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**WATER
RESOURCE
MANAGEMENT** 

Water Sharing and Conflicts between Kilinochchi and Jaffna Districts: A Critical Evaluation of Iranaimadu Water Treaty

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ABSTRACT

Water is a fundamental human need and each person on earth has rights to access clean, safe water for drinking, cooking and simply keeping themselves clean. Water is essential for economic activity and it is an important source for healthy lives and living standards. In most countries water services are provided through pricing mechanism. Water is a precious commodity around the world and sharing of the water from river, tank or well is the biggest issue among communities, caste groups, ethnicities, states etc. Water conflict is a heated discussion involving access to water resources. Water conflict means a conflict between countries, states, or groups over an access to water sources. As water consumption levels increase in certain areas of the world battles over the water also arise. In many countries access to fresh water has become an economic, social and human right issue.

This study mainly investigates the water sharing conflict of Iranaimadu Tank among communities in Jaffna and Kilinochchi Districts of the Northern Province. The study was accomplished through a combination of quantitative and qualitative data collection methods, such as case study, questionnaire, consultations, interviews and secondary literature reviews etc. The study sample consists of 200 farmers, officers from the Irrigation Department and NWS&DB, the Agricultural Department and District Secretariat Office, community, politicians, provincially elected members and university students from both Kilinochchi and Jaffna selected on cluster sampling basis. The study reveals that, there is a strong relationship between political control, economic factors and water sharing conflict. Therefore, political leader's intervention, inadequate institutions and legislature have a great impact on the water sharing conflict.

This study would hopefully benefit the project report writers on water supply projects, researchers, policy-makers, academia, undergraduate students and practitioners of Sri Lanka and other similar countries.

HIGHLIGHTS

- This research examines the factors leading to water sharing conflict on Iranaimadu water sharing Treaty
- This research found political leader's interventions led to the water sharing conflict among Tamils in Kilinochchi and Jaffna.
- Iranaimadu water treaty failed due to the farmer's worries and political powers

INTRODUCTION

Water is a fundamental human need and each person on earth have rights to access clean, safe water for drinking, cooking and simply keeping themselves clean (Biswas, A.K., 1999). Water is essential for economic activity and it is important for healthy lives and living standards. In most countries water services are provided through pricing mechanism (Dhivya, B :2013). Water is a precious commodity

around the world and sharing of the water from river or tank or well is the big issue among communities, caste groups, ethnicities, states etc. In many countries access to fresh water has become an economic, social and human rights issue (Abdellaoui.R: 2005). In Sri Lanka modern water related conflicts dramatically raised due to the lack of clean and safe drinking water. Especially in Northern part of Sri Lanka, lack of rain fall, underground water pollution and droughts in the area lead to the water conflict (Disaster Management Report :2014).

Jaffna and Kilinochchi districts are situated in the Northern part of Sri Lanka and these are experiencing a surge of returnees and economic activities are already thriving. After end of the war rehabilitation, resettlement and developments carried out by Sri Lankan Government and living standard of people is gradually getting improved since resettlement commenced in 2011 by the assistance of Ministry of Resettlement and Ministry of Economic Development (Statistical Hand Book, Kilinochchi District: 2012). The government has identified developing the Northern Province and reducing interregional inequalities as key foundation for long term peace. Improving water supply and sanitation schemes will complement government efforts to promote living standards of the people in the Northern Province.

The government of Sri Lanka tries to provide safe drinking water facilities and sanitation facilities to urban and rural communities in Jaffna and Kilinochchi. According to the topography and morphology, Jaffna peninsula depends on ground water sources not only for drinking purposes but also for some other activities such as agriculture and primary economical activities. Due to the bacteriological contamination and nutrient contamination, Jaffna ground water sources were polluted. And also due to the over extraction by farmers for their agricultural activities ground water become saline and sea water inclusion also increased. Therefore, potable water is the challenge for the people in Jaffna and Kilinochchi.

Therefore Government of Sri Lanka planned to implement a massive water supply and sanitation project in Jaffna and Kilinochchi under the UthuruVasanthaya program to provide safe drinking water to people in the Jaffna and Kilinochchi Districts through National Water Supply Drainage Board with the financial support of ADB, AFD and GOSL to achieve the goal 100% in 2050 by providing pure drinking water (Mahinda Chinthana:2013).

To implement this project, Iranaimadu tank was identified as the water source after many feasibility studies conducted by consultants from various forums. Iranaimadu Reservoir which is situated in Kilinochchi district was selected to provide safe pure drinking water to Jaffna. In general Iranaimadu tank head works are in poor condition and it was not possible to store water to its full capacity during the rainy season for the past ten years (Feasibility Report: 2006). Due to the poor maintenance, canals were badly destroyed. As a result farming activities are limited and it is a challenge to obtain water for drinking purposes from Iranaimadu Tank. At this time ADB and IFAD decided to strengthen and raise the tank bund to increase the water storage and to use that additional water for Jaffna water supply purposes.

Iranaimadu tank is being used by the farmers in Kilinochchi district to irrigate their paddy lands under the management of the Irrigation Department. Therefore Iranaimadu Water Treaty was prepared and signed in 2007 between the NWSDB and the Ministry of Agriculture and Irrigation of North and East Provincial Council to share the water from Iranaimadu tank with the farmers for the purpose of providing drinking water to Jaffna as Iranaimadu Tank comes under the Provincial Council management.

Iranaimadu Water Treaty was created to provide safe drinking water to Jaffna and Kilinochchi through pipe line by sharing water from Iranaimadu tank. Therefore, Water Treaty (Water sharing agreement) was prepared and signed by National Water Supply & Drainage Board, Irrigation Department and farmers in Kilinochchi. Iranaimadu Water Treaty clearly states that,

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- Water abstraction from Iranaimadu reservoir shall not have adverse effects on existing water users.
- Renovation and all construction work of Iranaimadu components have to be completed prior to the abstraction of water for the Jaffna water supply.
- Only 1,200 acre feet water to be abstracted from the tank per month for drinking water supply.

According to this agreement, construction works of Iranaimadu reservoir and tower construction works started from 2012. Unfortunately, later the Iranaimadu Water Treaty failed when implementing the water supply scheme due to the socio, economic, environmental, political and cultural factors. This study tries to find out the factors that lead to the water sharing and water conflict in Jaffna and Kilinochchi districts. This study would hopefully benefit the project report writers on water supply projects, researchers, policy-makers, academia, undergraduate students and practitioners of Sri Lanka and other similar countries.

METHODOLOGY

The method of this research is a descriptive study. Both primary and secondary data were used to conduct this study. In methodology, structured questionnaire and interviews were used to identify the socio, economic, environmental and political factors that lead to the water sharing conflict. Consultation and case studies also were conducted to find out the factors influencing on water conflict.

This study used secondary data sources such as literature reviews, quarterly project progress reports, farmer's meeting minutes, District Coordinating committee meeting minutes, Iranaimadu Water treaty, ADB guidelines, Journals, scholarly articles, books, news papers, annual reports, and organizational reports through the internet sources.

The cluster sampling method was used to select officers from Jaffna and Kilinochchi. A cluster is a unit that contains a collection of population element. Cluster sampling selects more than one population element at a time.

There are 100 farmer's organizations benefiting from Iranaimadu tank in Kilinochchi District and 22 farmer's organizations were selected under cluster sampling from Kilinochchi District. In addition, 150 farmers were selected from the 22 farmer's organizations based on simple random sampling. Again using cluster sampling method 50 officers from Irrigation Department, NWSD, politicians, Members from NPC members were selected for in-depth interview and consultations. The study sample was 200.

RESULTS AND DISCUSSIONS

Results from analyzed data of this study found that generally water conflicts are associated with water scarcity, water pollution, lack of rain fall, political leader's intervention, lack of legislation and the competition on the resource. In Iranaimadu water treaty, political factors and social factors are the important contributors to create a tension among Tamils in Kilinochchi and Jaffna.

Socio Economic Conditions

The socio economic conditions can also play a role in raising conflicts among water sharers in Jaffna and Kilinochchi. Civil War, unemployment, level of income, Inadequate public awareness, farmer's worries, lack of education, lack of transparency, marginalized groups, water tariffs and unplanned policies are considered as important factors to create this conflict.

Table I: Respondents' view on water sharing conflict

No	Respondents	Lack of Awareness	No Transparency	Unplanned Policies	Rumors and false news
1	Farmers		✓	✓	✓
2	Officers /Irrigation	✓			✓
3	Officers/NWS&DB	✓			✓
4	Politicians		✓	✓	
5	University Students	✓		✓	✓

Source: Survey 2014

Farmers in Kilinochchi stated that, during the dry season there is no adequate water even for their farming activities. Further they stated that, there is insufficient water in Iranaimadu tank and how it is possible to divert water to Jaffna Peninsula. They have inadequate awareness about this water supply scheme and its benefits. The inadequacy of public awareness mislead the public. Rumors and false news also can cause disputes and conflicts between various groups of people.

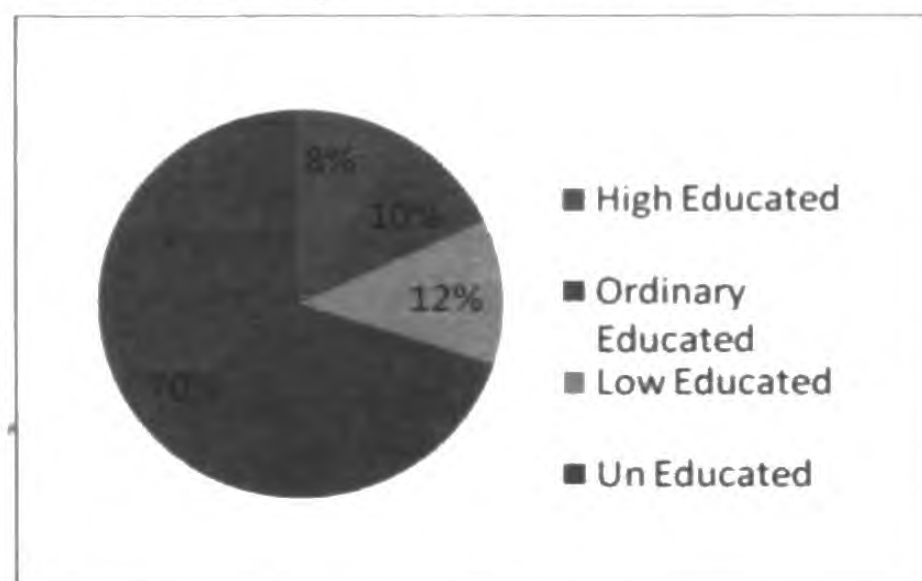


Figure 1: Education Level of Farmers
(Source : Survey 2014)

According to the above mentioned figure, 70% of farmers from Kilinochchi suggested that, they are uneducated and living after losing all their belongings from the civil war with a low income. Their main income source is farming which depends on Iranaimadu water for their farming activities. And also they have lack of awareness about this water supply schemes as it will provide more employment opportunities for community from Kilinochchi district (ADB Project Manual: 2007). Further they stated that political leader's confused them by spreading false news about this project. Farmers still have fear due to the unreliable rain patterns as well as low water levels currently in Iranaimadu tank. Farmers also stated that they are unhappy about the Iranaimadu water treaty because water sharing between water supply and irrigation during the drought not mentioned clearly. Therefore they fear that the water supply will be given priority at the expense of farming in the drought.

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Environmental Factors

Ground water pollution, water scarcity, unreliable rain patterns, water storage and high demand are the environmental factors influencing on the water sharing conflict. Lack of rain fall and droughts is the main reason to emerge water sharing conflict among Kilinochchi and Jaffna. Due to the climate changes in this areas leading to growing water related risks from higher temperature, increased evaporative water demands, reduction in future run off levels etc. are some of the concerns.

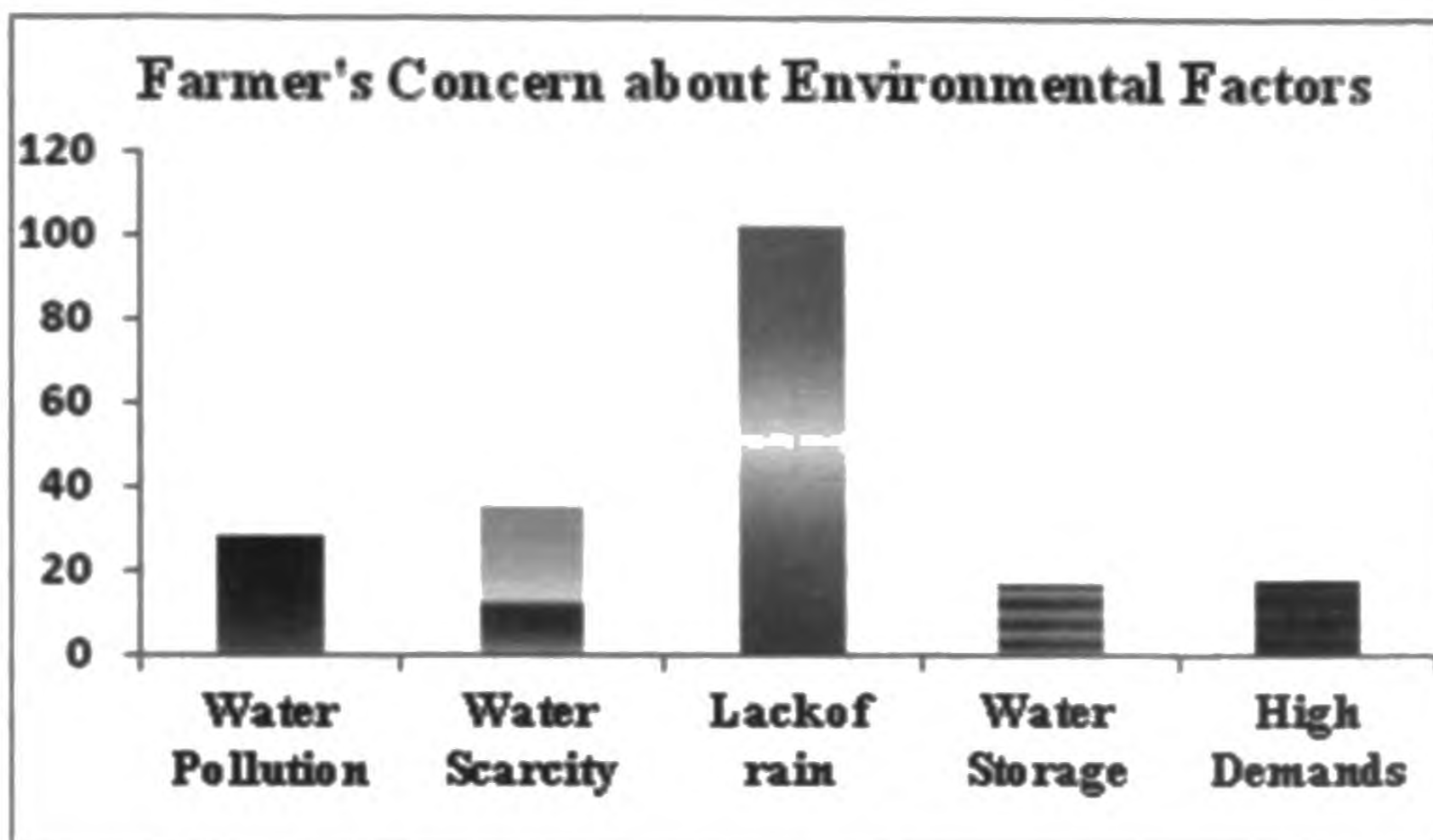


Figure 2: Farmer's concern about environmental factors for water sharing conflict (Source : Survey 2014)

Nearly 110 respondents stated that they are facing difficulties even for their farming due to the unreliable rains. 75% of the farmers reported that, they are not opposed to the water supply project but they fear about the storage of water in the tank. Due to the failure of the rainfall for the last two years, water related risks of farmers were increased. At the same time drinking water demand also increased in Jaffna and Kilinochchi.

Political Leaders Intervention and Inadequate institutional Legislature

Political leaders' intervention throughout this Iranaimadu Water Treaty has great impact on water sharing conflict. Tamil National Alliance Political Party opposed to share the water from Kilinochchi to Jaffna as they think that Government of Sri Lanka is planning to reduce Tamil racial diversity and plans to settle 15,000 Sinhala families through this water supply scheme similar to what happened within the Mahaweli Project area in Dry Zone. And also political leaders created a rumor that, the water from Iranaimadu is going to satisfy the water needs of Sinhala community and their agricultural needs. In this case, the then Hon. Minister of Water Supply and Drainage stated that, this water supply scheme had not been planned with any intension what so ever for the settlement of Sinhala families in Jaffna and Kilinochchi.

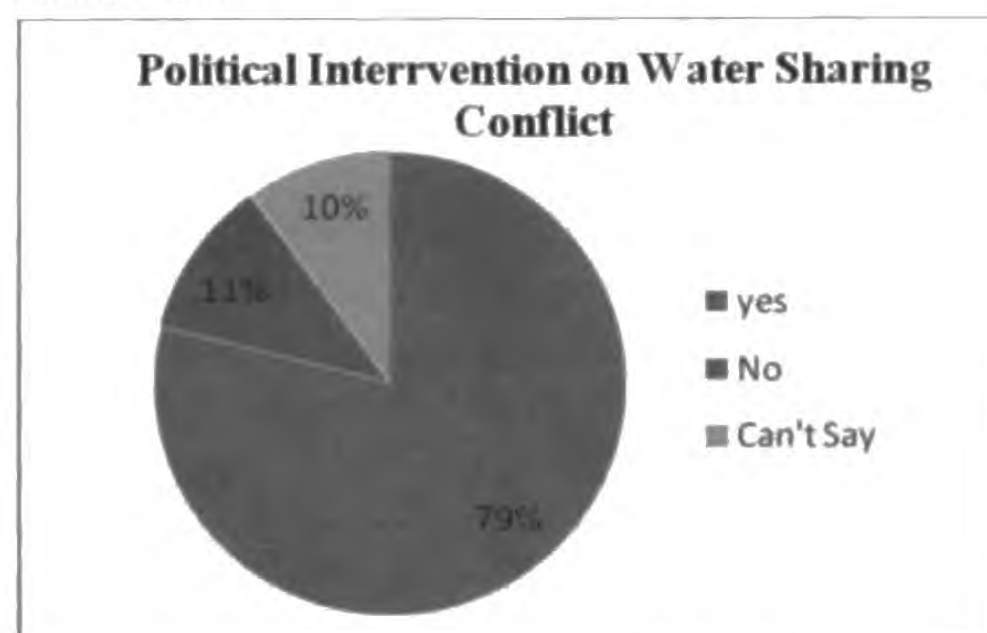


Figure 2: Political Involvement in water sharing conflict (Source : Survey 2014)

Political power is the crucial factor in determining access to water across the districts. Politicians are concerned about the number of votes they will receive in the next election based on the satisfaction of the public on various aspects. According to the data finding 79% of the total population stated that political powers and the political party's intervention is the major reason to create water conflict among Tamil community in Jaffna and Kilinochchi.

Further, the institutional set up in the water sector is characterized in many places by inadequacy and lack of harmony. There is a shortage of skills and capacity of institutions to develop and manage water resources. According to the legislative frame works in Jaffna and Kilinochchi there is lack of rules and regulations on water related legislation. They should be revised according to the present demand and need of the population. There is no legal act to share water from one place to another place in Sri Lanka. Water resources are excluded from private ownership. According to the Talmudic Law, Rivers and streams forming springs and tanks are belong to every man (Talmudi Bavli Shabbar: 1975).

CONCLUSION

Water scarcity and water shortage is increasingly affecting the economic and social development of the country. Resource scarcity is a natural cause of disputes and conflicts among the users of the resource. Generally water resource is primarily used for irrigated agriculture in all parts of Sri Lanka and leads to create water sharing conflict when the agriculture water is used for drinking water supply. There are many reasons affecting the water sharing treaty such as political leader's interventions, inadequate institutional legislation, inadequate awareness among farmer's, unreliable raining patterns and the water shortage. The remarkable fact revealed in the study is that, there is a strong relationship among political control, economic factors and water sharing conflict. The results from overall findings and discussion show that there is a strong link and impact between socio-economic, environmental and political factors and water sharing and conflict between Kilinochchi and Jaffna Districts.