CONCLUSION

Bihar occupies an important position in the context of Indian irrigation because it contributes about thirteen percent from all sources and ten percent to canal irrigation. The irrigation policy of the government of Bihar, 1993, stated that farmer's organisation would be set up to take over the management of irrigation system in a phased manner and that a part of the water charges would be given to the organisations to make them sustainable. Thus participatory irrigation management (PIM) became an official policy of the state government. But in reality, it was found out, that the policy more than ten years later, has remained more or less a rhetoric with only one case of management transfer in Paliganj distributary taking place.

The Sone, Kosi, Gandak and Chandan projects are the four important irrigation projects which account for more than seventy percent of the total utilisation of irrigation from surface irrigation sources in Bihar. What, however, worries the present day policy makers is the large scale wastage of valuable irrigation water in each of these irrigation projects which otherwise could have brought in more areas under irrigation or increased the irrigation intensity in the commands. It is being increasingly advocated that water management in the irrigation projects with active involvement of farmers, therefore, must receive the topmost attention, if the state is really desirous of optimising the utilisation of the water resources for maximising agricultural production and for improving rural development which in turn will lead to overall development of the state.

The major concern of public policies dealing with irrigation systems in the recent years has been productivity and equity. Judging from this point of view, Sone and Kosi system falls short in both these respect. It can be seen from official datas that as far as CADA work is concerned, both in Sone and Kosi project, regarding land-levelling, construction of water channels,
extension work, on-farm development work and so on, again, there is a huge gap between the target proposed and the target achieved. (See Appendix)

The gap is all the more prominent as far as irrigation potential created and utilisation is concerned (See Appendix). Thus, according to experts, one way of reducing this gap is to effectively spread PIM upto micro level and bring farmers at the stage of taking up management of canal water below the outlet. Transfer of rights and control over water related resources with the implied expectation that they have to live with the consequences of their management appears to be the key to making users effectively manage their resources. Besides facilitating community involvement and ensuring democratic decision-making with regard to the management of water resources, PIM world ensure savings in terms of costs to the government.

It has been generally observed that farmers organisations in water management affairs are most effective where there are incentives for them to organise. For example, some of these incentives are predictable water supply in adequate quantity and in right time and other inputs and services for improved production possibilities. It is important that the irrigators develop a sense of ownership in the irrigation project, through their involvement.

In the debates on the meaning of people's participation there has been discussions as to whether participation is a 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.

Social scientists tend to see the poor performance of irrigation schemes as stemming from the unresponsiveness and inefficiency of over-centralised management bureaucracies and the solution to such difficulties lying in developing new organisational structures and management methods.
which encourage a greater degree of participation in the decision making by the cultivators.

At the onset, it was observed that there has been a lack of political will and official commitment as far as the implementation of PIM in Bihar, broadly, and Sone and Kosi Command Area, specifically, is concerned. Any attempt at people's participation in the development process requires the state machinery to facilitate the programme and develop the consciousness of the people at the grass roots level and mobilise them so that they become aware of their 'felt-needs' and that they become confident enough to participate in the democratic process. It was found in the field that this process of democratisation has not been developed in Bihar.

Though the farmers are aware of the problems they are not aware of people's power or in other words, the power to come together and change their environment for their betterment. Because they have not been made aware of it. Though the farmers have heard of Kisan Samitis and contend that they exist in the area, they are not too sure as to what exactly the concept of people's participation embodies. They feel totally dependent on the bureaucracy for the problems that they face. It can be said that people do not feel powerful enough to replace bureaucratic domination because they are ignorant. It is here, one can say, that social monitors and NGOs can help in developing the consciousness of the people.

People's participation, by its very definition focuses on increasing the participation of those who do not have the capacity or resources to do so or because they are excluded from the development processes. Thus, participation gives the people representation, key element in empowerment, which can be defined as a significant voice in the public policy decisions that affect their futures. Nonetheless, it was observed in the field that there was a certain element of official apathy as far as the implementation of the above principles was concerned. The farmers feel that the officials are more concerned, as Kuldeep Mathur has said, about their 'self-interest'. Corruption
and regression can be said to be a way life in Bihar. And the political leaders at the grass roots level seem to be more involved in the power game than the needs of the people. It was found during informal discussions that they themselves mostly were not aware of the principles of the public policy at the state level.

The officials also feel over-burdened at times to take on the added responsibility of PIM. They feel that the people at times expect too much from them, not understanding their limitations. The ground level officials also feel that they are not really given sufficient financial resources and infrastructure to respond to the expectations of the people.

One of the reasons for non-implementation of PIM programme in the state, though the official machinery acknowledges it as the need of the hour, it was observed, is that the officials have not really been trained for the purpose. They can be said to be carrying on the work in an ad hoc manner. These officers mostly belong to the irrigation department or the administrative services and are given a crash course on the policy of PIM before being sent to the field. And if at all some of them grasp it well and work towards it he is, on some pretext or the other, transferred from there paving the way for another officer who again carries on the work in an ad hoc manner.

The need of the hour, as has been observed from the field, is to appoint professionals and train them in the realm of people’s participation, so that they can implement and execute the policy in a committed manner. Though the official guidelines of the state government enumerates it, the reality for away from it. Thus, training, study tour, workshops, seminars etc. appears to be the basic need for awareness generation to familiarize the officials with the idea of PIM, who in turn can educate it on to the farmers, before actual transfer of management rights can take place.

It was found that the farmers resent the weak and irregular contacts between officials and farmers, which was found to be mostly true after going
to the field. Especially higher level officials do not bother to visit the field and to gather a first hand knowledge of the problems that the people are facing. They mostly do so in case of a draught or flood. The people feel that this is one of the contributing factors in poor utilisation of water with the policy makers not being aware of their needs and of the ground reality and the lower level officials being at times non-cooperative and not paying heed to their problems. Also officials with old attitudes, perceptions and work culture are not able to adjust to the participatory development programme which demands different work culture, perceptions and behaviour which can be said to be part of good governance.

It was observed during this study that officials are at times cynical of the capability of the farmers to handle their own responsibility and take over the distribution and management of water. In fact, according to Niranjan Pant, the agrarian population enter into various relations with one another in the social production of their existence, of which, the relations vis-à-vis the ownership and the control of land is only one aspect. The example of farmers coming together to collectively manage water for their own good can be seen in the existence of indigenous irrigation organisation in South Bihar, namely 'ahar', 'pyne' and 'goam' which have been in existence since ages.

It can be said that government functionaries have to shadow their fear that beneficiary farmers would not be able to shoulder the responsibility of management of large irrigation projects. One the other hand, according to the exponents of public bureaucracy, the fear is also a reflection of the transition phase that civil service is going through today with people's participation increasingly being advocated as an integral part of any development programme. The bureaucracy, the scholars feel, fear loosing the power and dominance that were an inherent part of their service.

Thus, it has been observed that in Bihar, in particular and in India, in general, there is a need for the bureaucracy to change their attitude and develop a more people – centred approach. The same has been advocated
by exponents of bureaucracy all over the world. Only then can any programme aimed at all round development of the region can hope to succeed. Hence, can be deduced from this study, that if bureaucracy, which is considered all-pervasive today, is ready to shed some of its rigidity and elitism then PIM can hope to take off.

A major advantage of user-based allocation is said to be the potential flexibility to adapt water delivery patterns to meet local needs. Because as those directly involved in water use have more information on local conditions than the officials, they do not have to rely on rigid formulas for allocation.

Nonetheless, one must not forget that handing over the system to farmers alone will not solve all the problems. The farmers organisation might not be a panacea to the obstacles faced, according to some experts, as the costs involved may not always be worth it because participation may be a solution to only some problems. Thus, government functionaries may have to own the responsibility for making the irrigation projects successful by helping irrigators in their endeavour. It is necessary for the officials and the beneficiaries to work in tandem.

As this research shows, for PIM to become a reality in Bihar, political commitment and supportive changes in the administrative practices and organisation needs to be addressed to. And a constructive and result-oriented functional relationships between the officials and the people seems to be the need of the hour. It may be said that state government has to realise that proper management and regulation of resources is possible only if people are co-opted in the decision making process itself. Because, as stated earlier, in the words of Kuldeep Mathur and Neerja Jayal, an appropriate policy can only be formulated if the needs of the people are so articulated that they become part of the agenda for policy-making.

Following field observation, some of the suggestions by experts and scholars to make PIM vibrant, can be applied in Bihar. These are:
(i) The WUAs should be made financially viable and sustainable on a long-term basis, for which a definite recurring source of revenue need to be located as per Arun Kumar.

(ii) The WUAs should be given a better legal foundation by a suitable legislation according to most experts.

(iii) Officers of different disciplines like civil engineering, agronomy, social science etc., should have close co-ordination for executing and monitoring command area programme including PIM, as the programme envisages to take up integrated approach.

(iv) In states of Punjab and Haryana, there is a system of Warabandi prevailing under their respective canal and drainage acts which provide for equitable distribution of water. This provision can be adopted in Bihar too.

(v) Annual review of water rates and establishment of an independent water tariffs regulatory authority can be considered.

(vi) For proper monitoring of PIM, a high level committee can be constituted where the concerned governmental departments and representatives of farmers associations should be members, besides including a few reputed NGOs.

(vii) Steps should be taken for preparation of manuals on PIM, amendment of irrigation acts etc.

(viii) Training, study tour, workshops, seminars, conferences etc. should be undertaken for awareness generation to familiarize the farmers, as well as officials, with the idea of PIM.

It must be mentioned that the participation of non-governmental organisations can be a precursor and catalyst in the implementation of PIM. In fact, regarding the progress of participatory management, NGOs have been working in management of small irrigation works in Bihar for about more than three decades after the draught of 1966-67.
Vaishali Area Small Farmers Association (VASFA) is an outstanding example of farmers organisation sustaining such efforts since 1971. It promoted more than a dozen such similar societies. Even though these were not cases of management transfer, they indicated the potential of farmer's organisation to manage irrigation. Another called Professional Assistance for Development Action (PRADAN) implemented 191 farmers managed small scale lift irrigation schemes in Ranchi, Hazaribagh, Lohardaga, Gumla, Godda, Dhumka and Singhbum. (Now in Jharkhand). These were small schemes and as a result farmers themselves operated them without any assistance from outside.

Thus, after independence, if India's goal, according to, Rajni Kothari, was to enable the political system to arrange and articulate social and economic relationships into a purposive model of development then its progress depended on many fronts and involved such imponderables as incentives, involvement, motivation, participation of masses and so on. PIM can be said to be an extension of this goal of development. The research shows that if the role of development thinking today, among other things, is cultivating maximum people's participation in maximum activities at all levels, then PIM can be said to be an integral part of it.

Bihar hopes to develop is full irrigation potential of 65 lakh ha by the end of its 12th five year plan. Policy intentions can be translated into actions if there is an existence of generally good governance and efficient administration. Therefore, in a predominantly agricultural society like Bihar, farmer participation can be said to be closely linked with agricultural development and rural development, leading to overall development of the state.