Pertanika J. Soc. Sci. & Hum. 27 (2): 1039 - 1047 (2019)

PERTANIKA JOURNALS

SOCIAL SCIENCES & HUMANITIES

Journal homepage: http://www.pertanika.upm.edu.my/

Contradictory Outcomes of Development Technologies on Women Weavers' Livelihoods in Eastern Indonesia

Tamara Megaw

Institute for Sustainable Futures, University of Technology Sydney, Broadway, New South Wales 7000, Australia

ABSTRACT

In Central Manggarai region of Flores, Indonesia, a policy of spatial clustering was introduced with the goal of enhancing productivity of the traditional weaving sector. This involved the installation of new weaving loom technology and skills training for weavers. This study of the subjectivities of women weavers and their perceptions of technological upgrading processes examines how policies designed without the participation of the people they aim to support can prompt adverse, contradictory outcomes.

Keywords: Development, Indonesia, livelihoods, participation, technology

INTRODUCTION

This paper examines the notion of improving the well-being of people and communities through green technology and state development policies. A common term in the development lexicon, green technology is often associated with sustainable development, or any development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland et al., 1987). As Rist (2007) had asserted, it was oxymoronic to suggest that societies could conserve environments and traditional social relations and at once pursue the kind of aggressive economic growth presumed to be vital for a happy society. In Indonesia, sustainable development has meant greening around the edges while maintaining core business as usual.

To scrutinise how sustainable development has affected Indonesia, this study concentrates on society in Central Manggarai, Flores, an Indonesian region undergoing a process of profound change as it becomes increasingly interconnected with trans-island migration flows and the global marketplace. Such a transformation

ARTICLE INFO

Article history:
Received: 30 June 2018
Accepted: 29 May 2019
Published: 28 June 2019

E-mail address:
tamara.megaw@uts.edu.au

ISSN: 0128-7702
e-ISSN 2231-8534

has created a fluid interchange of people, ideas, goods, and ethical and political value systems, amid which global ideas of development have entered the local consciousness. The island of Flores is situated in Nusa Tenggara Timur, a region labelled by the Indonesian government as *daerah tertinggal*, meaning 'left behind' or 'underdeveloped'. A study by SMERU Research Institute found that people living in rural areas in Indonesia have lower outcomes in terms of education and health than in the nation's cities (Suryadarma, et al., 2006). Between urban and rural populations, inequality of income, consumption, and political representation also persists (Suryadarma et al, 2006).

In rural central Manggarai, most women rely on subsistence agriculture and supplement their income by making handicrafts. Using traditional handlooms, many weave a category of vibrant textiles called *tenun ikat*, one type of which is *tenun Todo*, a simple, double-sided weave with red checkers on a black base made in the village of Todo, as shown in Figure 1. A modern innovation of the textile has been the addition of small motifs in coloured thread, typically golden. From the region of Cibal, another type is *tenun songket*, in which colourful motifs are woven into the front of the cloth whereas the back has loose threads, as showed in Figure 2. Both men and women wear *tenun ikat* as sarongs, yet with subtly different ways of folding and rolling the cloth.

Tenun ikat is not only presented as a gift to kin at milestones of life, but also a commodity sold at market, to a consumer base that is approximately 75% local to Manggarai. The other 25% of buyers are domestic and international tourists, as well as buyers for shops in Labuan Bajo, Denpasar, and Jakarta (Livens, personal communication, May 23, 2015). In recent years, *tenun ikat* has faced competition from both weaving produced on mechanical looms and cheaper fashions made in factories.

Figure 1. Traditional handloom with *tenun Todo*

Figure 2. Two different types of motifs of *tenun songket*

Unlike those products, however, *tenun ikat* displays a connection to place in distinct designs for each village and region. As such, it represents how, despite academia's sustained focus on the homogenising nature of globalisation, 'places continue to be irreducible to each other or to any single global logic …The fact of having a body and living in place – embodiment and emplacement are fundamental human features' (Harcourt & Escobar, 2009). In that case, however, how does having a female body in a place at the geographical margins of the market determine experiences of development?

During Indonesia's New Order period (1966–1998), culture became a resource for unifying political and economic aims. One of President Suharto's policies was to create a national culture with which all Indonesians could identify. According to Erb (2005), however, specific local identities and customs could be tolerated only at the level of display, thereby building the idea of culture as decorative and consisting of visual items that could be consumed and showcased to tourists. In response, Todo was developed as a site where tourists could visit traditional houses and purchase *tenun ikat*. In the post-Suharto era, decision-making and planning have become decentralised, however, which, along with a renewed emphasis on local participation, has triggered a rethinking of configurations of place, identity, and local culture (Erb, 2005). In such rethinking, the role of women needs to be considered.

During the reform period, policymakers have paid Manggarai increased attention as a site of local development. Based on neoliberal principles of growth, the dominant development framework in Indonesia stresses the need for places and communities to integrate into the global economy and has promoted an agenda to increase the number of employed women and women entrepreneurs. One

of the Indonesian government's strategies for socioeconomic development is to promote 'creative economies', including women's production of traditional textiles. As such, policymakers have intervened in women's work practices and social lives by introducing new technologies in the name of development. This paper examines the impact of introducing technologies into the life-worlds of weavers and considers the extent to which it constitutes green policymaking.

MATERIALS AND METHODS

This study was built upon primary research that was conducted while the author lived with community in Central Manggarai during July and August 2015. Given the need to understand women's contextual experiences and subjectivities, a qualitative methodology as well as a multisite ethnographic orientation was adopted, in exploring connections among Todo, Cibal, and Ruteng, the administrative capital of Manggarai Regency. All three sites are home to weaving communities and markets for *tenun ikat* products.

The research involved both participant observation and qualitative interviews. 18 semi-structured interviews were conducted, with women and men weavers, market vendors, local charities, the parish priest, and government representatives. Inspired by a grounded theory approach, in which data collection and analysis occur simultaneously and cyclically, targeted data collection was carried out to inform emerging analysis (Charmaz, 2006). After transcribing interviews and making memos about observations, the material was categorised into open codes generated from the material and academic concepts. The thematic analysis and coded networks which were formed during analysis constituted the basis of this paper's conclusions as illustrated in Figure 3 below.

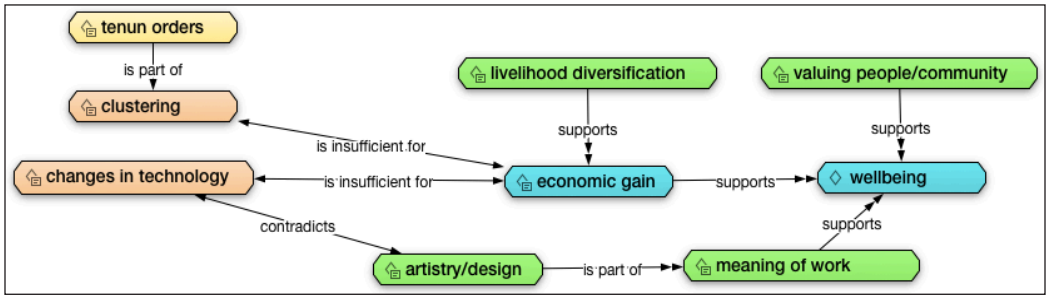

Figure 3. Networked codes about contradictory outcomes of development technologies on livelihoods

RESULTS AND DISCUSSIONS

During the last decade, the Dinas Koperasi, Industri dan Perdagangan (Disperindag) [National Department of Industry, Trade and Cooperatives] in Manggarai has initiated a policy promoting the spatial clustering of weaving producers. Briefly, clusters are geographic concentrations of specialised skills and knowledge and interconnected firms that compete, but also cooperate,

in both small and large economies, rural and urban areas, and at the overlapping geographic levels of cities, industrial regions, and nations (Porter, 2000). While the global value chain approach focuses on transnational interactions, clustering theory is oriented toward the competitive advantage of the location in which business units are based (Porter, 2000). According to Porter (2000), location is critical to the level of competition in relation to the proximity of linkages among buyers, suppliers, and other institutions. Manggarai's location on the margins of the market could be viewed as a reason for slow industrial development. To others, its isolation could be interpreted as an advantage in preventing absorption into large industrial clusters that would exploit people in Manggarai. It is hoped that the innovation of products will pique interest in the form of foreign capital to grow the industry, even if linkages between foreign markets and Manggarai remain weak.

The theory emerges from a dualist perspective that business development in small enterprises will support economic growth, which will prompt socioeconomic development for those involved. Improving products, increasing skills, and becoming more efficient are all termed *upgrading* (Humphrey & Schmitz, 2002).

Disperindag's aims are to improve productivity, cut costs through technological assistance, and focus on quality and design in emerging clusters in Todo and Cibal (Livens, personal communication, May 23, 2015). As Humphrey and Schmitz (2002) had highlighted, knowledge spread within the cluster through incidental synergies was insufficient, whereas policies of public and private actors encouraged knowledge sharing. According to Livens (personal communication, May 23, 2015):

> *There are more than a hundred collectives, and there are a few strategies of assistance the government is trying to give. . . . The general tenun ikat is traditional so that colours and motifs, among other things, represent the preferences of weavers, not the taste of the consumers. . . . The government tries to bring consumers closer to weavers.*

The concept of clusters rests on the view that developing quality local demand will support firms to improve goods and compete via differentiation. In 1997, Nusa Tenggara Timur Governor Herman Musakabe introduced a policy to increase local product demand that required government staff to wear *tenun ikat* to work (Pollock, 2012). Currently, government staff wear the garb to office every Thursday and Saturday. Livens believed that such action was important to for strengthening Manggarai identity and increasing the quantity of *tenun ikat* orders (Personal communication, May 23, 2015).

The majority of weavers responded that orders for *tenun ikat* have increased slightly. However, this did not lead to significant economic gains. There is only a limited number of government staff ordering *tenun ikat*, and this does not represent a growing market. Moreover, increased competition

between weavers as a result of Disperindag's policy, is having adverse consequences for weavers. Traditional weaving is time-consuming, laborious work that demands a high price; however, government staff are required to pay for their own uniforms. Since the basic monthly salary for government staff is approximately 1.5 million rupiah (€100), they do not have enough expendable income to purchase a woven jacket that might cost roughly 700,000 rupiah (€45). As a result, government workers tend to purchase lower-quality products that can at least satisfy the uniform policy requirement. That tendency creates downward pressure on the price of cloth and, in turn, reduces the profits that weavers can generate. In order to meet the new price point, weavers inevitably downgrade the quality of their production.

Disperindag representatives visited Manggarai villages to encourage the formation of clusters and use of new technology to support weaving production. To weaving clusters in Todo, Bea Mese, and surrounding villages, they gave *alat tenun bukan mesin* (ATBM) [stylised, non-mechanical weaving looms], which have been used in large workshops that employ dozens of women in other parts of Indonesia (Pollock, 2012). Weavers use the looms while seated, by raising and lowering the sheds with foot pedals. Trainers visited Manggarai to show the weavers how to use the ATBM, reduce the complexity of the motifs, and use brightly coloured thread in their work. Desperintag's benchmark of quality was cloth made in a standard pattern without defects. From its perspective, woven cloth made in group workshops was likely to be of higher quality than cloth made in weavers' homes.

Disperindag solicited the support of non-state actors to implement the technological upgrade and training, the different levels of which were provided according to type of cluster. Weavers in Cibal received training from Tunas Jaya, a charity organisation, about how to combine colours of thread to suit consumer preferences (Bernadetta Esi, personal communication, August 2, 2015). The director of Tunas Jaya claimed that by changing motifs and colours in the design and generally improving the quality of production, weavers could increase the price of cloth by 700,000 rupiah, or €48 (Maria Moe, personal communication, July 25, 2015). In Bea Mese, the local parish helped to organise the cluster and training about how to use the ATBM, as well as coordinated a credit union to assist the weavers. A workspace in front of the manse in Bea Mese had been allocated for four to five women from the cluster. In contrast, the cluster in Todo supported by nuns received no training; instead, the nuns gathered the weavers together by providing microloans up to 100,000 rupiah (€6.85) to buy the thread and tools that they needed to begin weaving (Susanti Jelita, personal communication, August 1, 2015). The nuns also assisted in marketing the products (ibid.).

Most weavers interviewed expressed concerns about working in a cluster. First, clusters often depend on orders from outside their families. In Bea Mese, for example,

the government office ordered 80 shirts of the same make; however, such demand was not stable, and when there were no orders, the cluster disintegrated (Agustinus Rame, personal communication, August 2, 2015). Second, while participating in the cluster, women are expected to continue to fulfil their responsibilities in farming and social reproductive work. However, orders in the cluster can pressure weavers to meet quick turnaround times and work in the workshop, which does not allow women to multitask (Wihelmina Adus, personal communication, July 27, 2015). In contrast, working independently from their homes gives women more flexibility for livelihood diversification. Third, it can take up to three months to receive payment from suppliers once they complete weaving orders (Susanti Jelita, personal communication, July 28, 2015). Several women reported that the payment period was so long that they could not afford to buy the materials for new cloth until they had the profits from their finished work. Women felt that if they could market their own products directly, especially using family networks, that they could make faster profits. Fourth, if weavers work within a cluster, then the price is set, and they may only sell to the affiliated market—for example, Tunas Jaya's shop in Ruteng. Since there are far more weavers hoping to sell their products than customers, price competition comes into play.

Fifth and lastly, weavers found that the ATBM technology was not appropriate for their culture or traditions. Their idea of quality cloth was *tenun ikat*, characteristically rich in detailed motifs and with designs representing place-based identity. By contrast, the ATBM was designed to efficiently make plain-coloured, low-quality cloth (Agustinus Rame, personal communication, August 2, 2015). Although the new technology is faster than a back-tension handloom, it is not easily used for making the motifs that Manggarai customs require. At the same time, the weavers expressed concern that there was no demand for plain cloth anyway (Agustinus Rame, personal communication, August 2, 2015), and without meaningful colours and motifs, the cloth would lose its currency. Despite the investment in ATBM technology, the weavers had relegated it some time ago to an abandoned building as illustrated in Figure 4. Instead, weavers made many diversified products using a back-tension handloom for Disperindag's showroom, even if there were few customers.

Disperindag and Tunas Jaya had expected that weavers would modernise their work practices to become more productive. According to Rossi (2006), "representations of identity are not neutral. They ascribe needs, rights, and duties and imply moral and programmatic evaluations of who can deal with problems, who *is* a problem, and how certain actors should change and conduct their life" (p. 34). These development powerbrokers and mediators constructed the weavers' behaviours and traditional mind-sets as the problems to the policies' success. As described by Mosse (2004), development projects work to maintain themselves as coherent policy

Figure 4. A broken non-mechanical loom (ATBM), Bea Mese cluster

ideas and obscure actual outcomes. Indeed, such was the case with the clustering policy that followed a global logic of economic growth, but did not consider the actual aspirations of women weavers or social conditions.

CONCLUSION

This paper shows the contradictory outcomes of interventions aimed at developing communities by way of clustering and technological upgrading. From the perspective of the weavers, the clustering policy neither improved their livelihoods nor fit with their interests. From the outset, weavers had been marginalised by their exclusion from participation or consultation in policymaking, which explains why the clustering policies did not improve the well-being of their communities. Technology would have a greater scope for supporting wellbeing if it was designed within the community. As was found in the research, there is expertise in woodworking and crafting weaving tools among men in the community (Wihelmina Adus, personal communication, July 27, 2015). If their skills with using local forest resources could be combined with the experience of weavers to design a new handloom, then the potential for transformation could be greater. Solar lights could be installed to illuminate houses and reduce strain on weavers' eyes. Altogether, social policies for the skills development of weavers would benefit from an understanding of the weavers' subjectivities. Further research is needed to investigate how the state or civil society can support Manggarai women to realise their aspirations. Moreover, solutions devised via participatory processes among women, with local expertise and technologies, are likely to be the most sustainable.

ACKNOWLEDGEMENT

This author would like to thank her supervisors, Professor Wendy Harcourt and Dr. Karin Astrid Siegmann, who provided valuable guidance during field work in Indonesia in 2015 conducted as part of

Master of Arts in Development Studies at International Institute for Social Studies, Hague, Erasmus University. Warm thanks also go to Max Regus and family network in Manggarai who facilitated this research.

REFERENCES

Brundtland, G., Khalid, M., & Agnelli, S. (1987). Our common future (Brundtland report), *World Commission on Environment and Development*. Oxford, England: Oxford University Press.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis.* London, England: SAGE Publications Inc.

Erb, M. (2005). 'Shaping a 'New Manggarai': Struggles over culture and tradition in an Eastern Indonesian regency'. *Asia Pacific Viewpoint, 46*(3), 323-334.

Harcourt, W., & Escobar, A. (2009). Introduction practices of difference: Introducing women and the politics of place. In W. Harcourt, & A. Escobar (Eds.), *Women and the politics of place* (pp. 1-17). Bloomfield, USA: Kumarian Press.

Humphrey, J., & Schmitz, H. (2002). How does insertion in global value chains affect upgrading in industrial clusters? *Regional Studies, 36*(9), 1017-1027.

Rist, G (2007). Development as a buzzword. *Development in Practice*, *17*(4), 485-491.

Mosse, D. (2004). Is good policy unimplementable? Reflections on the ethnography of aid policy and practice. *Development and Change, 35*(4), 639-671.

Pollock, I. (2012). *Ancient emblems, modern cuts: Weaving and the state in Southeastern Indonesia*. Retrieved March 1, 2016, from https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1730&context=tsaconf

Porter, M. E. (2000). Location, competition, and economic development: Local clusters in a global economy. *Economic Development Quarterly, 14*(1), 15-34.

Rossi, B. (2006). Aid policies and recipient strategies in Niger: Why donors and recipients should not be compartmentalized into separate worlds of knowledge. In D. J. Lewis, & D. Mosse (Eds.), *Development brokers and translators: The ethnography of aid and agencies* (pp. 27-50). Bloomfield, USA: Kumarian Press.

Suryadarma, D., Widyanti, W., Suryahadi A., & Sudarno, S. (2006). *From access to income: Regional and ethnic inequality in Indonesia.* Jakarta, Indonesia: SMERU Research Institute.