has Movement Lost Relevance?", *The Statesman*, Delhi, November 29, 8.

Raja Mohan, C. (1997), "Foreign Policy on hold", *The Hindu*, New Delhi, November 28, 10.

Rajan M.S. (1980), "Nonalignment: The Dichotomy Between Theory and Practice in Perspective", *India Quarterly*, Vol.36, No.1, January- March, 43-67.

Rajan, M.S. (1997), Recent Essays on India's Foreign Policy, Delhi: Kalinga.

Rana, A.P. (1980), "Nonalignment as a Developmental Foreign Policy Strategy", *Indian Journal of Political Science*, Chandigarh, Vol.41, No.4, December 587-637.

Sen S.R. (1984), "Economic Issues Before the Nonaligned", *India Quarterly*, Vol.40, No.2, April-June 207-11.

Yadav, R.S. (1993), "NAM In The New World Order", Ibid., Vol.49, No.3, July-September, 47-68.