

EQUITABLE FOOD TERRITORIES IN TAMIL NADU

THE CASE OF THE JAWADHU HILLS

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Abstract

Globally, food democracy is a concept with growing influence in food research. Food democracy deals with how actors may regain democratic control over the food system enabling its sustainable transformation. Following the empirical-level perspective framework's connotations, food democracy research has mainly focused on the gross root level of the food system. The qualitative approach includes the perspectives of both the policies and the empirical. This present study addresses this research gap and proposes an alternative way for food democracy that includes actors from the empirical level. Furthermore, the study applies the tribal communities' food system of Jawadhu Hills to explore the deeper meaning and practice of food democracy. The data collection of this study conducted semi-structured interviews, case studies, and focus group discussions with actors in 60 interviews on tribal community food systems, very specifically focusing on the millets and agriculture practices, and ecological conditions. The interview finds that research broadens the perspective on food democracy and illustrates actors' contributions such as promoting alternative livelihoods, innovations in agriculture, especially under rainfed conditions, traditional food, re-localizing food provision, and procuring environmentally sustainable public food, barriers to food democracy were also identified, e.g.: actors' self-enhancement values, market orientation, and capitalist alignment or lack of transparency. Further, this study contributes to a process of ongoing changes that occurs in the transformation of established structures within the food system.

Background and context of the research

The project's crossed approach revolves around food democracy and food sovereignty in Tamil Nadu. It will be a question of identifying and studying territorial food systems that guarantee both the agricultural and gastronomic culture of Indian regions (heritage food dimension), and food production (or not) capable of supporting the peasant communities with dignity (international solidarity dimension), and this under environmental conditions that guarantee the quality of agricultural products, soils and water resources (ecological dimension). The concepts of short circuits, PAT, food justice, land justice, peasant autonomy, and the fight against the penetration of imported foodstuffs which increase dependency ... are therefore at the heart of the project. These themes will be confronted with the redeployment of food regions due to the food crisis and climate change. Research is therefore moving towards the characterization of territories capable of supporting prosperous and/or self-sufficient agricultural societies living with dignity from their work, of providing quality products in connection with the food and agrarian culture of the sector, of establishing exchanges with nearby terroirs (peri-urban, urban and other agricultural lands) built on equity and ecological performance.

Theoretical Background

The International Peasant Movement La Via Campesina coined the phrase "food sovereignty" for the first time in 1996 at the World Food Summit. It is simply the right of the people, nations, states, and unions to choose their own agricultural and food policies. The basic objective of food sovereignty is to develop a food system that benefits both people and the environment rather than maximizing profits for international corporations.

Food sovereignty refers to people's rights to wholesome, culturally acceptable food produced using sustainable, ecologically friendly practices as well as their freedom to design their own food and agricultural systems. A movement that addresses the inequities in the food system. Fighting for women's rights, against land grabs, and against the spread of genetically modified organisms (GMOs) is how it defined food sovereignty. Instead of placing profits for the

markets and businesses at the center of the food systems, food sovereignty places those who produce, distribute, and consume food first.

Food security and food sovereignty are distinct in certain ways. On the one hand, food sovereignty is rooted in grassroots food movements and advocates for a democratically run food system that incorporates input from the populace, hence enhancing their position in the system. On the other hand, food security attempts to safeguard and distribute the current food systems. Food sovereignty is a means of achieving food security, which is a goal.

Food sovereignty basically includes:

- Prioritizing local agricultural productions, access of peasants and farmers to land, water, and soil, need for land reforms, and fighting against Genetically Modified Organisms (GMOs).
- The rights of farmers to produce food and the rights of consumers to decide what to consume.
- The rights of countries to protect themselves from very low-priced agricultural and food products.
- The involvement of the population in policy decisions.
- The recognition of women farmers' rights, who play an essential role in the agricultural sector.
- Fighting against the neo-liberal policies which prioritize international trade over people.

Food Sovereignty is not a universal silver bullet solution but the democratization of food production which can be further developed and adapted to other conditions. The first six pillars of food sovereignty were developed at the International Forum for Food Sovereignty at Nyeleni, Mali in 2007. And the seventh pillar was added by the members of the Indigenous Circle during the People's Food Policy Process. These seven pillars are as follows:

- **Focus on food for people:** It puts people's need for food at the center and states that food is not just a commodity.

- **Build Knowledge and Skill:** It uses research as a tool to empower and pass knowledge to future generations and also discards those technological developments which threaten the environmental balance.
- **Work with nature:** It means optimizing the contribution of the ecosystem and improving **resilience**.
- **Values food provider:** It means supporting sustainable livelihoods and respecting everybody's work.
- **Localizes food system:** It reduces the distance between food producers and consumers and also withstands or reduces dependency on distant and unanswerable corporations.
- **Encourages Local control:** It places control in the hands of local food producers and combats the privatization of local resources.
- **Food is sacred:** This principle recognizes that food is not just a commodity but a gift of life and should not be dissipated or wasted.

The systematic transformation in all aspects can lead to horizontal spread and further scaling up of Food Sovereignty, which includes these four aspects of change.

- **Ecological:** Waste and water management to achieve Sustainable Development Goals within particular territories.
- **Economic:** Introducing unbiased and just forms of economic organization for farmers and peasants and also enhancing their security in the sector.
- **Political:** It basically involves increasing gender participation in the reciprocal co-production of knowledge, institutions, and policies for the democratic and fair governance of food systems.
- **Search for new modernity:** It includes repudiating the notion of progress as an ever-expanding process of commodification of nature and social relations, which leads to exploiting nature to its very core. Also trying our level best to fulfill our desired goals and aspirations.

Food Sovereignty in India

The ability to govern food production, distribution, and consumption is known as food sovereignty. Workers, farmers, consumers, and even activists can band together and fight for a cause through the movement for food sovereignty. Clearly, traditional food and agricultural development is being replaced by a radical alternative called "food sovereignty." This idea has evolved over the past 20 years from being on the periphery of a community to the focal point of debates on an international scale. Food sovereignty movements have also existed in India. Food sovereignty is still important today and is seen in many facets of daily cultural, social, and physical life. It also stands in opposition to the colonial past, which has long harmed people. Food sovereignty has always been a pressing topic. Despite the fact that Indians are so closely tied to their food, little food sovereignty exists in the nation. The food's safety features and the serious repercussions of ignorance are unknown to either the producer or the customer. (Aayushi Gupta, 2020).

Food Democracy

The notion of food democracy, which is at the core of this thematic issue, is concerned with the problematization and transformation of existing structures, processes, and practices of food governance, i.e., how common and collectively binding goals are formed, accepted, and carried out. According to a food democracy perspective, implementing democratic values and procedures in food governance is essential to reconstructing the food system.

Tim Lang (1999), a professor at London City University and former farmer, is credited with popularising the term "food democracy" in the late 1990s. The emergence of food democracy, according to Lang (1999, p. 218), stretches back to the industrialization of the 19th century in England and other nations, when demands for adequate, inexpensive, and safe food were made as part of early welfare measures. Further, according to Lang, the phrase now primarily refers to a concept that is in opposition to the current system of food governance,

which Lang characterizes as involving various forms of "food control." First, there are processes of centralization and concentration in the food industry, where a few large multinational corporations dominate the food markets at the expense of smaller businesses and small farmers (Lang, 1999).

Unprecedented productivity in the globalized food system of the twenty-first century is seen by some as a key component to ensuring food security and reducing hunger around the world. Others, however, draw attention to significant detrimental social and ecological effects. It is believed that current methods of food production, distribution, and consumption are not only unfair but also harmful to the environment and human livelihoods. Millions of people suffer from food insecurity and malnutrition, livelihood crises, environmental destruction brought on by resource- and fossil-fuel-intensive production and distribution, as well as degenerative diseases linked to the Western lifestyle's diet being high in fat, sugar, and processed foods. All of these issues are exacerbated by the current exploitative economic relations. Various alternative food system visions articulate these critical viewpoints on the current food system (Bornemann & Weiland (2019).

The citizens who are affected by food issues should shape the food systems in accordance with their ideas and interests in a democratically organized process of will formation and decision-making rather than profit-driven multinational corporations and international networks of scientific and administrative experts who are making crucial decisions regarding the food system without a clear democratic mandate and decision-making. There is a lot of hope behind food democracy that such change will be possible through the democratic process. Its fundamental tenet is that all individuals may meaningfully influence local, global, and national food systems. They understand that eating is politically correct (Bornemann & Weiland, 2019).

Conceptual Framework: Tribal agriculture

Tribal agriculture has special characteristics where the application of the indigenous knowledge of the tribes plays a significant role. Tribal agriculture is characterized by small landholding and low yields hence it is being practiced mostly in undulated high land that suffers from problems such as soil erosion and lack of soil fertility. Lack of practices of soil and water

conservation, lack of exposure to and knowledge of improved agricultural techniques, and low investments along with crippling indebtedness have rendered tribal agriculture to remain mostly precarious at the subsistence level.

Indigenous Tribal Agricultural Practices have long supported intensive farming without significantly degrading the land or reducing crop productivity. The Malayali tribes of Tamil Nadu's had a strong agricultural legacy and tradition (Venkatesan, et al. 2016). In particular, they are well-versed in the post-harvest and cultivation processes for tapioca (*Manihot esculenta* Crantz) and paddy (*Oryza sativa* Linn.) Within the community, indigenous wisdom has developed and been passed down from one generation to the next. Scientific communities are starting to acknowledge the contribution that indigenous knowledge makes to the production of sustainable agriculture in poor nations. However, tribal women are renowned for having a richness of local knowledge. To determine the level of the adoption of specified indigenous farm practices in paddy and tapioca (Natarajan, M., & Govind, S. 2006). Crop production or pest control among the Malayali tribe has analyzed the pest control activities adopted by the tribals envisioned pursuing organic agriculture in the light of the hazards of chemical pesticides posing serious threats to human, animal, and environmental life (Narayanasamy, 2006).

On the other hand, according to the Government of Tamil Nadu, the Department of Agriculture (2017, 2018) report gives that millet provides multiple security such as food security, fodder security, health, nutritional security, and livelihood security. Major millets varieties such as Sholam (Sorghum), Cumbu (Pearl Millet), Ragi (Finger Millet), Makkacholam (Maize), and other minor millets such as Thinai (Foxtail/Italian Millet), Varagu (Kodo Millet), Samai (Small Millet), and Kudiraivali (Barnyard Millet), etc are cultivated in an area of 7.54 L.Ha. with the normal production of 25 L.MT. The millets are widely cultivated in Villupuram, Cuddalore, Salem, Namakkal, Tirupur, Erode, Perambalur, Ariyalur, Theni, Dindigul, Virudunagar, Tirunelveli, Thoothukudi, Tiruvannamalai, Dharmapuri, and Krishnagiri.

To improve the production and post-harvest technology in an integrated manner with visible impact to catalyze increased production of millets, the Government has evolved result-oriented strategies such as distribution of certified seeds, distribution of improved varieties/hybrids as mini-kit, seed production, and sensitizing the farmers on various local and indigenous technologies, supply of critical inputs, generating consumers demand millet; based

food products through awareness creation and processing and value addition techniques which will be implemented in a massive way under various ongoing/new programs such as National Food Security Mission for coarse cereals and implemented in 10 districts viz., Salem, Coimbatore, Dharmapuri, Krishnagiri, Tiruchirapalli, Perambalur, Tirupur, Dindigul, Theni, and Thoothukudi. During 2016-17, an amount of Rs.8.22 Crore has been spent on the promotional activities of millet cultivation. The scheme will be continued during 2017-18 also. Similarly, an amount of Rs.2.69 Crore was spent during 2016-17 under NADP and the amount of Rs.4.00 Crore has been allotted during 2017-18 to augment millet production.

Review of literature: Overview of the relevant literature review

Anderson's (2023) study analyzed the expansion of the food democracy which deals with the Food democracy can be an approach to challenge capitalist dominance in the food system and promote public awareness of options other than buying food from a small number of consolidated food companies. However, in order for food democracy to advance democratic goals, it needs to support the development of these substitutes as transformational spaces work to include underprivileged people in the governance of the food system and make sure that public forums for discussion of the food system are active and respected by public institutions.

López Cifuentes & Gugerell (2021) focuses on the idea of food democracy is gaining ground in the field of food research. How actors may reclaim democratic control over the food system in order to transform it sustainably is the topic of food democracy.

Tilzey (2019) argues that food democracy should include elements that are similar to "radical" food sovereignty, a political programme that challenges the fundamental social relational foundations of capitalism, for the purpose of effectively resisting capitalist hegemony. Food sovereignty must be achieved through addressing "economic" unfreedom, by challenging capitalist social-property relations, as "food democracy" discourse is still limited to this degree of "political" freedom. Although, capitalism is supported by three tenets: primitive accumulation, unrestricted property rights, and market dependency. These tenets are integral to a larger, more comprehensive drive towards livelihood sovereignty.

Sampson et.al, (2021) discuss that food security and adequate nutrition (FSN) can be attained by upholding both the right to food and food sovereignty. This looked at academic

publications and unpublished works that describe empirical connections between the right to food or food sovereignty and FSN and were published between 1992 and 2018. Further, addressing disparities in land access, challenging the trend of land consolidation, and, among other things, "Promoting gender equity" has been analyzed.

Resler & Hagolani-Albov (2021) focuses on the integration of some important aspects of the concept of food democracy with the already-existing conceptual framework of food sovereignty that permeates the emerging conceptualization of agroecological urbanism, research advances the paradigm of distinctly urban agroecology. Further, a succinct explanation of the ideas of food democracy and sovereignty, as well as how they relate to agroecological urbanism today was explored.

Thompson, et.al., (2020) describe the conditions necessary for such a novel approach to food governance. This study concentrates on themes including social justice, equitable distribution, supporting livelihoods, nutrition and health, and the environment. Other products, such as the interests of nonhuman creatures, are not now protected. It also, suggests that this should be accomplished through democratic, deliberative processes that take into account the interests of all parties involved at the local, national, regional, and international levels. Perspectives to continuing discussions on the benefits and drawbacks of present theories of the world food system were argued. Arguments for food democracy over food justice or for food sovereignty over food security should be made instead.

Gunaratne, (2021) the study looked at concerns related to food security and climate change and evaluated how food sovereignty helps deal with the effects of climate change on the overall food system. It identified potential routes toward food sovereignty in the context of policy reforms and concentrated on many of the most important challenges. Also, the literature review addresses the existing gap and indicates that climate change has negative effects on food security worldwide, growing poverty, hunger, and malnutrition, which disproportionately affect emerging countries and the poor and marginalized people.

Gliessman, (2019) analyzed that the concept of "levels" for the transition to sustainable food systems is explained by agroecology. Agroecology must be connected to movements for food sovereignty if we accept that it encompasses social and political aspects of regulating

territorial food systems. That conflict is suggested to be actively embraced by the agroecological and food sovereignty movements as a dance of appropriation and innovation.

Anderson, et.al., (2022) agroecology has been suggested as a fundamental component of food sovereignty which examines the definition, applications, and potentials of "transformative agroecology learning" as a group technique for changing the food system. Developing the European Agroecology Knowledge Exchange Network analyzed through qualitative and participatory research with the European Coordination of Via Campesina. It is also examining how a transformative agroecology education may be made stronger as a vital tool in social movements' arsenals for promoting food sovereignty. This research contributes to the development of a new theory of transformational agroecology learning based on four important elements: horizontalism, wisdom dialogues, merging political and practical knowledge, and social movement network building.

Thiemann, & Roman-Alcalá, (2019) illustrates the vision for a different, more environmentally friendly food system based on increased democratic control over food production and distribution has been developed under the umbrella term "food sovereignty." This study further analyses current conceptions of fast food looks at the history of the industry, and looks at how food sovereignty might operationalize its principles in circumstances where fast food is a definite necessity. This study finds the existing research gap on particular practical and the overwhelming need for food options served under time constraints.

Siebert, (2020) This research sheds light on how urban food producers support the development of food sovereignty in unexpected urban contexts in the Global South. The lives of marginalized urban residents in South Africa are being shaped by jobless de-agrarianization, the legacy of apartheid, and increasing food price inflation. Urban food movements have started to speak out against socioeconomic injustice after closely examining these changes. People's perspectives on different, grounded-in-reality perspectives for how land and food are organized are suggested.

Adelle (2019) argued the role of knowledge in food democracy, that a key element of food democracy is enlarging the democratic scope of knowledge on which our food decisions are based. Food democracies urge all stakeholders to actively contribute to the comprehensive

understanding of the food system, not merely for citizens to be knowledgeable about it. The following four aspects of knowledge democracy are listed: Knowledge as a vehicle for action, co-production of knowledge with stakeholders, exploitation of non-cognitive knowledge embodied in arts and culture, and open access to and sharing of knowledge. According to the article, universities and other recognized hubs of knowledge production should concentrate on developing new knowledge collaborations as well as venues where people can question and alter conventional ways of thinking in order to better advance food democracy.

Objectives

- To examine the ecological quality of soils and irrigation water in agricultural areas,
- To identify the structures of agrarian landscapes and crop rotations,
- To explore the links between agricultural practices, the structure of agrarian societies, food habits, and quality of life of rural communities.
- Joint analysis of production and food systems, with the kitchen as political space.

Methodology

The study will be conducted as a part of a PATAMIL project. The project focuses on the cultivation, production, value addition, consumption, and promotion of millets using qualitative approaches such as Ethnography, Interviews, Case study, Focus group Discussion, and Participatory observation.

Research Design

Data Collection Methods

Intensive fieldwork will be conducted, it is an investigation where the researcher resides in or visits the area of interest for extended periods of time at least a year and collect firsthand knowledge, and gathers data. Fieldwork is "the study of people and their culture in their natural habitat,". The present fieldwork was initiated in the Veerapanur village and there are about 60 interviews were conducted and the rest of the interviews were in progress.

Sample selection

The study selected three villages on the basis of a random sample. The purpose of the random sample used is to explore the uncertainty, from the ground level, the qualitative data will

be collected randomly. The main aim of using the random sample is to give an equal probability and unbiased representation of the total population

- Veerappanur consists of 784 households and 3269 population in the village
- Melthattiyapattu consists of 54 households and 240 population in the village
- Thekkumarathur consists of 250. The total population of the study is 3759, out of this population the confidence level of the study is 95 %. The sample size would need to be 350. This sample was derived from the consultation of the statistician.

Study Area: Jawadhu Hills

Jawadhu Hills is an extension of the Eastern Ghats and is spread across the Vellore and Tiruvannamalai districts in the northern part of the state of Tamil Nadu. The Jawadhu Hills are the highest mountains in this region. The general elevation of the Jawadhu Hills is 2500 ft with peaks rising up to 4200 ft. The district is extended up to Tirupathur taluk on the eastern part, the north-western portion of Chengam taluk, and the western part of Polur taluk with spurs running into Vellore taluk up to 9 km. Kalrayan Hills range is on the southern part of Chengam taluk. The North-Western part of the region covers portions of the Eastern Ghats and their spurs. The Hills in Tiruvannamalai and Pavala Malai at Polur taluk are famous for their spiritual sanctity. The Jawadhu hills come under the Taluk of Polur and it has 11 Gram Panchayats. The total population as per the 2011 census is about 51999 in that male 26483 female 25516. The total number of inhabited villages is 38. The total area is 13796.04 hectares, cultivable area to total area is 50.18 %, Percentage of irrigated area to total cultivable area is 11.98.

List of Villages, Jawadhu Hills, Tiruvannmalai Districts

S.No.	Name of the Taluk	Name of the Villages	Total House Holds Census 2011	Total Population Census 2011
1.	Polur	Amirdee	360	1491
2.		Eriyur	1039	4239
3.		Erumaiyanur	19	86
4.		Kanamalai	276	1091

5.		Kizkanavayur	135	579
6.		Kizhattiyapattu	25	114
7.		Kovilur	3141	12553
8.		Kuttakarai	304	1180
9.		Mandaparai	269	1222
10.		Melchippili	129	526
11.		Nammiyampattu	877	3983
12.		Neepalampattu	49	220
13.		Odamangalam	170	758
14.		Pattarikadu	143	529
15.		Pudupattu	225	812
16.		Puliyankuppam	295	1125
17.		Seengadu	251	898
18.		Senbagathope	319	1262
19.		Thumbakkadu	348	1325
20.		Veerappanur	784	3269
21.	Chengam	Athipattu	42	164
22.		Bandirev	189	872
23.		Chinnakilpattu	57	220
24.		Erukambattu	58	248

25.		Kallathur	352	1499
26.		Kilaiyur	266	1124
27.		Kilpattu	91	365
28.		Kilthattiyapattu	19	78
29.		Melpattu	82	321
30.		Melsilambadi	579	2575
31.		Melthattiyapattu	54	240
32.		Nellivoy	109	410
33.		Padapanjamarathur	257	1112
34.		Pelamarathur	821	3484
35.		Perumuttam	66	247
36.		Puliyur	113	467
37.		Urgoundanur	270	1116
38.		Vannankuttai	39	195
Total			12622	51999

Out of 38 villages, 24 villages have no Scheduled Caste Population.

Study Population: Malayali Tribe

The total population of the Scheduled Tribe (ST) in Jawadhu Hill is 47081 (90.54 %). The sex ratio of the *Malayali* tribe of the Jawadhu Hills is about 966. The 2011 census of India's district profile denotes that the educational level has been divided into two categories literate and illiterate. Illiterate's males are 13555 and females 17641. Literacy rate males 57.18 % and

females 35.5 %. The literacy gap between males and females is 21.68. Jamuna Maruthur is a town at the top of the hills which is a trading place for the entire tribal population in the Jawadhu hills. Malayalis are one among the 36 Scheduled Tribe (ST) who constitute 45.6 % of the total tribal population in Tamilnadu. According to the 2011 census, their population is 3,57,980 and the total tribal population is 7,97,697 (1.1). Malayali tribes are the numerically dominant tribe in Tamilnadu and distribute across the Eastern gardens of Jawadhu Hills, Kolli Hill, Arunuthumalai, Pachamalai, Kalavarayan Hill, Sitheri Hill, Yercaurd Hill, Yelagiri, Neiyyamalai, and Shervaroy hill.

Data analysis procedures

The checklist was prepared based on the pilot study. This checklist will be employed to examine the various factors that influence the complex value chain of millet-based foods like porridges from grain procurement to consumption, agriculture, agricultural practices, the structure of agrarian societies, food habits, and quality of life of rural communities, agrarian landscapes and crop rotations, livelihoods, and migration. The collected data will be analyzed by using qualitative software.

Findings and Discussion

Livelihoods: Agriculture and Migration

Malayali tribal communities are traditionally engaged in agriculture. Their primary livelihoods are agriculture and its allied activities. 99 % of the farming land is rainfed. Due to changes in climatic conditions, they don't find a subsistence economy. However, they do six months of agriculture and another six months of seasonal migration as livelihoods. Malayali tribes are cultivating millets (Samai, Ragi, Kodo millet, Fox tail, Pearl, Sorghum, Maize,), tapioca, pulses (Horse gram), paddy, Jackfruits, Mangos, cotton, gherkin, vegetables like beans, tomatoes, lablab etc.

Food Consumption Pattern: Stable food Millet and Rice, Pulses (Horse gram, Mochai, Avarai, Pigeon Pea, etc...). Weekly once or twice millets are consumed.

Millet Porridge (Koozh) Millet porridges, locally known as koozh, have been part of the traditional diet in Jawadhu hills. The growing health awareness and increased prevalence of type

2 diabetes among urban populations have recently made pearl millet (kambu) porridge and finger millet (ragi) porridge popular among the mainstream population. The preparation process for both types of millet porridge is fairly laborious requiring a number of value-adding processes. Firstly, the millet grains must be boiled in leftover rice water, and the thick mixture left overnight to ferment.

Charles Pon Ruban, Mini Joseph, ManjunathK, NihalThomas, John J, and Jasmine Prasad, (2019) analyzed the food and nutrient intake of the tribal population is largely affected by the geographical site, climatic condition, accessibility to food markets, and forest produce. However simple agricultural practices often lead to food scarcity resulting in undernourished populations. In addition, the lack of basic health facilities and improper health-seeking behaviors makes them prone to various morbidities.

Low fruit and vegetable intake accounts for about 20% of cardiovascular diseases worldwide. The WHO recommends increased consumption of fruits and vegetables, legumes, whole grains, and nuts; limiting the energy intake from total fats, free sugars, and salt.

The nutritional data indicates that this population consumed three major meals per day. Public Distributive System (PDS) rice was the staple food and constituted the major component in all three meals. The high fiber millets like ragi were consumed once or twice a week by 99% of the population and resulting in the consumption of millets being reduced.

Wheat was consumed occasionally by 58% (once in two months) of the population while the remaining population did not use it at all. Fermented cereal products like idly, and dosa were popular as breakfast items in selected villages. However, the majority of the subjects consumed rice and lentils for their three meals.

The intake of protein foods was inadequate. Horse gram was the popular pulse which was cooked into a thin gruel and consumed on a daily basis by 95% of the population. More than three-fourths of the population consumed animal proteins (milk, pork, goat meat, eggs, and fish) occasionally (less than once a month) and chicken was consumed fortnightly in 61% and weekly once in 20% of the population. The commonly used cooking oil was palm oil which was available at a subsidized rate from the public distribution system outlets (Government run outlets).

The intake of fruits and other vegetables was very poor and it was consumed on a monthly basis by the majority of the population (91%). Green leafy vegetables and tubers were consumed once or twice a week (99%). Processed foods like biscuits, and bakery-fried snacks occasionally (less than once a month), while 17% never bought any processed foods.

The poor purchasing power and lack of nutritional knowledge were the major impediments to including these nutrients rich foods in the diet. Encouraging kitchen gardens with the cultivation of geographically appropriate vegetables will ensure an adequate supply of micronutrients in the family meal. Subsidized supply of nutri-grains like millets, pulses, and vegetables through the public distribution system will ensure accessibility to this vulnerable hill population and improve the quality of their diet. Nutrition education will enhance their knowledge and improve the dietary practices of this community.

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EQUITABLE FOOD TERRITORIES IN TAMIL NADU: PATAMIL

Checklist for Qualitative data collection By Dr. Manjubarkavi Selladurai, Post-Doctoral Fellow

ஜவாது மலைவால் மக்களின் விவசாயம் மற்றும் உணவு பழக்க முறை

The following checklist has been drafted based on the objectives of the project

பதில் சொல்பவரின் பெயர் –

வயது –

பாலினம் –

கல்வி –

மொத்த குடும்ப உறுப்பினர்கள் –

குடும்ப வகை –

குடும்ப வருமானம் –

To examine the ecological quality of soils and irrigation water in agricultural areas

1. Land type (Plain or slope)/ நிலம் வகை (சமவெளி / மேடு /பள்ளம்)
2. Soli types / மண் வகை (செம்மண்/களிமண்/-----)
3. Irrigation facility/ நீர் பாசன வசதி (ஆம் /இல்லை)
4. If Yes (Open well/Bore well/Canal/ Lake)/ஆம் எனில் (திறந்த கிணறு/ஆழ்துளை கிணறு/கால்வாய்/ ஏரி)
5. Total assets / மொத்த நிலப்பரப்பு (ஏக்கர்களில்)
6. Total acres with patta / பட்ட நிலப்பரப்பு (ஏக்கர்களில்)
7. Total acres without patta / பட்ட இல்லாத நிலப்பரப்பு
8. Do you aware FRA '2006' / FRA '2006' உங்களுக்குத் தெரியுமா
9. No plots/ நிலம் வெவ்வேறு துண்டு பாகங்களாக உள்ளதா? (ஆம் /இல்லை)
10. If yes. No of parts / ஆம் எனில் (1-2-3-4-5-6)
11. Fallow lands / தரிசு நிலங்கள் உள்ளதா?
12. If yes. Reason why. / ஆம் எனில். ஏன்?
13. Allotment of land for Livestock fodder/ கால்நடை தீவனத்திற்காக நிலம் ஒதுக்கீடு உள்ளதா?/(ஆம் /இல்லை)

14. If yes. How much land/ ஆமெனில். எவ்வளவு நிலம்?

15. Impact of change in climate condition/ காலநிலை நிலை மாற்றத்தின் தாக்கம் /
பருவமழை தோல்வி, அறுவடையின் போது மழை

To identify the structures of agrarian landscapes and crop rotations

1. Month of the land preparation
2. Leading crop
3. In acres
4. Variety of seeds (Traditional or Hybrid)
5. Land Ploughing technique
6. Seed selection method/ Seed exchange
7. Seed sowing technique
8. Weeding carried by whom
9. Crop management
10. Harvesting
11. Total duration for the cultivation
12. Intercropping
13. Transplanting
14. Same as above
15. Crop rotation
16. Same as above
17. Cash crop
18. Same as above
19. Fertilizer
20. Pesticide
21. Usage of vermicompost
22. Harvest/ labour/ labour exchange
23. Value addition
24. Marketing
25. Self-subsistence from own cultivation

26. Sharing with neighbors and relatives
27. Overall expenditure
28. Savings or Debit form loan
29. Yield amount
30. Contract Farming (B3 Cotton and Gherkin)
31. Cash crops
32. Cultural beliefs and Agriculture
33. Local knowledge

To explore the links between agricultural practices, the structure of agrarian societies, food habits, and the quality of life of rural communities

1. Ethnography profile of the Malayali tribe
2. Membership in Community-based developments
3. If yes, What kind of membership
4. Benefit from that
5. Specifically, Agriculture practices
6. Everyday routine on and off the field
7. Food habits
8. Stable food
9. Millets
10. After waking up first intake (Milk/Tea/Coffee/ Other specific)
11. Breakfast (Specify)
12. Lunch (Specify)
13. Dinner (Specify)
14. Variety and variation in daily routine
15. Snacks (Specify)
16. Junk food from hotels (Specify)
17. Special occasion food (Specify)
18. Sunday special
19. Veg and non-veg (Specify)
20. Hot and cold food (Specify)
21. Consumption of fruits

22. Consumption of Nuts
23. Influence of Advertisement
24. Tempting food
25. Watching social media about food
26. Cooking oil type
27. Importance vegetables
28. Special for elder
29. Special for women
30. Special for children
31. Special priority for male children
32. Perception about the concept of healthy food
33. PDS commodities
34. Usage from PDS
35. Total expenditure
36. Perception of food bout
37. Regional food (Millet, Honey, and Vegetables)
38. Seasonal food (Jack fruit, Custard apple, Gova)
39. Secondary Income / Seasonal Migration
40. Exploitation
41. Medicinal value foods
42. Indigenous knowledge of local food

Joint analysis of production and food systems, with the kitchen as political space

1. Own farming production
2. Kitchen garden
3. Self-Subsistence
4. Role of women
5. Other family members' contribution
6. Decision making
7. Etc relevance to political space
8. Marketing

Fieldwork Photographs



