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Removal of Encroachment on Rural Tanks in Tamil Nadu

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Abstract

Rural Tank is traditionally linked to our society, as well as tank is intricate human-made ecosystem connecting a lot of natural resource with given that a broad multiplicity of purpose. The common ecological, social, economic and environmental factors conserved and connected for fully depended on rural tanks. Recent years, the rural tank has faced the big problem of encroachment on the various parts of on rural tanks in Tamil Nadu, is which is overall decline of water potential now widespread turn and especially affecting the agricultural economy of the state. Much of the tank-fed areas are situated in water abatements. The study mainly based on secondary of data. A model comprising the participation of tank's users, watershed development, development of agriculture in order to achieve environmental sustainability directs to remove the encroachments on rural tanks. It is therefore conclude that rural tanks are the traditional based social, economic, cultural and environmental unit which determines the sanitation for the rural people. It should be protected by the efforts of rural people.

Key Words: Encroachment, Environment, Rural Tanks

Conceptual Framework: Rural tanks have been created olden centuries for fulfil the need of irrigation and drinking water supply for human-being and livestock necessity. They are traditionally linked to our society, as well as tank is intricate human-made ecosystem connecting a lot of natural resource with given that a broad multiplicity of purpose. The common ecological, social, economic and environmental factors conserved and connected for fully depended on rural tanks. The geographical condition of Tamil Nadu is considered by the appearance, of a huge number of tanks almost 39,402 tanks available in this region. In Tamil Nadu, the rulers of Chera, Chola, Pandyan and Pallava kingdoms were very sensitive method of appropriate technology to used the creation of tanks has connected the irrigation facilities (**Balamurugan.P, 2007**). They struggle to deal with water in technique that are efficient, equitable and environmentally resonance. Tamil Nadu has seven agro climatic zones and the average rainfall in the state is 930mm per annum against the national average of 1200mm per annum. The net cultivated area in Tamil Nadu is 48.92 lakh ha of which only 58% is irrigated, while the rest is rain-fed. Well irrigation forms 56% of all

irrigation, while canal and tank irrigation form 26% and 18% respectively. Thus there is a high strain on availability of adequate water for irrigation in the state. Recent years, the rural tank has faced the big problem of encroachment on the various parts of on rural tanks in Tamil Nadu, is which is overall decline of water potential now widespread turn and especially affecting the agricultural economy of the state. Much of the tank-fed areas are situated in water abatements.

Historically, the main role of the tanks was stored and share out the water for irrigation uses, but the rural tanks roles not only for irrigation and also multiple uses of water in rural society and improve our economic well-being of national wealth. Such as the rural tank useful to fish production, cattle sold, small plant farm, another factor they can control drought, soil erosion, floods. The removal of encroachment work is not independently solved but, one from each other they can help and need arrangement for tank repair and maintenance will be preserved the tank.

Objective of the Paper:

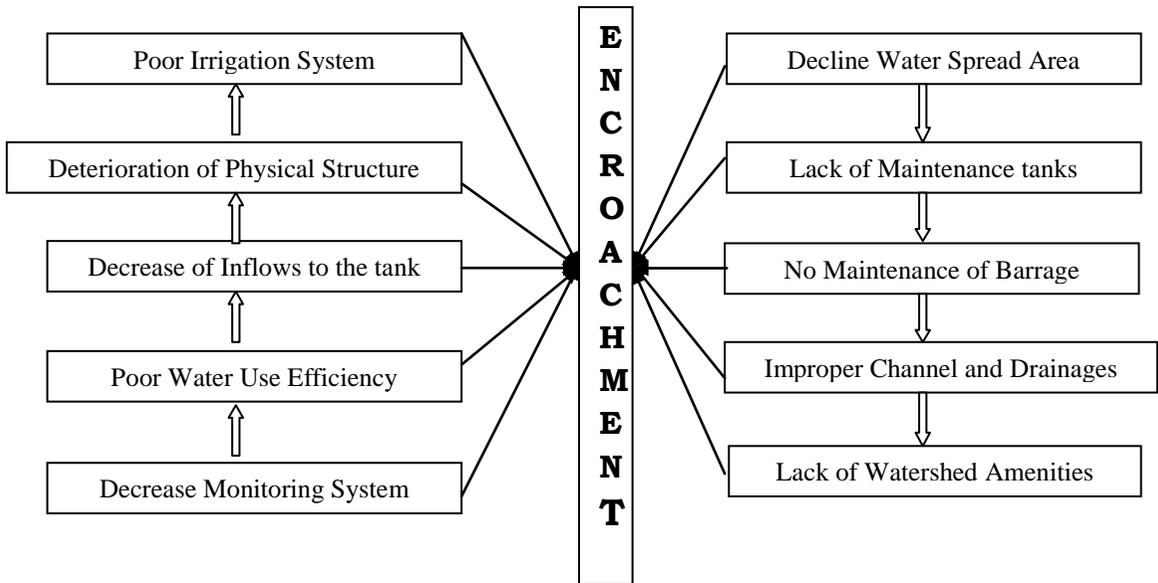
1. To determine the existing encroachment of rural tanks to need the removal of encroachments.
2. To portray the strategies and approaches for encroachment of rural tanks towards sustainable development in rural area.
3. To develop a plan for sustainable rural development and conservation of rural tanks
4. To suggest certain policy measures to promote sustainable rural environment through rural tanks to encourage the effective environmental system.

Methodology: The study mainly based on the secondary of data. Secondary data have been collected through the personal visit and consultation with various documents available from the office of block development office (BDO), District Rural development Agency (DRDA), Village Panchayat office of the Tamil Nadu State.

Rural tanks as eco-system: Rural tanks have been connected the natural eco-system of rural environments. Tank eco-systems were including physical structure of tank, under the area irrigated, surrounding spaces, resource obtainable with the tank, rural livelihood status, and the linked small local water bodies. The tank eco-system changes from the only on the dry season, the common reason that the tank is not restored during the seasons, the useful of water exhausted from the limited period so, the tank is empty, next cause the tank-bed no patta right anyone else because the tank inside the porambokku land so the local people or encroachers can be easily aggression the tank (**Balamurugan.P, 2016**). After that important reason the tank surrounding inside the agriculture field hence, some farmers encroached who grow seasonal crops on it. Finally the tank eco-system step-by-step decreased under the area therefore, rural tank will have protected certainly can be preserved the eco-environmental system.

Encroachment in Tank System: Farmers should be able to refill the tanks whenever the tank water supplies are low. Yet, even with frequent fillings, the tank supplies were not adequate. This is mainly due to heavy encroachment in the tank foreshore area and the

unlawful release of the tank water during the night by encroacher. This conflict in interest between tank irrigated farmers and encroachers prevents the normal tank operations and causes water shortages (**Palanisami, K.; and Easter, K.W, 1983**)



Flow Chart: Encroachment on Rural Tanks

The fall in-efficiency of the tank system could be one or more reasons. The major challenges faced in storing rainwater in the tanks up to their designed capacity, is the encroachments being made along the supply and surplus channels and tank water spread areas. Such encroachments constrain the carrying capacity of the channels resulting in only partial inflow of runoff into tanks from their catchment areas. The encroachments also induce the encroachers to willfully break the surplus weirs or tank bunds in order to protect their standing crops in the encroached tank bed area from damage.



Encroachment in Tank-bed Area

The low storage of tanks caused by such encroachments deprives the poor from having access to the tank water. The existing laws to evict the encroachments are long drawn and are only partially effective. In government, there exists a rule that no water body could be encroached upon by any individual organization and no *patta* right be given to anyone to use such land for any purpose other than for conservation of the water body. This rule has

also been, in recent times, upheld both by Madras High Court and by the Supreme Court. Yet this is not strictly followed in all cases (**Gurunathan.A & Shanmugham C.R, 2006**).

Management of Rural Tanks: In olden days, tanks were conserved and enriched to the part of the authorities appointed by rulers. The farmers paid the tax a part of the produce to the ruler. Farmers also were responsible of the maintenance of the tanks, and supply channels. Zamindars ensured the proper maintenance of the tanks, and channels, since they reaped the benefits of farming in large areas (**Palanisami.K, 2005**). Recent years, the village tank had faced tank sedimentation and heavy water losses. Tanks reduce their storage capacity from siltation; the tank depended only on the rain and small stream in surrounding areas. Unseasonal rainfall the tank is evacuated in the land so the tank-bed or whole tank encroached by local farmers, village people, government and private institutions. Moreover the tank is maintenance of environmental steadiness and reinstatement of ecological balance through soil conservation, bio-diversity and increase in agro-forestry. Extension of superior appropriate technology and prudence ideas to take effect of managed tanks through farmers or local people participation has improved the tank activity and also can be increased the farm incomes and creating alternative source of livestock production better natural development of handling good surrounding atmosphere.

Environmental Sustainability: The tank has protected the environmental surroundings which include the natural resources also. Sustainability of Environment of Rural Tank System will have been maintaining a renewable resource based on imminent local people participation to be avoiding encroachments and aggression. Tank maintains works not only renovation activities from the tank system but also includes maintenance of sluices, eco-systems; take effect of management on surroundings. Tank help to major components of rural livelihoods as economic source of infrastructure, therefore clearly environmental sustainability decreases, directly affect from rural livelihood complications.

Functioning of the tank irrigation system and its result on crop production: One of the most confronted based on the combined with Agriculture and Rural Development. Lack of stability of water is the main critical factor in diminish enlargement of existing tank irrigation systems. Where irrigation is not possible agriculture development is not achieve sustainability economic growth. In rural areas covered 50% of the land area tanks and small ponds, so that improving management of water resource through watershed development covering the rain water harvesting stored in farm ponds. Mainly the tanks are methods of water conservation and storage of water for potential use of future development.

How to Removal of Encroachment?

Encroachment basically start in uncultivated lands, soil Erosion, Exhaustion of small water bodies, exploitation of such as tanks, streams, forests and so on for commercial purpose have increase now days. Tamil Nadu there are huge tanks, ponds is available in rural Areas. These tanks constructed in resolute purpose for future generations. Tamil Nadu to create the new legislative of Protection of Tanks and Eviction of Encroachment Act 2007, if extents to the whole of the state but also the proper appointment authorities manage rules and regulations not at all the places. The acts requires, ayacut area, field channel, field drainage, foreshore area, full tank level, supply channel, surplus course, surplus weir, tank bud, tank sluice, water spread area. The effect of Removal an Encroachment must be addressed in planning and impacts of on village communities should be managed, especially since government is almost inevitable. Encroachment based Rural Tanks is imminent, it already occurring at all resettlements of rural tanks. Resettlement on rural tanks can, however mitigate the impacts if encroachers are government through establishing positive community relations that enable resettlement comprehensive planning with all surrounding village communities. However, because planning and resettlement are possible change, a more comprehensive encroachments strategy is needed by all rural tanks. An inclusive

District Wise List of Tanks in Tamil Nadu

S. No	District	Panchayat <20 ha	Panchayat >20 ha	Panchayat	PWD Rainfed	PWD System	PWD Total	ExZamn	Total
1	Chengalpattu	1241	542	1783	1202	5	1207	756	3746
2	North Arcot	1482	602	2084	632	537	1169	482	3735
3	South Arcot	1213	553	1766	573	184	757	79	2602
4	Salem	449	100	549	188	-	188	-	737
5	Dharmapuri	1451	128	1579	98	3	101	154	1834
6	Coimbatore & Erode	42	22	64	57	2	59	-	123
7	Thanjavur	338	153	491	5	680	685	-	1176
8	Pudukottai	4609	725	5334	369	161	530	58	6394
9	Tiruchi				173	85	258	214	472
10	Madurai & Dindugal	3142	249	3391	288	483	771	331	4493
11	Sivagangai	642	691	1333	1378	130	1508	7367	10208
12	Ramanathapura m Virudhunagar Tirunelveli	806	159	965	289	397	686	445	2096
13	Thuthukudi and Kanyakumari	1062	12	1074	24	-	960	984	2058
	Total	16477	3936	20413	5276	3627	8903	9886	39202

Source: Sharma C.B.S.R 1998

removal of encroachment strategy is the preferred way to achieve that goal of rural societies.

In Tamil Nadu tank is the one of the main sources of irrigation for farmers. As of 2005-2006, the state had 2395 canals with a length of 9,747 km, 40,319 tanks, 670 ordinary government wells, 1,620,705 ordinary private wells and 290,611 tube wells but still, 39,202 rural tanks only. The table shows that total tanks in Tamil Nadu, more than tank had severed encroachment and aggressions. Tanks were basically constructed the earthen bunded reservoirs to confined monsoon runoff in dry and semi dried areas for Irrigation and community purpose. They are found in all soil types except sand, located in all socio-ecological, agro climatic and rainfall areas of Tamil Nadu. They are in existence for several centuries serving the water needs of rural communities. As one of the oldest man-made ecosystems, the tank system consists of water bodies, tank structures, feeder canals and supply channels, wells, wetlands, semi dry tank fed lands, soils and plants, animals and birds, aquatic plants and fishes. They are vital and significance for serving the community for multiple uses such as irrigation, recharge of ground water, drinking water and supporting livelihood activities.

Need for Removal of Encroachment in Tank Irrigation System: Assuring timely irrigation by proper use of available of water by adopting efficient ground water recharge compounds, judicious people involvement cleaning and rejuvenating of rural tanks and adopting appropriate changing cropping pattern based on water availability.

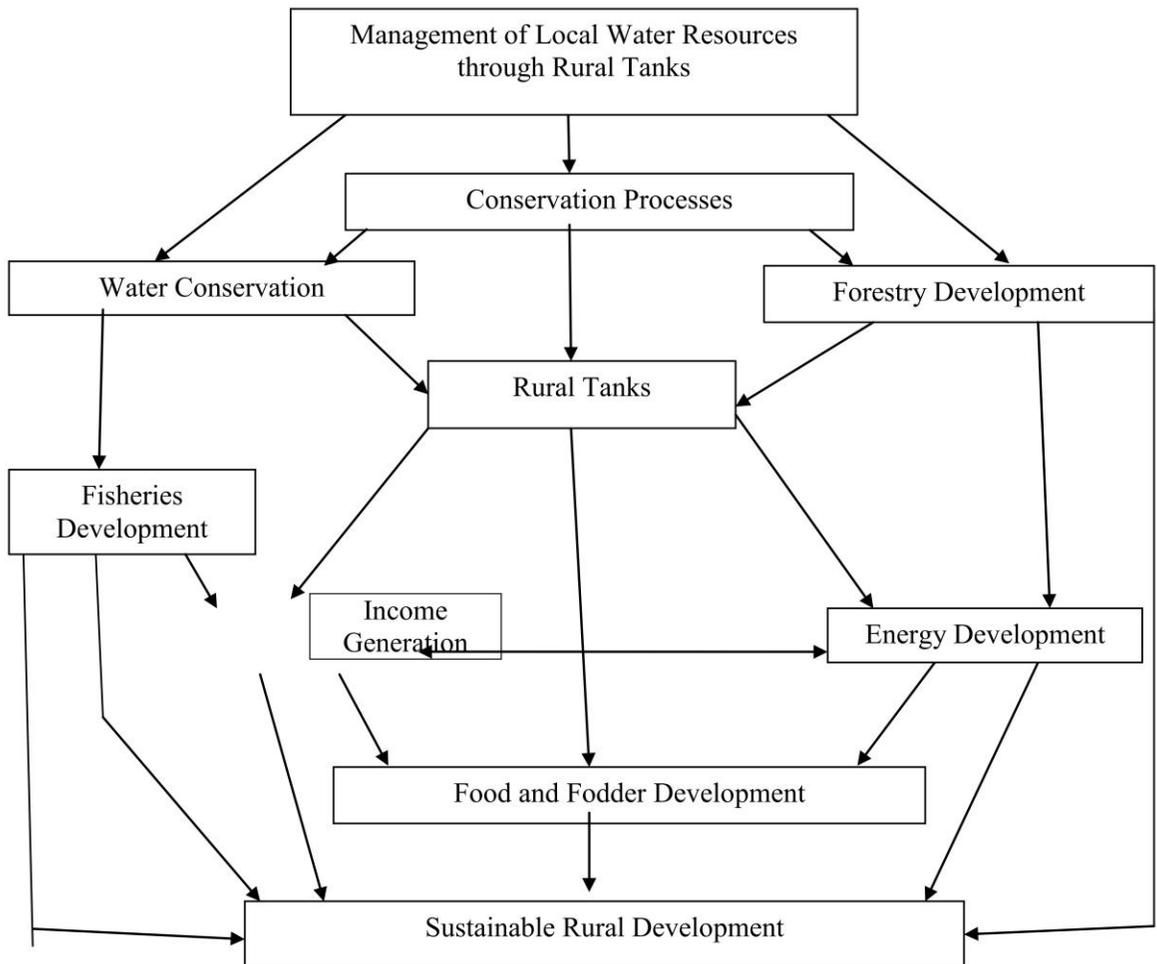


Encroachment in Tanks

Developing suitable rainwater harvesting methods, removal of encroachment in tank-bed areas, local people involvement to save the rural tank, the Encroachment mere geographical

concentration of irrigation tanks may be a necessary condition, but not a sufficient condition for effective utilization of the monsoon runoff for irrigating crops. In fact tank irrigation in most parts of the State is decreasing in area and in reliability.

Water is unevenly distributed and supplies are unpredictable. In most of the tanks, the full command area is not being irrigated. What are the reasons for this declining performance of the tanks in providing assured water supplies for irrigation? Some of the identifiable weaknesses of the tank irrigation systems are: silting of the tank beds, weak main levees, poorly functioning sluices, inadequate surplus weirs, poorly designed and maintained distribution systems, inadequate field channels, and seepage and drainage problems (Palanisami, K.; and Easter, K.W. 1983)



Local Water Resources Management through Rural Tanks for Sustainable Rural Development

Conclusion and Suggestions: Natural resources are called as common property resources of the villages, which is the backbone to rural economy. Likewise, rural tanks are the central to rural economy, society and culturality. Because, the rural tanks are the main source for the sustainable development of rural livelihoods and main impacts the tank maintain the equivalent management of natural resource. It is duty of every citizen of the country to protect and promote rural tanks as a gift of nature towards saving of living beings of the Earth.

Removal of encroachment on rural tanks is the urgent need for conserve development of agriculture and rural livelihoods. The government should be take action for encroachments. Similarly must continue to remove encroachment on successful approaches to involving the people participation that affect them at local, regional and state level.

$$ES = TUP + WD + DAR + LISD + VID$$

Where,

ES	-	Environment Sustainability
TUP	-	Tank's Users Participation
WD	-	Watershed Development
DAR	-	Development of Agricultural
LISD	-	Livestock Development
VID	-	Village Industrial Development

Hence, the model supports to promote the rural tanks' development through its users participation which determines the sustainable environment through rejuvenating all the natural resources that ensure the secured livelihood status for rural mass. This would turn into sustainable development of rural people through their effective participation, which gives total transformation in rural society as well as in rural eco-environmental system. A model comprising the participation of tank's users, watershed development, development of agriculture in order to achieve environmental sustainability directs to remove the encroachments on rural tanks. It is therefore conclude that rural tanks are the traditional based social, economic, cultural and environmental unit which determines the sanitation for the rural people. It should be protected by the efforts of rural people.

References:

1. A Monograph, P.Balamurugan (2016) "Local level Water Bodies and Environmental Sustainability: A Case of Rural Tanks in Tamil Nadu" Centre for Rural Development, Annamalai University, Annamalai Nagar
2. Balamurugan. P (2007) *An Appraisal of Rural Tanks and Their Need for Modernisation for Rural Development: A Study in Nallore Block, Cuddalore District, Tamilnasu*– A Ph.D. Thesis (unpublished), Annamalai University, Annamalai Nagar.
3. Gurunathan.A & Shanmugham C.R (2006) "Customary Rights and their Relevance in Modern Tank Management: Select Cases in Tamil Nadu" Paper prepared for the workshop entitled 'Water, Law and the Commons' organised in Delhi from 8 to 10

December 2006 by the International Environmental Law Research Centre (IELRC) in the context of the research partnership 2006-2009 on water law sponsored by the Swiss National Science Foundation (SNF)

4. Palanisami, K 2005 Sustainable Management of Tank Irrigation Systems in South India, Afrasian Center for Peace and Development Studies 67 Tsukamotocho Fukakusa Fushimi-ku, Kyoto, JAPAN
5. Palanisami, K.; and Easter, K.W. (1983) "*The Tanks of South India: A Potential for Future Expansion*". Economic Report: ER83-4, University of Minnesota, St. Paul, Minnesota.
6. Palanisami, K.; and Easter, K.W. 1983 The Management, Production, And Rehabilitation In South Indian Irrigation Tanks, Water management And policy workshop paper Organized by Khon Kaen University, University of Minnesota Colorado State Unvers
7. Sharma C.B.S.R (1998), Ecography of Small Water Bodies. A Study of Five Irrigation Tanks, Pondicherry University, Pondicherry