

Review Article

A Review on Understanding the Sustainable Livelihood Security of Rural Household in India

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ABSTRACT

Many studies have been carried out on rural household livelihood security in more segregated way. Livelihoods are characterized as an assortment of economic activities involving self-employment or wage employment by using one's endowments (both human and material) to generate adequate resources to meet the need of the self-household on a sustainable basis with dignity. The essence of a person's livelihoods is to be considered a means of securing the necessities of life. Livelihood security is a much wider and sometimes misconceived arena. This paper is therefore intended to review critically current literature and interpretations of the various aspects of livelihood security and offers an advice for a detailed understanding of sustainable livelihood security.

Keywords

Livelihood security, One's endowments and misconceived

Introduction

The term "livelihood" is used rather than "job" or even "source of income". In everyday language "livelihoods" refers to a "means of living". Asking someone "How do you earn your livelihood?" is the same as asking "What do you do for a living?" (Tejaram, 2017). Livelihoods are the means people use to support themselves, to survive and to prosper. Livelihoods are an outcome of how and why people organize to transform the environment to meet their needs through technology, labour, power, knowledge and social relations. Chambers and Conway, (1992) says, A livelihood comprises the assets (natural, physical, human, financial and social capital), the activities, and the access to these (mediated by institutions and social relations) that

together determine the living gained by the individual or household'. Assets in these definitions include: human capital (the education, skills and health of household members); physical capital (e.g. farm equipment or a sewing machine); social capital (the social networks and associations to which people belong); financial capital and its substitutes (savings, credit, cattle, etc.); and natural capital (the natural resource base). Livelihood Security can be defined as adequate and sustainable access to income and other resources to enable households to meet basic needs. This includes adequate access to food, potable water, health facilities, educational opportunities, housing, time for community participation and social integration (Frankenberger, 1996). The risk of

livelihood failure determines the level of vulnerability of a household to income, food, health and nutritional insecurity. Therefore, livelihoods are secure when households have secure ownership of, or access to, resources and income earning activities, including reserves and assets, to offset risks, ease shocks and meet contingencies (Chambers, 1989). A “livelihood becomes sustainable, when it can cope with and recover from the stress and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource” (Scoones, 1998).

Livelihood Security of farmers

Baby (2005) reported that majority of the marginal farmers (87.00 %) had medium livelihood security and more than half of the small farmers (58.00 %) had high level of livelihood security, while in case of labours, 43.00 per cent had low level of livelihood security. Krishnaprasad (2005) on rural poverty and sustainable livelihoods reported that majority of the farmers (73.33%) had medium sustainable rural livelihood followed by high sustainable rural livelihood (13.75%) and low sustainable rural livelihood (12.92%). Rathod (2007) reported that majority of the Lambani farmers (73.33%) had medium sustainable livelihood followed by the remaining with high sustainable livelihood (14.00%) and low sustainable livelihood (12.67%). Saha (2008) reported that 48.34 per cent of the farmers were in satisfied level of livelihood security, whereas, 29.16 per cent of the farmers were with least satisfied level of livelihood security and 22.50 per cent of the farmers were with fully satisfied level of livelihood security. Lakshmi (2009) reported that 37.50 per cent of farmers attained medium level of livelihood security followed by low livelihood security

(33.33%) and high livelihood security (29.17%).

Shyamalie and Saini, (2010) reported that 47.00 per cent of the respondents had medium livelihood security in Kangra district while majority of the respondents (80.00%) had high livelihood security in Nuwara Eliya district. Kiran (2011) reported that majority of the respondents (70.56%) had medium level of livelihood followed by high level of livelihood (15.00%) and low level of livelihood (14.44%). Roy (2011) reported that, majority of the respondents (80.50%) had low livelihood security before MNREGA but after working under MNREGA, majority of them (82.5%) had medium livelihood security. Parmanand (2012) revealed that 40.00 per cent of the respondents had medium livelihood Security, followed by low livelihood security (37.92 %) and high livelihood security (22.08 %). Mahadik and Sawant (2012) in their study on livelihood security reported that nearly three-fourth of the respondents had medium livelihood security, while more than one fourth of them had high livelihood security. Kale *et al.*, (2012) showed that majority of the respondents (83.33 %) of Vidarbha region had low livelihood sustainability, while only 16.67 per cent of the families had medium livelihood sustainability. Agarwal (2013) revealed that in Rajasthan, no one district fall under very high status of Sustainable livelihood security. Only nine districts out of 32 districts are found under high status, 22 districts under moderate status and only one district i.e. Jaisalmer has been found under low status of Sustainable livelihood security.

Binkadakatti (2013) revealed that majority of the rehabilitant farmers (36.67 %) belonged to medium livelihood security followed by low (33.89 %) and high livelihood security (29.44 %) categories.

Argade (2014) revealed that 50.84 per cent of the respondents had high to very high level of integrated rural livelihood security followed by medium level of integrated rural livelihood security (40.41%). Prajapati *et al.*, (2014) reported that 67.27 per cent of the tribal respondent had medium extent of sustainable livelihood, followed by low extent of sustainable livelihood (23.64%) and high extent of sustainable livelihood (9.09 %). In the case of non-tribal respondents, 66.36 per cent had medium extent of sustainable livelihood, followed by high extent of sustainable livelihood (20.91%) and low extent of sustainable livelihood (12.73 %).

Lal (2014) revealed that 49.38 per cent of the respondent had medium livelihood Security, followed by low livelihood security (27.50%) and high livelihood security (10.62%) respectively. Rai (2015) revealed that more than fifty per cent of the respondents (55.00%) had medium livelihood Security, followed by low livelihood security (30.00 %) and high livelihood security (15.00 %). Swati (2016) revealed that majority of the tribal farmers (62.09 %) had medium level of livelihoods followed by high (20.83%) and low (17.08%) level of livelihoods, respectively. Barela *et al.*, (2018) revealed that almost half of the respondents (48.33%) had low level of livelihood security, whereas 32.50 and 19.17 per cent of the respondents had medium and high levels of livelihood security. Sathwika *et al.*, (2019) in their study revealed that in government organization, 66.70 per cent of rural women had medium livelihood security followed by high (16.70%) livelihood security.

Livelihood security index

Baby (2005) reported on her study that the small farmers could obtain a high level of

Livelihood Security Index (81.46) while the marginal farmers and labourers had a medium livelihood security with the mean LSI being 64.16 and 52.03 respectively. Hatai and Sen, (2008) reported that only eight districts of Odisha have Sustainable Livelihood Security Index (SLSI) value of more than 0.5, while thirteen districts have SLSI less than 0.4.

Rai *et al.*, (2008) revealed that among various agro-climatic zones in India, integrated Livelihood Status Index (LSI) of zone 6 was found to be highest and of zone 7, the least. Argade (2014) revealed that the overall average integrated rural livelihood security index value was 0.73. Lal (2014) revealed that Livelihood Security index value was 0.479.

Kumar *et al.*, (2016) revealed that the Overall Sustainable Livelihood Index of tribal communities was 25.53. Harishkumar *et al.*, (2015) revealed in their study that one-fourth of the women in kangra district under low livelihood security index. Singh and Hiremath (2008) revealed that Dahod district has the lowest Sustainable Livelihood Security Index ranking, Kutch district has a Sustainable Livelihood Security Index ranking second from the bottom and Surat district has the highest ranking in Sustainable Livelihood Security Index.

Immanuel *et al.*, (2017) revealed that the overall livelihoods security index for tuber crop farmers in Pathanamthittan was 66 and Thiruvanthapuram was 70. Ghabru *et al.*, (2017) have estimated Sustainable Livelihood Security Index (SLSI) for 26 districts of Gujarat. They have found that in the year 2001, the district Surat (0.584) ranked first in SLSI, while Narmada (0.265) ranked the last. Later in the year 2011, Rajkot (0.589) ranked highest in SLSI, while

Porbandar (0.257) ranked the lowest. During the 2013-14 two districts Rajkot and Porbandar maintained their first and last ranks. Venu *et al.*, (2018) reported in their study that a composite livelihood security index has been developed which indicates the livelihood status of migration and non-migration labour households. They found that Livelihood security index for migration labour household was 0.791 and for Non-migration labour households was 0.645.

Saha (2018) revealed that livelihood security index of active fishers is 76.21 which is quiet higher than seasonal fishers (62.18). Prakash *et al.*, (2019) reported in their study that they have estimated sustainability in Uttarakhand by computing Sustainable Livelihood Security Index (SLSI) for 13 districts of the state. The study found that Sustainable Livelihood Security Index (SLSI) value for Nainital (0.59), Udham singh Nagar (0.57) and Pithoragarh (0.50) district respectively with high sustainable livelihood security status and remaining districts Dehradun (0.48), Haridwar (0.48), Pauri Garhwal (0.46), Rudraprayag (0.45), Champawat (0.44), Tehri Garwal (0.40), Almora (0.38), Chamoli (0.32) and Bageshwar (0.30) were showed moderate sustainable livelihood security index with rank fourth to twelve. Distict Uttarkashi (0.24) was come to last rank. Jaganathan *et al.*, (2019) revealed in their research study that the rural livelihood sustainable index was marginally more for paddy growers (58) than sweet potato growers 56. Imanuel *et al.*, (2019) reported that the overall rural sustainable livelihood index for paddy farmers was 62 which were higher than the cassava farmers (52).

Different components of livelihood security

Baby (2005) reported on her study that among the components of Livelihood

Security Index (LSI), health security index of all the three livelihood classes; labourers, marginal farmers and small farmers was highest, while their social security index was the lowest. Krishnaprasad (2005) on rural poverty and sustainable livelihoods reported that out of the total respondents, 52.92 per cent of the farmers had low human capital, low physical capital (58.33%), low natural capital (46.25 %), high social capital (50.83 %) and low financial capital (52.92 %). Ponnusamy (2006) found that through integrated farming system 45.34 per cent respondents were having the food security while 42.67 per cent were having nutritional security. Rathod (2007) reported that out of the total respondents, 52.67 per cent of the Lambani farmers had low human capital, low physical capital (58.00%), low natural capital (46.00 %), high social capital (50.67%) and low financial capital (52.67%).

Hatai and Sen (2008) reported that the values of Ecological Security Index (ESI), Economic Efficiency Index (EEI) and Social Equity Index (SEI) varied from 0.14 to 0.68, 0.07 to 0.75 and 0.21 to 0.70, respectively in Odisha. Rai *et al.*, (2008) revealed that among different agro-climatic zones of India, zone 6 was highly developed in Agricultural Status Index (ASI), Health and Sanitation Status Index (HSSI) and Food Availability Status Index (FASI), zone 1 was highly developed in Nutritional Status Index (NSI) and zone 12 to be highly developed in Economic Status Index (ESI) and Infrastructure Status Index (ISI).

Shyamalie and Saini, (2010) reported that 43.00 per cent of women in Kangra district and 58.00 per cent of women in Nuwara Eliya district enjoyed a high level of food security. 48.00 per cent of women in Kangra district had a moderate level of economic security in comparison to Nuwara Eliya district. While half of the women in Kangra

district were in the range of a low level of health security, 56.00 per cent of those in the Nuwara Eliya district were moderately secured. Likewise, one-fourth of the women in Kangra district had a low level of educational security in comparison to the Nuwara Eliya district. Again, about 29.00 per cent of the women in Kangra district and 62.00 per cent of women in the Nuwara Eliya district enjoyed high levels of habitat security. In a similar vein, while more than two-fifths of the women in Kangra district were found in the range of low level of social security network, the proportion of such women in Nuwara Eliya district was as low as 4.00 per cent.

Parmanand (2012) revealed that out of the total respondents, 39.17 per cent were having medium level of food security in the study area, medium level of economic security (37.50 %), having high level of health security (36.25 %), medium level of educational security (55.42 %), medium level of social security (54.17 %), low institutional security (53.75 %) and medium level of infrastructural security (45.42 %). Mahadik and Sawant, (2012) in their study on livelihood security reported that majority of the respondents (62.00 %) had medium infrastructure status, high food availability and nutritional status (82.00 %). All the respondents had high housing status, medium clothing status (58.00 %), medium health and sanitation status (95.00 %). With respect to economic status, it was seen that majority of the respondents (56.00 %) had high economic status, low technological status, 52.00 per cent of respondents had medium agriculture status (85.00 %) and had high employment status (58.00 %).

Binkadakatti (2013) revealed that among the components of livelihood security, physical capital (72.55 %) and financial capital (68.28 %) performed better, human capital

(63.59 %) and social capital (55.24%) performed moderately and natural capital performed poorly (48.77 %). Argade (2014) revealed that one-third of the respondents (33.33%) had high level of economic security. 31.25 per cent had low level of agricultural security. 34.59 per cent had medium level of health security. While 39.58 per cent of respondents had high level of social security, medium level of infrastructure security (40.42%) and had high to very high level of environmental security (60.41 %).

Lal (2014) revealed that out of the total respondents, 29.38 per cent were having very low level of food security in the study area, where as 36.88 per cent of them were having very low level of economic security, medium level of Health security (36.87 %), 35.63 per cent were having medium level of educational security, 35.00 per cent of them were having medium level of social security, 35.62 per cent of them were having very low institutional security and very low level of infrastructural security (36.88%).

Sunanda *et al.*, (2014) revealed that 52.67 per cent of the Loktak Lake Islander had low human capital, 58.00 per cent of them had low physical capital. 46.00 per cent had low natural capital. As regards to overall social capital majority of the Islanders (50.67%) had high social capital, the Islanders had low financial capital (52.67%). Kumar *et al.*, (2016) revealed that among the sustainable livelihood components Physical Capital (5.44) have highest index value followed by Natural Capital (5.27), Financial Capital (5.20), and Social Capital (4.85) and Human Capital (4.77). Swati (2016) revealed that majority of the tribal farmers had medium level of livelihoods with higher access towards the financial capital index (62.14%) followed by physical capital Index (60.20%), social capital Index (58.66%),

natural capital index (57.56%) and lastly human capital index (48.92%).

Immanuel *et al.*, (2017) revealed that out of the five livelihood capitals, physical and social capital possessed the highest value of more than 70 in both the districts and financial capital index in Pathanamthitta (53) and natural index in Thiruvananthapuram (53) had relatively lower value. Barela *et al.*, (2018) revealed that majority of the respondents (47.50%) were having low level of food security in the study area, low level of economic security (52.50%). 43.33 per cent were having low level of health security. While 49.17 per cent were having medium levels of educational security. Almost half of the respondents (51.67%) were having high level of social security, 40.83 per cent were having low level of institutional security and 46.67 per cent had medium level of infrastructural security. Jaganathan *et al.*, (2019) revealed in their research study that the overall human capital index was 46 for sweet potato growers and 52 for paddy growers. The overall physical capital index was more for sweet potato growers (72) as compared to paddy growers (70). Social capital index was similar to both the growers. The overall financial index was 40 for paddy growers and 36 for sweet potato growers. The overall natural capital index was 63 for sweet potato growers and 64 for paddy growers.

Sathwika *et al.*, (2019) in their study revealed that, from the respondents of Government organization, majority of the respondents (63.00 %) had medium level of food security. 76.70 per cent of them had medium level of occupational security. In case of habitat security, (66.7%) had medium level of security. Most of the respondents (66.7%) had medium level of educational security. 58.30 per cent had

Medium level of health security and medium level of social security (65%). From the respondents of Non-Government organization, Majority of respondents (70.00 %) had medium level of food security. 68.3 per cent of them had medium level of occupational security. 70.00 per cent of them had medium level of habitat security. 71.70 per cent had medium level of educational security. 66.70 per cent of them had medium level of health security and 68.30 per cent of them had medium level of social security. Immanuel *et al.*, (2019) reported that the human capital index was more for paddy farmers (61) when compared to cassava farmers (49). Physical capital was also high for paddy farmers (71).

Livelihood options

Kumar *et al.*, (2006) reported that majority of families derive their livelihoods from agriculture. Smallholders' dependence for livelihoods on dairying and other animal husbandry activities is higher. Sagar and Vijay, (2006) found that Livelihood of rural poor can be secured by way of adopting agro – based highly remunerative and income generating enterprises. Mushroom cultivation is one of the most suited agro – based activity which transform the food and livelihood insecure rural poor into nutritional and livelihood secure one.

Kumar *et al.*, (2006) indicated that goat rearing was contributing significantly to the families' livelihood security. Goat rearing alone contributed 49.00 to 86.00 per cent of the households' total income. Hence, instead of depending on agriculture alone for income, adapting integrated farming system will be helpful for better livelihood. Basavaraj (2008) showed that the overall livelihood status was high after undertaking income generating activities by most of the KAWAD project beneficiaries which was

reflected by improvement in human capital, physical capital, social capital, financial capital and food security.

Prajapati *et al.*, (2011) indicated that the impact of the agricultural modernization on the extent of sustainable livelihood among the non tribal respondents was more, while it was very low in tribal respondents. Satyanarayana and Rao, (2012) concluded that agriculture after livestock enterprises was best option to increase the family income per annum for sustainable livelihood and rapid growth in three regions of Andhra Pradesh. Monika *et al.*, (2012) reported that the contribution of livestock production to respondents livelihood was highest in Phaltan Taluk (33.90%) followed by those in Satara Taluk (26.75%), Patan Taluk (20.58%), Karad Taluk (10.51%) and Khataw Taluk (8.63%).

Kumar *et al.*, (2015) revealed that more than half of the respondents 55.83 per cent had livestock and crop farming as their livelihood option, 15.84 percent were engaged in livestock, crop farming and selling of forest products, 13.33 percent were engaged in livestock and labour as their occupation or livelihood options, followed by 10.00 percent in livestock shop and 5.00 percent in livestock, shop and labour. Harishkumar *et al.*, (2015) revealed in their study that among the different farming system, Crop+Dairy+Sericulture farm households were having more livelihood security with mean score 70.17 followed by Crop+Sericulture (52.00), Crop+Dairy (50.83) and Crop+ Sheep (27.00). Kumar *et al.*, (2016) revealed that the livelihoods of tribal communities in the area have traditionally been dominated by Dairy Production System (DPS) - C+B+G (C=Cattle, B=Buffalo, G=Goat). Kumar *et al.*, (2016) have been found that the core outcome of the research was that

Cattle+Goat+Pig (C+G+P) was the Livestock Production System (LPS) that contribute primarily towards the sustainable livelihood of the respondents (sustainable livelihood index value- 28.02), closely followed by Cattle+Buffalo+Goat (25.53) and Cattle+Goat (24.61).

In conclusion, after reviewing the various facets of livelihood security we reach in a conclusion that, among the components of livelihood security, majority of the farmers across India had medium health security, educational security and infrastructure security. Regarding food security most of the farmers had medium to low level of food security. Concern to assets of sustainable livelihood, majority of the farmers had low human capital, financial capital and natural capital. Most of the farmers had low to medium physical capital while for social capital majority of farmers had medium to high social capital. Together most of the farmers in India had medium level of livelihood security. Maximum numbers of the respondents in different areas of India were engaged in farming activities and livestock production for their livelihood generation.

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