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EFFECTIVE LOCAL WATER MANAGEMENT IN VEERAPANDI VILLAGE: A COMMUNITY-DRIVEN APPROACH AND ITS ROLE IN BUILDING SOCIAL CAPITAL

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Abstract

This study delves into the effective local water management practices in Veerapandi Village, emphasizing the community-driven approach and its intricate relationship with the development of social capital. The village's water management system, orchestrated by a local organization, serves as a quintessential model of sustainable resource allocation and cooperative governance, with implications for the accumulation of social capital. Through in-depth interviews, meticulous observations, and a comprehensive analysis of historical data, this research uncovers the salient features and outcomes of this approach and explores its role in nurturing social capital within the community.

Keyword: Social Capital, Local Water Management, Sustainable Resource

Introduction

Social capital is a concept popularized by Robert Putnam that plays a significant role in understanding the dynamics of societies and their development. It encompasses various elements, including trust, norms of reciprocity, and social networks, and it has far-reaching implications for democracy, economic prosperity, and community cohesion. Here are some key concepts and definitions related to social capital as explained by Robert Putnam:

1. Social capital is related to the features of social organization. It refers to the way people are connected, interact, and cooperate within a society or community. These connections can take the form of relationships, networks, and institutions.

2. Trust: Trust is a fundamental component of social capital. It involves the belief that others will act in a way that is beneficial or not harmful to you. Trust fosters cooperation and reduces the need for formal controls and regulations.
3. Norms of Reciprocity: Norms of reciprocity refer to the unwritten rules and expectations within a community or society that encourage individuals to help each other and cooperate. These norms often involve the expectation that if you do something for someone, they will reciprocate in the future.
4. Networks of Civil Engagement: Social capital is closely tied to networks of civil engagement. This includes various forms of participation in community activities, civic organizations, and social groups. Engaging in these networks strengthens social ties and fosters cooperation.
5. Efficiency of Society: Social capital contributes to the efficiency of society by enabling coordinated actions and reducing transaction costs. When people trust each other and have strong social networks, it becomes easier to work together, share information, and solve collective problems.
6. Civic Virtue: Putnam suggests that social capital is related to the concept of civic virtue. Civic virtue involves individuals' commitment to the well-being of their community or society and their willingness to actively participate in civic life. Social capital enhances the impact of civic virtue by embedding it in a network of reciprocal social relations. (Putnam 2000: 19).

Dekker and Uslaner (2001): According to Dekker and Uslaner, social capital is fundamentally about the value of social networks. They emphasize two key aspects:Bonding Similar People: Social capital involves the creation of connections among individuals who are similar or share common characteristics. These connections, often referred to as "bonding" social capital, strengthen ties within homogeneous groups. Bridging Between Diverse People: Social capital also includes the ability to build connections between individuals from diverse backgrounds or groups. This type of social capital, known as "bridging" social capital, promotes interactions and cooperation across different segments of society. Norms of Reciprocity: Norms of reciprocity are a crucial element of social capital, as they encourage individuals to engage in mutually beneficial interactions and exchanges. James Coleman (1994): James Coleman's definition of social capital focuses on its function and its various forms within social structures: Social capital is not a singular entity but takes on different forms within the social structure of a society. These forms can include relationships, networks, and institutions. Social capital serves as a facilitator for the actions of individuals who are part of the social structure. It enables people to achieve their goals, whether those goals are economic, social, or political.

Coleman's perspective highlights that social capital is not a uniform concept but rather a diverse set of resources embedded within the social fabric, enabling individuals to act effectively within their respective networks and communities. The World Bank (1999): The World Bank's definition of social capital emphasizes its role in shaping the quality and quantity of social interactions within a society. Institutions, Relationships, and Norms: Social capital encompasses a range of elements, including institutions (such as organizations and associations), relationships (such as interpersonal connections), and norms (the shared values and expectations that guide behavior).

Objectives

1. To investigate the community-driven water management system in Veerapandi Village, with a focus on understanding its key components, principles, and functioning.
2. To assess the relationship between the community-driven water management approach and the development of social capital within the village.
3. The study intends to evaluate the outcomes of the community-driven approach, including equitable resource allocation, conflict resolution, and financial accountability.

Methodology

Literature Review: The research will commence with an extensive literature review, encompassing studies on community-based resource management, social capital, and sustainable agriculture. This review will provide a theoretical framework and context for the study. Fieldwork will involve visits to Veerapandi Village, where data will be collected through a combination of methods:

- **In-Depth Interviews:** Key stakeholders, including members of the local organization, common irrigators, and village assembly participants, will be interviewed to gain insights into the functioning of the water management system and its impact on social capital.
- **Observations:** Observations will be made during community meetings, water distribution activities, and interactions among community members to understand the dynamics of cooperation and social interactions.
- **Document Analysis:** Historical records, organization accounts, and documents related to water management will be analyzed to trace the development of the system over time.
- **Data Analysis:** Collected data will be analyzed using qualitative research methods, including content analysis of interviews, thematic coding, and triangulation of findings from different sources.

Theni District and Water Management:

Theni district is located in the southern part of the Indian state of Tamil Nadu. It is characterized by its unique geographical and environmental features, which have a significant impact on water management practices in the region. Varied Terrain: Theni district is known for its diverse topography, which includes both hilly areas and low-lying plains. The Western Ghats mountain range runs along the western border of the district, contributing to its distinct landscape.

The district experiences a monsoon-driven climate with a distinct wet season during the southwest monsoon and a drier period during the northeast monsoon. Rainfall patterns can vary significantly within the district due to its geographical diversity.Agriculture is a major economic activity in Theni district. The availability of water for irrigation is crucial for the cultivation of crops such as bananas, mangoes, and various spices.

Theni district may have a system of irrigation tanks. These tanks are essential for storing and distributing water for agricultural purposes, particularly during the dry season. In addition to irrigation tanks, the district may have canal systems that help in diverting and distributing water from rivers or other water sources to agricultural fields. Due to its hilly terrain, Theni district may also employ watershed management practices to conserve water resources, reduce soil erosion, and improve groundwater recharge.

Community Involvement:

Water management in Theni district often involves community participation and cooperation. Local farmers and community organizations may play a crucial role in the maintenance and operation of irrigation systems. Traditional knowledge and practices related to water management, passed down through generations, may influence how water resources are allocated and utilized. Depending on the annual rainfall and water availability, Theni district, like many other regions, may face challenges related to water scarcity during dry periods. Climate change can impact rainfall patterns and overall water availability, which may require adaptive strategies for sustainable water management.

In many villages across Theni district, as well as in neighboring Ramnad and Pudukkottai districts, local community organizations are actively functioning. These organizations are built around a fundamental unit known as "Kudi," which typically refers to a family living permanently within the village and recognized as a member of the village community.

The operational framework of the Kudi system is quite similar across these districts, with minor variations. In a typical village, two primary types of memberships exist:

- Farming Members : These are families that own and cultivate land within the village. They hold the status of farming members within the community.
- General Members: These families do not possess land in the village and are considered as general members.

The general definition of a Kudi is a family, often a married couple, that has resided in the village for at least one year, either in a joint family setup or as a nuclear family. Many villages maintain a Kudi register to keep track of their members. New members are typically admitted into this community during the month of September.

Responsibilities and contributions of Kudi members vary based on their category:

Farming Kudis: These members, who own and cultivate land, are typically required to contribute resources such as cash, grains, or labor for the management and maintenance of irrigation tanks, as well as for the general village fund. In return, they are entitled to a share of the tank water for their agricultural needs.

General Kudis: Families falling under this category are expected to contribute to the village's general fund but do not have access to a share of the tank water. However, they enjoy all other privileges associated with common facilities and resources within the village.

In Theni district, similar to other parts of the region, the concept of "stature" or social standing is influenced by various factors, including cultural, economic, and social dynamics. Here's an overview of how stature is perceived and understood in Theni district:

Economic Status: Economic standing plays a significant role in determining one's stature in Theni district. Individuals or families with substantial wealth, productive agricultural land, successful businesses, or stable sources of income often enjoy higher social standing and influence within their communities. Land ownership is highly regarded in agricultural communities like Theni. Those who own and cultivate fertile land are often held in high esteem, as agriculture is a primary livelihood source.

Community Involvement: Active participation in community activities, local governance, and social organizations can enhance one's stature. Individuals who contribute to the welfare and development of their villages are often respected community members. Local cultural norms and traditions have a substantial impact on social standing. Those who adhere to and uphold cultural values and customs may be viewed with greater respect. Ultimately, social stature in Theni district is often determined by how one is perceived and recognized by their peers and community members. It's a combination of personal achievements, reputation, and the impact one has on the community. Gender roles and expectations also play a role in determining social stature. In some cases, traditional gender norms may influence the perceived status of individuals within the community.

Leadership and Influence: Individuals who hold positions of leadership or authority in the community, whether in religious institutions, local councils, or other influential roles, tend to have higher stature. Respect for elders and the wisdom that comes with age is a common cultural value in Theni district. Older individuals are often afforded higher social stature due to their life experiences and knowledge.

Ecological Profile of the Village

As of the 2001 India census, Veerapandi had a population of 14,248. Males constituted 52% of the population, while females made up 48% of the total residents. Veerapandi boasted an average literacy rate of 65%, which was higher than the national average of 59.5%. The male literacy rate was notably higher at 75%, while the female literacy rate stood at 54%. Approximately 11% of the population in Veerapandi was under the age of 6 years.

Veerapandi is known for its cultural and religious heritage, with several temples and religious sites in the area. Veerapandi Gowmari Amman Temple, A significant annual event in Veerapandi is the Chithirai Gowmariamman festival, celebrated over 8 days. This tradition spans from the last Tuesday of the Tamil month Chithirai to the first Tuesday of the next Tamil month Vaikasi, typically falling in the month of May. The festival is renowned and attracts devotees from across the country who come to participate in the celebrations.

The Kudi system serves as a form of family membership within the Local Community Organization. Families that possess land in the irrigated areas of the tank are referred to as "farming Kudi," while families without land are termed "general Kudi." In the past, Scheduled Caste (SC) families were not part of the Kudi system. However, recent years have seen a change in this practice, with SC families that own land in the irrigated area being admitted into the Kudi system.

Veerapandi village maintains a Kudi membership register to keep track of its members. This register is updated annually, typically in the month of July.

Village Assembly

The Kudi members collectively form the village assembly, which serves as a critical decision-making body within the community. The village assembly convenes approximately ten meetings throughout the year. The village assembly also includes a village executive committee, responsible for the day-to-day management of various village affairs, including those related to the irrigation tanks.

The executive committee was traditionally composed of leaders from prominent families in the village. A new system has been introduced, involving the selection of executive committee members through a rotation process. Members are chosen for one-year terms.

In the month of September, the village assembly selects five individuals to serve on the executive committee.

Executive Committee Responsibilities

The executive committee's responsibilities encompass a wide range of tasks, including the collection of contributions, ensuring active participation in activities related to tank maintenance, overseeing the equitable distribution of water resources, and managing water scarcity situations.

Overall, the LCO system in Veerapandi village, akin to other villages in the region, plays a vital role in community governance, resource management, and decision-making. It reflects a combination of traditional practices and evolving approaches to inclusivity within the community.

Functions of Kudimaramathu

- Clearance of Supply Channels: Kudimaramathu primarily focuses on clearing supply channels to ensure the uninterrupted flow of water to agricultural fields.
- Desilting the Sluice Areas: The community also desilts sluice areas, particularly around the sluices of the supply channels, to maintain their efficient operation.
- Clearance of Field Channels: Field channels, responsible for delivering water to individual fields, are also cleared as part of Kudimaramathu.

Planning and Execution:

- A special meeting is convened before the monsoon season to plan and coordinate Kudimaramathu activities.
- During this meeting, the date and time for the work are decided, aligning with the agricultural calendar.
- Typically scheduled for August, the clearance of supply channels is a collective effort involving every Vivasaya Kudi (farming family) in the village.
- Each farming family must send a representative with the necessary tools for the task, and both men and women are encouraged to participate.
- In cases where a family cannot send a representative, they have the option to send a laborer as a substitute.

- On the designated day, the community comes together to efficiently clear the supply channels, ensuring the sluices are in good working condition.
- Similar efforts are directed toward clearing field channels, preparing them for effective water distribution during irrigation.

Kudimaramathu in Veerapandi village exemplifies the spirit of cooperation and shared responsibility among residents, ensuring the reliable functioning of their irrigation system, vital for the village's agricultural activities.

Collective Decision-Making

To maximize the economic use of water and prevent crop failure, farmers in Veerapandi practice collective decision-making regarding water distribution. This decision-making takes place within the village assembly, which serves as a key forum for discussions and planning.

The village assembly takes on several key responsibilities, including deciding the date for opening the sluices, a crucial step in initiating water distribution.

It appoints two common irrigators, individuals with experience in water management. These common irrigators play a vital role in ensuring efficient water distribution to all fields served by the tank.

Benefits of Common Irrigators

Common irrigators relieve individual farmers of the direct responsibility of irrigating their own farms. This delegation of responsibility to experienced individuals helps optimize water use, promoting both efficiency and economy. These experienced common irrigators are well-versed in the rules, regulations, and customs related to water distribution. They use their expertise to ensure fair and equitable water allocation, particularly during periods of water scarcity.

Conflict Resolution and Oversight

The presence of common irrigators reduces conflicts among farmers over water use, especially in times of limited water availability. Common irrigators, being accountable for their role, collect wages from farmers and are motivated to ensure proper water distribution.

The performance of common irrigators is closely monitored by the farming community, and any deficiencies or mismanagement are promptly reported to the village executive committee for corrective action.

Effective Water Management through Local Organization

In Veerapandi village, efficient water management is crucial to mitigate water scarcity and minimize the risk of crop failure. The community relies on its local organization, which has been developed and refined by the stakeholders over time. Here's how this organization operates to ensure fair water distribution and effective resource management:

The village's organization is fully autonomous, with no external control. Community members are confident that their organization operates independently, allowing them to maintain control over their resources. The organization ensures that those who do not contribute are not entitled to enjoy the benefits generated through the contributions of rule-abiding participants. This principle prevents free-riding, motivating everyone to

participate and contribute. The organization is controlled by the stakeholders themselves, meaning that all decisions are made by those directly affected by them. This decentralized approach empowers the community to shape its water management practices. The appointment of common irrigators reduces individual farmers' expenses and minimizes conflicts over water sharing. These experienced individuals help ensure fair and efficient water allocation. The Kudi system establishes a direct link between contribution and resource sharing. Those who do not participate in maintaining the irrigation tank do not receive water from it. This assurance promotes positive behavior and cooperation for the collective good.

The organization guarantees equal water distribution among all Kudis in times of scarcity. This safeguards the interests of marginal farmers, ensuring that every Kudi can expect a minimum paddy harvest even during water-scarce years.

Decision-making processes within the organization are straightforward, transparent, and agile enough to meet the community's needs. The absence of a separate bureaucratic structure minimizes transaction costs and limits opportunities for corruption.Financial matters are closely monitored. The village assembly sanctions expenditure, and organization accounts are thoroughly discussed within the assembly. This transparency reduces the possibility of misappropriation of funds. The executive committee's one-year tenure and rotating membership prevent any single individual from exerting undue influence over organizational affairs. This system promotes shared leadership and prevents dominance.

Findings:

1. Community-Driven Water Management: Veerapandi Village's water management system is entrenched in a locally developed and fully autonomous organization.
2. This community-driven approach empowers stakeholders to make decisions collectively, ensuring that the organization remains impervious to external control. This, in turn, lays the foundation for the accumulation of social capital.
3. The relationship between contribution and resource sharing fosters a profound sense of responsibility and cooperation among participants, bolstering the social capital of the community.
4. The appointment of common irrigators has proven instrumental in optimizing water distribution. These seasoned individuals not only reduce farmers' financial burdens but also act as mediators, mitigating conflicts over water sharing. Their presence contributes to a harmonious and cooperative atmosphere, which is integral to the formation of social capital.
5. During times of water scarcity, the organization guarantees equal water distribution among all Kudis, thereby safeguarding the interests of marginal farmers. This assurance not only prevents crop failures but also reinforces a sense of trust and reciprocity among community members, enhancing social capital.
6. The decision-making processes within the organization are characterized by transparency, simplicity, and agility. This reduces transaction costs and diminishes opportunities for corruption, ultimately enhancing trust and social capital.

7. Financial matters are rigorously monitored, with expenditure sanctioned by the village assembly and organization accounts scrutinized transparently. This high level of accountability not only ensures responsible financial management but also nurtures social capital through trust and shared responsibility.

8. Rotating Leadership: The executive committee's one-year tenure and rotating membership prevent any individual from monopolizing organizational matters. This system fosters shared leadership, cooperation, and inclusivity, all of which contribute to the growth of social capital.

Conclusion

Veerapandi Village's community-driven water management approach not only exemplifies a sustainable and equitable model but also serves as a catalyst for social capital accumulation. It reinforces cooperation, responsibility, transparency, and trust within the community, highlighting the intrinsic connection between effective resource management and the development of social capital.

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