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**Entitlement vs. Food Sovereignty
Approaches: Challenges for
sustainable food and nutrition
security in the changing agrarian
landscape in Tamil Nadu, India**

**Hom Gartaula, Kirit Patel,
Derek Johnson and Dinesh Moghariya**

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Entitlement vs. Food Sovereignty Approaches: Challenges for sustainable food and nutrition security in the changing agrarian landscape in Tamil Nadu, India

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Abstract

The present day reality is that the laudable economic growth has not able to conquer the alarming rate of poverty, hunger and malnutrition in the world. The support-led and growth-mediated intervention measures provide grounds for farmers to opt for different livelihood options, determining their access and rights to food. Based on the fieldwork carried out in Anchetty panchayat in the northwest corner of Tamil Nadu, India, the paper examines how the entitlement and food sovereignty approaches to food security interact with the aspirations and rights of small farmers to seek diverse livelihoods in the changing landscape of agrarian economy and livelihood opportunities. It demonstrates that while entitlement approach lacks recognition of local actors and remains silent about ecological resources and biodiversity, food sovereignty approach seems too ideological to the rights of local actors and fails to capture the limitation of their freedom of choice and creating strategies to benefit from the contemporary knowledge economy. The paper suggests that any intervention for promoting food and nutrition security must understand the process of changes in the agrarian landscape, as they are based on the context specific ecology of practice.

Introduction

In the past few decades, there is an unprecedented development in the field of science and technology, providing countless opportunities for economic growth and development. However, the incidence of poverty, hunger and malnutrition are continuously challenging policy makers, researchers and development practitioners. The FAO (2012) reports a total of 870 million people (15% of world's population) are living chronically undernourished. While majority of hungry and malnourished are from the developing countries, the newly industrialized countries like India are not far from this reality. Their economic growth is not able to grapple food insecurity (FAO 2012), as is revealed from India that ranks 65 in global hunger index (Von Grebmer et al. 2012). Von Grebmer et al. (2012: 12) report that while India doubled its gross national income between 1990 and 2012, the global hunger index was continuously decreasing. There is 6.3 per cent child mortality rate, 19 per cent population is undernourished and 43.5 per cent children under five are underweight. FAO seems rightly observed that economic growth is necessary, but it is not sufficient alone to accelerate the reduction of hunger and malnutrition prevalent in the world (FAO 2012). The hunger and malnutrition are robust indicators for food insecurity.

If economic growth does not work, what is then the necessary condition to end the global food insecurity? Of course, there is no straightforward answer – or no universal answer – of this

problem. The literature outlines three broad categories of approaches to define the necessary conditions for food and nutrition security: a) the classical food availability approach, b) entitlement and livelihood approach, and c) contemporary food sovereignty approach (Drèze and Sen 1989; Maxwell and Frankenberger 1992; Patel 2009; Scoones 1998; Yaro 2004). The food availability approach focuses on enough supply of food at regional level, whereas the entitlement and livelihood approaches give emphasis on food distribution and people's entitlement to production resources, and the food sovereignty approach not only considers ecological sustainability in production, but also rights and freedom of choice for both producers and consumers as necessary conditions for food and nutrition security. In this context, the paper focuses on the latter two approaches and provides insights on how these approaches interact with the aspirations and rights of small farmers to seek diversified livelihoods as their farms become smaller, the costs of agricultural labour soars up, and the production related risk of climate change becomes realistic.

The next section reviews literature on evolution of the theories and concepts on food security. The emphasis is given to the approaches outlined above. The following section is devoted to elaborate the research and methods adopted for this paper. The results and discussion section describes the processes and scales of seeking multiple off-farm livelihood options in the study area. The analysis correlates various aspects of off-farm employment with socioeconomic, cultural and other attributes associated with the respondent households of this research. The analysis presented in the following sections indicates that off-farm employment has positive impacts on cash income and overall wellbeing of the respondent households. However, the households with multiple livelihood activities and high wellbeing index diverted their energy and interests from agriculture to other local and distant engagements. The impacts of off-farm employment on food self-sufficiency, sustainability of agriculture, and nutritional security was found to be either negative or mixed, which alter the farmers' freedom of choice on the way of accessing food and the control over their own livelihood. The paper concludes with recognition that the sustainable food and nutrition security can be envisioned in such a framework that acknowledges active participation of local actors, but at the same time open for wider factors of institution, structure, ecology and market.

Theorizing food and nutrition security

The food security can be defined as "secure access by households and individuals to nutritionally adequate food at all times and procured in conformity with human aspirations and dignity, is an important component of human welfare and development, which must be safeguarded and sustained by the world, nations, district, villages, households and individuals" (Yaro 2004: 23). This definition can be elaborated in many ways in terms of its coverage, scale

and level of analysis, depending on interest and need of the researcher. Conceptually, it can be dissected in two ways: a) the ends (food as material object) and means (process of getting access to it) of food security, and b) the objective (physical access to food) and subjective (people's perception about accessing food) aspects of food security. In order to improve our understanding of the concept, we need to understand these aspects of food security at a greater depth.

The studies on the concepts and theories of food and nutrition security started occupying the academic and policy forums in the last quarter the twentieth century when the United Nations and the World Bank involved in defining the concept (FAO 2003; The World Bank 1986). Since then a long journey has been made in theorizing food and nutrition security, which "has proceeded in a somewhat linear fashion from Malthusian analytical scenarios involving shortfalls in food availability to theories of poverty that stress entitlements failures, and eventually to livelihood frameworks that maintain entitlements as the core explanatory force" (Yaro 2004: 24). More recently, food sovereignty and wellbeing approaches include ecological and actor perspectives and added sustainability and subjective aspects to food and nutrition security. The approaches to address food and nutrition security can be categorized into three groups in more or less chronological order: a) the food availability approach, b) the entitlement and livelihood approaches, and c) the food sovereignty approach (Drèze and Sen 1989; Maxwell and Frankenberger 1992; Patel 2009; Scoones 1998; Yaro 2004). These approaches are supported either by support-led security measures through governments or by growth-mediated security measures through market, as suggested by Drèze and Sen (1989). The scale and level of support of these intervention measures are different in different approaches, depending on their theoretical underpinnings.

According to Drèze and Sen (1989: 183), the support-led security is "to resort directly to wide-ranging public support in domains such as employment provision, income redistribution, health care, education, and social assistance in order to remove without waiting for a transformation in the level of general affluence". Whereas the growth-mediated security promotes the economic growth and people can take advantage of opportunities offered by market, which ultimately leads to the expansion of private incomes as well as the improvement of public support (Drèze and Sen 1989). In fact, this is the classical development ideology that high economic growth offers great opportunity, leading to high income, high purchasing power, high consumption, as indicators of 'development'; in this case 'a food secure society'.

a. Food availability approach

The food availability approach calls for enough production and supply of food items as necessary condition for food security (Maxwell and Frankenberger 1992). The main proponents of this approach are the intergovernmental organizations such as FAO of the United Nations and the World Bank. According to the classic definition given in 1974 by the United Nations, food security is “the availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices” (cf. FAO 2003: 27). The World Bank elaborated the concept of food security: “Access by all people at all times to enough food for an active and healthy life” (The World Bank 1986: 8). After the World Food Summit 1996, a more complex and inclusive definition has been in place: “Food security, at the individual, household, national, regional and global levels [is achieved] when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (FAO 2003: 28).

Maxwell and Frankenberger (1992: 4) distinguished four conceptual conditions for food security: i) sufficiency of food, defined mainly as the calories needed for an active, healthy life; ii) access to food, defined by entitlements to produce, purchase or exchange food or receive it as a gift; iii) security, defined as the balance between vulnerability, risk and insurance; and iv) a temporal aspect where food insecurity can be chronic, transitory or cyclical. Common to these aspects is the emphasis on availability and supply of enough food, which can be acquired either from own production or from purchase, exchange, borrowing of food and receiving food gifts.

Thus, the food availability approach gives emphasis on the availability and supply of enough and healthy food to meet the dietary requirement of a physically active individual. Technological advancement through green revolution can be a valid example of support-led security intervention of this approach, while unprecedented development of biotechnology and production of genetically modified organisms are growth-mediated security interventions. Both have a successful history of increasing food production in the world in general and in India in particular. However, it is argued that only availability does not ensure access by all and malnutrition can be caused by disease and digestive problems (Yaro 2004). According to Drèze and Sen (1989), the food security is determined by the mode of production and structure of an economy upon which growth of the agricultural sector is based to meet the food demand of the population. Fine (1997) argues that food availability approach concentrates its analysis on aggregate supply of food rather than strategies adopted at individual levels. Moreover, the livelihood diversification strategies of small farmers and urban dwellers go against the canons of this approach (Yaro 2004).

b. Entitlement and livelihood approaches

The entitlement approach supports the idea of ‘hunger is caused by a lack of income, not of food supply’ (Drèze and Sen 1989; Sen 1981). In this approach, “the food security problem is seen as a problem both of supply and of lack of effective demand amongst the poor. A range of socioeconomic factors [*household income, and economic assets, prices, demographic factors and sociocultural factors*] is sought that determine access to food” (Yaro 2004: 25). A close relative of entitlement approach is the livelihood approach, promoted by the UK’s Department for International Development (DFID) through sustainable livelihood framework, advocates that food security depends on the bundle of activities (the livelihood portfolios) people can have access to (Ellis 1998). According to this approach, food and nutrition security is part of livelihood security, which becomes sustainable when people have access to diverse livelihood resources combined to pursue different strategies at times (Scoones 1998).

This approach envisions food security can be achieved by importing food from where it is produced. The support-led security measures can be the government-supported schemes for the provision of food, employment, education, health, etc., whereas the growth-mediated security measures can be free trade and deregulation, and the development of market infrastructure to help create more opportunities for employment and income generation. In this paper, the opportunities offered by the economic growth in urban areas are taken as an important growth-mediated security intervention, which serves as a main pool factor for labour out-migration. This paper defines labour out-migration as temporary rural-urban migration where people from rural villages go out for work to urban areas (Taylor 1999).

Similarly, the Public Distribution System (PDS) and Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA or 100-days work) are taken as support-led security interventions provided by the Government of India. The PDS and MGNREGA have been instrumental to provide safety nets, especially among the poor and food insecure households (Maring 2012; Solinski 2012).

Thus, the entitlement approach calls for such a provision that people’s engagement with agriculture and food production is not a necessary condition for food security. As long as they have access to income, they do not starve; they can buy food from the market. It is also important to note that in the process of modernization and urbanization, food provision by own production is being declined and acquisition of food by other means getting increased, a prominent shift in the agrarian economy from an agriculture-base to an economy that is based on remittances and non-agricultural sources of income (Gartaula et al. 2012a). However, Yaro

(2004) criticizes the entitlement approach for its vagueness and multiplicity of associations attached to the term entitlement, passivity of famine victims that does not acknowledge actors' struggles to aspire for better wellbeing, narrow focus on the food as final outcome, but not the process of acquiring it, and for not permitting to open the black box of existing livelihood system. This paper will further examine this approach using support-led and growth-mediated security measures.

c. Food sovereignty approach

At this juncture, there is an emerging debate on who produces food; who controls the food market; where it is produced; where it is consumed; and who gets benefited from the food system as conditions for food security, which gives rise to the food sovereignty approach. La Via Campesina describes food sovereignty as “the right of peoples to define their own food and agriculture; to protect and regulate domestic agricultural production and trade in order to achieve sustainable development objectives; to determine the extent to which they want to be self-reliant; to restrict the dumping of products in their markets; and to provide local fisheries-based communities the priority in managing the use of and the rights to aquatic resources. Food Sovereignty does not negate trade, but rather it promotes the formulation of trade policies and practices that serve the rights of peoples to food and to safe, healthy and ecologically sustainable production” (cf. Pimbert 2009).

This approach is founded on two premises. First, the increasing process of land grabbing and monopoly on food production and marketing chain by a few transnational corporations, undermining local people's capacity for autonomy and self-determination. Second, the modernist development agenda pursued by organizations such as the World Bank and the Gates Foundation that envisages poverty reduction by decreasing the number of people engaged in food production and instead encouraging them to get jobs in the urban-based manufacturing and service sectors – regardless of the social and ecological costs (Windfuhr and Jonsén 2005). Land grabbing and monopoly of multinationals on food production chain is not a practice in the research area, but small farmers are involved into neoliberal economies in different ways and there are other agrarian developments too in the South Asian context, which are highlighted in this paper.

According to food sovereignty approach, the food security is attained when small farmers have access to land and sovereign rights to select, cultivate, consume, exchange and trade their own crops. It requires a strong hold of farmers on food production and supply system through democratic rights on and control over land, ecology and market (Altieri 2009; Altieri and Toledo 2011; Patel 2009; Pimbert 2009; Wittman 2011). The food sovereignty approach calls for

sustainable and self-reliant food production, democratic rights on access to food, farmer's rights to land and other natural resources, freedom of choice for food and livelihood options, gender equality, and transmission of indigenous knowledge as necessary conditions for 'genuine' food security (cf. Pimbert 2009). It emphasizes on local, nutritious and culturally preferred food production chain where there is no or little dependence on market for the choices to be made by producers and consumers. The approach envisions for a fair trade market and consumer supported agriculture with no space for genetically modified organisms.

Thus, with the changing social, political and economic contexts, the definition of food security has also been changing over time seeking more focused, inclusive and democratic access to food. As stated earlier, the food and nutrition security has objective and subjective aspects. The contemporary literature focuses mainly the objective aspects, but in order to better understand food security, we also need to consider the subjective aspect of food security, for which we need to understand the concept of wellbeing. The deliberate choice of using the wellbeing approach is not only because of its close conceptual ties with the food sovereignty approach, as it is more than just physical access to food, but also because it shapes people's livelihood system upon which food and nutrition security depends.

The wellbeing depends on what resources people have, whether the available resources can fulfil the requirements for living, including access to enough food, and how people perceive the quality of life they are living. The three dimensions of wellbeing (accessibility, adequacy and perception) are interconnected and are reproduced in the process of interaction with wider structures of family, community and society (Coulthard et al. 2011; McGregor 2006; Newton 2007). In this course, the wellbeing approach recognizes the importance of interaction between the actors and structure in the existing ecology of practice for the pursuit of living. The ecology of practice acknowledges people's role as active resource users that not only adaptive, but also influencing and mediating the socio-ecological and structural conditions through practice (Nyerges 1997a). In this sense, we can articulate that food security is part of wellbeing of an individual or a household, which is based on the existing ecology of practice in a particular sociocultural landscape.

The paper critically examines the challenges and difficulties of these two approaches (entitlement vs. food sovereignty) for sustainable food and nutrition security in the contemporary global south. Walking through the entitlement approach with the help of support-led and growth-mediated intervention measures, we will disentangle how far the elements of sustainable and self-reliant food production, democratic rights on access to food, farmer's rights to land and other natural resources, freedom of choice for food and livelihood options, gender equality, and transmission of indigenous knowledge are addressed in food

sovereignty approach. As advocated by the entitlement approach, cash income might be good, but where is it invested? Whether they are directed to agricultural development? Due to siphoning out of agricultural labour into the non-agricultural sectors within and outside villages, how is it impacting on rural labour landscape, gender relation, labour costs that ultimately lead to the overall performance of agricultural sector? How the indigenous agricultural knowledge is transmitted in the changing agrarian landscape. Keeping in mind of these issues, perhaps the food sovereignty might be an ideal approach, but to what extent farmers can keep their promise in agriculture when the neoliberal economy evidently percolates into their livelihood system and market becomes more powerful than small farmers? The paper is expected to provide insights on improved understanding of sustainable food and nutrition security.

The research

This paper is greatly benefited from the IDRC/CIDA funded *Revalorizing Small-Millet: Enhancing the food and nutrition security of women and children in the Semi-arid regions of South Asia* (RESMISA) project ¹ being conducted in India since 2011. Data were collected from one of the project sites located in Tamil Nadu, India during February-March and September-October 2012². The research location was selected in consultation with the project team members in Canada and local partner in India. The criteria used for selecting research locations were the prevalence of small farmers, rainfed agriculture, incidence of rural-urban migration, and poor performance in human development indicators such as poverty, food insecurity and malnutrition.

The research area

The actual site was the Anchetty panchayat in Krishnagiri district, situated in the Melagiri hill ranges of Eastern Ghats in northwest corner of Tamil Nadu, India. There is one government hospital and about four private clinics, one government higher secondary school, about 23

¹ Funded by International Development Research Centre (IDRC) and Canadian International Development Agency (CIDA) under the program of Canadian International Food Security Research Fund (CIFSRF), the project aims to increase production and daily consumption of small millets, pulses and oil seeds in rainfed regions of India, Nepal and Sri Lanka. These crops are largely neglected by the formal research and extension system, driven by the philosophy of green revolution (Karthikeyan et al. 2010).. This is a multi-institutional project involving five universities in Canada and six local partners (including universities, government and non-government organizations) in South Asia, led by Canadian Mennonite University, Winnipeg, Manitoba in Canada and DHAN Foundation, a Madurai, Tamil Nadu based NGO in India.

² Before conducting fieldwork, the research proposal – with the required process – received an ethics approval from Research Ethics Board of Office of Research Ethics and Compliance at the University of Manitoba. The research complies with the ethical requirements of the Government of Canada involving human being that includes voluntary participation, seeking prior informed consent, and safeguarding privacy and confidentiality of the research participants.

primary schools and many early childhood education centres in and around Anchetty bazaar. This is one of the poorest areas in Krishnagiri district with block-wise below poverty line rate 36 per cent. The area has 48.3 per cent literacy (female 40.8% and male 54.9%), which is much lower than district (72.4%) and state (80.3%) levels (RESMISA 2013). According to the baseline report of RESMISA project, the area has poor performance in food and nutrition security indicators. In the 150 households surveyed, about 90 per cent children under six years were underweight, while 79.2 per cent children under 35 months found to be stunted with higher rates (91.7%) for girl children. Likewise, 36.4 per cent of the women at reproductive age (15-49 years) were also found to be underweight (RESMISA 2013).

The area has hot summer (Jul-Aug) and mild winter (Jan-Feb). The area is characterized by undulating topography, deep and broad valleys and large tracts of red soil, harbouring predominantly dry-land agriculture that received an average annual rainfall of 836 mm during 2007 (AER, 2007-08 cf. Karthikeyan et al. 2012). There is predominance of subsistence and rainfed agriculture (no irrigation facility), small and marginal farmers, being small millets culturally important crops/food, and being labour out-migration an integral livelihood activity. Finger millet and groundnut are the main crops in the area, including red gram, field bean, sesame and so on. There is no significant presence of state machineries, especially in terms of agricultural research, extension, and development activities, as reported by the research participants. A part from indigenous farm implements, there is no indication of farm mechanization. Both women and men put their labour on agricultural work; however, in the recent time men's increased outward move and women's entry into the MGNREGA³ program, the social and gender relation in agriculture has changed.

Research design and data collection

A mixed research design is used, which combines quantitative and qualitative methods of data collection from primary and secondary sources. Quantitative data were collected by means of a semi-structured survey among 68 households, while qualitative methods include participant observation, focus group discussions, and key informant and in-depth interviews with research participants. The survey covered the socioeconomic and demographic profiles of research participants, landholding, agriculture, food self-sufficiency, and objective measurement and subjective evaluation of wellbeing. It appears that wellbeing is more than livelihood, but part of it can be the livelihood outcome, which depends on access to resources, adequacy of resources

³ MGNREGA is the short form of the Mahatma Gandhi National Rural Employment Guarantee Act, which aims to enhance livelihood security of the people in rural areas by guaranteeing hundred days of wage-employment in a financial year to a rural household whose adult members volunteer to do unskilled manual work (www.nrega.nic.in).

and subjective evaluation of the quality of life (McGregor 2006; OECD 2013). It is important to consider wellbeing in this paper because it measures an individual's or a household's capabilities and choices to make a living or have a sustainable, healthy and cultural access to food.

The wellbeing of the respondents was estimated by calculating a wellbeing index measured through several variables related to access to resources (access to income, housing and drinking water), adequacy of resources (adequacy of income, housing, drinking water, child education, healthcare facilities, and emotional and social relationships) and subjective evaluation of the quality of life (overall life satisfaction and perception of the quality of life in relation to other members in the community) in the past 12 months from the time the research was initiated. Emotional relationship considered the intra-household relationship among the members, while the social relationships considered the relationship of household members with other community members in the village. These variables were measured in a 3-point scale, being 1-less, 2-medium and 3-highly accessible, adequate or satisfied as experienced by the respondent. The individual responses on those 12 variables were added up to make the overall wellbeing index and a scale ranging from 12 to 36 generated; meaning households having values towards 12 indicate lower wellbeing index, while towards 36 indicate higher wellbeing index.

Knowledge competition among high school students

In addition, a knowledge competition was organized among high school students of the Government Higher Secondary School, Anchetty. The competition was voluntary and the total participants were 120 from grades 9, 10, 11 and 12; among them 55 per cent were the female students. The method was adopted from Chand and Shukla (2003) who conducted biodiversity contests to uncover children's knowledge about the topic. The purpose of this competition was to see whether there are differences in the acquisition of agricultural knowledge by number of migrant members from students' households. Based on the focus group discussions with farmers (parent generation of the students) in the research area, we came up with 13 questions related to knowledge on critical stages of agricultural practices to cultivate finger millet considering it a major millet crop grown in the area.

Qualitative data were analyzed through qualitative content analysis (Zhang and Wildemuth 2009), while quantitative data through descriptive statistics and correlation using Excel and IBM Statistics 19.

Results and discussion

Socioeconomic and demographic profiles of the respondent households

The survey covered a population of 390 residing in 68 households with average household size 5.7. Table 1 shows that majority of respondents were found to be young, female, and married. All households were Hindu. The literacy rate was found to be very low (57%) compared to the district (72%) and state (80%) levels. Among the literate respondents, the average duration of schooling was 6.4 years. The average monthly income was found to be INR 3716.9 (about USD 57), where majority of households earn less than the overall average. Almost half of the sample households have low wellbeing index. In terms of caste group, 72.1 per cent belong to most backward caste group.

Table 1: Socioeconomic and demographic profiles of the respondent households (n=68)

Particulars	No.	%
<i>Household size (Mean 5.7, Min. 2, Max. 14)</i>		
≤4 members	28	41.2
5-6 members	22	32.4
≥7 members	18	26.5
<i>Age of respondent (Mean 39.6, Min. 19, Max. 88)</i>		
≤30 years	23	33.8
31-60 years	38	55.9
>60 years	7	10.3
<i>Sex of respondent</i>		
Male	20	29.4
Female	48	70.6
<i>Marital status of respondent</i>		
Married	62	91.2
Unmarried	3	4.4
Widow/widower	3	4.4
<i>Years of schooling (Mean 6.4, Min. 0, Max. 10)</i>		
0 years (illiterate)	43	63.2
≤5 years (literate up to primary)	14	20.6
≥6 years (Up to middle and higher)	11	16.2
<i>Monthly household income, INR (Mean 3716.9, Min. 833, Max. 8250)</i>		
≤INR 3000	32	47.1

INR 3001-6000	28	41.2
>INR 6000	8	11.8
<i>Landholding size of households (Mean 1.8, Min. 0.3, Max. 6.9)</i>		
Landless	17	25.0
≤1.0 acre	20	29.4
1.1-2.0 acres	23	33.8
>2.0 acres	8	11.8
<i>Overall wellbeing index (Mean 22.0, Min. 15.0, Max. 28.0)</i>		
Low (≤33 rd percentile)	32	47.1
Medium (between >33 rd and ≤67 th percentile)	15	22.1
High (>67 th percentile)	21	30.9
<i>Caste/ethnic characteristics of households</i>		
Schedule caste (SC)	5	7.4
Schedule tribe (ST)	3	4.4
Other Backward caste (OBC)	7	10.3
General caste (GC)	4	5.9
Most backward caste (MBC)	49	72.1
<i>Primary occupation of households</i>		
Agriculture	47	69.1
Wage labour	17	25.0
Service sector job	2	2.9
Private business/shop	2	2.9
<i>Occupational characteristics of households</i>		
Entirely based on agriculture (HHA)	26	38.2
Agriculture and off-farm activities within the village (HHB)	10	52.9
Agriculture and off-farm activities outside the village (HHC)	14	20.6
No agriculture (other occupations in or outside the village) (HHD)	18	26.5
<i>Migration characteristics</i>		
Households with no migrants	47	69.1
Households with one migrant	15	22.1
Households with two or more migrants	6	8.8

Source: Household survey 2012

The results show that small and marginal farmers occupy the research area, as the average landholding size was calculated as 1.8 acres; majority of households have less than two acres of land. Most of the households (69%) reported agriculture as primary occupation, while many have more than one occupation created as a result of growth-mediate intervention measures. This complex livelihood system led us to categorize households based on their occupational

characteristics. According to this classification, the households were categorized into four groups: a) the households entirely based on agriculture (HHA), b) the households having agriculture and off-farm activities within the village (HHB), c) the households having agriculture and off-farm activities outside the village (HHC), and d) the households having no agriculture as a means of living (HHD) (Table 1). One of the important issues in this household classification is people's involvement in the MGNREGA program, which passes through all the categories and thus has to be taken accordingly.

Patterns of labour out-migration

As stated above, one of the major livelihood activities of the respondent households was the labour out-migration. A total of 31 per cent households have migrant members working in urban areas of within and outside the state, ranging from one to four migrants per household. There is no account when the out-migration started in this village, but the trend is increasing. One of the respondents says, "Migration in this village started long ago, but the tendency has increased in the last 25 years" (ANIK_0312, 55, M, Sep 30, 2012). Of the total 30 migrants (7.7% of the total population), most of them are young, male, married, child of the household head, and working in the unskilled sectors like factory workers, wage labourers, cleaners and so on. The average age of migrants was calculated 30 years; almost half of them were less than 25; the rest 40 per cent were below 40 (Table 2). It is revealed that a person works outside up to 15 years in his life with an average of four years. Likewise, depending on the distance of travel, migrants visit home as little as less than once a year to a maximum of every month with average home-visits of 4.4 times a year. The baseline survey carried out by the RESMISA project in the same research location shows more or less same pattern of labour out-migration: a quarter of their sample households had migrant members (RESMISA 2013).

Table 2: Characteristics of migrants (n=30)

Particulars	No.	%
<i>Age (Mean 30.2, Min. 16, Max. 50)</i>		
≤25 years	14	46.7
26-40 years	12	40.0
>40 years	4	13.3
<i>Sex</i>		
Male	25	83.3
Female	5	16.7
<i>Marital status</i>		
Married	22	73.3
Unmarried	8	26.7
<i>Relation to household head</i>		
Self	5	16.7
Child	23	76.7
Others	2	6.6
<i>Destination of migration</i>		
Within the state	12	40.0
Outside the state	18	60.0
<i>Type of labour at destination</i>		
Unskilled	19	63.3
Semi-skilled	8	26.7
Skilled	3	10.0
<i>Duration of working outside (Mean 4.1, Min. 0.5, Max. 15)</i>		
≤1 years	4	13.3
2-3 years	10	33.3
>3 years	16	53.3
<i>Yearly home-visits in last 5 years (Mean 4.4, Min. 0.6, Max. 12)</i>		
≤1 times	4	13.3
2-3 times	11	36.7
>3 times	15	50.0
<i>Migration started</i>		
Before 10 years	4	13.3
Before 5 years	8	26.7
In the last 5 years	18	60.0

Source: Household survey 2012

Off-farm activities, entitlements and wellbeing

Table 3 presents a comparative picture of the household categories. Being income an important entitlement for food and nutrition security, the results show the households having agriculture and non-farm employment opportunities within the village (HHB) found to be the better-off households compared to other categories. A household is not only a unit of consumption, but also a source of manpower for multiple livelihood activities. This is also revealed in this study that the bigger households are able to provide labour force into off-farm livelihood activities outside the village compared to smaller households. The households with higher monthly income (or the households involved in multiple livelihood activities within and outside the village (HHB and HHC) have found to have higher wellbeing index. Similarly, since the households that have agriculture as the only livelihood activity, it is understandable that their income and thus wellbeing of HHA is found lower than other households.

Table 3: Household size, monthly income and wellbeing index

Variables	Household types					
	HHA (n=26)	HHB (n=10)	HHC (n=14)	HHD (n=18)	Total (N=68)	p-value
Household size	5.5	5.3	7.2	5.1	5.7	0.135
Monthly income (INR)	2894.2	5325.1	4797.6	3171.3	3716.9	<0.001
Overall wellbeing index	21.5	23.0	23.3	21.3	22.0	0.108

Notes: HHA = Households entirely based on agriculture; HHB = Households based on agriculture and off-farm activities within the village; HHC = Households based on agriculture and off-farm activities outside the village; HHD = Households having no agriculture (other occupations in or outside the village).

Source: Household survey 2012

In terms of caste/ethnicity, as the distribution was highly skewed (MBC 72%) and there was no presence of high caste group in the research area, caste comparison did not yield a meaningful result. However, it is revealed that caste does not seem to be an important issue in terms of accessing resources and other variables mentioned above. For example, the most backward caste (MBC) has the highest monthly income (INR 3972.8), while the general caste (GC) has highest wellbeing index (23.0).

As stated above, PDS and MGNREGA positively stand for support-led intervention through entitlements, which increase farmers' direct access to food through public distribution as well as indirect access through income from MGNREGA work as wage labour. However, there are

issues of inefficiency, corruption, leakage, and target failure in the program operations (Ambasta et al. 2008; Misra et al. 2010; Tritah 2003), both are targeted to address food and nutrition security of rural poor.

The basic tenet of the PDS is to distribute food grains at affordable prices and manage food scarcity of the poor (Tritah 2003). In the Tamil Nadu state, people monthly receive 20 to 35 kg of rice grain (depending on family size and type of card the household holds) at no charge and wheat, sugar and kerosene at minimal charge (TNCSC 2013). Despite some structural and operational problems associated with the scheme, it has increased access to food for the poor (Tritah 2003). In PDS, the government procures food grains at minimum support price usually from big farmers who have commercial production. The government specifically procures some selected green revolution grains such as rice, wheat and maize. Due to centralized procurement system, the crops that are not promoted by the green revolution paradigm such as millets and pulses have low minimum support price compared to rice, wheat, maize and sugarcane (Banergee 2011). However, recently there are pilot initiatives from the government and civil society organizations to include small millets in PDS in the states of Karnataka (The New Indian Express 2013) and Andhra Pradesh (WASSAN 2013), showing a commitment to provide diversified food grains to the poor.

On the one hand, due to structural and policy bias farmers in the less favoured areas like this have less incentive to cultivate the crops they have been growing traditionally. On the other hand, if they are receiving rice grain for free, they do not need to worry about growing own food grains for consumption. This is coupled with another support-led security through MGNREGA. The scheme aims to provide work at remunerative wages for landless labourers and marginal farmers; and create assets for raising agricultural productivity (Kelkar 2011). It guarantees at least 100-days of locally available works in the field of road construction, water conservation and maintenance of drought and flood proofing structures in the poorest regions of India (Ambasta et al. 2008; Solinski 2012). Apart from economic incentive, this scheme envisions a gender wage parity approach, which is already a huge change in the Indian sociocultural context (Kelkar 2011). A recent media report says that MGNREGA is helping to increase wage rate and bargaining power of the rural poor (The Hindu 2013). In other words, it helps enhance financial resources of the households involved as well as support to infrastructural development in the rural areas. Hence, the support-led security measures of these two schemes have been instrumental to supplement food and cash to fulfill needs of livelihood practices of the households in poor regions of rural India.

Land, agriculture and food self-sufficiency

It is already mentioned that the research area is characterized by subsistence agriculture and inhabited by small and marginal farmers. The households entirely depend on agriculture (HHA) have the highest average landholding size, followed by the households that depend on agriculture and distant off-farm activities (HHC) (Table 4). Interestingly, the households that do not depend on agriculture (HHD) also have land for cultivation. They usually rent out their land to the sharecroppers and do something else, in most cases going out for work. In fact, because of this and people reluctance towards agriculture, the trend of renting out land is increasing. A total of 5.4 per cent household found to have their land rented out to sharecroppers or renters. This, however, potentially threatens the agricultural productivity of the area because study shows that there is quality compromise in the rental land, causing soil degradation and reduction in the efficiency and productivity of land (Yukon 1975).

Another important issue for food and nutrition security is the type of agriculture for quality food production. A simple characteristic feature of subsistence farming is the integration between crops and livestock. This is important for sustainable and quality food production because integration of crops and livestock not only reduces the risk of crop failure, but also enhances ecological richness for a sustainable production system (Altieri 2009). It has been reported that the number of livestock population is decreasing because many people do not want to keep livestock, as have to go out for work. One of the key informants said, "Many migrant families do not own cattle. If people want to go out for work, they sell them out. Thus, the number of cattle is decreasing year-by-year" (ANIV_0112, 39, M, Sep 30, 2012). Quantitatively, the livestock population was found to be significantly higher among the households depending entirely on agriculture (HHA) compared to the households having other sources of employment as well. The households that do not do agriculture (HHD) have the least number of animals (Table 4). As mentioned in the interview script above that when people start the process of going out the first thing they have to do is to manage livestock they own, which in most cases they sell. Selling of livestock not only provides them money to migrate, but also helps them not to worry about taking care of livestock when they are away.

Table 4: Landholding, population and number of crops cultivated

Variables	Household types					
	HHA (n=26)	HHB (n=10)	HHC (n=14)	HHD (n=18)	Total (N=68)	p-value
Landholding size (acre)	1.9	1.5	1.8	1.0	1.8	0.744
Livestock population	5.4	3.2	2.0	1.7	3.4	0.011
No. of crops cultivated	3.3	2.8	2.6	0.0	2.3	<0.001

Notes: HHA = Households entirely based on agriculture; HHB = Households based on agriculture and off-farm activities within the village; HHC = Households based on agriculture and off-farm activities outside the village; HHD = Households having no agriculture (other occupations in or outside the village).

Source: Household survey 2012

Likewise, the number of crops cultivated in the previous 12 months also found differed among the household types. The household type HHA cultivated the highest number of crops compared to other household types (Table 4). The cultivation of own crops and integration of livestock illustrates the state of food self-sufficiency, which is an important element for sustainable food and nutrition security. The food can be accessed from own local production or it can also be bought from the market. We examined the prospects of food and nutrition security by means of food self-sufficiency through local food production and consumption system in integrated agriculture.

The households that have only agriculture as a source of living (HHA) or have strong base of agriculture (HHB) to access food, are more food self-sufficient compared to other household types (HHC and HHD). Only a quarter of the sample households produced enough food from their land in the preceding year. Another three quarters households could not produce enough (Table 5). Even the household type HHA, which depends entirely on agriculture are in short of food supply from own production, because of the smaller landholding size that is not sufficient to produce for home consumption.

Table 5: Food self-sufficiency among the household categories

Food self-sufficiency	Household types (%)				
	HHA	HHB	HHC	HHD	Total
12 months and more	11 (64.7)	4 (23.5)	2 (11.8)	0 (0.0)	17 (25.0)
10-11 months	5 (45.5)	2 (18.2)	4 (36.4)	0 (0.0)	11 (16.2)
7-9 months	5 (71.4)	1 (14.3)	1 (14.3)	0 (0.0)	7 (10.3)
4-6 months	2 (33.3)	1 (16.7)	3 (50.0)	0 (0.0)	6 (8.8)
Less than 3 months	3 (11.1)	2 (7.4)	4 (14.8)	18 (66.7)	27 (39.7)
Total	26 (38.2)	10 (14.7)	14 (20.6)	18 (26.7)	68 (100.0)

Notes: HHA = Households entirely based on agriculture; HHB = Households based on agriculture and off-farm activities within the village; HHC = Households based on agriculture and off-farm activities outside the village; HHD = Households having no agriculture (other occupations in or outside the village).

Source: Household survey 2013

Though food and nutrition insecurity is an issue, hunger does not seem to be a problem in the research area. Almost 96 per cent households reported that they did not have to skip meals during the past 12 months because they had alternative arrangements to satisfy the food shortage. All households reported that they depend on public distribution system for food. Other important source of household food supply is purchasing from the wage income they make within and outside the village. Importantly, since overwhelming majority (91.2%) of the respondents reported that they hold BPL (below poverty line) cards, they are entitled to PDS grains. In other words, whether or not they are self-sufficient, they are not food insecure.

However, the increased household income and wellbeing of those households seeking multiple livelihood activities people were found to divert their energy and interest away from agriculture. This is common not only in the research area, but also all over the world where small land size and subsistence agriculture cannot fulfill the requirements for living. For those who do not have land they have to depend on non-farm employment, but those who have land also do not want to work in agriculture. They say agriculture is not profitable. They cannot get money out of it, but if they work as labourer, they will have money in their pocket (Gartaula et al. 2012a). This shows an interesting scenario where an agrarian economy is gradually transforming into such economy where the role of agriculture is becoming less and that of market is becoming more important for living. In other words, people's quest for off-farm employments is negatively impacting agricultural production and food self-sufficiency.

Most of the entitlement variables we discussed above are positively and significantly correlated to each other. For example, wellbeing index is positively correlated with monthly household income and landholding size. Likewise, livestock population has the same relationship with landholding size and number of crops grown in the previous 12 months. Interestingly, livestock population is negatively correlated with wellbeing index, which might be because of the tedious, demanding and challenging job of livestock care (Table 6).

Table 6: Correlation matrix among entitlement variables (N=68)

Variables	Monthly income	Landholding size	No of crops	Livestock population	Wellbeing index
Monthly income	1				
Landholding size	0.165	1			
No of crops	0.079	0.152	1		
Livestock population	0.106	0.349*	0.607**	1	
Wellbeing index	0.541**	0.403**	0.057	-0.067	1

*. Correlation is significant at 0.05 levels

** . Correlation is significant at 0.01 levels

Analyzing the situation in terms of landholding size, agriculture and food self-sufficiency yields an interesting and important scenario. Due to marginal land size, people have to look for multiple activities to continue living. On the one hand, the decreasing livestock population and even worsening situation among the households with multiple livelihood activities decreases production of farmyard manure, which means short supply of farmyard manure causing the loss of soil fertility status. The degraded soil quality further hits agricultural sector, which is already in trouble due to labour shortage for timely crop management. On the other hand, less number of livestock reduces the supply of protein through decreased milk and meat production. This means people may have access to food, but there can be imbalance in the availability of nutritious food, which ultimately impacts nutrition security. The compounding effect of this scenario challenges the sustainable food and nutrition security through short supply of local food, less supply of protein through milk and meat, less supply of nutritionally rich local food, and increased dependence on market even for basic diet. In other words, farmers have rights to food and land as envisioned by the food sovereignty approach, but due to limited choices and livelihood options available the sustainability can be an issue.

Thus, the changing agrarian development has increased access to capital through multiple livelihood opportunities and thus wellbeing of the participating households in the short run, but in the long run it might put agricultural sector at stake. These issues have been revealed in focus group discussions and in-depth interviews with the research participants: “It (labour migration) has been affecting agriculture, but there is no other ways than going out to work. There is no life here without migration. If you depend on agriculture you wait for many months, yet there is no guarantee that you will get money, crop can fail due to draught, wild boar can damage it, but if you work as labour, you will get something for sure (ANFG_0112, Oct 4, 2012)”. One of the participants in another focus group illustrated, “Because of lower yield from agriculture, it is hard to manage households. The extended draught hits us every year. The income that can be made from wage labour is more than the income from agriculture (ANFG_0212, Oct 5, 2012)”.

Youth attitude and indigenous knowledge

The attitude and knowledge of children towards agriculture and traditional food are important to examine the nutrition security and a sustainable local supply of nutritious and culturally important food. If somebody asks a kid what he or she would want to be in future, the answer would rarely be a farmer. This perspective specially applies to small-scale agriculture where people do farming for survival. In the agrarian economy, this applies to people’s changing perception and attitude towards agriculture, determining their interest and knowledge about agriculture and traditional food. This is also reflected in a focus group script, “People in this area are not interested in agriculture because they cannot make a good income out of it. This situation has forced many men to go out of the village to find jobs because agriculture is not reliable for providing enough money required to run a household. Going out of the village to find a job would cause negative impact of agricultural production, but there is no way out.” (ANFG_0112, Oct 4, 2012)

This FGD section illustrates the attitude of small farmers about agriculture and the importance of off-farm employment opportunities in the rural and agrarian livelihood system. In the absence of able-bodied household member, agriculture becomes a neglected sector not only because there is scarcity of labour to work on the farm, but also because there is additional income supplied from the employment outside agriculture. In this situation, the transmission of agricultural knowledge to the children is impacted. It is evident from the results of our knowledge test among the school children. Data show a negative correlation between the numbers of migrant household members and total score the students secured; meaning higher the number of persons working outside, lesser the sources of knowledge, which has been appeared as poor knowledge base through lesser scores on the test.

Table 7 presents some interesting but serious results from knowledge test competition among high school students. Evidently, more students from no migration background provided correct answers compared to the students with migration background. The questions were on different aspects of knowledge associated with production and consumption of finger millet, which is the most commonly grown millet crop in the area. Further, students from the households that have more migrant members were found to be less knowledgeable compared to the students from non-migrants and single migrant households. It proves that seeking off-farm employment outside agriculture or outside village is hampering the transmission of indigenous agricultural knowledge.

Table 7: Correct answers by student categories on the knowledge test questions

Knowledge questions	Correct answers by student categories (%)			Total correct answers
	No migrant household	One migrant household	2 or more migrant household	
Main method for cultivation	59.0	29.5	11.5	61
Suitable land type	55.4	26.2	18.5	65
Inter/mixed cropping	63.0	25.9	11.1	27
Best month to start ploughing	60.7	25.0	14.3	28
Number of ploughing required	61.0	27.1	11.9	59
Main method for seed sowing	68.2	27.3	4.5	22
Best month for seed sowing	56.5	25.8	17.7	62
Number of weeding required	58.6	27.6	13.8	58
Tools for weeding	70.2	15.8	14.0	57
Main month for harvesting	62.0	24.1	13.9	79
Main method for threshing	63.7	22.5	13.8	80
Main produce	60.0	25.9	14.1	85
Main food item	60.2	26.5	13.3	98

Source: Knowledge test 2012

The transmission of knowledge depends on the acquisition of knowledge about agriculture by youth (the future farmers). The involvement of adult members in off-farm activities has appeared as the knowledge gap among the youth whose household is actively involved in such activities. At the same time, the present youth is not interested in agriculture. Perhaps they are deliberately not involved in agricultural activities, as their parents would also not want their

children to be farmers in future. It is evident that farmers in the rural areas are willing to invest in education of their children and even sell land in order to help them secure urban jobs (Gartaula et al. 2012a; Murray Li 2009). Gartaula et al. (2012a) also observed that the changing context of agrarian development has influenced people's livelihood practices that is shifting from agriculture based to one that includes off-farm activities, which may impact the sustainable solutions for food insecurity. In this situation, conservation of indigenous knowledge for sustainable agricultural development, which is one of the main pillars of food sovereignty approach, can be challenged.

Feminization of agriculture and gender

The scale and level might be different, but women's role in household decision-making, agricultural work and livestock care and engagement in public domain is increasing in the recent years. This phenomenon of women's increasing involvement in agriculture is called feminization of agriculture. This research conforms the previous studies that illustrate the feminization of agriculture as an emerging phenomenon due to male's increased entry into non-agricultural sector in many parts of the world (De Brauw and Rozelle 2008; Gartaula et al. 2010; Kaspar 2005; Radel et al. 2012; Song 1998; Xiang 2007). The following illustration also reveals this: "It is difficult to manage a household alone, but I have been doing it for a long time for the betterment of the children and us. Children are grown up now, but I have to take care of cattle, farm, and everything. On top of that I have to go for MGNREGA work almost everyday. When he [the husband] is here I feel relieved. Even though he does not help in any of the household works, he helps in agricultural works like picking up groundnuts, digging farm, etc." (ANIP_0212, 35, F, October 9, 2012)

However, the feminization of agriculture improves access to capital and materials objects needed for living, it does not necessarily improve overall wellbeing of the women left behind as they would have to work more and their autonomy and empowerment is subject to their living arrangements (Gartaula et al. 2012b). Moreover, it is important to note that in most cases women join the MGNREGA work in India, which is in addition to the regular jobs they have to do in the absence of their male counterparts. Kelkar (2011) reports 82 per cent women participation in MGNREGA in Tamil Nadu. In this regard, women are performing triple roles as waged workers through MGNREGA, agricultural workers and reproductive role players in the households.

The irony, though, is that women are rarely focused in technology development to help them improve their working conditions. On top of that significant wage difference between men and women for agricultural works makes their life more difficult. Garikipati (2009: 517) observed,

“Despite increased labour market participation, women’s household status, her wages and working conditions remain acutely depressed”. Likewise, MacPHail and Dong (2006) noted a significant gender wage gap in Shandong and Jiangsu provinces of China, while Hirway (2006) found a similar story in India (cf. Kelkar 2009). The focus group participants of this study said men receive IRs.300/day, while women get only IRs.100/day in agricultural works in their village (ANFG_0112, Oct 4, 2012). In another focus group (ANFG_0212, Oct 5, 2012), the participants reported that women get IRs.100/day compared to that of IRs.200/day for men. According to them, the wage rate is equal for both men and women in the MGNREGA work. The gender wage difference is serious and absence of male labour in the village has made it even more serious. The women are traditionally low paid labour. On top of that due to the feminization of rural society there is abundance of women labour available depressing their demand, while demand for male labour on specific agricultural tasks increases with increasing wage rate. The MGNREGA intervention has helped to some extent minimize gender wage disparity though it is not guaranteed how long can they can engage with the program.

Summary and conclusions

It is revealed that in rural India where small-scale subsistence agriculture is a reality and production from the family farms is not enough to feed household members. In such a situation, two interventions are in place to address food and livelihood security. People strategize and expand their livelihood activities to increase household resources and have better food security and wellbeing. The other side of the coin is the enabling environment provided by public and non-public institutions to support such interventions. This paper is able to highlight the impacts of agrarian development on agriculture as reduction of livestock population, feminization of agriculture, youth’s reluctance in doing agriculture and changing perceptions about it, erosion of indigenous agricultural knowledge and discuss how these issues fit in the entitlement and food sovereignty approaches to food and nutrition security.

It is appeared that the underlying principle of entitlement discourse as ‘if you have money, you are food secure’ works well in the situation of hunger and famine as discussed by Drèze and Sen (1989). However, it seems to have over emphasized the passivity of famine victims whose priority would be just food and nothing else at least for specific period of time. It lacks acknowledging people’s struggles to have better access to food and strive for quality of life and better wellbeing using the social, cultural and ecological resources available at their disposal. We observed that the ultimate impact of people’s increasing engagement with non-farm employment opportunities would be their gradual removal from agriculture. This entails that the role of local agriculture would become less important in the life of those involved and their dependence over market would be increased. Because of decreasing number of livestock in the

research area, the supply of quality and nutritious food in the local market is already questioned. We would argue that the entitlement approach would address the objective aspect of food security (meaning the physical access to food), but not the subjective aspect of it (meaning people's perception about food, its quality and how it is acquired). In other words, with the money people can access food, but it is not sure how they are going to access, its quality, people's perception about it. Ultimately, this may pose a serious consequence on sustainable food production and consumption system.

The paper confirms that the entitlement approach lacks recognition of autonomy and self-determination of local actors and gives too much emphasis on structural forces and market. It remains silent about the ecological resources, biodiversity, and their sustainable use. It argues that local actors are not too pessimistic about the situation; they are rather active participants in the process of change to strategize and navigate the challenges and opportunities offered by the changing contexts of agrarian development (Long 2001; Nyerges 1997b). The farmers' quest for off-farm employment opportunities through labour out-migration helped them increase food and nutrition security and wellbeing. This is what the entitlement discourse prescribes as growth-mediated security. The neoclassical growth model of labour out-migration has two-way impacts on the communities of origin. The economic growth in the urban centres attracts rural labour force due to availability of jobs and higher wage rates, which changes the labour equilibrium in the rural areas. In return, the first hand benefits that the communities of origin can enjoy are from the economic remittances supplied to the migrant households, changing their lifestyles, consumption patterns and investment potentials (Gartaula 2009; Seddon et al. 2002; Taylor et al. 1996).

The increased household income could be an important source for agricultural investment, but the studies show that agriculture is in the least priority for productive investment of economic remittances. For example, an Ecuadorian case shows that many migrant households purchased agricultural land, but very few households spend on agricultural inputs (Jokisch 2002). Likewise, the studies in Mexico (Durand et al. 1996), Nepal (Gartaula et al. 2012a) and China (De Brauw and Rozelle 2008) show that people spend remittances in other sectors like purchasing or renovating houses, purchasing land in town, or purchasing consumer durables, but not necessarily investing in agricultural inputs such as seed, fertilizer, irrigation, etc.

In lieu of this, the food sovereignty approach seems to be close to the subjective aspect of food security. It stems from human right perspective of those facing poverty, hunger and malnutrition, and promotes alternatives to neoliberal policies, which would be ideal for achieving sustainable food and nutrition security (Windfuhr and Jonsén 2005). However, it seems to be too ideological without acknowledging the limitations of local actors and paying

less attention to the complex ecology of practice, which the local livelihood is built upon. This paper is able to highlight some of the challenges of this approach to help improve the understanding.

The increasing entry of male labour force into non-farm sector there is increased feminization of agriculture, but evidence shows that feminization of agriculture and women's empowerment does not guarantee the development of agricultural sector (Gartaula et al. 2010). This issue strongly opposes the principle of food sovereignty approach as sustainable and self-reliant food production system.

It is important to note whether the small and marginal farmers have capacity to exercise the rights as stipulated in the food sovereignty literature. There is no incidence of land grabbing and presence of multinationals in the research area, but other forms of agrarian changes are instrumental for providing ground to exercise the (limited) freedom of choice for food and livelihood for the local people. The existing ecology of practice determines whether they can promise for agriculture in the long run or opt for alternatives to prosper the living condition and improve the present wellbeing. The paper demonstrated that in areas like the research site the choices and options available for people within agrarian economy are limited due to smaller landholding, soil degradation, and climate change, lack of job opportunities, infrastructural development and other structural problems.

Agarwal (1990) illustrates that seasonal variations in climate and crop cycles associated with variations in employment, wages and food prices influence the poor agricultural household's command over food. This means the situation forces farmers to diversify their livelihood portfolio into multiple activities not only within agricultural sector, but also in non-agricultural sectors such as wage labour within the village, labour out-migration, and so on. This means the non-farm economy gradually enters into their livelihood system and causes their gradual removal from agriculture. It is already noted that removal from agriculture leads to erosion of indigenous agricultural knowledge that ultimately creates problems in the sustainable supply of food and nutrition. The producers themselves have to depend more on market and less on their own production, which in the present capitalist market mechanism can no way be under the control of rural peasants.

They rather adapt and negotiate their living to make it comfortable with the changing situation through their creativity in everyday livelihood practices and strategic decisions (Ontita 2007). Thus, Aerni (2011) rightly argues that food sovereignty approach gives insufficient recognition to and making better use of today's new knowledge economy to promote sustainable development. We perhaps need such a framework for sustainable food and nutrition security

that recognizes the active participation of local actors, but also open for wider factors of institution, structure, ecology and market. Thus, the paper suggests that any intervention for promoting food and nutrition security must understand the process of changes in the agrarian landscape, as they are based on the context specific ecology of practice.

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FOOD SOVEREIGNTY: A CRITICAL DIALOGUE INTERNATIONAL CONFERENCE PAPER SERIES

Food Sovereignty: A Critical Dialogue

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A fundamentally contested concept, food sovereignty has — as a political project and campaign, an alternative, a social movement, and an analytical framework — barged into global agrarian discourse over the last two decades. Since then, it has inspired and mobilized diverse publics: workers, scholars and public intellectuals, farmers and peasant movements, NGOs and human rights activists in the North and global South. The term has become a challenging subject for social science research, and has been interpreted and reinterpreted in a variety of ways by various groups and individuals. Indeed, it is a concept that is broadly defined as the right of peoples to democratically control or determine the shape of their food system, and to produce sufficient and healthy food in culturally appropriate and ecologically sustainable ways in and near their territory. As such it spans issues such as food politics, agroecology, land reform, biofuels, genetically modified organisms (GMOs), urban gardening, the patenting of life forms, labor migration, the feeding of volatile cities, ecological sustainability, and subsistence rights.

Sponsored by the [Program in Agrarian Studies at Yale University](#) and the [Journal of Peasant Studies](#), and co-organized by [Food First](#), [Initiatives in Critical Agrarian Studies \(ICAS\)](#) and the [International Institute of Social Studies \(ISS\)](#) in The Hague, as well as the Amsterdam-based [Transnational Institute \(TNI\)](#), the conference “Food Sovereignty: A Critical Dialogue” will be held at Yale University on September 14–15, 2013. The event will bring together leading scholars and political activists who are advocates of and sympathetic to the idea of food sovereignty, as well as those who are skeptical to the concept of food sovereignty to foster a critical and productive dialogue on the issue. The purpose of the meeting is to examine what food sovereignty might mean, how it might be variously construed, and what policies (e.g. of land use, commodity policy, and food subsidies) it implies. Moreover, such a dialogue aims at exploring whether the subject of food sovereignty has an “intellectual future” in critical agrarian studies and, if so, on what terms.

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