THE LEVEL OF WELL-BEING AMONG SMALL FARMERS: A CASE OF SINDH PROVINCE, PAKISTAN

Ghulam Mujtaba Khushk[1, 2], Asnarulkhadi Abu Samah[1, 3], Hanina Hamsan[1] & Nobaya Ahmad[1]
[1]Department of Social and Development Sciences, Faculty of Human Ecology, Universiti Putra Malaysia
[2]Department of Rural Sociology, Faculty of Agricultural Social Sciences, Sindh Agriculture University, Tandojam, Pakistan.
[3]Institute for Social Studies, Universiti Putra Malaysia
*[3]Corresponding author:asnarul@upm.edu.my

ABSTRACT : *Worldwide activities at government and non-government level are being conducted to improve the quality of life and well-being of people. These activities need to be evaluated/ assessed to observe the impact on society. Thus, the present study attempted to asses such activity in the province of Sindh, Pakistan. This study was carried out using survey method. The targeted population of this study was the small farmers of three districts who participated in a crop maximization project (CMP-II). The sample size was 455 at significance level of 5%. The multistage sampling method was employed and responses were recorded on a six-point Likert scale questionnaire. This study assessed the level of well-being among small farmers of Sindh province. The level of well-being was divided into four sections namely; material conditions, quality of life, human solidarity and sustainability. The present study revealed that, there is an overall moderate level (M = 212.18; SD = 46.43) of well-being among the beneficiaries. It is, therefore, concluded that projects like crop maximization improves the quality of life of the people and eventually contribute to the well-being of the people.*

Key words: Well-Being, Small Farmers, Sindh, community development.

INTRODUCTION

Every society of the world is trying to improve and enhance the quality of life and well-being of its citizens. Likewise, the Pakistan government and its development agencies are also working day and night for the better quality of life and well-being of the people of the country. Basically, Pakistan is a small farm country having 93% farm holding, the vast scope exists for the development of agriculture sector by addressing the issues relating to the small farmers [1, 2]. Realizing the gravity of issues regarding the well-being of small farmers, the government of Pakistan and provincial government of Sindh have launched various programs (i,e. micro-finance schemes, food security programs, poverty alleviation programs, farmers' field school, crop-maximization projects, etc.). Well-being have been discussed and described in literature by various researchers in their own perspectives but there is no universally accepted definition [3]. According to [4] well-being means good or satisfactory conditions of living; a state of living characterized by good health, happiness, and prosperity. [5] said that the concept of healthy communities emerged in the 19th century and the idea of measurement of a community's well-being was developed in a more holistic way. They also stated three dimensions of well-being which are: social, environmental and economic. [6] generalized the definition of subjective well-being (SWB) in that it is how people feel and experience life on the basis of their own experiences. Furthermore, human well-being is associated with well-living, welfare, quality of life, living standards, needs fulfilment, utility, prosperity, satisfaction, capability, expansion, empowerment, development, human development and happiness [7, 8, 9, 10].

In light of the above definitions, efforts have been made to determine the level of well-being of small farmers of Sindh in subjective as well as objective well-being combined. This is because there is a need of time to generate social meaning of well-being that contains or combines both subjective as well as objective dimensions of well-being [11]. Besides this, the researcher is of the opinion that for the understanding wellbeing, one should understand the basic four core values which are; material conditions, quality of life, human solidarity and ecological sensibility. Similarly, [7, 12, 13] discussed the same necessary core values that are important for subjective as well as objective well-being. In Pakistan, a few studies regarding well-being were conducted in different provinces. An example of this is [14] in which they conducted a study about the farmer field schools and their impact on social well-being of the farming community of Khyber Pakhtunkhawa province of Pakistan. Six districts of the province were selected for data collection. A total of 240 farmer field school (FFS) farmers and 60 extension workers were selected randomly. The researchers found that there is a significant impact of FFS on social well-being of farmers' community as a result of project activity. The active participation of the local people in community development project helps to improve their quality of life [15, 16]. Likewise, [17] conducted a research on rural micro credit in the Punjab; Pakistan revealed that the scheme improves the income and well-being of the borrowers. However, there is hardly any study conducted in Sindh province of Pakistan that assesses or evaluates the level of well-being of small farmers. In order to realize the importance of the level of well-being, the researcher attempted to determine the level of well-being by examining both subjective as well as objective well-being among small farmers who participated in a crop maximization project. The crop maximization project was launched by the agricultural department of the government of Sindh and the federal government of Pakistan. The main features of the project included organizing and empowering farmers' community, intensifying agriculture extension services at village level, extensive training of farmers, ensuring easy access to soft agricultural loan, capacity building for improving crop productivity, establishment of small enterprises for income enhancement and building linkages of farmer groups with main marketing chains.

METHODOLOGY - MATERIALS AND METHODS

Research site / location / area

The research site for the present study was the three districts of the Sindh province of Pakistan. There were a total of six districts where a crop maximization project was launched by the government and out of the six, three districts were selected namely; Khairpure, Nawabshah and Mirpurkhas.

Research design

The study was quantitatively approached and a survey design had been used. The survey design was preferred in this study because it is practically convenience to cover a wide study area, inexpensiveness, good statistical significance, little observer subjectivity and precise results [18]. The questionnaires were administered by the researcher with the help of two trained research assistants. The interviews were conducted individually; the respondents were requested for a time and place for the interview prior to filling in the questionnaire.

Sample size and sampling technique

The targeted population of this study was the small farmers of Sindh province who participated in the crop maximization project (CMP-II). The total number of beneficiaries was 1440. The sample size was computed as 455 using [19] formula [20]. Data was collected from three different selected districts.

The detail is as below:

The total size of sample is 455.

Districts sample size calculations

$$DSS(Khairpur - upper\ zone) = \frac{491}{1440} \times 455 = 155$$

$$DSS(Nawabshah - middle\ zone) = \frac{479}{1440} \times 455 = 151$$

$$DSS(Mirpurkhas - lower\ zone) = \frac{470}{1440} \times 455 = 149$$

Check= 155+151+149= 455

The sampling method applied for this study was the multistage sampling technique. A multistage cluster sampling technique is suitable in a large scale sampled survey because of its advantage of clustering collection system [21].

Instrument / questionnaire development

The questionnaire is the tool for data collection in this study. Questionnaire was redesigned and adopted, and some items of questionnaire were modified based on literature review while keeping in mind of the objectives of the study, background of the respondents, and local culture. Thus, the different sections of the instrument were taken from the different types of well-being (subjective or objective well-being) and a careful consideration was given during the redesigning and adopting of the instrument items in order to generate a relevant literature and concept, useful and comprehensive information. Furthermore, the questionnaire was divided into four sections; material condition, quality of life, human solidarity and sustainability. The items for instruments were taken from the works / studies of [22, 23, 24, 25, 26, 27]. Furthermore, the responses to the questions were collected using a six-point Likert scale (1=Strongly Agree to 6=Strongly Disagree) because the validity of the Likert scale is justified in a perception-based research [28].

Validity and reliability of the questionnaire

The questionnaire was validated by an experts' committee that included experts from Universiti Putra Malaysia and Sindh Agriculture University, Tandojam, Pakistan. The widely accepted value of the Cronbach's alpha for questionnaire to be reliable is ≥ 0.7 [29, 20]. The results presented in Table 1 shows that the questionnaire was reliable in measuring well-being level, with the alpha value being greater than 0.7. The level of well-being of small farmers was divided into four sections namely; material condition, quality of life, human solidarity and sustainability.

Table 1. Reliability Coefficients for Pilot and Final Test

Latent Variable	Construct Variables	Pilot Test (n=50)		Final Test (n=455)	
		Items	Alpha (α)	Items	Alpha (α)
Well-Being	Material condition	16	.984	16	.964
	Quality of life	16	.872	16	.973
	Human solidarity	15	.998	15	.981
	Sustainability	11	.998	11	.971

Measurement of level of well-being

The different dimensions of the well-being were measured categorically as low, moderate and high; ranked 1, 2, and 3, respectively. Thus, the calculation was done the following way:

A) Solved Example for Table 2-5

Class Interval (CI) Width = HSV – LSV/K

Where:

HSV = Highest Scale Value.

LSV = Lowest Scale Value

K = Number of Categories

CI = (6-1) / 3 = 1.6,

= 1+1.6=2.6

Range for low = 1 - 2.6

= 2.7+1.6= 4.3

Range for moderate = 2.7 – 4.3

=4.4+1.6=6

Range for High = 4.4-6

Check

1 (Low: 1-2.6 = 1.6) 2 (moderate: 2.7-4.3 = 1.6) 3 (High: 4.4-6 = 1.6)

B) Solved Example for Tables 2-5 and 6

Class Interval (CI) Width = HSV – LSV/K

Where:

HSV = Highest Scale Value.

LSV = Lowest Scale Value

K = Number of Categories

HSV = Total item x response scale maximum value

HSV = 16 x 6 = 96

LSV = Total item x response scale maximum value

LSV = 16 x 1 = 16

CI = (96 – 16) /3= 26.66

1) Low: 16 – 42.66 = 26.66, 2) Moderate: 42.67 – 69.33 =26.66, 3) High: 69.34 – 96 = 26.66

RESULTS AND DISCUSSION

Level of material conditions in well-being

Table 2 showed that the item analysis measuring the material conditions of well-being. In the material conditions section of well-being, the respondents were asked different statements regarding income, assets and available resources of small farmers. All those items are material conditions of the people which encompass people's command over commodities, income, assets and consumption, and how available resources are distributed among different people or **groups [30].**

The analysis showed that there are a majority of items that fall under the category of moderate level of material conditions in well-being. The results in table 2 are presented from highest mean score of the items to lowest mean score of the items. Thus, the respondents of the study were satisfied that they were able to earn a living (M=4.24, SD=1.069), have fertile land (M=4.16, SD=1.181) and satisfied that they had stored grain to last throughout the year (*M* = 4.13, *SD* = 1.282).

On the contrary, there were a few items that fall under the category of low level of material conditions. The respondents perceived that they were satisfied that they have their own electronic and electrical appliances (M=2.38, SD=0.809), have their own agricultural appliances (M=2.37, SD=0.835) and have their own tractors for crop cultivation (M=2.24, SD=1.041). Generally, the mean score for material conditions is 3.22 (SD = 0.99), which indicates a moderate level of well-being as perceived by the respondents.

Overall average mean = 3.22, SD = 0.99; N=455

1 (Low: 1-2.6), 2 (moderate: 2.7-4.3), 3 (High: 4.4-6)

Level of quality of life in well-being

Table 3 depicts the results item of analysis measuring quality of life among small farmers. The respondents were inquired about the health, education, security and etc, which encompass the multifaceted concept of quality of life (QOL) that has been in a variety of disciplines [31]. However, this term has been interchangeably used with happiness and well-being [15].

The results showed a moderate level of quality of life in well-being. The respondents of the study were satisfied that they have food security (M=4.25, SD=1.063), that they have art and cultural activities in their community (M=4.2, SD=0.986) and that they feel safe in their community (M=4.16, SD=1.101). However, the results of three items showed a low level of quality of life in well-being. The results of those items showed that the respondents were satisfied; that they were living a good life (M=2.6, SD=1.15), that they have health services in their community (M=2.52, SD=0.99) and that they and their families have the required food calories (M=2.45, SD=0.911). The overall result for quality of life is indicated by the mean score (M = 3.47; SD= 1.06), which portrays a moderate level of well-being as perceived by the respondents".

Table 2. Level of material conditions in well-being

S.NO	Statement	M	SD	Level	Rank
1	I am satisfied what I am earning	4.24	1.069	Moderate	2
2	I am satisfied that I have fertile land	4.16	1.181	Moderate	2
3	I am satisfied that I have stored grain for throughout the year	4.13	1.282	Moderate	2
4	I am satisfied that I can afford to buy/ purchase for my family	4.06	1.234	Moderate	2
5	I am satisfied that I have livestock	4.04	1.427	Moderate	2
6	I am satisfied that I have my own means of cultivation of crop	4.04	1.088	Moderate	2
7	I am satisfied with physical conditions of my house	3.53	0.914	Moderate	2
8	I am satisfied that I can afford my cultivation expenses of farm	3.51	0.782	Moderate	2
9	I am satisfied about my consumption	2.92	0.664	Moderate	2
10	I am satisfied that I have my own means of transportation	2.66	1.119	Low	1
11	I am satisfied that I have saving for emergency	2.48	0.844	Low	1
12	I am satisfied that I can purchase Agricultural inputs(seed, pesticide, fertilizer) without taking loan	2.45	0.896	Low	1
13	I am satisfied with what material resources I have	2.45	0.749	Low	1
14	I am satisfied that I have electronic, electrical appliances (TV,Radio,Tape recorder,Washing machine) my own	2.38	0.809	Low	1
15	I am satisfied that I have my own agricultural appliances/	2.37	0.835	Low	1

16	I am satisfied that I have my own tractor for cultivation of crop	2.24	1.041	Low	1

Table 3. Level of quality of life in well-being

S.NO	Statement	M	SD	Level	Rank
1	I am satisfied that I have food security	4.25	1.063	Moderate	2
2	I am satisfied that I have art and cultural activities in my community	4.2	0.986	Moderate	2
3	I am satisfied that I feel safe in my community	4.16	1.101	Moderate	2
4	I am satisfied that my children have access to school	4.15	1.074	Moderate	2
5	I am satisfied with sport and recreational facilities in my community	4.14	1.12	Moderate	2
6	I am satisfied that me and my family is safe and secure in this community	4.11	1.126	Moderate	2
7	I am satisfied that I am living happy life	4.11	1.136	Moderate	2
8	I am satisfied that my family have access to hospital	3.81	0.968	Moderate	2
9	I am satisfied that there is no conflict in my community	3.45	0.881	Moderate	2
10	I am satisfied with public transport facilities in my community	3.17	1.091	Moderate	2
11	I am satisfied with educational facilities in my community	2.85	1.306	Moderate	2
12	I am satisfied that I have good health	2.81	0.952	Moderate	2
13	I am satisfied that my family have access to recreational place	2.81	1.145	Moderate	2
14	I am satisfied that I am living a good life	2.6	1.15	Low	1
15	I am satisfied with health services in my community	2.52	0.999	Low	1
16	I am satisfied that me and my family have required food calories	2.45	0.911	Low	1

Table 4. Level of human solidarity in well-being

S.NO	Statement	M	SD	Level	Rank
1	I am satisfied that I am free to sale my product	4.09	1.102	Moderate	2
2	I am satisfied that I am free to select the variety of crop to cultivate	4.08	1.133	Moderate	2
3	I am satisfied that I am free to speak my own language	3.93	1.282	Moderate	2
4	I am satisfied that I can practice the religion of my own choice	3.85	1.325	Moderate	2
5	There is no language, sect or religion barrier in our community	3.84	1.298	Moderate	2
6	I am satisfied that members of my community have built network with neighbouring communities	3.79	1.507	Moderate	2
7	I am satisfied that I am living in a socially inclusive environment	3.78	1.38	Moderate	2
8	I am satisfied that the community members prefer to share their problems with the community	3.77	1.423	Moderate	2
9	I am satisfied that there is unity in my community	3.7	1.522	Moderate	2
10	I satisfied that the most of the members participate in group work and do good work	3.7	1.512	Moderate	2
11	I am satisfied that the farmers of my community help each other in farming activities	3.67	1.532	Moderate	2
12	I am satisfied that I have a good network of my friends	3.66	1.488	Moderate	2
13	I am satisfied that my family has good relations with other families of community	3.65	1.517	Moderate	2
14	I am satisfied that I am free where to sale my crop	3.46	0.914	Moderate	2
15	I am satisfied that my community is eager to involve in agricultural activities	3.29	1.179	Moderate	2

Overall average mean = 3.47, SD = 1.06; N=455

1 (Low: 1-2.6), 2 (moderate: 2.7-4.3), 3 (High: 4.4-6)

Table 5. Level of sustainability in well-being

S.NO	Statement	M	SD	Level	Rank
1	I am satisfied that I am aware about sustainable agriculture	3.18	0.982	Moderate	2
2	I am satisfied that I know how to provide a liveable built environment for future	3.18	1.055	Moderate	2
3	I am satisfied that my children will have a better life than I have	3.14	0.98	Moderate	2
4	I am satisfied that the farmers of my community prefer to use environment friendly pesticide and methods	2.66	0.966	Low	1
5	I am satisfied that I have cultivated environment friendly crop on my farm	2.63	0.934	Low	1
6	I am satisfied that my community has capacity to handle environmental issues/problems	2.37	0.917	Low	1
7	I am aware that how to make possible judicious use of natural resources	2.36	0.753	Low	1
8	I am satisfied that farmers of my community properly dispose of the pesticide material after using it	2.3	0.704	Low	1
9	I am aware that the available natural resources are not only property of present generation but also belongs to coming generations	2.29	0.706	Low	1
10	I am satisfied that I am living an environmentally sustainable lifestyle	2.23	0.682	Low	1
11	I am satisfied that I know how to protect and conserve the natural resources and environment	2.22	0.632	Low	1

Overall average mean = 2.59, SD = 0.84; N=455
1 (Low: 1-2.6), 2 (moderate: 2.7-4.3), 3 (High: 4.4-6)
Overall average mean = 3.75, SD = 1.34; N=455
1 (Low: 1-2.6), 2 (moderate: 2.7-4.3), 3 (High: 4.4-6)

Level of human solidarity in well-being

The results with items that were used to measure the level of human solidarity in well-being among small farmers is presented in Table 4. In the human solidarity section of well-being, the statements asked were regarding connectivity and social relationships because the members of society should have a right to live, build relations and choose her/his own destiny **[32]**.The results showed a moderate level of human solidarity in well-being. The respondents were satisfied that they were free to sell their produce (M=4.09, SD=1.102), were free to select a variety of crops to cultivate (M=4.08, SD=1.133) and were free to speak their own language (M=3.93, SD=1.282). Similarly, they were satisfied that their families have good relations with other families in the community (M=3.65, SD=1.517), were free to sell wherever they chose (M=3.46, SD=0.914) and that their community was eager to be involved in agricultural activities (M=3.29, SD=1.179). In summary, the mean score for human solidarity is 3.75 (SD= 1.34), which indicates a moderate level of well-being as perceived by the respondents.

Level of sustainability in well-being

The analysis of items that were used to measure the level of sustainability in well-being among small farmers is tabulated in Table 5. In the sustainability section, the respondents were asked questions regarding environment and ecological sensibility because sustainable development means a better quality of life not only for the present generation but also for the future generations as well **[**31].

The analysis revealed that only three items in the sustainability section of well-being fall under the category of moderate, whereas the majority of the items fall under the category of low level of sustainability in well-being. Thus, the results showed that the respondents were satisfied with sustainable agriculture (M=3.18, SD=0.982), that they know how to provide liveable built environment for the future (M=3.18, SD=1.055) and that their children have better lives than them (M=3.14, SD=0.98. On the contrary, the results of all items of table 5 showed a low level of sustainability. Furthermore, the results of the last three items showed that the respondents were satisfied that the available natural resources were not only the property of the present generation but also belonged to the future generations (M=2.29, SD=0.706), that they were living environmentally sustainable lifestyles (2.23, SD=0.682) and that they knew how to protect and conserve natural resources and the environment (M=2.22, SD=0.632). The overall result for sustainability as depicts by the mean score is 2.5 (SD = 0.84), which indicates a moderate level of well-being.

Level of well-being

Table 6 presents a summation of the individual level of well-being sections and also a summation of all four sections as the total well-being level.

Table 6 demonstrated that the level of material conditions in well-being was in the moderate category based on the summated mean score of 51.66 and a standard deviation of 13.334, which is in line with the analysis results on the previous Table 2. This means that the small farmers of Sindh province of Pakistan have a moderate level of material conditions in well-being; even though they have participated in the crop maximization project and got empowered, they could not get a satisfactory level of material conditions.

Furthermore, the level of quality of life section in well-being also showed a moderate category based on the aggregated mean score of 55.59 and standard deviation of 17.009, reflecting to the analysis on the previous Table 3. This indicated that the small farmers were moderately satisfied regarding their quality of life and good health. Besides this,

the respondents were moderately living a happy life after the participation in the crop maximization project.

Similarly, the analysis results of the level of human solidarity section of well-being were also found to be in the moderate category based on the combined mean score of 56.26 and standard deviation of 20.114, which is in line with the previous Table 4. This proved that the respondents have no barriers to speak their own language, practice their own religion and have good relations with community members.

Table 6. Summary and conclusion of level of well-being

S.NO	Section	M	SD	Level	Rank
1	Level in material condition	51.66	13.334	Moderate	2
2	Level in quality of life	55.59	17.009	Moderate	2
3	Level in human solidarity	56.26	20.114	Moderate	2
4	Level in sustainability	28.56	9.311	Low	1
5	Total well-being level(1, 2, 3 & 4)	212.184	46.434	Moderate	2

N=455

1 (Low: 16 – 42.66), 2 (Moderate: 42.67 – 69.33), 3 (High: 69.34 – 96)

2 (Low: 16 – 42.66), 2 (Moderate: 42.67 – 69.33), 3 (High: 69.34 – 96)

3 (Low: 15 – 40), 2 (Moderate: 40.1 – 65.1), 3 (High: 65.2 – 90.2)

4 (Low: 11 – 29.33), 2 (Moderate: 29.34 – 47.67), 3 (High: 47.68 – 66.01)

5 (Low: 58 –154.65), 2 (Moderate: 154.78 – 251.43), 3 (High: 251.56 – 348.21)

On the contrary, the analysis results of the level of sustainability section of well-being was found under low category based on the summated mean score of 28.56 and standard deviation of 9.311, reflecting to the analysis on the previous Table 5. This means that in the sustainability section, the result was not satisfactory and the small farmers of the study area do not have capacities and capabilities to handle matters regarding environment and sustainability.

Finally, the present study revealed that there is an overall moderate level of well-being among the beneficiaries of crop maximization project of Sindh province, based on the summated mean score of 212.184 and standard deviation of 46.434 for four dimensions of well-being (material conditions, quality of life, human solidarity and sustainability).

DISCUSSION

Like other developing countries, the government of Pakistan and its provincial government departments launched various agricultural and rural development programs and activities such as micro-finance schemes, farmers' field school and crop-maximization projects for the empowerment and well-being of small farmers. These activities need to be evaluated/ assessed to observe its impact on society. Thus, the present study attempted to asses such activities in the province of Sindh, Pakistan. The well-being level of the small farmers of Sindh province of Pakistan was determined in this study and found that there is an overall moderate level of well-being among them. The well-being level of small farmers was assessed through their material conditions, quality of life, human solidarity and sustainability. The level of well-being was determined in light of available definitions by [4, 5, 7, 13, 32, 33], and other literatures on well-being. Furthermore, the adopted items for the questionnaire of this study are in line with the work of [22, 23, 24, 25, 26, 27, 34, 35, 36, 37]. Furthermore, the results of the present study are in line with the study of Muhammad *et al*. [14], regarding the positive impact of (FFS) on social well-being of farmers' community in Khyberpakhtunkha province of Pakistan. Similarly, the results of this study are somehow in line with the study of [17], in which the impact of micro credit on the well-being of borrowers has been seen.

The previous studies about FFS and micro finance schemes were conducted in Khyberpakhtunkhawa and Punjab province of Pakistan respectively. In both studies, the impact of projects towards the well-being of farmers was assessed but these studies did not provide a detailed level of well-being. On the contrary, the results of the present study provided a detailed level on different sections, such as material conditions, quality of life, human solidarity and sustainability, in well-being. Furthermore, based on the overall mean score of level of well-being, the crop maximization project has an impact on small farmers' community of Sindh such as the FFS project and micro finance projects of other provinces of Pakistan.

CONCLUSION

Based on the results of the study, it is concluded that the small farmers of Sindh province of Pakistan have achieved a moderate level of well-being through the crop maximization project sponsored by the government. In addition, the project has yielded satisfactory results in terms of material conditions, quality of life, and human solidarity whereas the result of the sustainability section of well-being was under the category of low. However, the overall results of well-being fall under the category of moderate. This means that projects such as crop maximization not only empower the beneficiaries but also lead them towards their well-being.

REFERENCES

[1] Gafoor. (2010). Factors affecting income and saving of small farming households in Sargodha district of the punjab,pakistan. *Pak. J. Agril. Engg.,Vet. Sci.*, 26 (2):27-35.

[2] Khan, A. A., Ahmed, Q. M., & Ashiq, R. M. (2004).Agricultural Terms of Trade in Pakistan: Issues of Profitability and Standard of Living of the Farmers [with Comments]. *The Pakistan Development Review*, 515-537.

[3] King, M. F., Renó, V. F., & Novo, E. M. (2014). The concept, dimensions and methods of assessment of human well-being within a socioecological context: a literature review. *Social indicators research*, 116 (3), 681-698.

[4] Grantins, A., Sloka, B., & Jekabsone. (2012). Municipality and inhabitant's cooperation for well-being: salaspils district case1.

[5] Murphy, B. (2010). Community Well-Being: *An Overview of the Concept.*

[6] Choudhury, S. R., & Barman, A. (2014).Technology and Well-Being-An Evocative Essay. Postmodern Openings, 5 (2), 15-37.

[7] McGillivray, M. & Clarke, M. (2006). Understanding human well-being, United Nations University Press Tokyo.

[8] Bruni, and Pier Luigi Porta. Introduction. (2007). In Luigino Bruni and Pier Luigi Porta, eds. Handbook on the Economics of Happiness. Cheltenham, UK: Edward Elgar.

[9] Foster, J. & Handy, C. (2008). "External capabilities", OPHI Working Papers.

[10] White, S.C. (2009). 'Analysing wellbeing. A framework for development practice.' WeD Working Paper, 44. Available at: www.welldev.org.uk. Forthcoming in Development in Practice.

[11] Fahmi, Z., Samah, B. A., & Abdullah, H. (2013). Paddy Industry and Paddy Farmers Well-being: A Success Recipe for Agriculture Industry in Malaysia. *Asian Social Science*, 9 (3), p177.

[12] Gough, I. & McGregor, J. A. (2007).Wellbeing in Developing Countries: From Theory to Research. New York: Cambridge University Press.

[13] Yassin, Shaffril, Hassan, Othman, M. S., Samah, B. A., Samah, A. A., & Ramli, S. A. (2012). The Quality of Life and Human Development Index of Community Living along Pahang and Muar Rivers: A Case of Communities in Pekan, Bahau and Muar. *Journal of Sustainable Development*, 5 (6), p 90.

[14] Muhammad, S., Chaudhry, K. M., Khatam, A., & Ashraf, I. (2013). Impact of farmer field schools on social wellbeing of farming community in khyber pakhtunkhwa, Pakistan. *The Journal of Animal & Plant Sciences*, 23 (1), 319-323.

[15] Abu Samah, A. (2006). Participation and Quality of Life: A Study on the People's Empowerment in a Malay Village Community. *Pertanika Journal of Social Sciences & Humanities*, 14 (1) 11-25.

[16] Abu Samah, A & Aref, F. (2010).Organizational, Operational and Interactional Processes of People's Participation in Community Activities in Malaysia, *Journal of American Science*, 6 (11). 1073-1077.

[17] Waheed, S. (2009). Does Rural Micro Credit Improve Well-being of Borrowers in the Punjab (Pakistan)?. *Pakistan Economic and Social Review*, 31-47.

[18] Creswell, J. W., Hanson, W. E., Plano, V. L. C., & Morales, A. (2007).Qualitative research designs selection and implementation. *The Counseling Psychologist*, 35 (2), 236-264.

[19] Rea, L. M. & Parker, R. A. (2014). *Designing and conducting survey research: A comprehensive guide*. John Wiley & Sons.

[20] Sheikh, M. J., REDZUAN, M. R., Samah, A. A., & Ahmad, N. (2015).Identifying sources of social capital among the farmers of the rural Sindh province of Pakistan. *Agricultural Economics (Zemědělská Ekonomika*), 61(4), 189-195.

[21] Preston, R., Hilary, W., Judy, T. & Sarah, L. (2013). *The benefits of community participation in rural health service development: where is the evidence?.* Adelaide, 10th national rural health conference.

[22] Wheelessa, L. R., Virginia, E. W. & Raymond, B., (1984). Sexual communication, communication satisfaction, and solidarity in the developmental stages of intimate relationships. *Western Journal of Speech Communication,* 48 (3), pp. 217-230.

[23] The World Bank. (2003). Integrated Questionnaire for the Measurement of Social Capital Social Capital Thematic Group.

[24] D'Acci, L. (2011).Measuring well-being and progress. Social *Indicators Research*, 104 (1), 47-65.

[25] Moore, M., Bates, M., Brierly-Bower, P., Taaffe, P., & Clymer, R. (2012). Well-Being and its measurement. Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury.

[26] Morton, A. & Edwards, L. Community Wellbeing Indicators, Survey Template for Local Government, Australian Centre of Excellence for Local Government, University of Technology, Sydney.

[27] OECD, (2012).Organisation for Economic Co-operation and Development, The Measuring Well-Being and Progress website: www.oecd.org/measuringprogress. (2013).

[28] Teck-Hong, T. (2012). Housing satisfaction in medium- and high-cost housing: The case of Greater Kuala Lumpur, Malaysia. *Habitat International*, 36 (1), p. 108–116.

[29] Fedorowicz, V. J., Falissard B., Foulon C.,Dardennes R., Divac S. M., Guelfi J. D., Rouillon F. (2007). Factors associated with suicidal behaviors in a large French sample of inpatients with eating disorders. Int J Eat. Disorder; 40, 589-95, DOI: 10.1002/e. *Int J Eat Disorder*, Volume, 40, pp. 589-595

[30] OECD, Organisation for Economic Co-operation and Development, The Measuring Well-Being and Progress website: www.oecd.org/measuringprogress.

[31] Mohit, M. A. (2011). Quality of Life in Natural and Built Environment–An Introductory Analysis. *Procedia-Social and Behavioral Sciences*, 101, 33-43. (2013).

[32] Stutz, J. (2006). The role of well-being in a great transition. Boston, MA: Tellus Institute. Visions of Regional Economies in a Great Transition World.

[33] Gough. (2007). Theorizing well-being in international development. Wellbeingin Developing Countries: from

Theory to Research. Cambridge University Press. http://dx. doi.org/ 10. 1017/ CBO 9780511488986.002.

[34] Berger, M., Murphy, E., Riley, P., Bergman, G. E. (2010). Improved quality of life, immunoglobulin G levels, and infection rates in patients with primary immunodeficiency diseases during self-treatment with subcutaneous immunoglobulin *G. South Med J*, 103 (9), 856-63.

[35] Mcgregor, J. A. (2007).Researching wellbeing: from concepts to methodology. , New York: Cambridge University Press.

[36] Choudhury, S. R., & Barman, A. (2013).Subjective wellbeing of corporate employees- development of research context.Available at SSRN 2257097.

[37] WeD, (2007) Wellbeing in Developing Countries, Research Group at the University of Bath,U.K.