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THE ANALYSIS AND EVALUATION OF THE PUBLIC'S INTERACTION IN THE SUFICHAY NETWORK

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ABSTRACT

According to the experienced cases in the past, the experience of the locals' participation in using water resources like the other forms of public interactions are influenced by modern management trends in a way that the concept of resource management and the relevant actions are changed for the most part. Although the establishment of up – to – date forms of management appears unavoidable because of the growing population and industrialization of the cities and urgent need for water energy, and also changing the public form of management into the governmental form is viable and the financial support by the governments plays a great role in the completion of this kind of projects, the absence of the public in these projects can be a remarkable weak point.

When establishing new irrigation and drainage networks, which is one of the effective ways in water resource development, we can benefit the participation of the public in scheduling, construction, completion and maintaining the projects, and of course the participation of the public in completion and maintenance is more tangible and therefore we got the idea to start our Water - Supplying Cooperative Companies (WSCCs).

The WSCCs is clear picture of the public's participation in economical and social affairs management and accordingly the members who benefit the water resource projects have had a close interaction with the authorities based on the framework of the WSCCs and therefore the effective life of the projects has been increased and a better use of water, soil resources and investment offerings has been achievable and as a result, the project of the Sufichay WSCCs in the East Azerbaijan can considered as a successful model of this kind, but of course, like any other project, it has its own possible weaknesses which we are going to analyze in the following article:

Key word: public's interaction, Water - Supplying Cooperative Companies, evaluation

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INTRODUCTION

Over the past one hundred years, villagers in the East Azerbaijan Province have employed various methods including: making infiltration tunnel, digging wells, making diversion weirs (which initiates side – flowing streams) across rivers, conducting water to reservoirs for long – term storage. To manage water - supply affairs based on seasonal changes, monitoring taking turns in water resource using and distributing water resource shares among individuals, villagers invented some methods and formed special groups.

After the advent of technology and industries in villages and development in communication facilities between cities and villages, traditional regulations began to suffer. In response to villagers' new requirements, WSCC were established in villages which were totally or partially located in each dam's downstream to supply water for agricultural uses.

Around 76 WSCCs were established in the East Azerbaijan Province by financing 50,000,000,000 Rials (about 5,600,000 \$) from 1992 to 1998. The first WSCC was started in Maragheh district (1992 – 1994) and later there was the second one in Bonab district (1994 – 1996).

GEOGRAPHICAL LOCATION OF THE SUFICHAY NETWORK:

The Sufichay Network is located in the southeast of the Urumia Lake. It is a 120 kms drive from Tabriz City to this area in the southwest direction. The area neighbors with the southern sides of the Sahand Mountains in the north, with the western sides the Sahand Mountains and the Mardogh Valley in the east, with the sides of the Gharah Gheshlagh Mountains in the south and with the southeastern coastal salt marshes of the Urumia Lake in the south.

THE LANDS COVERED BY THE NETWORK:

The lands covered by the Sufichay irrigation and drainage n network are mainly divided and nominated as the following:

District one (the lands around Maragheh City): this area is composed of the gardens and farms just above the Maragheh Diversion weir and also those around Maragheh City extending for approximately 2500 hectares.

District Two (The right - hand bank): This area is composed of the farming lands and gardens of The Maragheh – Bonab Plain and those around the Sufichay River and is irrigated by the canal initiated from the Maragheh Diversion weir located in the right – hand bank of the river.

District Three (the left – hand bank): This area also extends as a wide plain in the left – hand bank of the Sufichay River. The water needed is supplied by Maragheh and Khanghah Diversion weirs. Whenever there is more rainfall, the extra water from the Maragheh Divrsion weir is directed to the Khanghah Diversion weir for more irrigation purposes.

District Four (Bonab): this area is composed of the gardens and farms of the villages under the Sufichay River and the Bonab Plain and also some parts of the gardens and farmlands of the villages Zavaregh and Chelghaie.

Note: Since the WSCCs of district one are not included in this statistics project, the related information is not available in this article.

THE RESEARCH METHOD

In this research for statistically evaluation of the WSCCs we benefited from measurement method. It is apparent that for estimating the research variables we employed two different types of questionnaires (one for the WSCCs and one for the managers) and possible variables include: the weak points and the problems relating to the activities carried on by the WSCCs which cosist of from irrigation problems, improvement in water use, collecting water charges, volunteering quality of the members and so on.

THE OUTCOME OF THE EVALUATION

A: An evaluation of the general features of the WSCCs:

- The number of the members: the studied WSCCs can be divided into three categories.
 - 1. The WSCCs with 32 to 100 members (7 cases)
 - 2. The WSCCs with 110 to 182 members (5 cases)
 - 3. and the WSCCs with 230 to 575 members (5 cases).
- The average age of the members: the minimum and maximum age of the members the the mentioned WSCCs is respectively 20 and 95 years old. The members of the WSCC in the group 3 are the oldest of all groups.
- Literacy rate: more than 60 % of participants are literate. The literacy average of the members of the district 4 is the highest of all districts.
- The managers' occupation: the majority of the WSCC managers (a total of 10 people) are farmers.
- The extension of under farming lands of each member: the most extension of the cultivated lands belongs to the members of the district 2 (4.3 hectares) and the least extension goes to the district 4 members (1.2 hectares).
- The extension of under farming lands of each WSCC: the most extension of under farming lands belongs to the Big Russet in the district 2 (1774 hectares) and the least extension goes to the Ghal'eh Khaleseh WSCC in the district 2 (72 hectares).
- Earning statistics: the most income is for the WSCCs in the district 3 and the least amount is for the district 4. The last but not the least, even in the district 3 only 5.25 percent of the members approved a large increase in their income.

B: An evaluation of general issues of the WSCCs:

These issues have been evaluated in two categories. Firstly internal problems which relate to the system and performance of the WSCCs and secondly the external problems which do not initiate from the performance of the system but is imposed by different external factors.

1. THE INTERNAL ISSUES:

- Holding general meetings: the highest percentage of sessions is for the district 2 WSCCs (8.77 percent) and the lowest is for the district 3 WSCCs (3.33 percent).
- Attending the general meetings: 50% of the members of the most of the WSCCs approved that they didn't attend the meetings.
- Paying membership fees: for the most part the members of the WSCCs of the network (80 percent) paid the fees.
- Holding elections for management committee in peace and freely: in the most of the districts the elections for the management committee have been held in peace and freely and of course in the district 4 we have the highest approval.
- Possible disputes among the members: our findings show that there have been just a few disputes among the members and the district 4 has had the least number.
- Possible disputes between the members and the managers: in this part we can also see the least number disputes and the district 2 has had the least number.
- Possible disputes among the WSCCs: this kind of disputes are also very rare to happen and the highest number is for the district 4 because 3.33 percent of the managers have reported that there have been some WSCCs that have not cooperated with the other WSCCs because of their own benefits.
- The references for settling the disputes among the WSCCs and their success in doing that: the findings show that the members have referred to the Water Affairs Offices of Bonab and Maragheh cities, the management committees and the managers, the Taavon offices and the judicial centers respectively to settle their disagreements.
- The percentage of approval and fee paying to the managers: most of the members in the three districts approved paying fees to the managers and even have emphasized that they will approve this idea if it is posed in the annual general meeting.

2. THE EXTERNAL ISSUES:

A: The common issues of all of the districts:

The common issues can be categorized as the following:

- The members do not perform the obligations they agreed on in the contracts.
- Water supply is not safe and dependable.

- Water shares are not distributed equally.
- There are a few number of expert supervisors for the network.
- The members have to pay water share charges even if there are some natural disasters or pests or there is no crop to be harvested.
- There is no schedule for maintaining the equipment and tools.

B: The common issues of each district:

These problems include:

- The water flow gates are not shut adequately.
- The mangers make no request from the judicial officials to ban the illegal use of water resources.

A SET OF USEFUL MANUALS

In order to improve the network of the WSCCs, we offered the following suggestion in three categories:

A: The short – term manuals:

- 1. Creating a steady formula for water share charges.
- 2. Scheduling a dependable repairing and maintaining method for measurement tools and devices and providing up to date information for the members all the time.
- 3. The Water Affairs offices of Maragheh and Bonab should coordinate with the WSCCs of the region when attracting new members.
- 4. The view points of the general managers should be considered of much value when signing new contracts.
- 5. The water share tariff be delivered on time.
- 6. The canals should be cleaned and maintained regularly.
- 7. The network should benefit a judicial expert to defend the rights of their society.

B: The average – term manuals:

- 1. Scheduling for distributing water shares equally, sufficiently and on time.
- 2. A supervision and evaluation unit should be established.
- 3. The WSCCs should be supported to found an office of affairs.
- 4. Performing cleaning and maintaining operations at the beginning of every farming season can have many benefits such as: cooperation among the members, creating a working relationship between the WSCCs and the water Organization of the region, reporting the changes and improvements and so on.

5. Identifying the model WSCCs and introducing them in public and offering rewards to the members and managers.

C: The long – term manuals:

- 1. Encouraging the different units of the Water Organization to accelerate the performance of affairs and duties relating to irrigation and drainage networks which are going to be used for the first time.
- 2. Having periodical visits to the networks of other regions to learn more about the weak points and the strong points of the Sufichay Network and teaching the managers how to measure the imported water to update their input and regarding the role of education in the development of the WSCCs.
- 3. Making a bed for active participation of the members in cooperation affairs.
- 4. Making an effort to vitalize the necessity of following cropping pattern and water supply needs and appropriate use of synthetic fertilizers and

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