CHAPTER-III
IRRIGATION ORGANISATION AND FARMER
PARTICIPATION

It was widely accepted by development theorists that planned social change needed an efficient administration which could provide highly specialised knowledge, administrative insight, keen evaluative perspective, careful elaboration of plans and their proper implementation. It was felt that planners and policy makers could give only the general framework whereas bureaucracy, constituting an important element of modernising elite, could play a dynamic role in eradicating social backwardness and poverty among the masses.

Bureaucracy-The Concept:

Most social scientists define bureaucracy as 'a phenomenon associated with large complex organisation, without connotation of approval or disapproval.' This formulation is evidently value-neutral, treating bureaucracy as neither hero nor villain. It is viewed as a form of 'social organisation with certain characteristics', to quote Bata K. Dey.¹

Harold Iaski defined bureaucracy in the 1930 Encyclopaedia of the Social Sciences as, "a system of government, the control of which is so completely in the hands of officials that their power jeopardizes liberty of ordinary citizens."²

Harold Lasswell and Abraham Kaplan, 1950, defined it in 'Power and Society' as "the form of rule in which the elite is composed of officials".³ Others such as Robert Michels, 1962, have explained it in terms of the
imperatives of large-scale organisation itself “who says organisation, says oligarchy."4

Laski adds, ‘the characteristics of such a regime are a passion for routine administration, the sacrifice of flexibility to rule, delay in making of decisions and a refusal to embark upon experiments’.5

In all cases, however, officials tend to be judged by subscribers to this first definition as the real power in any political system in which the ranks of officialdom are large. It was this view that Max Weber challenged in the early part of the twentieth century, with arguments that set the stage for the development of bureaucracy’s second definition, as a particular form of organisation.

To Weber, those who equated large number of officials with rule by officials sometimes confused appearance and reality. They saw official orders given and obeyed and assumed from this that officials were wielding independent power. In truth, Weber argued, orders were more likely obeyed because their recipients believed that it was right to obey. Not power per se but ‘authority’ - power cloaked with legitimacy - was at play.6

Max Weber, bureaucracy’s most distinguished theoretician recognised bureaucracy as the characteristic form of public administration for a state with extended territorial sovereignty.

Weber defined authority as “the probability that a command with a given specific content will be obeyed by a given group of persons”.7 In an authority relationship, the ruler believes that he has the right to issue a command and the rule feel that they have an obligation to obey the command issued by the ruler. This provided the foundation on which Weber erected the whole edifice of his typology of authority systems. He classified authority systems into legal, traditional and charismatic. The nature and structure of administration varies, Weber suggests, from one authority system to another. He directly linked the nature of administration to the form of legitimisation
acceptable to various types of society. The main focus of Weber's analysis was however, on the administration in a legal-rational authority system which he called the 'bureaucracy'. The three types of authority system elaborated by Weber are ideal types which cannot be found in their conceptual purity in any empirical reality. Weber made it very clear that empirical situations could be a blending of all these three types in a widely varying combination.  

Weber's model was influenced by traditional elements of continental Europe and in particular, German administration. In short, the main principles of the so-called 'bureaucratic model' are:

- hierarchy of position in the civil service,
- system of rules and regulations for implementation of laws and decision-making,
- functional specialisation of administrative units and civil servants, and
- impersonal relationship with the environment of the public administration.

Much of the research about bureaucracy and bureaucratic behaviour has been conducted within the framework of the Weberian model. It has been the starting point for numerous investigations within public administration and organisational sociology. Although the Weberian model was used as a framework for analysis, it did not meet with unanimous agreement because several findings indicated that there was a gap between theory and reality. Weber's analysis of administrative structures and their functioning under different forms of legitimisation of authority has been criticised for its inadequacy to conceptualise administration in developing countries. The bureaucracy in developing countries diverge so sharply either from the legal-rational type or from the traditional type that any attempt to comprehend it with the help of such dichotomous constructs might mislead the researchers. Not questioning the basic mechanism of the Weberian model - bureaucracy as
neutral and rational machinery - several scholars have revealed that bureaucracies could display traits other than rationality and efficiency. There was an inherent danger of so-called dysfunctions in bureau operations.

In a couple of well-known articles Robert K. Merton argued that the sharp distinction between means and ends, typical of the Weberian model, tends to be blurred in bureau operations. The older a bureaucracy the stronger the tendency to a displacement of means and ends. Merton argued in ‘Social Theory and Social Structure’, 1975, that bureaucracy cannot be understood if one does not pay attention to the unintended consequences of bureaucratic behaviour and dysfunctions.¹⁰

Philip Selznick in his ‘TVA and the Grass Roots, 1949, came to a similar conclusion. Selznick showed that a bureaucratic apparatus tends to develop in a democratic organisation. The drive towards autonomy of the bureaucracy derives, according to Selznick, from its possession of specialized knowledge about the operations of the organisation. Technical expertise and the specialisation of the knowledge base of the organisation is typical of bureaucracy, which can, however, be conducive to a vicious circle, where the bureaucracy within the organisation tends to overemphasise the need for expertise. In due time the experts will take over the organisation - one of the dysfunctions of bureaucracy.¹¹

In his ‘Patterns of Industrial Bureaucracy’, 1954, Alwin Gouldner criticized the emphasis on subordination in the Weberian model. According to Gouldner this element in the model bypasses the negative consequences of controlling the behaviour of subordinates. Gouldner argued that it is not possible to direct the organisation towards goals which all agree upon. Organisations consists of different groups of individuals with varying interests and goals which can only partly be balanced against each other.¹²

The theme of the human relations school implies a more serious criticism of the Weberian model because it denies the basic mechanism which
is implicit in it. Crucial for the capacity of the organisation to accomplish its goals is the informal structure, as Chris Argyris showed in 'Understanding Organisational Behaviour', 1960. According to Argyris, there exists an undeniable conflict and tension between the demands of the formal organisation and the legitimate needs of the individual. The characteristics of bureaucracies – division of labour, subordination, hierarchical structure and control – are not in agreement with the needs of the individual in his mode of functioning within an organisation. Informal behaviour systems compensate for the inhuman and mechanistic nature of organisations. These informal behaviour pattern are crucial if the organisation is to operate successfully, rather than the formal characteristics of the Weberian model.13

The theme of dysfunctions was developed into a general reaction against the Weberian administrative theory in the human relations school. Criticizing various organisational theories - scientific management, the division of labour and the Weberian administrative perspective – various authors developed a number of hypotheses about the individual in the organisation which broke away from prevailing notions about rationality and mechanization. Instead of hierarchy they emphasised the informal structure of the organisation and the need of the individual for integration into it. Bureaucracy denoted the inhuman, the formal external framework of the organisation, whereas what really happened in an organisation was what Weber had not noticed - implicit norms; individual motivation and satisfaction; integration and identification.

The inadequacy of Weber's constructs to analyse the administration in developing countries led Fred Riggs to develop the ecological approach to the study of public administration. However, the origin of the ecological approach to the study of administration can be traced to the work of John Gaus, L. D White and M. Dimock. It was, however, Riggs who lifted the ecological approach from its rudimentary stage to a more enriched stage.
Riggs contended that a perfect comparative study of administration ought to be analytical, nomothetic and ecological as opposed to normative, idiographic and non-ecological. The basic premise of ecological approach is that bureaucracy is one of the many sub-systems in a society and as a sub-system it is a constant interaction with other sub-systems i.e., political, cultural, economic etc. So to understand the structure and function of bureaucracy better, one must study it in the context of other societal sub-systems with which the bureaucracy is interacting continuously. In this process of interaction, bureaucracy influences and is being influenced by other subsystems. Riggs developed an elaborate scheme of constructs dealing with the 'fused', 'prismatic' and 'diffracted' societies. The main features of a prismatic society identified by Riggs are 'heterogeneity', 'formalism' and 'overlapping'. He suggests that these traits can be found in prismatic society as well as in the 'prismatic-sala' by which he means the administration in a prismatic society.  

Although Riggs made a significant contribution to the comparative study of administration, the theory has also spawned widespread criticism. Ramesh K. Arora has criticised the prismatic theory for its pronounced 'western bias' and for the 'negative character' attached to the prismatic society. He writes: “Riggs uses terms like 'normlessness', 'ritualism' 'mimetic', 'donative expenditure', 'bazaar-canteen', 'double-talk', 'interference complex' and dependency syndrome' to characterise the functioning of a prismatic society. Unquestionably, such terms are value-laden ------- The model implied that the 'negative' and 'negative alone' is the real in a prismatic society”.

Robert Jackson pointed out that the prismatic theory was so preoccupied with the analysis of the structure of the environment of the administrative system that the administrative system itself was relegated to the periphery of the analysis. Jackson argued that the Riggisian prismatic theory is "relatively more successful as a conceptualisation of developing
social system than as an analysis of the place of administration in such a system."

An important trend that emerged later on suggested the predominance of political factors in comprehending the role of bureaucracies cross-nationally. Thus, Merele Fainsod has given a typology of bureaucracies on the basis of the relationship of bureaucracies to the flow of political authority. The five different forms of bureaucracies that he has distinguished using this criterion are: (1) representative bureaucracies, (2) party state bureaucracies, (3) military-dominated bureaucracies, (4) ruler-dominated bureaucracies and (5) ruling bureaucracies. Inherent in Fainsod’s analysis is the argument that the role of bureaucracies is a dependent variable shaped predominantly by the surrounding political structures with which the bureaucracies are in constant interaction. Furthermore, the role of a bureaucracy changes with a change in the surrounding political structures.

The same type of reasoning has also been adopted by Ferrel Heady who perceived the public bureaucracy as a sub-system of the political system in which it operates. Heady assumed that the political system has the most decisive influence on the administrative system and bureaucracy. He used this assumption in his classification scheme of political systems and argued that "political system type would be the most crucial standard for distinguishing among the public bureaucracies of developing countries."

The categories Heady provides are: (1) traditional-autocratic; (2) bureaucratic elite - civil and military; (3) polyarchal competitive; (4) dominant-party semi-competitive; (5) dominant-party mobilisation; and (6) communist totalitarian systems. He asserts, “the political role of the bureaucracy varies from country to country and is intimately related to variations in political system types among the developing countries.”

Critics argue that this classification scheme of the political systems has a serious flaw. A fundamental change in the political system type may occur
overnight. For example, through a military takeover a traditional autocratic system may turn into what Heady calls a bureaucratic elite system. But it would be too much to expect that the role historically played by the bureaucracy in traditional autocratic system would be drastically and suddenly changed with the military take-over. Some researchers also do not accept the argument that the nature of bureaucracy is determined by the regime type.

For many developing countries that were under colonial rule for decades, the administrative legacy left by the colonial power became a region determinant of the administrative system. A basic feature of colonial administration was that the administrative machinery was geared predominantly towards the maintenance of law and order and timely collection of taxes. Nonetheless, the administration was considered elitist, authoritarian, paternalistic and egocentric. Soon after independence, the government of free nations confronted the difficult task of state-building and nation-building. They became dependent on the law-and-order oriented bureaucracy to bring about an action-oriented responsive and democratic administrative system.

Most of the time the post-colonial nations inherited a society that were not homogeneous at all but rather a conglomeration of diverse and conflicting interests, loyalties and identities. In such a scenario bureaucracy remained essentially an instrument of order rather than of democratic responsiveness.

**Bureaucracy- The Indian Context:**

According to C.P. Bhambri, political modernisation in developing countries means that masses should participate in governmental decision-making, that the parochial loyalties of individuals should be replaced by the secular loyalties of citizenship, and that the roles of various structures of society should be differentiated instead of remaining diffused. And according to him public bureaucracy is an important instrument of political modernisation with the modernising elite in these societies fairly represented in public
bureaucracies. Moreover, he says, in many of these societies, well knit and well-organised public bureaucratic structure proceeds electoral democracy. In some of these societies, under the impact of colonial rule, bureaucracy precedes political parties. He further states that many of the developing societies have stable bureaucracies and an unstable party system, the result being that bureaucracy is not only manned by the modernising elite of these societies; it also provides stability and continuity to an otherwise unstable system of government. This is because, the author says, bureaucracy already has firm roots while other structures of politics are struggling to establish themselves.\(^{20}\)

One of the most lasting legacies left behind by the British colonial power in India was a system of administration which had been designed to meet the demands of the times. The administrative network established a system of bureaucracy with two outstanding features of 'elitism' and 'loyalty' to its masters. Its purpose was to serve the regime and rule a vast sub-continent through the device of a unified district administration informed by common principles of government and disciplined by a structure of authority invested in an 'All-India' civil service.\(^{21}\)

India, even after the transfer of power, retained the structure and functions of the colonial model of bureaucracy that was designed for the imperial purposes during the British India. For, the Indian National congress or the leaders of Indian National Independence movement were more interested in the transfer of political power rather than the administrative change. Perhaps, according to V. Bhaskara Rao,\(^{22}\) 1997, they might have thought, the issues of administrative change would evolve automatically once India attained independence.\(^{23}\) But the 'steel man of India', Sardar Patel, had certified 'the steel frame' as 'patriotic, loyal, sincere and able' that cannot be 'substituted'. Therefore, the civil service was given all the constitutional guarantees of privleges and rights. Thus, not only a sense of security was assured to it, in that its position in the new government would remain the
same as in the out-going government but the politicians were told not to interfere with its functioning, according to Rajni Kothari.\textsuperscript{24}

According to Kuldeep Mathur, the ICS and the administrative framework, of which they were a part, survived because the threat to national unity loomed large at the time of independence and change was perceived to be fraught with danger.\textsuperscript{25} Thus, the powers of the bureaucracy not only remained intact, but further increased, particularly those of the all-India services after independence with extended functions of a welfare state, specially when they were asked to take charge of public sector undertakings.\textsuperscript{26}

To quote Kuldeep Mathur, an important consequence of this critical decision to opt for the continuity of the administrative system was the constant demand that the political leadership made on the administrators to change their outlook and bring changes in the administrative culture to suit the new situation of democracy and planned development. The expectation was that a change of heart would occur, according to the author, and the individual bureaucrat was reorient himself from the colonial outlook and transfer his loyalty to a democratically elected political apparatus.\textsuperscript{27}

But it was not easy to accomplish such a transformation. The tasks of the popularly elected governments at the centre and the states was required an administrative system able to manage social, economic, political and scientific problems. If the inherited system of administration was to be adopted, it had to undergo a change to respond to the combined challenges of democracy, development, state-building and nation-building. Though they reached inadequacies of the inherited administrative system, the framers of the constitution did not give much thought to the system of administration needed for free India. They might have thought that the administration being an instrument would automatically undergo the required transformation under the political impact, according to V. Bhaskara Rao, 1997.\textsuperscript{28}
According to Kuldeep Mathur, in analysing the reasons why such an ethos still continued, it was argued that the administrators of the post-independence India were as elitist and west-oriented as their counterparts during colonial rule. Therefore the contention was that, to quote him, they continued to be alienated from the large mass of the poor of the country and would not possess requisite behavioural characteristics needed to implement the development programmes initiated by the government. According to C. P. Bhambri empirical data collected to identify the social and economic background of the IAS showed that they came from the middle and upper strata of society and had urban professional backgrounds. These findings, the author states, were particularly useful to reinforce the argument that there was continuity between the ICS and the IAS and that the latter could easily be considered as the successor service in more sense than one.

Kuldeep Mathur writes that administrative development in post-Independent India had one important impact regarding the continued pre-eminence of the civil service. This, he says, was that administrative reform, that could have resulted in the erosion of such pre-eminence, was successfully thwarted by the top civil service. Most committees which were asked to recommend changes were chaired by members of this group itself and hence, there was nothing to fear. He says that the real threat came from the Administrative Reforms Commission (ARC) that was headed by a politician which recommended that the doors of senior management in the government of India be opened to all sectors of the civil-service. According to the author, this would have effectively put an end to the monopoly of the elite IAS groups and would have put it on par with other services and its hegemony would have been broken but no much came out of the recommendations of the ARC.

If bureaucracy wants to be an 'agent of change' and 'committed', it has, according to Krishna K. Tummala, three possible options: (i) manipulation of the composition and structure of bureaucracy hoping for consequent
behavioural changes, (ii) to alter attitudes imparting rigorous training and (iii) use of coercion to obtain compliance.33

Mohit Bhattacharya points out that administrative growth in India is generally incremental and rarely radical. The organisational design subsumed in Weberianism does not always suit the conditions in developing countries. He therefore called for innovation in public organisation in the changed circumstances. Bureaucracy must be, he suggested, change-oriented, result-oriented and people-oriented. To the extent popular participation in administration will become a reality, this is bound to bring in a good deal of pressure on the bureaucracy to change.34

According to C.P. Bhambri, in a democratic setting, the bureaucracy should not only be motivated by the spirit of service to the citizen, it should also have high standards of public integrity. Vitality of administration, Bhambri says, and its capacity to deliver goods and earn public acceptability depend on honesty and integrity in public services.35

There are scholars and practitioners of public administration who have suggested structural modifications in the bureaucratic machinery. While Kuldeep Mathur would want top key posts in the services manned by bureaucrats who would come and go with a political party and would be as much answerable to the people as the party, R.D. Pradhan calls it a ‘political bureaucracy’ inter-posed between the higher levels of civil services and the political executive. C.P. Bhambri would like to see this political bureaucracy structured as a mini-secretariat for the minister, with its tenure coinciding with his. These ideas would serve as ‘the brain of the Minister and the eye of the Master’ forming a ‘flexible bridge which joins administration and policy’. The point, according to marina Pinto, is whether the area of overlap be that of the political bureaucrat or should it remain a flexible area wherein bureaucrats and politicians revise and adapt the rules of the game in a no man’s land.36
Bureaucracy and Rural Development:

The implementation of rural development programmes in India was left to the bureaucracy. Their success depended to a great extent on bureaucratic performance. Neither political social workers, nor any non-bureaucratic agency had much to do with all these programmes. The formulation and implementation of these programmes required bureaucracy to play a new role - the role of an agent of development or agent of change as compared with the traditional role of the past as the agent of status quo. Since most of these were people-oriented programmes, bureaucracy had necessarily to work with the people. Motivating and mobilising the people, communicating programmes to them, eliciting their cooperation, building up grass-root popular institutions - these were the new methods and techniques of administration which bureaucracy had to adopt. The development bureaucracy needed to approach the people as humble workers rather than just passing orders to the poor rural people, according Siv Raj Singh.37

To undertake these new tasks of development, new types of functionaries emerged in the bureaucratic system - functionaries like the village level workers, extension officers, block development officers etc. At the higher levels also new positions like chief executives of the Zila Parishad or development commissioners came into being. District administration in turn has changed from time to time in terms of both its goal and structure, a change resulting from an interaction of the exigencies of regulatory functions and demands for development to satisfy emergent social and political urges.38

In order to enable them to equip for their new functions, programmes of training and new training institutions were also established like village level workers training centre, orientation or study centres, social education officers training centres, panchayati raj workers training centre etc. Some of these institutions were later wound up and merged with more traditional
administrative training centres. The bureaucrats had to be programme planners, innovators and change agents, according to P.R. Dubhashi.\textsuperscript{39}

Panandikar and Kshirsagar in their study, "Bureaucracy and Development Administration," 1976, concluded that while bureaucracy is not antipathetic to development there are several structural and behavioural problems which impede their development orientation. In a later study by Pai Panandikar, Bishnoi and Sharine, 1981, of 36 villages of one district each in the states of Haryana and U.P., it was revealed that the factors for non-adoption of new agricultural programmes were that 'nobody advised the cultivators to adopt these programmes'.\textsuperscript{40} The researchers, therefore, concluded that there was not only a massive failure of professed extension programmes but also a deliberate neglect of the lower strata of cultivating community. The most needy persons were precisely those who were most neglected ones. Small cultivators by virtue of their large numbers and often inadequate resources were those who needed maximum possible attention and help for the government but officials did not visit villages as stipulated and when they did visit, they visited generally medium cultivators, and neglected small ones. The cultivators found the attitude of the officials casual and routine. The researchers found that in an agriculturally more advanced area like Karnal in Haryana, bureaucracy had a systematic strategy of reaching agricultural development programmes to the cultivators, delivering the services and maintenance of a more effective coordination between different programmes. On the other hand, in Gorakpur, U.P. such a conscious development and administrative strategy was missing.\textsuperscript{41}

Other studies according to K. Mathur have documented how bureaucracy colluded with dominant groups to divert public resources for its own benefit. The government of India's own report on Agrarian Relations in India has cited, to quote the author, bureaucracy as an important factor responsible for the failure of land reform and has indicated that members of
the civil services are close by aligned with dominant groups in the rural areas who are interested in shifting any reforms.\textsuperscript{42}

Kuldeep Mahur in his study, 'Bureaucratic Response to Development - A study of Block Development officers in Rajasthan and Uttar Pradesh', 1972, concluded that even though the need to fulfil development programmes was most urgent, much of the bureaucratic pursuit was directed towards activities other than the achievement of developmental goals.\textsuperscript{43}

According to S.R. Maheshwari, the block level staff reflects all the weaknesses of the district level rural developmental administrative system. In the absence of adequate goal-oriented control, supervision and guidance from above, the block level functionaries are even more heavily politicised with close, continuous and intimate inter-face with local factional politics.\textsuperscript{44}

Ram Reddy and Hargopal analysed the characteristics of rural bureaucracy with special reference to Andhra Pradesh based on empirical data. They concluded that the administrative structures responsible for implementing the anti-poverty programmes are "modelled on traditional administrative, arrangements known for their complexity, cumbersomeness, elitism, centralisation, legalism, red tape and inertia".\textsuperscript{45}

Ch. Balaramulu observed that rural development and anti-poverty programmes suffered due to the bureaucratic rigmarole, lack of coordination between different departments, political pressures on bureaucracy, over-burned staff, negative and corrupt bureaucracy, low morale in the field staff, lack of promotional opportunities to the lower level officials, steep hierarchy which prohibits frank discussion, linkages with middlemen, irresponsibility towards the problems of the poor etc.\textsuperscript{46}

Given this sense of malaise infecting the administrative system at lower levels, two kinds of suggestions are offered, according to Ramashray Roy, for improving administrative performance. First, there are suggestions that pertain to the streamlining of the existing politico-administrative institutional
arrangement. For instance, Dr. R. Singh advocates the increasing application of business management techniques to rural development and sketches out a four-fold strategy - determination of objectives, formulation of policies, development of a proper strategy and effective implementation of that strategy for proper allocation and use of available resources.\(^{47}\)

Ramashray Roy says that the use of management techniques in the implementation of development programmes, while useful, cannot in themselves suffice to pull the administrative system out of its ailment inasmuch as it does not exclusively deal with the technical problem of conjoining means to ends with a view to achieving efficiency and economy. He says that the true import of rural development programmes is the transformation of the rural scene through stimulating and invigorating rural economy. In this content, the author says, that, secondly, the question of the context and form of democratic decentralisation assumes importance.\(^{48}\)

The debate on decentralisation boils down to the dichotomy between efficiency and economy versus popular participation as a means of envigorating participative democracy. The former views decentralisation as an aspect of intra-organisational differentiation. Through it, as James D Thompson puts it, 'a complex, large-scale organisation, meeting a dynamic 'task environment', seeks to adapt itself through segmentation and arrangement in self-sufficient clusters, each having its own domain'.\(^{49}\) In contrast, the latter considers it as an integral part of the larger political arrangement with autonomous space of policy formulation and implementation aimed at creating, sustaining and deepening democratic political life.\(^{50}\)

Given the expanding bureaucratic space and its growing inability to play its expected role in implementing the developmental programmes, democratic decentralisation is recommended as the only way to speed up Indians development process.
However, according to Ramashray Roy, development planning is directed to creating enough goods and services so that the 'felt needs of the people could be satisfied'. In this process what is important but usually always ignored, he says, is the conception of 'felt' needs. The domain of felt needs, he elaborates, is the domain of politics and it is through the political process that needs are articulated and somehow aggregated into policy perspectives that guide the formulation and implementation of the objectives of development planning.\[51\]

Thus, there has been a paradigm shift in development thinking since around mid-seventies. The point at the centre of the debate was that development had become capital-centred, as opposed to people-centred. That in capital-centred development and a top-down variety, people have been reduced to the status of passive spectators.

Those who advocated alternative or people-centred development asserted the importance of people being enabled to develop necessary abilities to exercise a vote in developing, designing and implementing as well as monitoring and evaluating a host of development projects where heretofore under the traditional development strategy, the bureaucrat-expert-professional had dominated. It was said that powerlessness or inability to exert an influence on the decision which determine access to assets and resources is an important dimensions of poverty and a cause of it; that poverty does not arise from just a lack of physical resources or assets.

So, with the changing relationships between society and polity, there has been a growing concern all over the world to enhance people's participation in development. Essentially, participation has the element of the volition of an individual in the making of the general will. The process may range from attending a village meeting to contacting a public official or a political leader to influence a decision having a bearing on the welfare of the
individual. The process may also entail participation in a development project or with holding one's support through non-cooperation in its implementation.

A two-fold argument was advanced. One poverty is structural in nature with its roots in the economic and political conditions which influence the livelihoods of the rural people. And, in order to begin to tackle this poverty, it is important to provide the rural people a say in controlling the forces which shape their lives and livelihoods.

It is important that they are enabled to develop necessary abilities to exercise a vote in developing, designing and implementing as well as in monitoring and evaluating a host of development projects where heretofore under the traditional development strategy, the bureaucrat-expert – professional trio has dominated. The traditional approach in herding people to new projects is conspicuously deficient and wanting. Powerlessness or inability to exert an influence on the decisions which determine access to assets and resources is an important dimension of poverty and a course of it; that poverty does not arise from just a lack of physical resources or assets.

Two, the state-initiated development process, while benefiting some, has bypassed a large majority of the rural people. There is, in this context, the need to re-examine and redesign the development strategy to ensure that the neglected majority has a chance to benefit from development initiatives.

According to UNDP's Human Development Report, 1993, participation means that people are closely involved in the economic, social, cultural and political processes that affect their lives. It says that people may, in some case, have complete and direct control over these processes – in other cases, the control may be partial or indirect but the important thing is that people have constant access to decision – making and power and so participation in this sense is an essential element of human development.52

Since participation can take place in the economic, social and political arenas, each person necessarily participates in many ways and at many
levels. In economic life as a producer or a consumer, an entrepreneur or an employee. In social life as a member of a family or of a community organisation or ethnic group. And in political life as a voter or member of a political party or perhaps a pressure group. All these roles overlap and interact, forming patterns of participation that interconnect with and after reinforce each other.

According to Arvind K. Sharma, participation as a conscious strategy of self-reliant, as opposed to externally imposed development, surfaced to the centre stage of discourse in the context of exclusion of the rural oppressed from access to resources. He says a more rudimentary focus on participation of the rural poor in development invokes two basic perspective. The first one attributes lack of involvement of the rural masses in development projects to the neglect of human factor. It assumes that, according to Peter Oakley and David Marsden, 1994, there is 'little wrong' with direction of the development effort as such and that 'people have not wanted to get involved in projects about which they had little information or they were dubious'. Such analysis has encouraged reliance on extension strategies designed to fill information gap and increase knowledge base.

The second perspective, according to the author, views participation in entirely different, more radical terms. It is predicated on the premise that modernisation-centred development strategies were unilaterally conceived by an oligarchy whose social and economic status gave them a ready access to political power; and who based their position and clout to impose upon a voiceless, disempowered majority a pattern of development which was entirely unremarkable for its concern for the rural poor.

The author says that those advocating this line argue that the problem is not one of more knowledge; it is rather that under the traditional paradigm the knowledge of the rural poor remained unincorporated in the development effort. And the way to rectify the situation he says, will be to realign power
equations in favour of the excluded categories. Participation under this perspective is, therefore, conceived in terms of opportunities for the rural poor to participate in political structure so as to enhance their control over society’s resources.\textsuperscript{56}

According to Ponna Wignaraja et. al. participation and self reliance are two sides of the same approach. This goes beyond merely meeting the material needs of people and beyond considerations of equity. To participate, they say, people need to raise their level of consciousness and to form their own organisations. The poor and vulnerable need to refine their understandings of the larger socio-economic reality around them, of the focus that keep them in poverty and of the possibilities of a process of self-transformation through which they grow and mature as human beings. In this sense, they say, participation is also a basic human need.\textsuperscript{57}

According to Stan Burkey, participation is an essential part of human growth, that is the development of self-confidence, pride, initiative creativity, responsibility, cooperation. Without such a development within the people themselves all efforts to alleviate their poverty will be immensely more difficult, if not impossible. This process, he says, whereby people learn to take charge of their own lives and solve their own problems, is the essence of development.\textsuperscript{58}

As per the Peasants Charter, FAO, participation by the people in the institutions and systems which govern their lives is a basic human right and also essential for realignment of political power in favour of disadvantaged groups and for social and economic development. Rural development strategies, it says, can realise their full potential only through the motivation, active involvement and organisation at the grassroots level of rural people, with special emphasis on the least advantaged, in conceptualising and designing policies and programmes and in creating administrative, social and
economic institutions, including cooperative and other voluntary forms of
organisation for implementing and evaluating them.\textsuperscript{59}

The value of participation by the poor for development, according to
D.P. Ghai, et. al. stems not only from such idealistic considerations as basic
human rights or the 'rejection of authorisation and paternalistic alternatives
but also from the internet strength of participation as a means of articulating
genuine needs and satisfying them though self-reliance and mass
mobilisation'.\textsuperscript{60}

According to Samuel Paul, the 'bottom-up' style of grassroots
organisations is rooted in their commitment to the active participation of local
communities and other beneficiary groups in their activities. The concept of
participation, he says, is a subject on which there is considerable
disagreement among development scholars and practitioners. Some use the
term to mean active participation in political decision – making. For certain
activist groups, participation has no meaning unless the people involved have
significant control over the decisions concerning the organisation to which
they belong. Development economists try to define participation by the poor in
terms of the equitable sharing of the benefits of projects. Yet others view
participation as an instalment to enhance the efficiency of projects or as the
co-production of services. Some would regard participation as an end in itself,
whereas others see it as a means to achieve other goals. These diverse
perspectives, the author says, truly reflect the differences in the objectives for
which participation might be advocated by different group.\textsuperscript{61}

Oakley and Marsden say that meaningful participation of the rural poor
in development is concerned with direct access to the resources necessary
for development and some active involvement and influence in the decisions
affecting those resources. To participate meaningfully, they say, implies the
ability positively to influence the course of events.\textsuperscript{62}
The following definition of participation is used by the United Nations Research Institute for Social Development (UNRISD): Participation involves organised efforts to increase control over resources and regulative institutions in given social situations, on the part of groups and movements of those hitherto excluded from such control.\(^6^3\)

In the debates on the meaning of people's participation there has been discussion as to whether participations means used to achieve development – or an end in itself i.e. by establishing a process of genuine participation, development will occur as a direct result. The proponents of the second view often maintain that development for the benefit of the poor cannot occur unless the poor themselves control the process through the praxis of development.

Oakley and Marsden point out that until recently the notion of participation as a means to achieving development has dominated development practice. According to them, the two main vehicles for implementing this notion of participation were; (1) community development programmes which were arrived at preparing the rural population to collaborate with government development plans; and (2) the establishment of formal organisations (co-operatives, farmer's associations, etc.) which were to provide the structure through which the rural people could have some contract with and voice in, development programmes.\(^6^4\)

Oakley and Marsden concede that some economic development was achieved as a result of the above strategy but they maintain that the evidence suggests that only a few achieved any meaningful participation and benefit by their means. In their view this strategy has not resulted in meaningful participation of the poor in development. In fact, it is a strategy which has resulted in the situation of confronting the issue of the lack of meaningful participation in rural development.\(^6^5\)
Oakley and Marsden believe that participation is an end in itself and is the unavoidable consequence of the process of empowering and liberations. The state of achieving power and of meaningfully participating in the development process is, in their view, the object of the exercise. They feel that there need not be any notion of fixed quantifiable development goals. According to them, the major effort should be concentrated upon the empowering process.66

Samuel Paul defines community participation as an active process by which beneficiary / client groups influence the direction and execution of a development activity with a view to enhancing their well being in terms of income, personal growth, self-reliance or other values they cherish. According to him this definition implies that the context of participation is the development activity. Second, the focus is on the participation of beneficiaries and not that of government personnel. Third, the joint or collaborative involvement of beneficiaries in groups is a hallmark of community participation. Fourth, community participation refers to a process and not a product in the sense of sharing development activity benefits. For example, acquisition of economic assets through a development activity (e.g. land, house etc.) doses augment the power and freedom of poor people. It is possible, however, that some people might get a fair share of the benefits of a development activity in the first round, but find it difficult to sustain them as they never went through the process of co-operative action, learning and building up their capacity. This is not to deny the importance of the sharing of benefits but to say the author says, that community participation viewed as a process provides a dimension that goes beyond benefits sharing and is germane to the issue of project on programme sustainability.67

According to Wignaraja et. al. a truly participatory development process cannot be generated spontaneously given the deep rooted dependency relationship that exists. A catalyst can, they say, initiate the process. The catalyst or initiator who can break this vicious circle is a new type of activist
who is committed and will work with the poor, who identifies with the interest of the poor and who has faith in the people and is, in turn, trusted by them. The interaction with animators \ initiators helps the people to analyse their problems, to understand their problems better and to articulate their felt needs. Their interaction, the authors say, sets in motion a process of action – reflection, with mobilisation and organisation and further reflection among the poor. Through this process, initiators mobilise people into self-reliant action and assist in the building up of collective strength and bargaining among the poor.68

Hence, according to the authors, identification, selection and sensitisation of such initiators becomes a central task in launching an effective participatory rural development movement. Conventional training methodology, they say, cannot be used for this purpose. It is a process of sensitisation rather than training. It is a process of self learning, they feel, through exposure to the dynamics of actual socio-economic situations rather than learning in the abstract. Observation, investigation, group interaction, sharing and comparing experiences, criticism and self- criticism, cultivating behavioural and social skills (particularly the capacity to analyse the political economy of poverty), are the central elements of this process of sensitisation.69

Finally, the authors say, it is difficult for the poor to individually break away from the vicious circle of dependence and poverty. It is only through collective effort and organisation that they can reduce dependence and initiate a course of participatory, self-reliant development. Thus, according to them, participation, implies mobilization, conscientization and organisation – in that order.70

Stan Burkey says that participatory development is a methodology for assisting the rural poor which is very much based on a particular development philosophy. According to him an excellent summary of this philosophy has
been formulated by four Asian social scientists, Haque, Mehta, Rahman and Wignaraja;

1. The ultimate goal of development is the growth and development of the individual within the context of his or her own collective fellowship, eg. the family, the group, the community and nation. The measure of development is its effect on the individual and the collective fellowship.

2. Development should lead to the de-alienation of the individual. He or she should feel at home with the process of development in which he or she becomes the subject as well.

3. Development should strengthen the feeling of a collective personality in which men and women find within this fellowship their richest expressions as individuals.

4. Participation is the true form of democracy and the only way in which the individual can become truly integrated with the collective fellowship.

5. Self-reliance is the expression of the individual’s faith in his or her own abilities and the foundation on which genuine development can proceed.71

However, participatory development is a complicated process, according to Stan Burkey, with no clear cut guidelines and no straight pathways to success. Studies by the ILO have identified five basic issues which make participatory development difficult;

a. Participation will develop in different ways in specific situations dependent upon the problems faced by specific groups of the poor and the specific factors inhibiting their development. The promotion of people’s participation according to neatly defined standard
'development objectives' may actually inhibit people's initiatives rather than promote them.

b. The poor need to be approached as a specific group and their economic situation must be improved if participation is to be successful. This will, in most situations, automatically imply conflict with more well-to-do elements in differentiated rural societies.

c. There is a complex relationship between self-reliance and the need for external assistance. Participation requires self-reliance and is surrendered by dependence. However, the promotion of participation in initially non-participatory, dependent situation often requires some initial external assistance. This dilemma must be approached with extreme sensitivity if the process is not to result in new dependencies.

d. Participation requires organisation. Yet organisations easily become centres of formal power controlled by the few. Maintaining 'people's power' requires that the poor retain genuine control over their own organisations.

e. Participatory processes seldom begin spontaneously. Such processes are generally initiated by a leadership whose vision is external to the perceptions and aspirations of the people concerned. Resolving this contradiction implies going beyond mere mobilisation for the support of an 'externally' defined cause.72

So the resolution of these issues is essential for the achievement of self-reliant participatory development.

Thus, according to Anirudh Krishna et. al. experiences from Asia, Africa and Latin America show that the lives of million of poor and marginal households have been uplifted through their own efforts, assisted by the well-concerned and persistent efforts of 'outsiders', whether individuals,
government agencies, universities, non-governmental organisations or donors. They were not experiments, they say, although they usually began with experimentation, they were not 'hot-house' programs, although they often started as pilot projects, they started small but sought to have notional and even international impacts.  

Views differ about objectives and criteria for irrigation management between individuals, groups, disciplines, professionals and departments; according to whether or several objectives and criteria are considered, according to who is meant to benefit; and according to where objectives and criteria are located on long causal chains.

As a practical framework, five focal objectives and criteria are proposed by Robert chambers: productivity, especially of water; equity especially in its distribution; long-term stability, both environment and through maintenance of works; carrying capacity (livlihood -intensity), reflecting the size of population supported at decent and secure level; and well being including health, amenity, nutrition and psychic factors. Measures to optimize achievement of these objectives include, according to him, decisions about the size and location of area to be irrigated; changes in farm size; the scheduling and delivery of water; choice of cropping system and crop-zoning; the frequency with which different zones receive irrigation; the staggering of cultivation; and the spatial and temporal spread of cultivation rights. The author further writes that the approach of practical economy seeks realistic opportunities by asking how all can gain and how losers can be reconciled to their losses.
Figure 3.1
Criteria, Objectives and Causal chains

Criteria of irrigation management

A
- Large area irrigated
- Irrigated more often
- With more efficient water use
- and changes in farming system

B
- Higher farm output

C
- Higher labour demand and
- On more days of the year
- Higher farm output

D
- Higher and more secure incomes for more labourers
- Less irrigation to towns
- Better housing
- Better nutrition
- Less sickness

E
- Better access to services
- Purchase of basic goods

F
- Well-being of population more directly affected
- More and cheaper food for the town
- Foreign exchange savings or earnings

Each arrow, as explained by Robert Chambers postulates a cause-effect or input-output relationship. Thus A-irrigation or improved irrigation management is only an input but the items under B are both outputs from A and inputs to C and so on, until the chain of input-output relationships ends in well-being for the population affected, whether directly or indirectly. The outputs result from much more than just the input in the diagram, (eg. higher farm output may result from technological change, weather, credit or a host of other factors and their combinations). This may be so in the links between income and well-being, with an indeterminancy which is not special to irrigation.76

The diagram assumes benefits but effects can also be disbenefits (worse nutrition, more migration to towns, lower incomes etc). The criteria of irrigation management are on the left hand side of the diagram, while the objectives or impacts intended from irrigation are on the right-hand side, of the figure. Since the arrows are hypotheses and many or may not be valid, case by case, it is possible to have irrigation management which is good by its own criteria without achievement of a desired impact or objective or even with a negative effect (eg, if productivity rises but nutritional status declines).77

India, it is said is endowed with vast water resources and has an estimated total utilizable water resources of 1,110 billion cubic metres (m³) according to M.A. Chitale, 1992. These resources however, are not equally shared among regions. This, together with irregular distribution of rainfall makes some part of India more susceptible to drought than others. So irrigation will continue to play a critical role in maintaining output growth in India to satisfy rising demand requirements. By 2025, according to chitale Indian agriculture will require about 77 billion m³ of water to support food demand.78

Considering the ultimate irrigation potential from all sources, as estimated by the Central Water Commission and Central Groundwater Board
to be around 15 million hectares, it was clear that only two-thirds of the ultimate potential has so far been exploited. Even though irrigation development in India and its impact on maintaining a sustained rate of growth of around 3% per annum in overall agricultural production and 2.7% per annum in food-grains production have been somewhat impressive, such as development as per Ashok K. Mitra, is not free from from-many problems which cast a shadow of doubt about its future potentialities. In retrospect, he says, the course of irrigation development reveals that it is beset with a variety of problems and these problems need urgent attention in future development of irrigation. 79

It has been argued that emphasis on irrigation has been and continues to be on construction of new projects rather than efficient management, operation and maintenance of existing systems. The neglect of post-construction problems also resulted in design of new systems with same defects. Most of the irrigation projects in India are therefore, merely administered rather than managed.

The poor performance of the public surface irrigation systems may be identified with, according to Ashok K. Mitra, (i) low productivity of irrigated agricultural output, (ii) low return of investment, (iii) inequitous distribution and use of water across the command area and amongst beneficiary households, leading to under utilization of potential created, measured in the conventional sense. And he identifies the problems faced by CADAs as (i) lack of resources, (ii) lack of co-ordination (ii) lack of peoples participation in the programme. 80

The centralists led by Steward, 1949 and Wittfogel, 1957, posited that large scale irrigation required centralised co-ordination and direction of efforts, which in turn, led to greater political integration. Wittfogel thought that the management of irrigation water required a high degree of discipline and that in turn implied central control and an all powerful bureaucracy. Wittfogel, thus,
propounded the tendency of centralized organization as unavoidable, as generated and required imperatives of physical system and its technology\textsuperscript{81}.

The inevitably of a 'top-down' structure has been questioned by a large number of researcher. Rene million, 1962, for instance found, "no clear relationship between degree of centralisation of authority and the size of irrigation system on the number of persons it supports". Similarly, E.R Leach, 1959, argued that although there were large irrigation works in Sri Lanka, there was no evidence that such irrigation works produced the hydraulic bureaucracy envisaged by Wittfogel. Eva and Robert Hunt, 1974, supported leach's contention. The inevitability of centralized organization thesis was challenged by Thorton, 1976, at another level. After considering the physical acquisition and transport of water, D.S. Thornton pointed out that it is with distribution of irrigation water that "the largest number of organisational alternatives occur"\textsuperscript{82}

In recent years, there has been an ever increasing evidence all over the world that irrigation farmer's organizations have been very effective in irrigation management process, both at project and farm levels. A number of examples of successful community management of large irrigation projects is found around the world. For eg: Water districts in USA, Irrigation Association in Taiwan and water users groups in Japan, Korea and Thailand etc.

According to Niranjan Pant, one of the most powerful conclusions which emerge from Mass and Anderson's study of irrigation systems in South–Eastern Spain and eastern US, 1987, is that farmers of each settlement, acting collectively, rather than the central government, have determined both the procedures for distributing a limited water supply and resolution of conflicts with other groups over the development of additional supplies.\textsuperscript{83}

It is argued that since centralized agency (state management) finds it difficult to efficiently administer the distribution and use of water at hundreds
of thousands of points across the entire canal command, a decentralized
system by involving and ensuring the participation of users in managing the
distribution and use of water will go a long way in effecting necessary
improvements in management of distribution systems. The idea is to organize
large group of farmers who will receive supply of water in bulk from the
irrigation department to be distributed among the member farmers. This would
firstly relieve the departmental functionaries of the responsibility of managing
the systems at different levels and the resulting time saved could be
effectively utilized in managing the main systems efficiently. Secondly, the
collection of revenue from individual users would be the responsibility of the
group, with the group paying for the bulk supply to the department.

Farmers involvement in planning, design, water allocation, and conflict
management is said to have several positive effect on project outcomes.
Nonetheless, according to Bhogle and Bharaswadekar, researchers have
recognized the importance of the interface between the farmer and the
bureaucrats. Byrant and while, 1984, proposed that if participation is to occur
and be effectively managed, there must be incentives for farmers and
peasants to participate. There must also be incentives for field level
administrators to facilitate participation. Incentives, they say, is not enough.
The farmer – bureaucrat linkage needs to the enhanced.84

According to Meinzen Dick and Menzoda a major advantage of user
based allocation is the potential flexibility to adapt water delivery patterns to
meet local needs. Because those directly involved in water use – either for
agriculture or industry – have more information on local conditions than the
agency staff possesses, they do not have to rely on rigid formulas for
allocation. For example, certain fields may be given more water than others,
based on the water retention capacity of the soils. The result can be
improvements in output per unit water or inequity of both.85
According to Ashok K. Mitra, the idea of such an institutional arrangement seems to be simple but it is likely to involve complex operational procedure in its establishment mainly because of involvement of human factor with diverse and heterogeneous interest groups among participants. Further, he says at what the state-managed operation and maintenance of the whole system should be handed over to the users, what should be the organizational structure of the user’s group, what should be the nature of responsibility of each party and what should be the financial and non-financial arrangements, for maintenance of the systems at user’s level are some of the questions that will have to be confronted with. In short, he says the main issues under such a contemplated institutional reform would be delineating hydraulic units which would not only be technically, socially and administratively manageable but also economically viable.

P.S. Kuvdia, former additional Chief Engineer, Department of Irrigation, Jaipur, Rajasthan feels that it is essential that each member of bureaucracy has appreciation of the roles farmer’s organization can play and is willing to co-operate in their formation by parting with some of his authorities / powers, before an attempt is made to create farmers organization. Similarly all cultivators should have clear conceptions for the common benefits of organizing and of their rights and duties (including liabilities). The government in turn should be willing to grant some autonomy, in terms of fixing cropping patterns, realization of revenues, etc. to farmers organizations within the framework of the project objectives. He says that it is a widely accepted fact that the existing government in our irrigation projects does not fulfill these conditions in totality and it is therefore necessary that efforts must be made to educate the cultivators, officials and other to living about the required changes in attitudes of all.

Some of the sequential action plan recommended by the author for organizing farmers for participation in management of public irrigation systems are in follows.
(i) Identify agency for organization the farmers and place the same in position with necessary resources.

(ii) Selection by the Agency one minor level sub systems (CCA approx. 1000-2000 ha) on each units of 20,000 to 30,000 ha which have greatest chances of success depending upon system characteristics.

(iii) An unbiased study physical, social, economic, political, legal and other farmers of the project to identify common problems and loss of opportunities in the project.

(iv) Diagnose the problems and opportunities and find out their real causes.

(v) Hold discussions with local farmer groups. Sensitise them to create desire for improvement. Describe clearly resource requirements and functions of farmers and other agencies along with accepted benefits.

(vi) Create farmers formal organizations.

(vii) Conclude agreement between farmer’s organizations and government departments.

(viii) Take action to transfer primary systems (minor and below ) to farmers.

(ix) Monitor problems, opportunities and benefits.88

Ashok .K. Mitra argued that since command area development authority have been in the field for many years and would have established rapport with farmers in the command area, it was the best organization suited to initiate water user’s co-operatives or irrigation association (WUAs). In initiating the formation of such associations he says advantage should be taken of the work experience of traditional as well as newly developed farmers associations in different parts of the country. He feels that it is important that WUAs not only have representation and the right, legitimised in law to voice opinions, suggestions and objections on all matters pertaining to their field operation before the state authorities from whom they receive water but
empowered for conflict resolution and allotment of field lots necessitated by land consolidation and land development in the field command. 89

The author visualises a two-tier ten or three-tier organizational structure in which there would be sub-groups of user's, say below every outlet and which would not have the qualification of juridical person. These smaller organizations (sub-groups) would look after the operation and maintenance of the outlets and field channels, drains and other smaller facilities organized on the basis of what in known as ‘Chak’. 90

According to A. K. Mitra the main role of WUAs would be as follows:

(i) To utilize to the utmost the quantities of water which state authorities make available to them.

(ii) To assume the responsibility for the distribution and utilization of water in most efficient and equitable manner.

(iii) To maintain properly the distribution networks under its control and prevent any possible waste.

(iv) To collect water charges from members for payment to the irrigation department. 91

Settlement of disputes and conflict resolution will also fall in the lawful jurisdiction of the WUAs. Further WUAs in consultation with CADA will work out the best possible schedule of water distribution under each outlet/water course. A close co-operation and coordination between WUAs and CADA on the one hand and CADA and irrigation department on the other, will be a pre-condition for such an institutional change to be effective in bringing about improvements in the efficiency of the exiting systems. 92

On the other hand Rakesh Hooja feels that there should be no uniform prescription of what tasks an WUA should perform. Each WUA should be free to evolve its own idea of the tasks that it may want to perform through a process of learning from its experience as it experiments with the various
responsibilities that it may decide to take upon itself. He says that WUAs or Farmers water management committees accordingly take up some or all from amongst the following functions:

1. Water distribution, rotational canal running and ‘warabandi’ – ensuring that water reaches all members as per their due share;

2. Operation and maintenance and collection (and assessment) of water charges that WUAs may levy;

3. Resolution of local disputes amongst members – if necessary setting up of an internal system of penalties and other disincentives or incentives;

4. Agriculture extension and farmer training;

5. Management inputs and credit supply to members;

6. Irrigation extension and propagation of better on-farm water applications and better intra – outlet command water management;

7. Recommending cropping pattern suitable for WUA farmers;

8. Encouraging and taking up of conjunctive water use or community lift irrigation and charging for the same if done on a community basis;

9. Drainage;

10. Provision of drinking water from canals;

11. Soil testing / water quality testing;

12. Post harvest practices (grading, packaging, storage and marketing);

13. Design and construction of new works (irrigation works, OFD works, drainage works);

14. Maintenance of commercial, financial and water accounting records;

15. And any other task as agreed upon by the members.93
The author is also of the view that the local (Panchayat) body and the WUA cannot be one and the same. The local body has many other non-irrigation related functions and its boundaries are also not coterminous with the command areas of either a water course of a canal. Hence, local leaders have concerns and priorities that differ from (or may even come in conflict with) those of the WUA. Also, the interaction between members of WUA needs to be more frequent and intense than the interaction of the local populace with a local panchayat body.

Here a desirable system of WUAs he feels, would be as follows:

```
WUA Below the outlet
|-- WUA Above the outlet
|   (Possible association or Federation of WUAs at Minor or Branch level)
Representation of WUAs (as different from representation of local bodies, Pradhans, Pramukhs, MLAs and MPs) in the water distribution or water Regulation committees.¹⁴
```

According to M. Sehgal, some of the advantages of PIM are:

- Reduced maintenance cost.
- Reduced cost of corruption
- Improved efficiency of water use.
- Promotion of more crops, more incomes.
- Improved knowledge of water use and conservation
- Mobilization of group labour.
- Saving of agency money.
• Small systems managed water management associations can save huge capital cost (alternative activities like land reclamation, pumping of water to prevent water logging, salinity etc. can be undertaken).

• Protection of minor watersheds.

• Collection of more water fees.

• Cost savings in collection of water fees and repayment of loans.

• Sustenance of policies and programme by beneficiaries.

• Develops more community participatory programmes.\(^9\)

Thus PIM is now being recommended world over as a solution for many problems of designing and operating irrigation systems in a sustainable manner. India’s National Water Policy of 1987 recommended such efforts based on creation of associations of water-users. However, according to Rakesh Hooja, it was only with the organization of a national conference on PIM by the government of India in June 1995 that a real impetus was given to this work throughout the country. Before that there were some isolated cases of water-users bodies associating with irrigation bureaucracy in the management of irrigation schemes. During 1995-96, sixteen regional conferences on PIM were organized throughout the country and a large-scale training programme was also sponsored by the ministry of water Resources. Pilot projects were initiated at many places and much thinking was generated about legal, technical, organizational and viability related issues which may influence the success or failure of joint irrigation management efforts whereby water-users bodies and the irrigation bureaucracy or Command Area Development may come together into partnerships of various sorts for managing irrigation schemes.

A lot of studies and experiments have been carried out over the world for organizing the farmers. There can be a number of alternative joint
management options with relative control of irrigation agencies and water user's associations.

**Table 3.1**

**Meinzen-Dick et. al., Set Forth the Following Joint Management Options**

<table>
<thead>
<tr>
<th></th>
<th>Full agency control</th>
<th>Agency o&amp;M user input</th>
<th>Shared management</th>
<th>WUA O&amp;M</th>
<th>WUA owner agency regulation</th>
<th>Full WUA Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation</td>
<td>Agency</td>
<td>Agency</td>
<td>Agency</td>
<td>Agency</td>
<td>Agency</td>
<td>WUA</td>
</tr>
<tr>
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<td>Agency</td>
<td>Agency</td>
<td>Agency</td>
<td>WUA</td>
<td>WUA</td>
</tr>
<tr>
<td>O&amp;m responsibility</td>
<td>Agency</td>
<td>Agency</td>
<td>Both</td>
<td>WUA</td>
<td>WUA</td>
<td>WUA</td>
</tr>
<tr>
<td>User representation</td>
<td>Agency</td>
<td>WUA</td>
<td>WUA</td>
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<td>WUA</td>
</tr>
</tbody>
</table>

Bogle et. al., 1997.

In India most of the projects are based on full agency control and only few have some user input in the form of representation in committees constituted for management of the irrigation systems. It is also observed that for larger irrigation systems full WUA control may not be practical. Thus, we have to choose out of various combinations of joint management options depending on project conditions.

The CADA concept which originated in mid seventies in India had envisaged farmer's participation in large scale irrigation projects as one of its objective but it could not take off on a large scale. The Monini of Kakrapur (Gujarat) and Pani Panchayats of Mula (Maharashtra) are the few examples where some sort of farmer participation existed in the past. The role of CADA in effecting PIM is of crucial importance. CADA is expected to initiate, help
and co-operate and guide the WUA's in bringing about land development, consisting of land levelling, construction of field channels and drains and also land consolidation through field lots. CADA in subsequent stages is also expected to advise the WUAs about the suitable cropping pattern and other agronomic variables with a view to maximize the benefit out of the water supplies through the system.

In short, the approach should be towards a comprehensive management of land and water resources in the canal command.

One of the early legislations in the area of water resource management was the North India Canal and Drainage Act, 1873. The preamble to the act says that "the provincial government is entitled to use and control for public purposes the water of all rivers and streams flowing in natural channels and of all lakes and other natural collections of still water. Notably, without talking about ownership the act asserts the right of the state to use and control water."97

At around the same time, the natural riparian right also found a statutory footing under the Indian Easements act, 1882. The act also legitimised customary rights of the people and provided rules for their recognition. But again under the 1882 act all these rights were subject to the overriding provision of any right of the government to regulate the collection, retention and distribution of the water.98

One of the first case that examined these provisions was Fischer vs Secretary of State which discussed the rights of the government over natural sources of waters against those of the riparian owners. The court ruled that the government had the power to regulate the collection, retention and distribution of water in public interest.99 Clearly the power of government for water management was conditioned upon the fact that the traditional supplies of water should not be diminished.
Nonetheless, over the years things changed and several states in the recent past have come up with major policy and legal initiatives that have transferred some responsibilities of irrigation management from government agencies to the Water Users Associations (WUAs). While most of these WUAs have been founded under government resolutions, some states have done so enabling laws. For example, Andhra Pradesh has enacted the A P Farmers Management of Irrigation Systems Act, 1997, that provides for the constitutions of farmers organisation and transfers management of irrigation systems to them. Under the act the irrigation projects have been classified as minor / medium / major projects and accordingly the structures of farmers organisation have been classified as WUAs at the primary level covering minor and medium irrigation, distributary committee at the distributory level and project committee at the apex level.

Some states like Goa have provided for farmer's associations by amending their command area development acts. Other states have adopted the principle of participatory irrigation management through government resolutions and orders. While in some states fixing of water charges have been, kept outside the purview of the WUAs, in other states like Gujarat the WUAs, have full freedom to decide the water rates and role of water charging from beneficiary farmers.

Maharashtra too has formulated a clearly defined and codified policy called participatory management, of promoting transfer of irrigation management responsibilities from the government to farmers. The policy of the government of Maharashtra is expressed in the cooperative water user's association guidelines. Accordingly the irrigation Department has adopted a policy to create water users association at minor canal level (average command of 500 hectares), transfer O and M responsibilities for the minor and smaller channels to the WUAs, allocate water to the WUAs through five year agreements and charge WUAs for water on the basis of the volume actually taken (volumetric pricing).
Orissa also plans to bring all irrigation projects under the preview of 'Pani Panchayat' scheme by the year 2006-7. According to the Department of Water Resources, Government of Orissa, there was a total of 5,566 registered Pani Panchayats (PPs) in the state by 2002, including, 4,803 that are based on lift irrigation. And of the 5,566 PPs, operations and maintenance of 2,377 had been handed over by December 2002. The total area covered in the process was said to be 1.45 lakh hectare and every year an additional 50000 hectares of land is supposed to be brought under irrigation.100
ENDNOTE

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