

# *Longitudinal Livelihood Study:*

## *A Case Study of Traditional Weavers in Grogol Village, Weru Subdistrict, Sukoharjo Regency, Central Java*

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**Abstract**—Shocks experienced by the traditional weavers in Grogol village due to the earthquake have resulted in disruption of livelihoods of the household of the weavers. External support for livelihood recovery in striated fabric businesses was able to improve the livelihood and increase the revenue. This paper aims to examine the livelihood strategies of the traditional weavers in three periods of time, especially after external support was discontinued. Using panel data from three different time periods (2009,2010, 2016), the study found that after the decline of the external support, there is a decrease of income of most weavers while a small percentage of the traditional weavers are able to survive on the same income level. The persistence of weavers to have the income at the same level after the assistance was reduced is influenced by education, access to raw materials and market network, and adaptation by means of technology.

**Keywords**—Shock experienced, livelihood, traditional weavers

### I. INTRODUCTION

The results of 2013 Economic Census demonstrate that the number of farmer households who own agricultural businesses continued to decrease and that the ownership of agricultural land was only 0.25 ha. In Sukoharjo, Central Java, the number of households who own as many as 121,214 agricultural enterprises in 2003 fell very sharply to 68,170 in 2013. On the other hand, the number of households in Sukoharjo district itself continues to grow. To survive, especially for those who do not have a rice field, rural villagers pursue the life strategy in many ways, among which is reducing costs, migrating to gain livelihoods, especially in the cities, or by maximizing productivity. Another strategy is to reproduce the types of work. This strategy includes the aspects of the selection of several livelihoods around the community. The more diverse the choices, the more likely livelihood strategies occur (Rofi and Bastian, 2016).

Concerns about the source of livelihood which is increasingly limited and in relation to the pressure experienced by the population and coping strategies to cope with this pressure then construct adaptation strategies. Observations on the interlinked characteristics at the local level allow the exploration of the complex reality of livelihood while connecting to the macro-structural problem.

This is nearly valid in all villages in Sukoharjo, including in Grogol village, District Weru. One of the sources of income for most households in the Grogol is making striated woven fabric. There is no official record of when this traditional striated woven fabric business first existed in Grogol, given the expertise of weaving that they gained is a legacy passed down. According to interviews with participants involved, some have already started this business since 1970. In addition to the issue of competition with "modern" fabric, the earthquake that rocked Yogyakarta and Central Java in May 2006 made the sector activity decreased significantly, even shutting down some businesses. Damage to residential buildings, psychological trauma, and damage to production equipment made weaving activity in this area completely paralyzed after the earthquake. Another domino effect that subsequently arises was the loss of potential markets for this striated fabric because the production process stopped temporarily.

After the earthquake of 2006, several donors, government, and National and International NGOs supported community groups. One post-earthquake economic recovery intervention project in Grogol village of Weru subdistrict, Sukoharjo was the development of traditional weaving sector, with training target group "Tenun Sari" already existing in Grogol village.

In 2009, One of the interventions was provided support for improving the quality of the products that result in the change of price. If the old product was valued at Rp5,000-7,000 per piece then the new product is priced at Rp35,000-50,000 per piece although the cost of production is also increased because of quality materials. Studies conducted after one year of intervention showed a significant increase in revenue. The average net income of craftsmen before the intervention was only Rp180,256 per month. This, then, increased to Rp768,684. In 2011, support from donors and NGOs has completed. It is important to see the sustainability of economic activities in the village; does it continue to grow, stagnate, or decline? Do the conditions influence the survival strategies of the weavers?

Livelihood has been the object of research and policy for decades (Carney 1998; Chambers and Conway 1992; de Haan and Zoomers 2005; Ellis 2000; Francis 2000; King, 2011,

Knutsson, 2006). In geography, the concept of livelihood has become a major theme in several subfields including development studies (McSweeney, 2004; King, 2011).

Despite some differences in the theory and application of various fields of study, livelihood is used as an entry point for evaluating the impact of economic development and program intervention, the integration of rural areas to the external market and the network, or the process of social and environmental changes. Even though there are structural constraints and social networks that bind together livelihood systems operating differently in spatial and temporal scales, there has been little emphasis on analyzing the reciprocal relationship between space and livelihoods.

During 1980-90s, concerns about the relationship between poverty reduction and development with interference and the pressure of long-term environmental issues arose. Issues related to sustainability entered the discourse of development. The development approach that limits development goals into the aspect of financial and commodity growth was heavily criticized since the 1970s and received a response in the 1990s (See, for example, Rachel Carlson, 1962. *Silent Spring*; Meadows, 1970; Amartya Sen and James Foster, 1973). In 1991 the United Nations published the human development Index (HDI / HDI) which put human welfare as the core of the size of the building (the discussion of this can be seen in <http://hdr.undp.org/en/humandev>). Next, in 1992, world leaders signed Agenda 21, which is an agreement to implement sustainable development. During the period when the purpose of development was questioned, the term 'livelihoods' was allowed and became popular after Chambers and Conway apply the term in a seminar to describe the spirit of the people to build their lives. According to Chambers and Conway (1992), livelihood consists of capacity, assets (including both material and social) and activities required for a means of life.

Sustainable livelihood development approach is contemporary development approach that attempted to correct the approach of modernization development which is not environmentally-friendly. Sustainable livelihood approach tries to achieve the degree of social, economic, and ecological fulfillment in a fair and balanced manner. The achievement of social welfare level is approached through a combination of activities and utilization of capital existing in a living system (Ellis, 2000). Livelihood strategies include aspects of choice on several sources of life that exist around the community. The diversity of choices enables the occurrence of life strategies. This is clearly illustrated in the field of agriculture by the intensification and diversification. Livelihood strategies can be reviewed from an economic production point of view through the efforts of cost minimization and profit maximization. In addition to the choices, livelihood strategies require human resources and capital. The pattern of social relations also provides color in the strategy of life. The pattern of patron-client relationship is considered as an institution capable of providing security which guarantees subsistence of farmer households (Crow, 1989). Carner (1984) stated that

there are several strategies that can be done by the poor households in rural areas, among others: (1) performing various jobs despite low wages, (2) utilizing the ties of kinship and reciprocal exchange in giving a sense of security and protection, and (3) migrating to other areas in which usually rural-urban migration is seen as a last alternative when livelihoods choices in the village no longer exist.

The British government responded to Agenda 21 by introducing guideline entitled *Sustainable Livelihoods Guidance Sheets* in 1999 as a guide for carrying out sustainable development. Ashley C and Husein K (2000) explained that the difference between the conventional approach and livelihood approach is the focus, with emphasis on community life. It is characterized by a clear understanding that well-being is not just about increasing income but also targeting dimensions of poverty which includes food insecurity, low self-esteem, lack of physical assets, and helplessness. It is also understood that household poverty is influenced by many factors, in particular access to assets and influence of policies and institutions. Project impact assessment should be based on an understanding of the human purpose and the explanation of how their lives are built and important factors that influence their poverty.

This study will use the concept of Sustainable Livelihood DFID (2000) as a knowledge base, which is described in the framework below to see how the Sustainable Livelihood approach works.

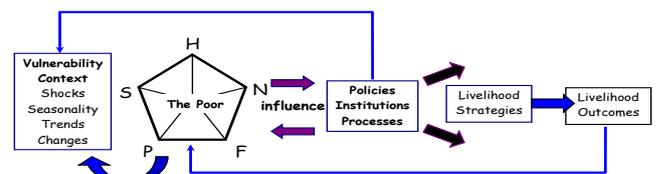


Fig. 1. DFID Sustainable Livelihood Framework

Framework for Sustainable Livelihood (SL) above uses five main categories of livelihood assets (P = *Physical*, H = *Human*, F = *Financial*, N = *Natural*, S = *Social*) with a pentagon shape that illustrates the interconnectedness and interdependence of categories, as well as proving that livelihoods are an integration of the five categories and cannot stand alone. SL framework relates to production activities by offering a way to organize, making institution and policy, and implementing cultural norms in livelihood. This helps in determining access to assets and determine the most strategic and appealing livelihood to the public (Carney, 1998) Sustainable Livelihood is advantageous in knowing one's livelihood to earn a living, be it a single activity or other additional activities. Because humans tend to want to fulfill their life needs, they always look for other efforts to find sources of income that will affect the economic condition of the household. (Chamber, 1995; Hussein and Nelson, 1998).

The focus of the study in this paper is more on the aspects of livelihood strategies and livelihood outcomes from the

influx of external support after they suffered a shock post-2016 earthquake.

## II. METHOD

This research was conducted in Grogol village, Weru district, Sukoharjo regency, Central Java. The choice of location is based on the consideration that this village is the center of traditional striated fabric production before 2016 earthquake. As a result of the earthquake, production activities was disrupted prior to the availability of support of outside agencies. Most of the weavers lost assets and production facilities. After the earthquake, external assistance acts as a catalyst for transformation and process of change in response to the vulnerability that occurs due to the earthquake. Until 2016 there has been some assistance from the government and private sectors entering Grogol; one of the donors aimed for the recovery of the production of traditional weaving sector. The support was by modernizing the traditional weaving in its quality of materials, designs, and sizes. After the aid, a research showed that there was a significant increase in support which can be seen from the average income of the weavers.

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After almost five years after the mentoring, the sustainability of the program had to be assessed. The data collection was done by interviews, Focus Group Discussions, and observations. Interviews were conducted in 2 ways, i.e. interviews by collecting quantitative and qualitative data for all weavers who had been interviewed in 2010. This study was conducted by interviewing all beneficiaries of the projects in the weaving sector in Grogol village, Weru subdistrict, Sukoharjo. There were 39 direct beneficiaries in total and the remainder are indirect beneficiaries. Studies in 2009 and 2011 had interviewed all beneficiaries directly. In 2016, of all the original respondents from the previous study, only 37 were able to be interviewed. The remainder could not be interviewed due to several reasons, such as absence when the survey was conducted and switching professions, especially for the men.

Interviews were conducted to each beneficiary using a structured questionnaire. In addition to the interviews,

information was also obtained from the Village Head to see the view of village administration relating to the project's impact to the community and in-depth interviews with the weavers group. In addition to interviews, the researcher observed activities of weavers also done to look at the dynamics of the business activities of the beneficiaries.

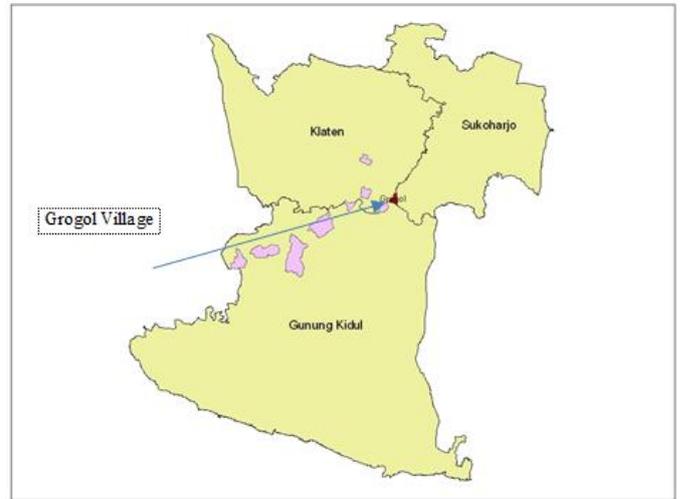


Fig. 2. Location of Study

## III. FINDINGS AND DISCUSSION

### A. Finding

- Profiles of Weavers and Product Value Chain

Weavers observed in this study in Grogol Village, Weru subdistrict, Sukoharjo regency consist of 36 women (90%) and three men (10%), 15.4% did not complete elementary school, 43.6% completed elementary school, 25.6% completed middle school, and 15.4% completed high school. From the information, it appears that the majority of beneficiaries have low levels of education.

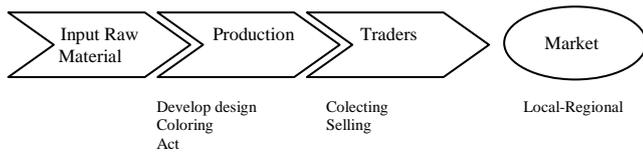
The majority of beneficiaries consider weaving as the main occupation (97%) while 3% consider this as extra work. In addition to being a weaver, beneficiaries also have an additional work as farmers (77%), and the remainder as traders, carpenters, and other work related to weaving such as yarn sellers and “penyekir”. This shows that the sources of household income of the weavers are diverse, as a form of community survival strategies.

The beneficiaries have lived as weavers for a long time. Around 12.8 percent of the beneficiaries have been traditional weavers since 1970. The remainder varies, but the majority are already involved in weaving for more than 10 years. There is only one person who has recently been involved in the work of weaving since 2010, as a way to increase revenue and this man had left his old job as a carpenter and focus on weaving.

Weaving striated fabric is one of the sources of household income. Activities done by the weavers from the production process to the sale can be viewed as a value chain in Figure 3. What distinguishes one weaver to another is the sales function. Most weavers sell to traders/wholesalers, while others sell

directly to consumers. The difference will affect the income differences of each family.

**VALUE CHAIN FUNCTION**



**MAIN ACTORS**

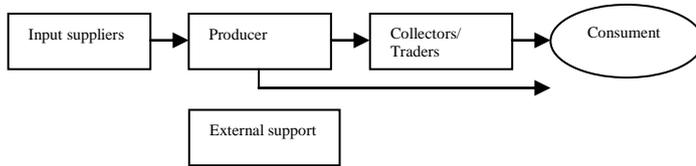


Fig. 3. Weaving Value Chain of Grogol Village, Weru Subdistrict, Central Java

- Change in Revenue in 2009, 2010, and 2016

The most prominent change in the weavers’ revenue occurred between 2009 and 2010, largely due to the support of donor and NGOs. As external actors, donor performed transformation activities of structures and processes associated with the business of traditional weaving. In terms of the process, this is achieved through training assistance related to changes in materials, design, and market access, including network expansion. In terms of structure, this is achieved through strengthening the weavers’ organization and encouraging and involving the government to empower the weavers, including encouraging the issuance of instructions by the regent related to the use of traditional weaving for government employees. The results of the study in 2010 also showed that the knowledge of weavers about weaving increased, they are able to produce finely woven fabric, they are capable of dying by themselves, they obtain market information, in addition to getting help repair the loom and also getting materials for training.

Such changes have an impact on improving the quality of the product and changing the price. If the old price of the fabric was Rp5,000-7,000 per piece then the new product is priced at Rp35,000-70,000 per piece, although the cost of production also increased because of the quality of the material used (Figure 3). With the donor and the local government supports in the marketing process, including the national level exhibitions throughout the year 2010-2010, the new product has been well received by the market. At the local level, the government is also pushing for the use of striated fabric as a uniform. Since 2009, the Regional Government of Klaten District, for example, through the instruction of the Regent, has encouraged striated fabric weaving and instructed all staff to wear clothes made from the fabric every Thursday and Friday.

With the improvement of product quality and good market response, the increase in average revenue of the fabric weavers can be seen from 2009 to 2010 (Table 1). It appears in Table 1 that if the baseline data prior to the entry of the entire project

shows beneficiaries benefit no more than Rp500,000 with an average net profit of Rp180,256, then after more than 10 months following the carrying out of the intervention project (in 2010), significant changes in average earnings and net income occurred. The average net profit increased 5 times compared to before the intervention to Rp768,684. In other words, the increase in revenue is well above 100% compared to before the intervention.

According to the data in a two-year period (2009-2010), the striated woven fabric was a promising business. However, the latest survey in 2016 showed symptoms of decline in revenue of the weavers. This decrease mainly occurred after external support waned. Most weavers (89.65%) have a net income of less than Rp500,000, similar to the income prior to the intervention. Despite that, this finding also suggests that the number of weavers who earn above 2 million per month also increased. It is interesting to discuss that the sustainability and increase of revenue of some of the weavers did not occur as expected when external support was reduced, but on the other hand, the number of weavers with income above Rp2 million remained steady even increased.

TABLE 1. CHANGES IN PROFIT OF WEAVING BUSINESS 2009, 2010, 2016

Net profit per month	2009 (%)	2010 (%)	2016 *
<500 000	100	7.7	89.65
500.000 - <1,000,000		82.2	0.0
1,000,000 - <1,500,000		2.6	3.4
1,500,000 - <2,000,000		2.6	0.0
> 2,000,000		5.4	6.9
Total (N)	100% (39)	100% (39)	100 (37)
Average net income/ month	180.256	768.684	401.000

Note: Calculated based on current prices  
Source: Primary Data 2009, 2010, 2016

**B. Discussion**

The findings of this study show similar symptoms with various research results related to external support for livelihood programs (DFID and SCD, 2008), especially if the support is given directly to the target group without involving the private sector in the sustainable design. At the very least, the pattern seen in many places looks like Figure 4. By the end of the project, the results and scope of beneficiaries were still high, but over time the result and the range decreased. In this particular case, there is a small number of groups persisted in the same results or grew.

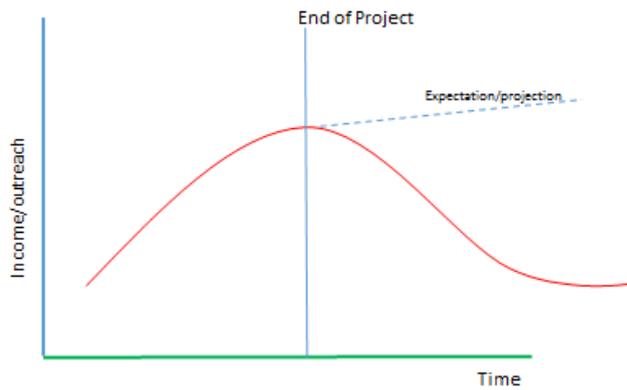


Fig. 4. Patten of income and external support

The decline or persistence of some weavers is caused by several factors. Firstly, the production rate of beneficiaries in producing woven fabric and the response to the needs of different markets. This difference occurs not only by the influence of the level of education but also by the weavers' access to input and market. This factor is also a major discovery of Norman (2012), which emphasizes the importance of education as a key factor in the success of livelihood program.

Secondly, with the increasing demand of striated woven fabric, large enterprises print striated fabric with cheaper prices and better quality. As a result, the competitiveness of the weavers declines. Some weavers who are able to survive, as illustrated in the value chain in the previous section, in addition to performing production activities, also conduct marketing activities, of which the circulation and the gains are large enough.

Thirdly, the minority of weavers are able to take advantage of the technology, as a part of the adaptation process, to sell their products to the final consumers. Utilization of Facebook and Instagram as promotional tools enables them to reach a wider consumer. In addition, a better price difference by selling to final consumers than via the collector can increase the value of profits.

#### IV. CONCLUSION AND SUGGESTIONS

Livelihood strategies of the villagers to cope with the increasingly narrow area of land varied, including by doing jobs outside the farm, such as having a business in woven fabric as in this study. Shocks to livelihoods due to the earthquake could be overcome with external support. NGO and Donor support was able to increase revenue significantly until the supporting project ended. Afterward, a decline was experienced by most of the population while only a few are able to persist on the same income level as before or better. Those who have education, access to resources and marketing are able to withstand various changes.

#### REFERENCES

- [1] Ashley, Caroline dan Karim Hussein, 2000, Developing Methodologies for Livelihood Impact Assessment: Experience of the African Wildlife Foundation in East Africa, *Working Paper 129 Results of research presented in preliminary form for discussion and critical comment*, Overseas Development Institute Portland House
- [2] Carney D ed 1998, *Sustainable Rural Livelihoods: What Contribution Can We Make?* DFID, London
- [3] Chambers R and Conway G, 1992, Sustainable Rural Livelihoods: Practical Concepts For The 21st Century, *IDS Discussion Paper 296 IDS*, Brighton
- [4] Chambers, Robert, 1995, Poverty and livelihoods: whose reality counts? *Environment and Urbanization*, Vol. 7, No. 1, April
- [5] de Hann L and Zoomers A 2005 Exploring the frontier of livelihoods Research, *Development and Change*, Vol 36 27–47
- [6] DFID (2000): *Sustainable Livelihoods Guidance Sheets*. Department for International Development. [http://www.livelihoods.org/info/info\\_guidance\\_sheets.html](http://www.livelihoods.org/info/info_guidance_sheets.html)
- [7] Ellis F, 2000, *Rural livelihoods and diversity in developing countries*, Oxford University Press, Oxford
- [8] Hussein, Karim dan John Nelson, 1998, Sustainable Livelihoods And Livelihood Diversification, *IDS Working Paper 69*,
- [9] King, Brian, 2011, Spatialising livelihoods: resource access and livelihood spaces in South Africa, *Transactions of the Institute of British Geographers*, Royal Geographical Society (with the Institute of British Geographers)
- [10] Knutsson, P The Sustainable Livelihoods Approach: A Framework for Knowledge Integration Assessment Human Ecology Review, *Society for Human Ecology*, 2006, 13(1), pp, 91-99
- [11] Norman, ndou dzivhuluwani, 2012, An Investigation Into The Reasons For Failure Of Community- Based Projects At Folovhodwe, Limpopo, *Disertasi*, Department Of Business Management University Of South Africa
- [12] Rofi, Abdur dan Sebastian Saragih, 2016, *The impact of Unilever Indonesia Foundation's Enhancing Livelihood program in the society*, Report – Cirle Yogyakarta
- [13] Swiss Agency for Development and Cooperation SDC, 2008, *A synthesis of The Making Markets Work for the Poor (M4P) Approach*, Swiss Agency for Development and Cooperation SDC