

Women empowerment through *helabojun* food courts: an evaluation of livelihood outcomes

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Abstract

Helabojun concept was originated and organized in an institutional level by the Department of Agriculture (DOA) to develop business incubators for women and promote consumption of healthy food and beverages prepared using local raw materials employing traditional culinary methods. Food courts offer a range of local foods and drinks at affordable prices with ensured safety under one shelter. Objective of this study was to measure livelihood outcomes attained by women through engagement in *Helabojun* food courts using Sustainable Livelihood Framework (SLF). A Livelihood Outcome Index (LOI) was developed to measure livelihood outcomes and a correlation analysis was done between livelihood outcomes and household characteristics. Paired sample T test was employed to compare mean income before and after engagement in *Helabojun* food courts. Primary data collected from 137 women workers at five *Helabojun* food courts were used for the analysis. The results show that 46%, 30% and 24% of the women have achieved high, moderate and low livelihood outcomes respectively. Family size, years of schooling, years of experience and working days per month were positively correlated with the livelihood outcomes attained by the women at $p \leq 0.05$. The study concluded that women's livelihood outcomes have noticeably been improved by *Helabojun* food court and household characteristics of the women are supportive for improving livelihood outcomes such as income, saving, household amenities, education, health, food pattern, sanitation, social interaction and access to credit. The study recommended women to begin their own food court to sustain household well-being after finishing their training at *Helabojun* food courts.

Key words: Livelihood strategy, Local foods, Women and household wellbeing

Introduction

The concept of *Helabojun* (food produced using local raw materials employing traditional culinary methods) became a reality during the last decade with many appreciations from different stakeholders. A numbers of *Helabojun* food courts have been established in different areas of the country. This is one of the success stories of the Department of Agriculture (DOA) Sri Lanka during the past decade. This program directly empower women and indirectly supports local farmers by increasing demand for indigenous raw materials. The program also attracted consumers' interest by providing nutritious and hygienic foods (no chemicals or artificial seasonings) at affordable prices in a pleasant environment under ensured sanitation. Producing local foods is not a new initiative in Sri Lanka. It is one of the coping strategies that Sri Lankan women already adopted. With the establishment of *Helabojun* food courts, such strategies were further developed, and well organized in an institutional level by the DOA. An evaluation of the program is timely using view of the stakeholders' to identify problems if any. It will help identifying strategies used by women to improve their livelihoods. This study aimed to measure, livelihood outcomes attained by women through *Helabojun* production and correlation between livelihood outcomes attained by women and their household characteristics.

Materials and methods

Empirical framework

The "Sustainable Livelihoods Framework" (SLF) simplified by Ashley and Carney (1999) and British Department for International Development (DFID, 2000) was adopted as the empirical approach of the study. (Figure 1) The DFID adopts a version of Chambers and Conway (1992) definition of livelihoods as follows:

"A livelihood comprises the capabilities, assets and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base."

The DFID framework sets out to conceptualize the way that people operate within vulnerability context that is shaped by different factors such as shifting seasonal constraints (and opportunities), economic shocks and longer-term trends. It shows further, how people draw on different types of livelihood assets or capitals in different combinations which are influenced by vulnerability context, range of institutions and processes and how people use their asset base to develop a range of livelihoods strategies to achieve desired livelihood outcomes (de Stagé *et al*, 2002).

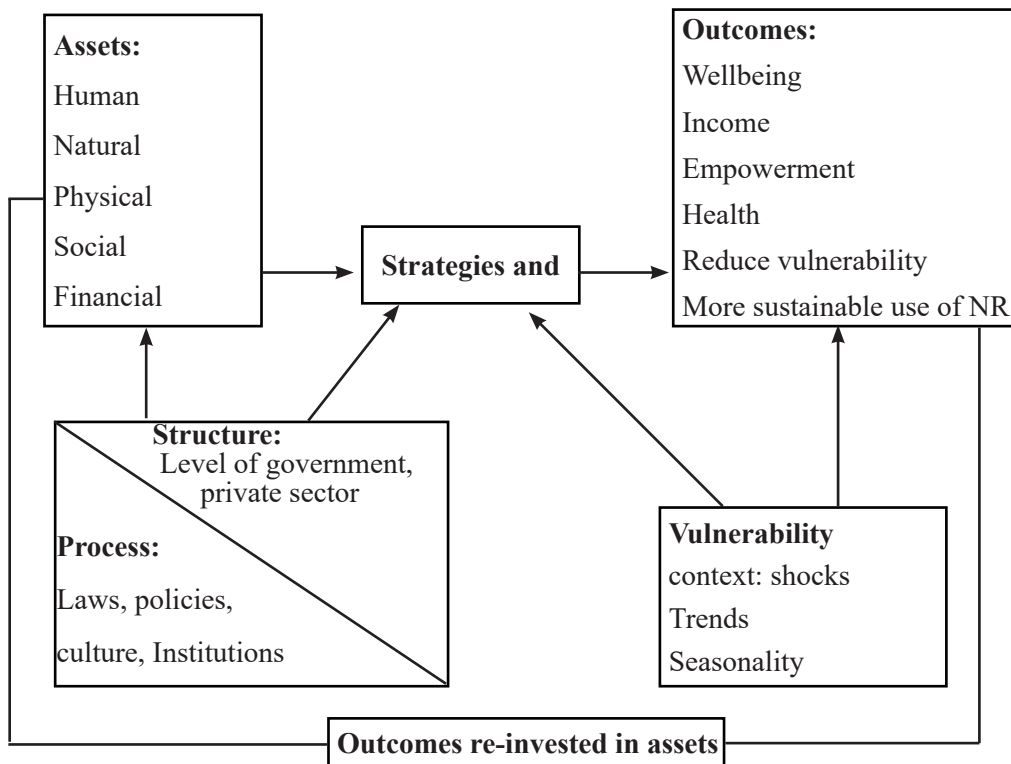


Figure 1. “Sustainable livelihoods framework” simplified by Ashley and Carney 1999 and DFID 2000

Data collection and analysis

A primary survey was conducted using a structured questionnaire to gather data. FCE TO Face interview was conducted with all women entrepreneurs (137) engaged in Hela bojunhala food courts at *Bataatha, Matara, Labudoowa, Peradeniya* and *Gannoruwa* during December 2017 to April 2018. The leader in each women group and the Agriculture Instructor (AI) who guide and supervise each *Helabojunhala* were considered as key informants and interviews were conducted with them.

A Livelihood Outcome Index (LOI) following Gervas, 2017 was developed to assess whether Income earned, savings, household amenities, education, health, food pattern, sanitation, social interaction and access to credit were improved. Each livelihood outcome was assigned a point by assigning 1 for 'yes' responses and 0 for 'no' responses and all the points were summed up to get overall score. Thus, overall score ranged from 0 (zero) to 9 (nine). Finally, the measure was divided into three categories based, ie., high livelihood outcomes (6.1 to 9.0), moderate livelihood outcomes (6) and low livelihood outcomes (3 to 5.9). The median (6.0) was considered as the moderate category. Further, paired sample T test was used to compare income before and after engagement of *Hela bojunhala* to test whether the women have significantly increased their income through the involvement.

Pearson's correlation co-efficient was used to test the relationship between livelihood outcomes attained by the women in *Helabojunhala* program and their household characteristics,(i. e. , age, family size, years of schooling, years of experience in Hela bojun production, working days per month at *Helabojunhala*, number of produced items) Following Cohen and Holliday (1982), Bryman and Cramer (1993) and Gervas (2017), following categorization was used: below 0.19 : very low, 0.20 - 0.39: low, 0.40 - 0.69: modest, 0.70 - 0.89: high and 0.90 - 1.00: very high.

Results and discussion

Household characteristics and availability of assets

Table 1 presents socio economic and demographic profile of the sample. The majority of the women was married, middle aged and educated only up to Ordinary level. Household size ranged from 1 to 7 while median was 4. Mean occupation of the husband was self-employment. Mean value for young people in the family was 1.8 and ranged from 0 to 4 people. The majority visited government hospital for medical treatment.

Table 1. Household socio economic and demographic profile with assets context

	frequency	Basic statistics				
		Mean	St.dev.	Min.	Max.	Median
Availability of human capital						
Age of the re-spondent (years)		47	0.0	24	69	48
Marital status		0.99	0.85	0	1	1
Household (HH) size		4.26	0.97	1	7	4
Education						
1. primary	1					
2. up to O/L	135					
3. up to A/L	1					
Occupation for husband						
Self-employee	19					
Monthly salary	35					
Retired	10					
unemployed	32					
Young family members		1.8	2.13	0	4	2
Visit government hospital		0.95	0.21	0	1	1

Table 1 cont.

	Basic statistics					
	frequency	Mean	St.dev.	Min.	Max.	Median
Availability of physical capital						
Home garden (ha)		0.11	0.16	0.12	1.20	0.40
Permanent house		0.91	0.29	0	1	1
Durable assets Television and,		1.00	0.00	1	1	1
radio Motor bicycle, Three		0.94	0.24	0	1	1
wheeler etc)		0.49	0. 61	0	1	0
<i>Agricultural land (acre) reported by only 15 % of the respondents</i>						
Sanitation		0.88	0.38	0	1	1
Passable roads		1.03	0.17	0	1	1
Public transportation		0.88	0.33	0	1	1
<i>Availability of natural resource – (aquatic, livestock and environmental resource not reported)</i>						
Drinking water		1.0	0.25	0	1	1
<i>Availability of social capital – (leadership in any social group was negligible)</i>						
Mobile phone		0.96	0.20	0	1	1
<i>Fix phone reported by only 29%</i>						
Membership in formal group		0.61	0.49	0	1	1
<i>Availability of financial capital- debt, remittance, wages and pensions reported negligible</i>						
Husband’s income (‘000Rs.)		27.9	29.0	10.0	80.0	30.0
Saving		.96	0.18	0	1	1
Access to credit		0.41	0.52	0	1	0

Access to passable roads, public transportation drinking water and sanitary facilities were good for the majority. The majority had mobile phone and social relation with formal groups. The majority possessed savings. Husband's income ranged from Rs.10,000 - 80,000 with mean income of Rs.27,915. Access to credit was not satisfactory level.

Involvement in *Hela bojunhala* and improving livelihood outcomes

According to Table 2, working experience at *Helabojunhala* ranged from 1 -10 and majority reported 3-4 years. Eighty five percent (85%) of the women had been given training on *Helabojun* production at the beginning of the program. Before joining the *Helabojunhala*, majority of the women were self-employees and another considerable proportion were unemployed. Income before engagement in *Helabojun* production was ranged from 5,000 – 50,000 rupees with average of 15,726 rupees per month. After joining the *Helabojunhala*, average income had increased to Rs 126,166 per month. Working days per month ranged from 6 -30 with average of 21 days and hours per day ranged from 5-11 with average of 6.35 hours. In addition, the women committed to spend extra few hours for material collection and pre-preparation at home which accounted for average of 5 hours, maximum of 7 and minimum of 2 hours per day. Eighty two percent (82%) of the women were supported by family members for pre preparation of the items at home and the key person who supported was the husband. The women satisfactorily used savings from *Helabojun* production for their weddings, funerals, health risks, social responsibility etc.

Finally the women were asked whether the *Helabojunhala* program helped improve their livelihood outcomes in terms of income, saving, household amenities, education, health, food pattern, sanitation, social interaction and access to credit. All the respondents responded positively for most of the questions. . Livelihood outcomes were measured using LOI, which indicate that 46% of the women have achieved high livelihood outcome while other 30% and 24% of the women have achieved moderate and low livelihood outcomes respectively (Table 2).

Paired sample T test

Paired sample t- test was done to compare mean for income before and after engagement in *Hela bojunhala*. P-value of the two tailed t-test was 0.000 ($0.000 < 0.05$) and related t value was 15.17. Accordingly, null hypothesis stated in methodology section (H₀) was rejected at $P < 0.001$ indicating that income after engagement in *Helabojunhala* was higher than that of before the engagement. The computed values of LOI and paired t- test implied that women engaged in *Helabojunhala* program had increased their livelihood outcomes in terms of income, saving, improved household amenities, education, health, food pattern, sanitation, social interaction and improved access to credit.

Table 2. Involvement in *Helabojun* production and livelihood outcomes attained by women

Variable	Basic statistics					
	frequency	Mean	St.dev.	Min.	Max.	Median
Working experience (years)		3.07	2.06	1	10	4
Previous training		0.85	0.38	0	1	1
Previous livelihood strategy	5	2.62	0.93	1	3	2
i. Farming	95					
ii. self-employee	37					
iii. unemployed						
Previous Income ('000Rs/ month)		15.7	13.8	6.0	70.0	10.0
Income through <i>Helabojun</i> ('000Rs/ month)		126.1	63.7	30.0	362.0	110.0
Number of working days		21	5.2	6	30	24
Working hours per day		6.35	1.15	5	11	6
Time for pre preparation (hours/ day)		5.08	1.26	2	7	5
Support from family members ^b		0.82	0.38	0	1	1
Credit for extra expenses						
i. Saved money		0.72	0.45	0	1	1
ii. Borrowing		0.20	0.39	0	1	0
Improved livelihood outcomes		1	0	1	1	1
Livelihood Outcome Index (LOI)		5.68	1.76	3	9	6
Level of achieved livelihood outcomes		2.86	0.83	1	3	2
Low livelihood outcomes			24%			
Moderate livelihood outcomes			30%			
High livelihood outcomes			46%			

Profitability through *Helabojun* production

Generalizing income and profitability through average figures (Table 2) alone is not sufficient as there were many disparities across, unit price, daily/monthly stocks, number of working days at *Helabojunhla* and consumer willingness to buy. Hence, as shown in Table 3, profitability analysis was done based on the figures taken from the five

lowest earners and the five highest earners with number of working days and food items they produced for much clear interpretation. However, it was clear that the higher the number of working days, the greater the profit margins were. This was followed by stock retailed and different customers. The highest profit earner accounted 150,300 rupees, worked 25 days per month and she produces only *Unduwel*.

Correlation between livelihood outcomes attained by women and their household characteristics

Pearson's correlation was performed to determine the correlation between the livelihood outcomes in terms of income, profit and saving and age of the responded woman, family size, years of schooling, years of experience, working days per month, number of items produced. The result of the correlation analysis is presented in Table 4 and it shows that four out of the six variables had significant correlation with livelihood outcomes. Family size had low correlation with income ($r = 0.220$) and significant at ($p \leq 0.05$).

Table 3. Profitability analysis through minimum and maximum earners (per month)

	Cost Rs.	Income Rs.	Profit Rs.	Working days	No. of items	Food items produced
Lowest earners						
1	54,050	62,250	8,200	15	3	<i>Pittu, Welitalapa, Kithulpiti conji</i>
2	65,725	74,625	8,900	15	2	<i>Uduwel, Kokis,</i>
3	47,350	56,850	9,500	15	3	<i>Idiappa Kottu, Petis, Cassava</i>
4	75,675	85,400	9,725	15	2	<i>Uduvade, Kokis</i>
5	37,545	47,500	9,955	15	3	<i>Rotee, Wandu, Belimal</i>
Highest earners						
1	116,630	210,625	93,995	25	3	<i>Cutlet, Milk rice, Cowpea Wade</i>
2	122,480	221,200	98,720	28	2	<i>Mushroom soup, Lewariya</i>
3	102,375	202,300	99,925	25	3	<i>mushroom soup, Pittu, narankeum</i>
4	138,325	243,000	104,675	27	2	<i>Rotee, Helapa</i>
5	149,700	300,000	150,300	25	1	<i>Unduwel</i>

This correlation implies that higher the number of family members, more the woman is likely to have higher income. The majority of the women have two or three young children and women were supported by their husbands and children to prepare food items to sell at *Helabojunhala* which raised their income. Family size also had low and very low correlation with profit and saving respectively ($r=0.220$ and 0.177) and correlation coefficients were significant ($p \leq 0.01$ and $p \leq 0.05$ respectively). Years of schooling had very low correlation with saving ($r=0.144$) and correlation was significant ($p \leq 0.05$). This correlation suggests that the higher the education level of women, more the tendency to increase saving. Years of experience in *Helabojun* production was moderately correlated with income ($r=0.541$) and correlation was highly significant ($p \leq 0.001$). This result implies that higher the experience in *Helabojun* production, greater the probability of raise gross margin of income. Years of experience also have low correlation with profit and saving ($r=0.341$ and 0.377 respectively) while having high significant level ($p \leq 0.001$). Key informants also mentioned that in addition to working experience at *Helabojunhala*, some of the surveyed women had previous experiences of food production and selling at some other institutes or at their own business places. Working days per month had moderate correlation with income, profitability and saving ($r=0.530$, 0.478 and 0.435 respectively) and highly significant ($p \leq 0.001$). This implies that higher the number of working days, greater the women likely to increase income, profitability and saving.

Based on the correlation result in Table 4, family size, years of schooling, years of experience in *Helabojun* production, working days per month at *Helabojunhala* had significant correlation with dependent variables at different P values. Thus, family size had correlation with income and saving at $p \leq 0.05$ and with profit at $p \leq 0.01$. Years of schooling had correlation only with saving at $p \leq 0.05$. Years of experience and working days per month had correlation with all the livelihood outcomes (income, profit and saving) at $p \leq 0.001$. Either of the age or number of items produced was not significant at $p \leq 0.05$.

Table 4. Correlation between independent variables and dependent variable¹

Independent variables	Pearson's correlation coefficient (r- value)			Level of significant (p-value)		
	income	profit	saving	income	profit	saving
Age of the woman	-0.039	0.010	0.041	0.647	0.904	0.639
Family size	0.220*	0.224**	0.177*	0.010	0.009	0.039
Years of schooling	-0.104	-0.127	0.144*	0.227	0.140	0.046
Years of experience	0.541***	0.341***	0.377***	0.000	0.000	0.000
Working days per month	0.530***	0.478***	0.435***	0.000	0.000	0.000
Number of items produced	-0.104	-0.110	0.023	0.226	0.202	0.786

1. Dependent variable is livelihood outcomes in terms of income, profit and saving through helabojun production * Correlation is significant at 0.05 level (2- tailed) ** Correlation is significant at 0.01 level (2- tailed) *** Correlation is significant at 0.001 level (2- tailed)

The above results were quite consistent with the findings on contract farming by Gervas (2017) which stated that years in contract farming was significantly correlated with sugarcane yield and monetary value from sugarcane. Against findings of Gervas (2017), this study found that education level was significantly correlated with saving and household size was significantly correlated with income, profits and savings.

Thus, the null hypothesis (H_0) of there is no relationship between livelihood outcomes attained by the women in *Helabojunhala* and their household characteristics was rejected.

Conclusion

Based on the LOI and paired T test, the study revealed that *Helabojunhala* program have assisted women to improve their livelihood outcomes and the key informants emphasized the situation. The study also concluded that household characteristics of the women were supportive for improving their livelihood outcomes. Therefore, the study recommends that in order to improve livelihood outcomes, family size, years of schooling, years of experience in *Helabojun* production and number of days women can work at the *Helabojunhala* which were found to have positive correlation with the livelihood outcomes should be carefully considered in selecting women.

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