



## **THE NEED FOR PEOPLE PARTICIPATORY MANAGEMENT IN PROGRAMMING THE WATER RESOURCES; CASE STUDY MESHED PLAIN.**

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### **ABSTRACT**

The main objective of this paper is to present the result of many social and economic studies done by the author on the problems of water shortage in Meshed Plain.

The paper analyses the present water shortage situations in Meshed, the government proceedings to solve the problem, the role of people participation and cooperation to support the government, the traditional systems of people participatory cooperation and finally, gives a view on the future if the present model of participation would continue. In analyzing the previous and the present agricultural projects, it seems that the main guilty ones for the present water crisis are the university, Iran and overseas consultative advisers and governmental programmers. These educated bodies did not predict the shortage of water for today and in their agricultural development proposals offered to the government some years ago, they put the most water demanding industries and dependant agricultural products, e.g. sugar beets products, that were not compatible with Meshed resources of underground water. At the end of the paper the author suggests his preferred model for optimum use of underground water in Meshed plain.

### **INTRODUCTION**

The development from the top, without consideration of people views and local knowledge, had been a mutual aspect of the thought of development in the majority of the countries despite capitalism or socialism regimes. The result of getting a development from top to down where people wants and local knowledge were ignored, became the cause of many Social problems such as unwanted migration of farmers to the cities, deep differences in social classes, revolutions and political changes that resulted in environmental problems, decreasing natural resources and many different kinds of pollutions and health problems. The development from top and based on benefit alone became the cause of deterioration of people's rights and the nature rights. This procedure continued until the year 1970. The resulting environmental problems

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came to a point that the scientists and thinkers of development issues decided to change their approach to development.

In the post modern age, the environmental issues came into the institutional laws of the countries. The article of No. 50 of I. R. Iran institution was also allocated to the environment. From the other side, the discussions on people participatory and formation of associations<sup>1</sup> were brought to the attention of policy-makers by thinkers and specialists.

The practical following of the issues resulted in an international quorum so that most of the countries included the issues of people participatory and people associations in their institutional laws.

In IR of Iran, too, the articles of 106 and 107 of the third Iran Development Plan and also in 4<sup>th</sup> Development Plan the people participation and formation of people associations on the water issues are included. I.R. of IRAN, considering the total country policy that was a return to Iran origin, reducing government roles in economical management, giving people affairs to themselves and solving the social and environmental

Problems and economic usage; approved the participatory managements and formation of associations in the 4<sup>th</sup> Iran Development Plan.

#### **IRAN STRATEGY FOR PARTICIPATION OF PEOPLE ASSOCIATIONS ON WATER ISSUES IN PLAINS INCLUDING MESHEH PLAIN.**

From 1948 when the first country development plan was approved, the development policy was followed without attention to environmental issues, people wants and local knowledge. This policy presented from the top has resulted many social and environmental problems today. This paper is not to find the problem creators and condemn the guilty. But it is to clarify the problem to introduce the guidelines for improvement.

We must distinguish the real persons or institutions responsible for the existing environmental problems. If the people are the cause of all water shortage in plains and they are the cause of critical water problem including the water shortage in Meshed plains, we should introduce the guideline for **reduction in agricultural water use**, the guideline is being followed now by government with an approach to development and popularization from the top to down, that is, pressure from the top, fines, control water use by intelligent counter equipment and determination of the water use right from the wells, increasing the rate of electric charge, prevention of further deepening the wells, preventing the replacement of wells and bring a bill from the courts to stop water using from the wells.

But if we realize that the guilty ones are the development programmer, economic theorizing experts, banks, universities and consulting companies, and in summary all

1- In this paper the word ASSOCIATION means any kind of group such as: stock shared Co., Cooperatives, Trade association Etc.

the governmental agents as the principal cause of the existing water crisis and shortage of water in Meshed plain, then we must present a different solution and that is to **reduce the water demand** instead of **water use reduction**. The second hypostasis needs another kind of water management that would be more complicated and more extended than management for water use reduction. In an approach with reduction demand, the big users of water in food industry or city users of agricultural water should change their views on water consumption. The much water use products should be produced in a region with much water availability.

In an approach with decreasing the demands of water, the replacing, improvement and sometimes closing the big agricultural industries in some regions is necessary. The sugar beets industrial factories, tomatoes concentrated industry, fruit conserves, and other similar industries that are the big consumer of agricultural waters should change their activities in some regions that critical shortage of water exist. In an approach with reduction in water demand, in addition of the farmers, users of service water, city potable water, and city green gardening should also participate in optimum use of water.

For investigating and clearing the cause of Meshed present critical shortage of water we must see who has proposed the agricultural objectives and strategies in Meshed plain. Those who have determined the agricultural objective without correct prediction of underground water for today, are the guiltiest for the situation we are confronted as a critical water use today.

In a report of the Scetcoop Company<sup>1</sup> in 1970 approved by the Iran budget and plan organization of that time, Meshed volume, page 88, in describing of agricultural objectives in Meshed plain, we read that:

**Agricultural Objectives:**

In agricultural products, sugar - beets needed for sugar factories, should be provided first and then establishing the other big new projects of agricultural industries such as stations of producing fruits, vegetable oil factories for sunflower and the factories for producing foods for husbandry.

The recommendation of Setcoop, a French engineering adviser, was accepted by the government of the time in decade of 1961-1971. This is correct that Scetcoop adviser Co. has mentioned the limited potential of water in Meshed in different pages of his report, but the adviser has suggested finally the cultivation of products that need a lot of water. The fruits product in Meshed was 50000 tons. Scetcoop, in a 20 years landscape has suggested 204900 tons of fruits and grapes and also 206000 tons of grass (husbandry food) for Meshed plain to be cultivated.

In 1961, the policy for agricultural development of Meshed plain predicted by Scetcoop consultant was to develop industrial food production which mostly depended to much

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1 – SCETCOOP ETCOCEAC PARTIA, Plan de developement du Khorassan, Vol. 1 Meshed, 1972

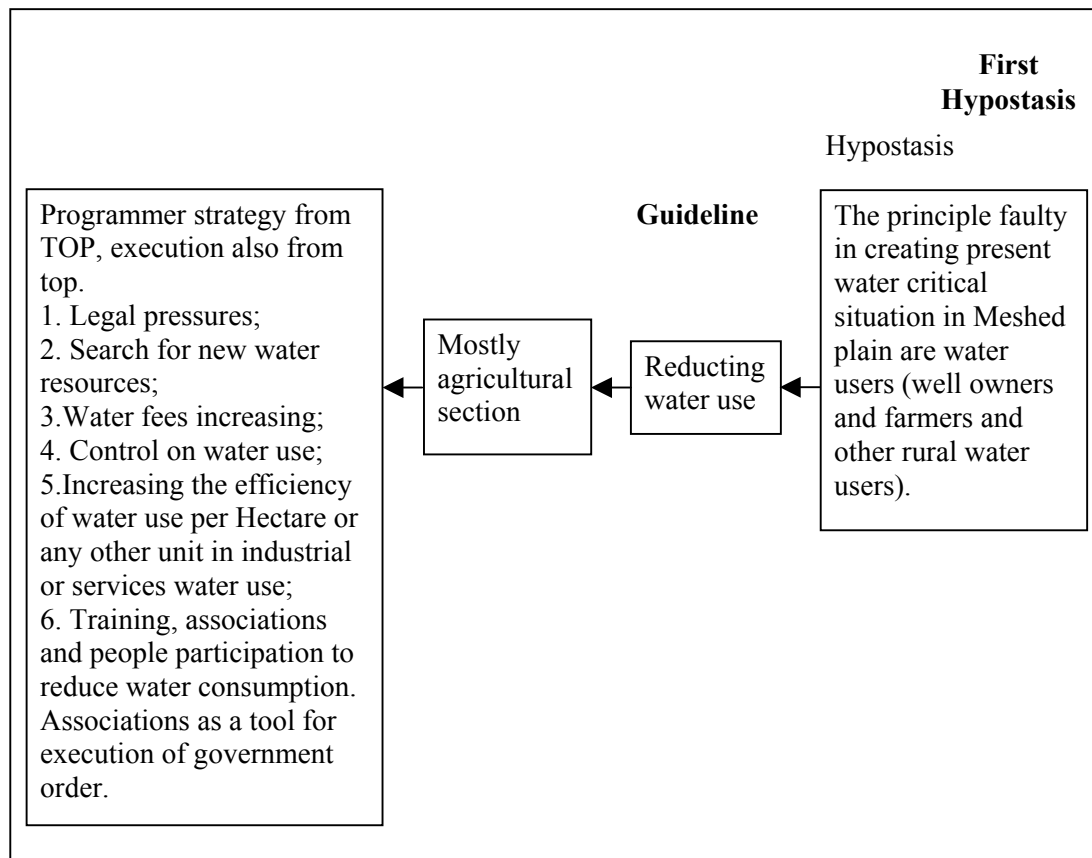
water consumption, that is develop in horticultures and cultivations with highly demand of water.

You may suppose that from existing 6008 underground water wells in 2005, 1000 wells have been dug and used without governmental permission but is it possible that people have established so many sugar factories, Conserves and concentrated tomatoes industries which consume most of the underground water for cultivation of needed products without bank cooperation and governmental permission?

Scetcoop Company in 1970 predicted Meshed water use in 1987 for 583 million cu.m. Underground water use in Meshed from 6008 water wells was 91 million cu. m. in 2004.

Water use from 403 springs was 9000000 cu.m and from 895 Qantas was 85000000 .In total, Meshed water use was 1085 million cubic meters .If the programmers in 1961 had planned the long-term projects of development upon the land and water capacity of the region and agricultural potential, they certainly would had proposed less water use agricultural projects for Meshed plain. The advisers should have proposed the high water used agricultural projects such as sugar-beets factories and food industries with high water demand for the west of Iran instead of Meshed, where big water sources such as Charkha, Karoon, Dez and other large rivers exist. If they had proposed a correct policy for agricultural development, we would not have such a critical water situation in Meshed. Unfortunately the present situation would lead us toward a dependency to international sources and Iran will experience the Hirmand again in Meshed. The present critical situation in Meshed can not be solved unless having people participatory assistance in all the country with having big objectives in national and regional level based on a strategy that guarantees the agricultural development. There is urgency for a legal and financial layout for above mentioned purposes with a national decision and will.

I propose some models for problem solution. These models should also be completed by other experts and critics.



**Model 1** the principle guilty for the critical water situation in Meshed are agricultural water users.

With attention to Model no.1 it seems that the hypostasis should be rejected because the people are not responsible for the system structure. People are trapped in the governmental agricultural system and they are not the principle guilty for the shortage of underground water. So we should find the guilty in the governmental and high educated higher programmers. The people are sub- guilty bodies in the system. If we accept the second hypostasis we should choose the guideline of reduction **in water demand** instead of **water use reduction**. Then the following proceedings are needed:

- 1- All industrial water users including agricultural, industrial, city services, drinking water and Etc. by accepting the idea of participation choose the method of participatory management in water using and support the government in optimum use of water. People should be seriously involved in water problems through associations by solving the problem in a participatory way.
- 2- The total policy of programming and management should be changed so that a country approach towards the patterns and systems of participatory management using modern and local knowledge together in water management could be changed ...



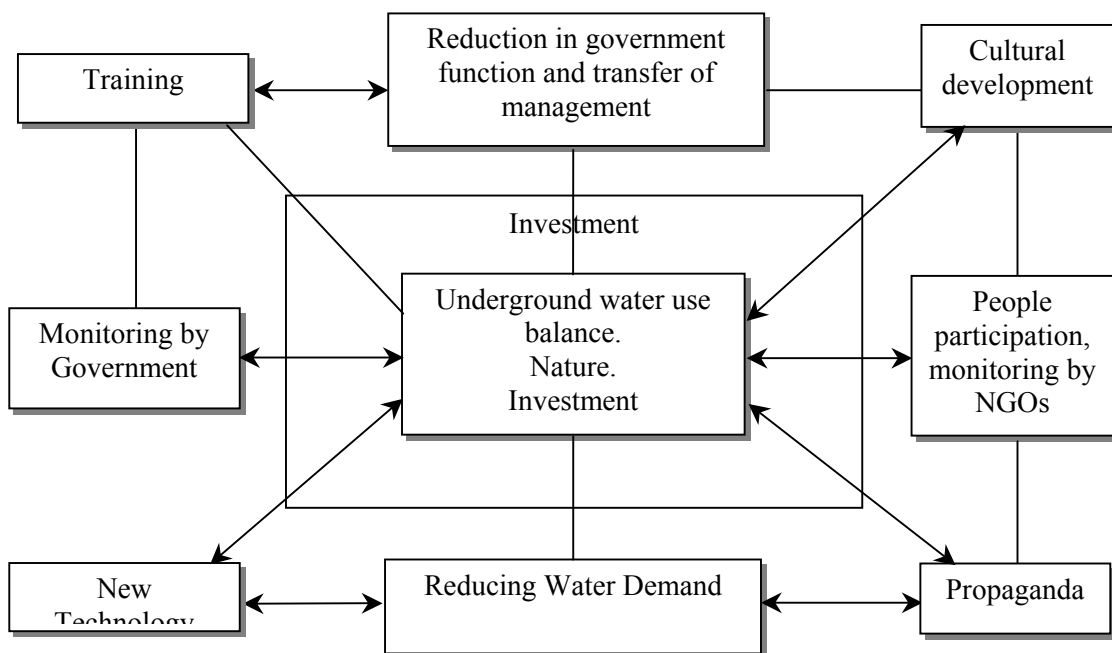
**Model 2-** second hypostasis: the principle guilty in creating critical water problem in Meshed are programmers and Bank system.

To reach a balance of underground water use both presented models are recommended, But the principle model in the author view is the model No 2.

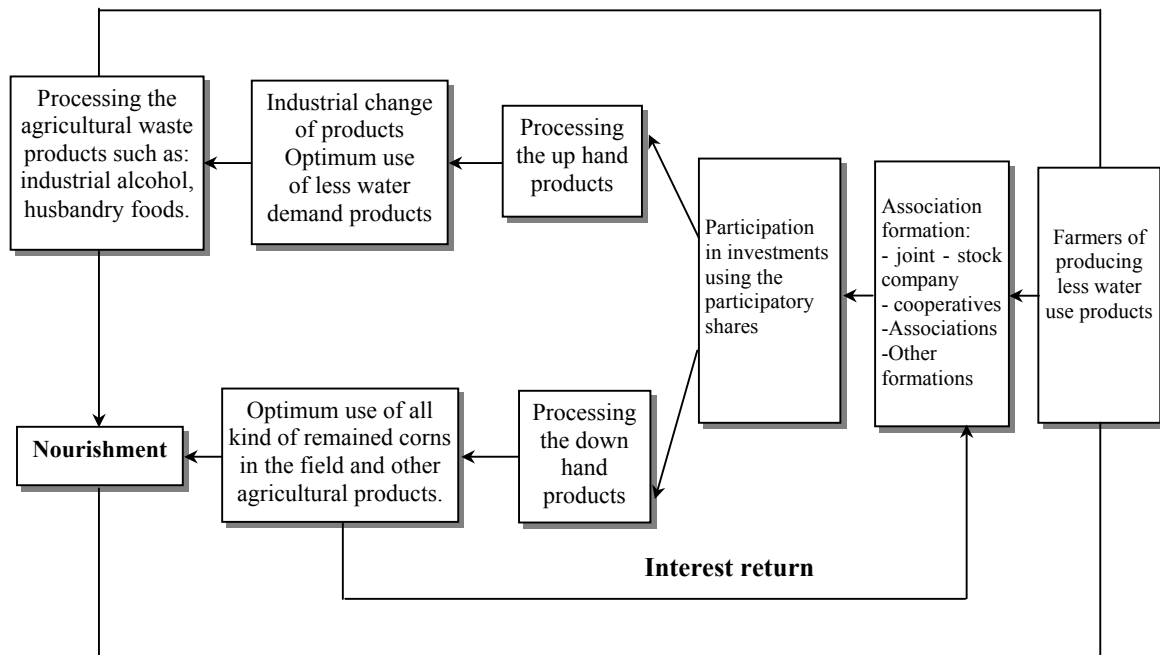
Government should precede the approved laws on water management that will result in reduction of governmental function. The transfer of water management to people organizations (associations, stock-shared companies, cooperatives, etc.) should be executed and government should thank people participation. Government could only monitor people on water management.

It should be noted that transfer of management is completely different with stop of management. It is about 80 years that government has got the local and people management in his hand and it is difficult to change a trend of 80 years governmental

rule in a quick change. The transfer of management to people association takes a long period of time and it should be done step by step accompanied with training, creating self-sufficiency, self believing, motivation and cultural training. This procedure needs a step by step strategy and in a 4-year-experience of mixed governmental and people management experience, the associations would get enough experience to follow the management independently. The needed regulations and manuals for a four year cooperation of participatory management should be prepared and approved by the governmental board of Ministers. The government should decrease being in charge of everything, instead it must increase policy making, monitoring and coordination role, side by side with NGOs. Cultural training, propaganda, training and using technology should be accompanied with transfer of management.



**Model 3:** The model of underground water use balance

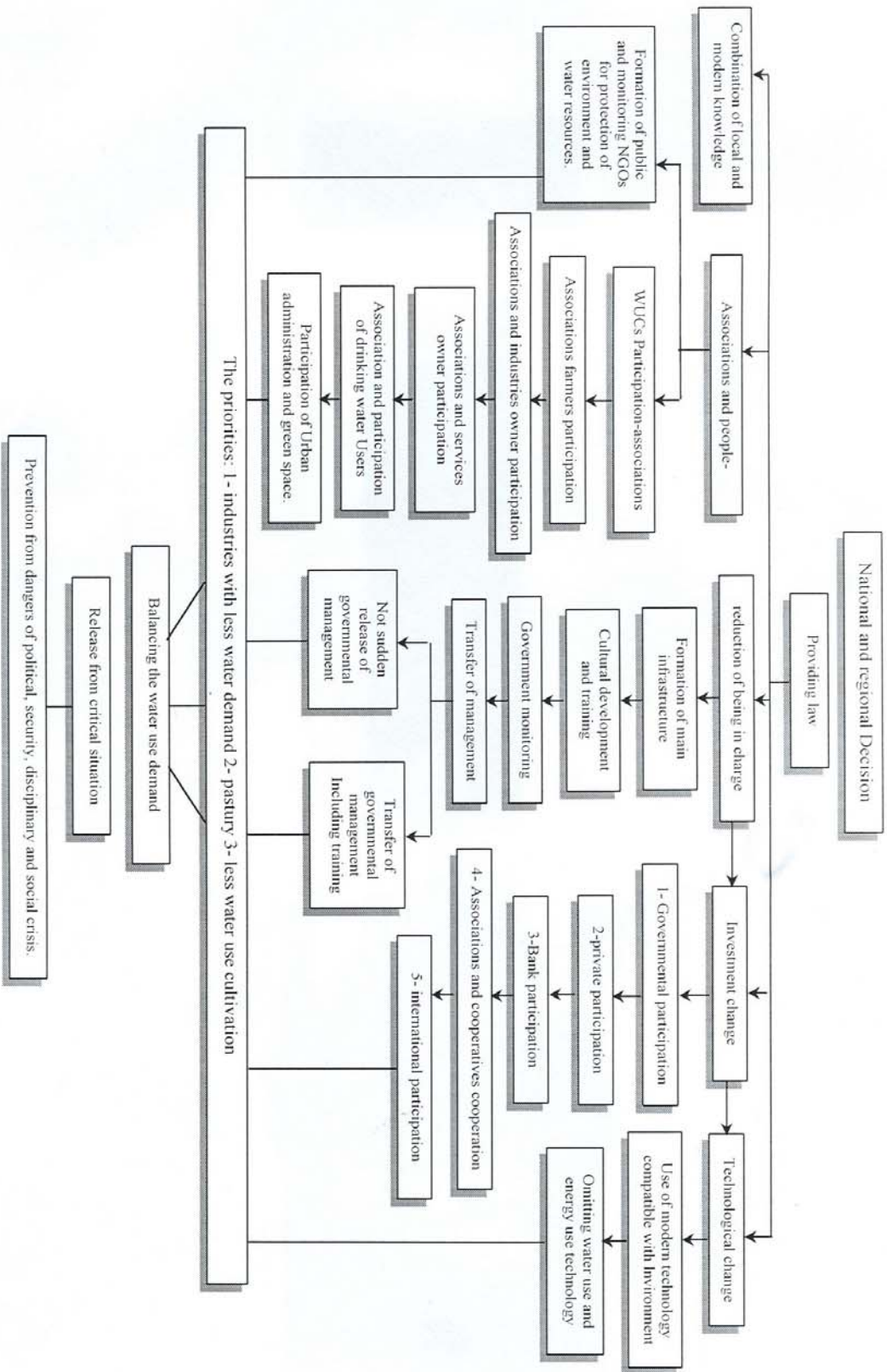


**Model 4:** Continuous Economic System

Continuous economic system through formation of associations and farmer participation on the objectives of:

- 1- Reduction in water demand
- 2- Increasing the farmers income.





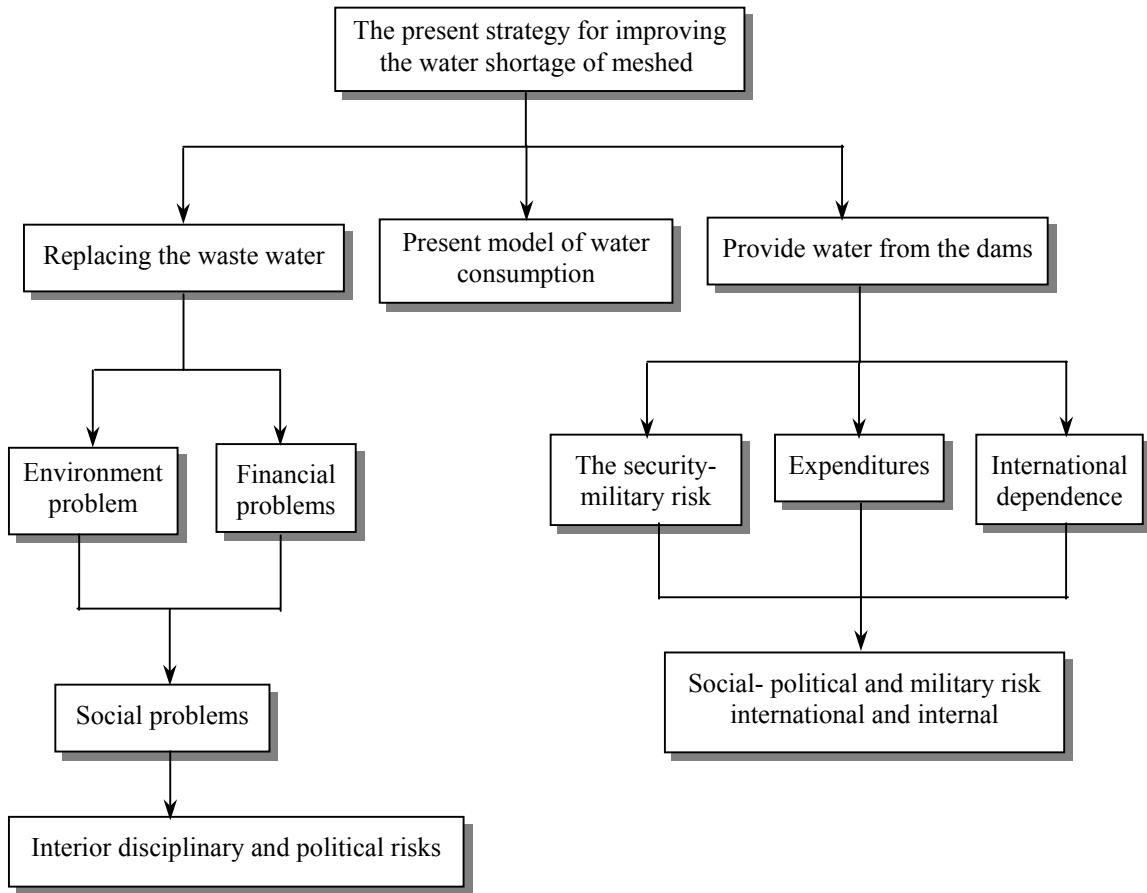
**model 5: Balancing of the water use demand**

At the present time, the investment in agriculture and food industry, processing the higher and lower products is done completely separated from each other. It is necessary that markets be found through researches find a guideline through a bourse market for the total agricultural system and dependant industry or formation stock, hold companies or other formation for the total system, take away this interruption and involve the benefit of all investors either farmers or industrialists in the benefit or loss of the system. At time being, the producers of the raw agricultural materials claim that they are losing their investments. So the government should not only omit the tax from the agricultural system but also subsidize this economic sector. Unlike the raw producers of agriculture, the food industries allocate all benefit to themselves. Neither peasants have share from the benefit of food industry nor do dealers nor dealers and owners of food industry have share in farmer's loss.

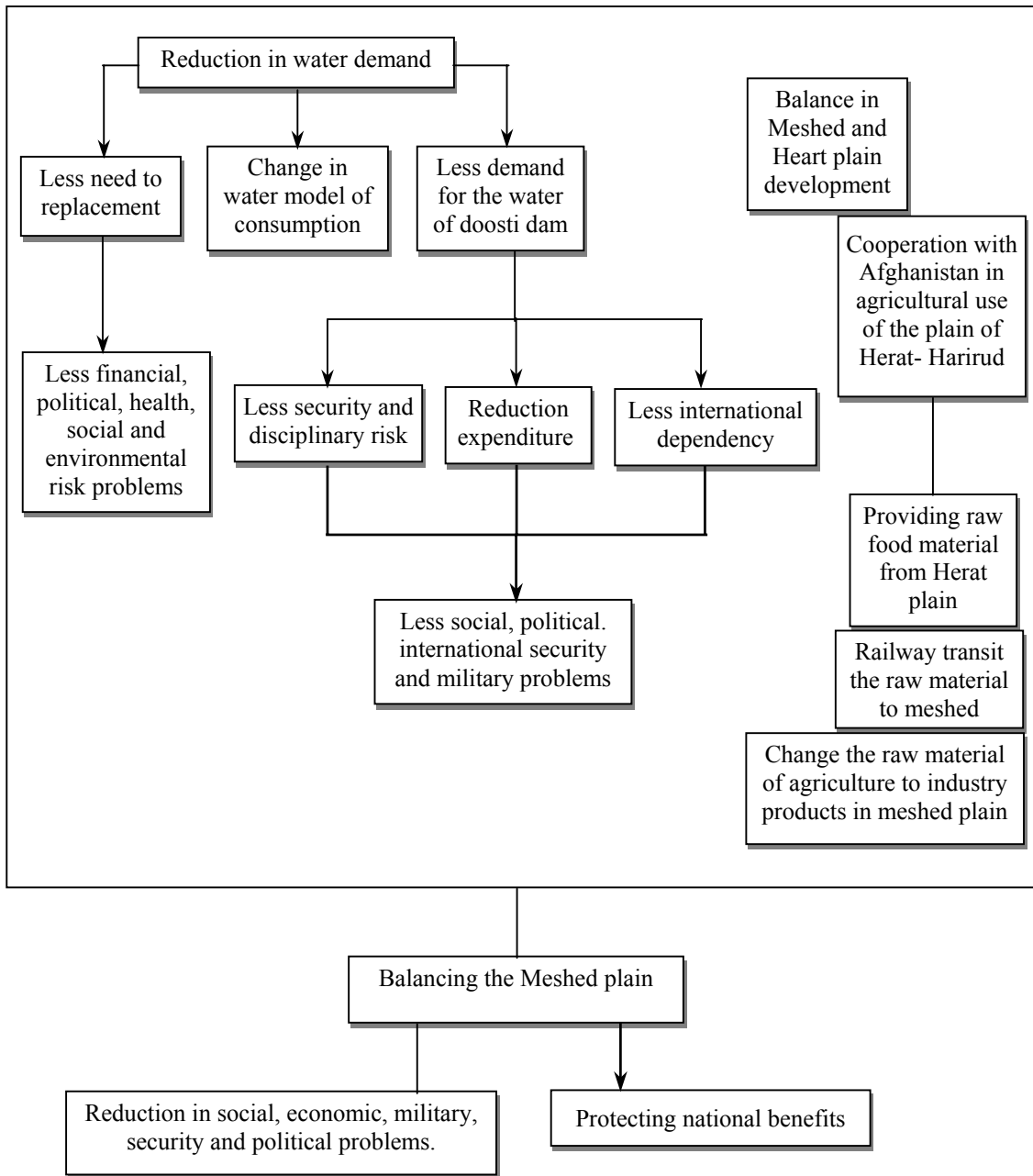
If this model (that should be completed) is preceded, the situation for reduction in agricultural water demands and the replacement of the sites of water users industries from the critical plains to other place including from Meshed, would be possible.

#### **RECOMMENDATION AND PROPOSALS:**

1. Attention should be paid to the deep idea of this article that is: changing attitudes from management of water use reduction to water demands reduction and from critical management to risk management.
2. The formation of people associations should be considered seriously. Participatory Irrigation Management is not just financial but participators should be involved in deciding and making decisions, management, execution and financial matters in such a way that management transfer from the government to the people would be possible step by step.
3. The different form or kind of associations should be studied before formation  
So that the formation of association be compatible with local culture and with Regional climatology. Although the form of association is studied mutually by the Ministry of Energy (deputy to water resources) and the Ministry of Jihad Keshavarzi (Agricultural Ministry) and the trade union is chosen for the underground water users, but this form of association should frequently be examined and tested.
4. The people should not be introduced as the principle guilty for water critical situation and water shortage. The main are governmental programmers, Iranian and overseas advisers and universities educators'. we, educated advisers, are the guilty ones and we should improve the situation. If the educators, advisers and programmers are the guilty ones, we should not blame the people for water use and ask or fine them for what that is not their fault.



**Model no 6:** the Chart of Critical Management



**Model 7: The Preferred Model: Risk Management Chart**

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