

Value Chain Governance and Gender in the Furniture Industry

H. Purnomo¹, R. H. Irawati¹, A.U. Fauzan,² Melati³

ABSTRACT

Indonesian furniture accounts for almost 2% of the global wood furniture trade, which is valued at more than US \$135 billion. In many countries, including Japan, European countries and Indonesia, women make decisions about selecting which furniture to buy. However, the role of women workers in the furniture industry has not been clearly identified. In Central Java's Jepara District, the center of teak-based Indonesian furniture, annual furniture exports to Australia, Europe, Japan and the United States are valued at US \$150 million. We use value chain analysis and action research to demonstrate the role and position of women workers in Jepara's teak value chain, and their struggle to upgrade to more valuable value chains and positions. Though women workers are important in generating revenue, they are paid 50% less than men who work the same hours. They are also less powerful, exercising less control over resources, decision making, product development and bargaining. We further explore different scenarios for upgrading small-scale producers and find that participation in trade exhibitions, training programs and producer associations substantially affect women's bargaining power in the value chain.

Key words: value chain analysis, governance, gender, furniture, Jepara

1. INTRODUCTION

Furniture making is the most labor-intensive industry in forestry. In 2009, the global furniture trade accounted for US \$135 billion², or about 1% of all world trade in manufactured goods. Furniture is a big business involving a large number of workers. Small- and medium-sized enterprises (SMEs) have an important role in the furniture sector, such that any decrease in the trading volume will increase poverty. Conversely, growth of the furniture industry will increase the number of jobs available and is likely to reduce unemployment. Increasing added value in the domestic part of the value chain of the industry would improve the quality of jobs and provide more decision making and participation to workers and small-scale employers.

About 90% percent of the furniture industry in Indonesia is composed of SMEs. In Jepara District, Central Java, an estimated 12,000 business units operate, including workshops, showrooms and warehouses. They employ 120,000 workers. The furniture industry, which processes 0.7 million m³ wood per year, contributes about 27% of Jepara's economy. Exports were valued at about \$120 million in 2009. The industry mostly produced products with little added value and the government has categorized the furniture sector as an industry in decline. The SMEs have a lower market position

¹ H. Purnomo (h.purnomo@cgiar.org) and R.H. Irawati, CIFOR; Melati, Australian National University, Canberra

² All currency figures are in US dollars unless otherwise indicated.

than the bigger players. Still, the livelihoods of millions of people along the value chain depend on the sustainability of the furniture industry (Ewasechko, 2005).

While the amount of added value in total is very high, the distribution of that value is unbalanced. Purnomo (2009) demonstrates that overseas stakeholders added significantly more value than domestic stakeholders did in the production and trade of furniture for export. Furthermore, finishing and exporting companies take a greater portion of the added value than do small-scale furniture producers and tree growers.

Both men and women are involved at all nodes along the furniture value chain. The furniture value chain has also seen rising levels of female employment. However, the role of women in the industry has yet to be clearly identified. And though women workers are important in generating revenue, they are paid less than men who work the same hours. They are also less powerful, exercising less control over resources, decision making, product determination and bargaining.

In defining 'gender' our study understands gender to be a social construct of the differences between women and men, not a matter of sex (Kabeer, 1999 in Riisgaard, 2010). Gender is about how society gives meaning to differences in femininity and masculinity, and the power relations and dynamics that result (Laven et al., 2009 in Riisgaard et al., 2010). A gender role is defined as a set of perceived behavioral norms associated particularly with males or females, in a given social group or system. It can be in the form of division of labor by gender (Peter, 2006). Gender relations is also defined as the social construction of roles and relationships between men and women in a community or system (Baden *et al.*, 1998 as cited in Riisgaard et al, 2011).

Upgrading the value chain does not necessarily improve the role of women working within it.. The literatures on value chain assessments provide many examples of this situation. A fisheries value chain evaluation study in Vietnam found that modernization of the fishing ports was likely to reduce labor demand and remove the economic niches in fish marketing and processing that poor women occupy (ADB 2001). Fajardo *et al.* (2006) found that one project, funded by the Swedish development agency, on upgrading the coffee and domestic livestock in Nicaragua did not include women in training and upgrading. Miller and Amato (2007) found that another project, funded by the US development agency, on strengthening porcine, pond and aquaculture value chains in Cambodia negatively impacted gender equity: The female-run businesses lacked mobility, which was the key factor for business success.

This paper gives answers to three questions we posed in our research: 1) what roles do women have in different furniture value chain governance types which have different power relation and decision making processes? 2) How do specific interventions, such as trade exhibitions, trainings and setting up producer associations, affect women's participation in the chains? and 3) How can the industry make value chain governance more open to women? Although this study was carried out in a specific district in Central Java, its findings can be used in other parts of the world in situations where culturally rooted industries whose women workers are marginalized operate.

2. METHOD

We used action research and value chain analysis (VCA) to understand the role and position of women workers in Jepara's teak value chain, and their struggle to earn more for their labor and move into more specialized and higher paying jobs within the industry upgrade to more valuable value chains and positions. Action research is a process through which members of a community identify a problem, collect and analyze information, and act upon the problem to find solutions and to promote social and political transformation (Selener, 1997). Action research use a cycle of reflection, planning, action and monitoring. The loop is shown in Figure 1. McIntosh (2010) emphasizes the creativity of reflection in AR process.

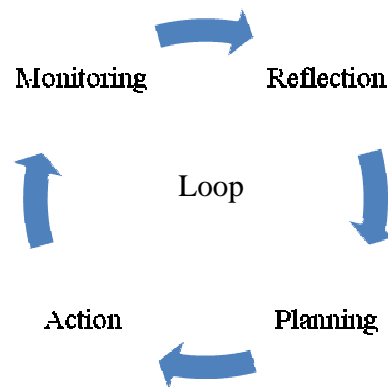


Figure 1. Loop of Reflection-Planning-Action and Monitoring for upgrading

Researchers and stakeholders establish communication during the reflection phase through a field visit, identifying stakeholders and furniture value chains study. We identified stakeholders and the gaps and problems they face through these visits and surveys. We framed value chain analysis as part of the reflection phase of action research. Value chain analysis has emerged as a novel approach for understanding how power, benefits and costs are embodied and distributed to various actors, men and women.

During the planning phase stakeholders developed scenarios to resolve their identified problems. Conducted in a participatory way the planning was guided by recommendations from the reflection phase. During the action phase stakeholders prioritized and executed the planning in a participatory way with the aim of creating a balanced value chain. A set of indicators devised by local stakeholders was used in the monitoring phase, to oversee the implementation of the plans.

Twelve people, eight women and four men, participated in focus group discussions to check how the scenarios developed could affect women's roles in the furniture value chain. First, discussants explored what type of value chain governance women were most comfortable with. Second, discussants were asked whether the action taken

affected women, also discussed possible scenarios which would empower more women.

3. RESULTS

Furniture producers, where women workers are located, are in relation with other actors to deliver their products to consumers. Scenario-based interventions to strengthen their roles particularly for small-scale producers had been done. The Impacts of the intervention to women workers were scrutinized.

3.1. Furniture value chain governance

Our value chain analysis focused on governance mechanisms in the chain, because governance would fundamentally determine which intervention strategies stakeholders would choose. We worked with four types of value chain governance types: market-based, balanced network, directed network and hierarchical. Market-based governance is characterized by many customers and many suppliers; repeat transactions are possible, but information flows are limited; and no technical assistance occurs. In a balanced network, a supplier has many customers; much information flows in both directions; and both sides regularly solve problems through negotiation. In a directed network, a primary customer takes at least 50% of a manufacturer's output; the customer defines the product and provides technical assistance; and information flows are unbalanced. Hierarchical governance is characterized by vertical integration; supplying business are owned by the customer; manufacturers have limited autonomy to take independent decisions. (Kaplinsky, 2001)

The value chain in Jepara exhibits all four governance types at different parts of the chains (Figure 2). The governance type among finishing companies that also act as exporters and importers/global brokers is a directed network. But when the import company and the finishing companies are owned by a single owner, the governance type becomes hierarchical. The finishing companies receive instruction from the global buyers about specifications and design. The global buyers are a subsidiary of the overseas retailers. Very few finishing companies develop their own designs. These enterprises were protective of their business information and careful not to risk that others would imitate their designs for mass production. Some finishing companies own showrooms in Jepara and other cities. However, the exporters were driven by the importers and global brokers, which were in directed network relationship with the international retailers.

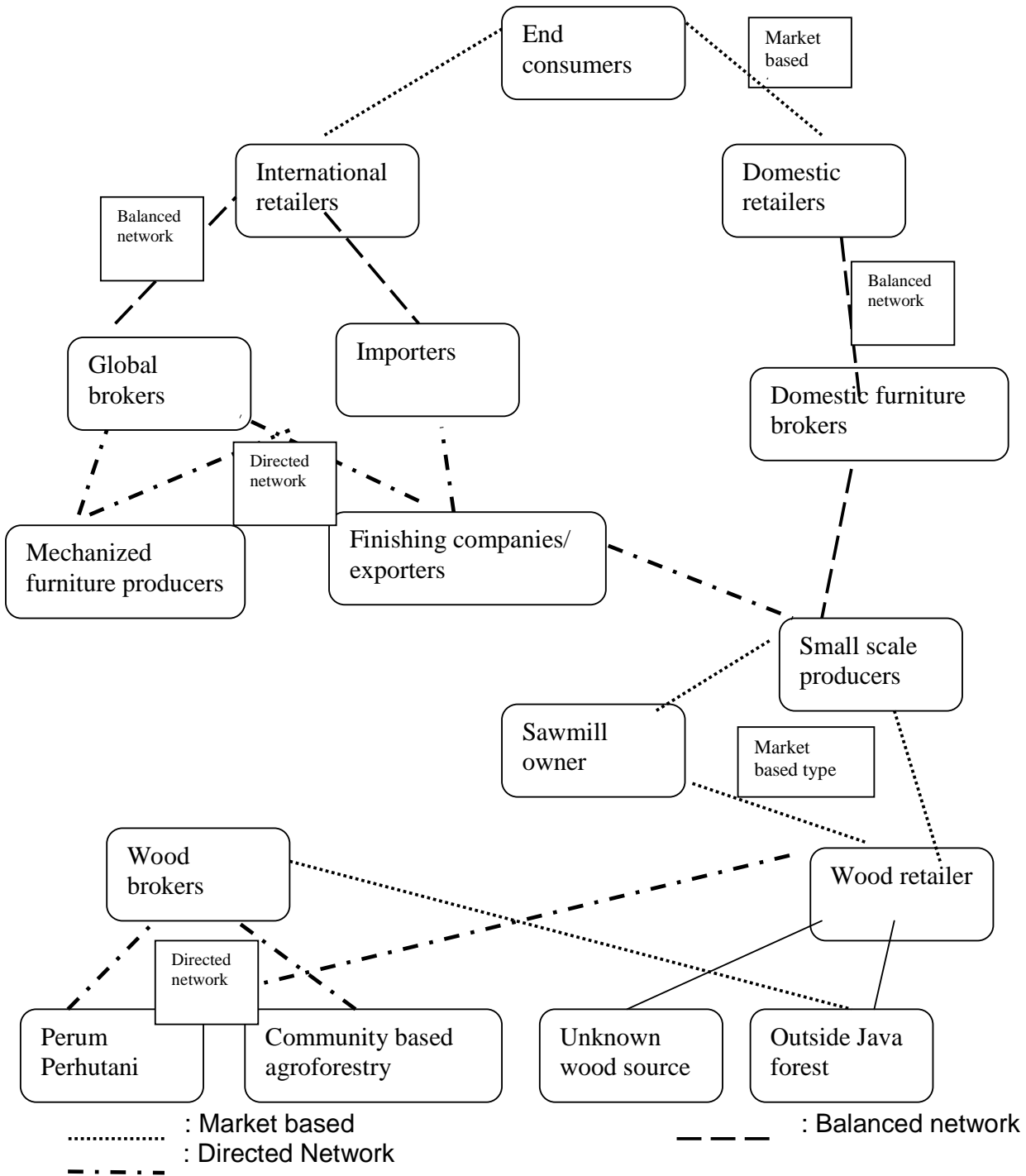


Figure 1. General value chain governance that involves small-scale producers

Small-scale producers are in a directed network relationship with domestic brokers. The brokers became the main customers of the small-scale producers and took more than 50% of their product. The brokers can easily shift from one producer to another. This condition ended with the directed network type of governance between exporters and small-scale producers. In some situations, the relationship became hierarchical when exporters exercise more control over small-scale producers who are hired directly by the exporters. Few small-scale producers have their own showrooms. Mechanized furniture producers have a better position in the value chains. They are in a balanced network with the next enterprises on the value chain, global brokers and importers.

The relations between small-scale producers on one side and sawmill owners and wood retailers on the other were market-based. They are connected on the basis of market principles, since there are many of them. No single enterprise controls transaction or price. Small-scale producers can freely buy wood from retailers. When they have enough money they often seek retailers from all over Java. However, if they have less money, they tend to acquire wood on credit from nearby retailers. They are also free to choose which sawmill will saw their logs.

Wood retailers and tree growers operate in a directed network. Perhutani, the state-owned forest plantation, has more control and power than wood retailers, so Perhutani determines pricing and quality. With about 1 million hectares of teak plantation, Perhutani is a large teak grower that dominates their position in the value chain. Community-based agroforestry, which is small scale, is a less powerful group than wood retailers; wood retailers controlled the forest farmers who participated in community-based agroforestry.

3.2. Gender role in value chain governance

To describe the gender role we simplified the value chain nodes to five: furniture retailers, furniture warehouses, furniture workshops, sawmills and wood retailers. Both men and women are involved in all five furniture value nodes. However, women are more concentrated in warehouses than anywhere else along the value chain. In the warehouses women sand, hand paint and hand varnish (rarely using a spray gun) furniture pieces and wrap for shipping. In the furniture workshops women also carve and source furniture materials, mainly through the telephone (Nansereko, 2010). Other work that women do in these five nodes are bookkeeping and record keeping, manage cash payments and customer relations and oversee quality of the finished products.

Men work in more activities along these five nodes, distinct from women's work. They design furniture, source furniture materials by going around, lift logs or furniture pieces, mill timber, maintain sawyer equipment, do carpentry, carve and pack heavy articles. Men also sand with sanding machine, repair cracks and apply spray finishes. Some activities where men usually work, women at times also work: marketing, pricing, making furniture catalogues and deciding where to re-invest profits (Nansereko, 2010).

Although both men and women are active in the furniture value chain, men make more decisions and work in better paying jobs than women. Women are perceived to lack furniture-making skills. Women are also perceived to be risk averse and some work is perceived as too risky for women, for instance operating complex machinery. The other reasons are due to cultural divisions of labour. Men make money whereas women tend the home, cook food and educate children (Nansereko, 2010).

In the mixed-gender focus group discussions, all women said their roles in the value chain were strong. But only some of the men agreed. From 12 participants, seven of eight women thought their role was strong, and one woman thought their role was very strong. Two of four men perceived the role of women as medium, the other two male participants perceived it as strong.

Women discussants said that although physically women were weaker than men, in fact, women worked at different nodes in the chain than men did. In certain nodes, including finishing, discussants said women could do better than men. Other comments were: “women can do anything”; “women, although they should be responsible for working at home, could work in many parts of the furniture business”. Men discussants also said women’s role in the value chain was quite strong because women had a role at each node, and women also functioned as a motivator and good team leaders.

Table 1 shows discussants’ scoring of the strength of women’s roles by governance type; their strength is valued differently in each type. There are two participants who were not given their answers, so the scoring only describe from the 10 participants. Women are perceived to have a stronger role in market-based relationships, with the highest median score, and the weakest role in the hierarchical type. The balanced and directed network scores were in between. Discussants also said market based relations provided better profit opportunities for furniture firms and for women and more freedom, or lack of restrictions. By freedom they meant that women could arrange their time to also take care of family needs. They said that hierarchical value chain or directed network will provide less risk for women. They like market based value chain but they don’t like the risk of market uncertainty.

Table 1. Strength of women’s roles in the value chain, from focus group discussants

Type	Most Frequent Score					
	Very weak	Weak	Medium	Strong	Very strong	Most frequent score
Market based		1		9		strong
Balanced network			5	5		medium to strong
Directed network			3	6	1	strong
Hierarchical			5	2	3	medium

3.3. Scenarios and impacts

Participants in the value chain studies proposed four scenarios for furniture upgrading: organizing an SME association, moving up, collaborating down, and creating green products. The SME association scenario is about organize small enterprises locally and helping them to access financial institutions and markets. Small-scale producers, facilitated by CIFOR, established a small-scale furniture producer association (APKJ) in Jepara District. The association facilitates collective actions and is recognized by Jepara's district government and brought into decision making processes. This recognition was indicated by inviting APKJ to many important meetings and exhibitions led by the Jepara District Government. Small-scale producers have used this association to channel their voices in decision making process and balance their power vis-à-vis large companies.

In the moving up scenario, producers would change position within the chain. This scenario encourages small-scale producers to move up to the higher stages in the value chain, to also function as furniture brokers, finishing companies and exporters. To realize this scenario, APKJ has held exhibitions in Jepara, Jakarta and Bogor to develop ties with potential buyers. APKJ practiced selling and attracting buyers interested in business contracts. Some buyers have since visited Jepara for further negotiations. The association has also developed collective marketing through the Internet at <http://www.javamebel.com>. Small-scale producers have used this portal to market their products.

In the collaborating down scenario small-scale producers would collaborate with wood traders and tree growers. Awareness has been raised and initial study has been conducted to develop partnerships between furniture producers and forest farmers.

In the green product scenario various companies along the value chain would produce and sell eco-labeled furniture from certified timber, relying on coordination up and down the chain. Certification training for small-scale producers has been conducted in collaboration with the Ministry of Trade. This vision to produce certified furniture has been disseminated among small-scale producers.

The focus group discussants were asked their perceptions of impacts and potential impacts of each implemented scenario on women (Table 2). Most discussants said each scenario provided favorable impacts for women. They said they moving up scenario affected women more than the other scenarios. This means that having closer ties to furniture buyers would benefit women as well as men. The other three scenarios received similar scorings, showing medium impact to women.

Table 2. Impacts of each scenario on women

Scenario	Favorable Impact					Score Mode
	Very low	Low	Medium	Strong	Very strong	
Moving up		1	2	6	1	strong
SME Association		1	7	2		medium
Collaborating down		1	7	2		medium
Green product		1	6	3		medium

Discussants also were asked which scenarios could create better impacts in the future. All scenarios including SME association, collaborating down, and green products potentially brought about strong impacts for women if they were implemented in better ways. For instance, having a specific forum for women only under the SME association scenario is likely to produce stronger impact. Discussants proposed that an *arisan* could be this kind of forum. An *arisan* is a popular social activity among women in Indonesia. *Arisan* members put money in a collective pot regularly, every month or week. They group holds a drawing and the winner takes the pot. *Arisan* is an effective way for women to meet regularly.

Trainings designed specifically for women on product quality management, financial management, marketing, information technology and finishing will boost the likely impact of the moving up scenario. But, it did not mean that the implementation so far had failed to offer improvements for women. Rather, the discussants described ways to improve impact in the future.

Table 3. Potential impacts of each scenario on women's roles

Scenario	Potential impact					Score Mode
	Very low	Low	Medium	Strong	Very strong	
Moving up			2	6	2	Strong
SME association			3	7		Strong
Collaborating down	1		1	8		Strong
Green product	1		3	4	1	Strong

4. DISCUSSION

Gender analysis is essential to a comprehensive value chain analysis. In the furniture value chain studied, with rising levels of female employment, both men and women are actively involved in activities along the chain. Gender is thus an integral element in how each of these activities is performed, and their interconnections from furniture conception and design through to the final stage of retail purchase.

Women's participants said they preferred a market based value chain because in it they earn more money. But at the same time they worry about market uncertainties. Their concerns are general economic concerns about trade-offs between risk and earning power.

We conducted all phases of the action research in a participatory way, but we did not differentiate women from men participants. In implementing the four scenarios, we did not avoid men-dominated activities. Men dominate furniture industry and people perceived this dominance as natural. As researchers, we did not pay specific attention to women. In other words, we followed existing norms. This research checked whether our ignorance would give negative impact to women.

For instance, the small-scale furniture producers association established in Jepara was not specifically aimed to men or women; it was set up as a gender-neutral organization. Once the APKJ board realized differences in women's roles in this business, they tried to involve women in their activities. However, some restrictions still apply to women who would participate. The norms in Jepara discourage women from going out on their own at night and women are often uncomfortable to attend predominantly male meetings.

Findings in Vietnam and Cambodia according to Risgaard (2010) suggest that by paying specific attention to women workers in the value chain they can experience positive impacts. Trainings and capacity building activities, for instance, are commonly dominated by men. They have access to new knowledge and skills. When men dominate, the knowledge and skills they accumulate is much greater than what women gain who participate more passively. In the end, the gap between men and women widens after such interventions, and the social constructions between men and women, or gender relations, are imbalanced.

In Jepara we found that generic interventions that were dominated by men produced strong positive impacts to both men and women. We did not find that such generic intervention widened the gap between men and women. Women did not say they were marginalized by not having specific women-only activities during the action research.

These results can be explained by the context of home industry in Jepara. In every small-scale firm, men and women work closely together and the working structure reflects family structure. The father can act as head of the firm, the mother as treasurer and secretary and their children are part of the primary labor force. If necessary the firm hires other workers, but the structure remains familial. Since the firm is basically a

household the information flow among household members is high. This explains why knowledge and skills obtained by the father is easily distributed to women in the family business.

Few firms are headed by women. They likely participated in the action research activities we conducted, however they did not take a leading role in any action. The gender imbalanced norms are still attributed mostly to women. They have limited access to many economic activities because women are more responsible for household activities such as caring for children, preparing family meals and tending the home: unpaid or reproductive work. Men are instead responsible for earning money, being the main source of income for the family, termed productive work. In this case, the furniture value chain in Japara reflects the socially derived gender division of labor and are situated at the intersection between productive (paid) and reproductive (unpaid) work (Elson, 1999 in Barienthos et al., 2003).

This situation supports our assumption that generic intervention is acceptable. Non-gender sensitive intervention does not lead to negative effects for women, it just maintains existing gender relations. It does not empower or disempower women. Empowerment can be defined as 'a process by which those who have been denied the ability to make strategic life choices acquire the ability to do so' (Kabeer, 1999: 437). And in relation to women and value chains, empowerment is about changing gender relations in order to enhance women's ability to shape their lives (Laven et al., 2009). Clearly the actions we conducted did not enhance women's ability to shape their lives.

Positive impacts for women can be enhanced if actions specifically designed for women take place. Training in furniture sanding, for instance, will impact women rather than men. Women will likely prefer half-day training schedules rather than full-day schedules because of their household responsibilities.

CONCLUSION

Applying an action research model helps structure furniture value chain analysis into four phases: reflection, planning, action and monitoring. In the reflection phase, four types of value chain governance were identified: market based, balanced network, directed network and hierarchical. To improve the role of small-scale furniture producers, four scenarios were developed, namely moving up, organizing SEM associations, collaborating down and developing green products. The scenarios were elaborated into an action plan and implemented. This generic and non-gender sensitive intervention produced positive impacts for men and women. However, it did not contribute to changing gender relations; it stabilized existing gender relations. To improve gender relations, specific actions designed for women is recommended.

LITERATURE CITED

- Barienthos, S.; Dolan, C.; Tallontire, A. 2003. *A gendered value chain approach to codes of conduct in African horticulture. World Development* 31(9), pp 1511–1526. Elsevier, UK.
- Benhadid, 2005. Gender Perspective and Conflict Prevention to CCA/UNDAF and Programming Inter-agency Workshop for Arab Region, The Application of the Human Rights Based Approach. UNFPA-Country technical Services Team for Arab states,
- Ewasechko, A. C. 2005. Upgrading the Central Java Wood Furniture Industry: A Value-Chain Approach. Manila, ILO Kabeer, N. (1999), 'Resources, Agency, Achievements: Reflections on the Measurement of Women's Empowerment', *Development and Change*, 30, 435-464
- Kaplinsky, R. & Morris, M. 2001. A Handbook for Value Chain Research, paper prepared for the IDRC. IDS. Available at:<http://www.ids.ac.uk/ids/global/pdfs/VchNov01.pdf>.
- Laven, A., A. van Eerdewijk, A. Senders, C. van Wees and R. Snelder (2009), 'Gender in Value Chains. Emerging Lessons and Questions', a draft working paper, Agri-ProFocus, Netherlands McIntosh, P. 2010. Action Research and Reflective Practice: Creative and visual methods to facilitate reflection and learning. 189 p. Routledge. New York
- Peter, G. 2006. *Gender roles and relationships: Implications for water management. Physics and Chemistry of the Earth* 31(15-16) p. 723-730. doi: 10.1016/j.pce.2006.08.035.
- Purnomo, H., Guizol, P. and Muhtaman, D.R. 2009. *Governing the teak furniture business: A global value chain system dynamic modelling approach. Environmental Modelling and Software Journal* 24, pp 1391–1401.
- Riisgaard, L.; Escobar Fibla, A.M.; Ponte, S. 2010. Gender and value chain development: evaluation study. The Danish Institute for International Studies, Copenhagen, Denmark. <http://www.oecd.org/dataoecd/8/17/45670567.pdf> (20 November 2010).
- Nansereko, S.C. 2010. A gender perspective to value chain analysis for wood-furniture industry upgrading: a case of Jepara, Central Java, Indonesia. Thesis for Department of Forest and Landscape Planning; Faculty of LIFE Sciences; Copenhagen University, Denmark *unpublished*

Schmitz, H. 2005. Value Chain Analysis for Policy Makers and Practitioners. International Labor Organization. Geneva

Selener, D. 1997. Participatory Action Research and Social Change. Cornell Participatory Action Research Network, Cornell University, New York