WORKING PAPER
RESOLVING ENVIRONMENTAL AND SOCIAL CONFLICTS: RESPONSIBLE INNOVATION IN SMALL PRODUCERS’ CLUSTERS IN NORTHERN VIETNAM

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4.1 Introduction

Corporate social responsibility (CSR) and stakeholder analysis have increasingly become part of business operations as built-in, self-regulating mechanisms through which businesses monitor and ensure their adherence to the law, ethical standards and international norms. The idea of responsible business originated in the UK, Europe and the USA in the nineteenth century out of a sense that business inherently involves relationships between people and between people and resources (Halme et al. 2008). Early academic writing on CSR and stakeholder analysis reflected concerns about the duty to respect direct stakeholders’ environmental and social interests. These often focused around issues such as labor conditions and housing or funding local events, scholarships and clean-up campaigns (Bowen 1953, Frederick 1960, Freeman 1984, Donaldson and Preston 1995, Carroll and Buchholtz 2002). However, until the 1990s, CSR and the stakeholder approach had only a limited influence on the private sector and relatively few business actors actually followed such practices.

In recent decades the world has developed into a global village. Brundtland (1987) articulated the concept of sustainable development, which governments, multilateral organizations and civil society further consolidated into Agenda 21 (United Nations 1992). These reports advocated forms of development that would meet the needs of the present generation without compromising the ability of others around the planet—including developing countries, and future generations to meet their needs. Sustainable development therefore has a global perspective of integrating environmental, social and economic concerns. The central principles of this concept are those of anticipation, precaution and the recognition that, when scientific investigation has found a plausible risk, there is a social responsibility to protect the public from exposure to harm and avoid conflict (O’Riordan and Cameron 1994).

CSR has developed alongside the global changes of the past 20 years. During this time business actors have become more integrated in global value chains and often transferred production to low-income countries that opened up for foreign investment (Gereffi et al. 2005). The formation of the Business Council for Sustainable Development, and its book Changing course, signalled a business input to the debate on sustainable development (Schmidheiny 1992). This was followed by a series of emerging conflicts between business and social actors in the 1990s, such as Brent Sparr, Exxon Valdez, Enron and Nike. The idea that sustainable
development is a valid concern for business too became more and more accepted (Elkington 1999). The widespread adoption of information technologies capable of spreading information about societal impacts of businesses has allowed a broader public to become involved. Leading authors of that time argued that business—more than government or civil society—is best equipped to lead the world towards a sustainable world (Hart 2007). A business should not just behave responsibly in its home country; but also be concerned about the social and environmental interests of distant stakeholders, including those in developing countries. Prahalad (2005) suggested that sustainable business offers opportunities for large companies as well as for the four billion poor people at the bottom of the pyramid. These evolving notions have led corporations to adopt a broader view of CSR and a greater concern for stakeholders than under the narrowly conceived interpretation of the firm as a pure economic actor. This implied some profound strategic adjustments to the modus operandi of companies in response to global environmental pressures, conflicts and changing societal expectations (Jamali, 2006).

Although the idea of stakeholders and the notion of CSR have gained ground, there is still confusion about the underlying concepts. Commentators today, both critics and proponents of the approach, often disagree about the nature and scope of CSR, partly because they share different perceptions and understandings of the role and purpose of the business in society (Idemudia and Ita 2006). CSR has become a heterogeneous concept which combines elements of sustainability, corporate governance and corporate accountability to stakeholders.

Despite the unclear understanding of what CSR actually means in theory (Roome 2004), there is a generally agreed and utilized set practices within the Western business community that aim to ensure corporate responsibility in activities, outcomes and communications. In general, these practices include the specification of a vision and mission of CSR for a company, the structuring of CSR activities from policy to practice within its organization, formulating measurable performance targets in terms of environmental and social aspects and communicating CSR reports to the public (Hockerts 2008). These activities may be accompanied by a process of stakeholder engagement that takes on any number of roles from defining the content of a CSR policy, reflecting on performance and reporting or helping the company foresee its future context. CSR thus involve an expert system, foresight studies and a predefined implementation process, responsibility protocols, goals outcome criteria and indicators. In practice, CSR and the stakeholder approach has become a “project” led by the corporations themselves as the central actors. An illustration of this type of such “projectification” (Midler 1995) of CSR practice is the response of sports apparel producer Nike after it faced a storm of criticism in the 1990s over child labour practices in the soccer ball production of its Asian suppliers. The Nike Board set up a department focused on compliance and social responsibility. This department investigated the long-term implications of the company’s product design and manufacturing decisions. It developed a new vision, targets, an in-house index to measure product design and operation and agreed on a code of conduct to ensure the transparency of its supply chain operations while developing standards for workplace conditions for overseas suppliers. Reports of Nike’s corporate responsibility performance and strategy are openly communicated via various channels to the public and the stakeholders.
Operationalizing CSR in a global context, particularly in developing countries, implies the need to involve a much broader range of stakeholders with different agendas, cultures, ideas and normative reference frames than is the case for a domestic company. Some of these additional stakeholders are outside of the direct vision and “sympathy range” of the Western public. In developing economies the economic, social, environmental and governance context is often less familiar and seems more complicated and difficult to understand. Reports of the problems faced by Shell in Nigeria and the emerging environmental issues in China demonstrate the difficulties of operationalizing CSR in such contexts. Companies struggle to grasp the local agenda and incorporate it within their “licence to operate.” Theories about CSR and stakeholder participation have usually been developed within formal business organizations operating within Western economies with relatively stable institutional and procedural systems. These CSR and stakeholder practices do not seem to involve approaches or perspectives that can automatically be applied in developing country contexts. Quazi et al. (2007) state that CSR is more relevant to corporations operating in developed countries due to elevated community expectations for socially responsible behaviour; societal expectations in the developing countries mainly centre on economic growth. Visser (2008) observed that CSR in developing countries is most commonly associated with philanthropy or charity.

That said, our recent research in Vietnam shows that there are institutional structures and mechanisms in place in developing countries that drive business owners to acknowledge their broader responsibilities and take environmental and social concerns into account, even though these do not readily correspond to the institutional structures or principles found in developed economies. We found evidence of these structures and mechanisms in our research into examples of innovations among a number of informally organized small industrial clusters in the Red River Delta in rural northern Vietnam (Voeten et al. 2011). These innovations improved the competitive position of producers and contributed to the economic development of these poor communities. The innovations also generated a range of outcomes or impacts that extended beyond the purely economic. These included both positive and negative effects on different members of the community. For example one beneficial effect of innovation was the use of less polluting and more energy-efficient technologies in manufacturing. On the negative side, small-scale producers and others living in the villages experienced new pollution problems and an uneven distribution of benefits arising from the innovations. During subsequent investigations, the innovators in some Vietnamese villages expressed how they acknowledged and then took some responsibility for the newly emerged problems resulting from the innovation, while innovators in other villages did not.

The Vietnamese cases show that while innovations by small businesses at community level in developing economies are often seen as desirable, because they contribute to development and the accumulation of wealth at the local level, they can also generate negative impacts in the community and its environment. The research presented in this chapter started with an interest in whether and how the innovators acknowledge responsibility within these informal contexts. Actually, these types of production systems run by poorer groups are highly representative of the small-scale economic production found in developing countries. Specifically, the aim of our research was to conceptualize the nature of responsible innovation in the Vietnamese small producers’ clusters and understand the extent to which Western notions of CSR and stakeholders analysis theory and practice apply in these settings.
We applied grounded theory (Glaser and Strauss 1967) as the research methodology to provide for the inductive exploration of a number of cases of innovation found at the community level in Vietnam. We opted for this research approach because it allowed us to conceptualize responsible innovation without being limited or steered by preconceived analytical frameworks, given the reservations discussed above about the applicability of projectified CSR and stakeholder theories in the institutional setting of developing countries. Moreover, grounded theory is not only a descriptive research approach; it is able to advance theoretical propositions around societal processes that are developed in more explanatory terms (Birks and Mills 2011). The empirical findings are organized and presented as case studies, as this allows rich investigation of contexts, perceptions, mechanisms, resources, conflicts, power relations and institutions (Yin 2003).

Through information-oriented sampling (Flyvbjerg 2006) we selected four cases of craft villages in northern Vietnam (Table 2.1). These cases shared several characteristics in common: they were all craft villages organized as small producers’ clusters where the producers themselves had introduced small-scale low-tech innovations (Voeten et al. 2011). Moreover, the villages are all situated in the vicinity of Hanoi, and their demographic compositions, workforce, accessibility, policy, governance and administrative contexts are all similar to one another. Yet the cases are heterogeneous in the sense that they produce distinct types of craft products and introduced different types of innovations and these led to various environmental and social outcomes, which were differently perceived and addressed.

Table 4.1 Selected cases of craft villages in northern Vietnam

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<th>Case – village</th>
<th>Types of innovation</th>
<th>Social and environmental consequences</th>
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<td>Van Phuc – silk</td>
<td>New marketing</td>
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<td>Bat Trang – ceramics</td>
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<td>Duong Lieu – cassava</td>
<td>New cassava-starch end products, New export markets</td>
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<td>Widening income gap among small producers</td>
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A team of Dutch and Vietnamese researchers collected data in the Vietnamese villages in November 2009 and May 2010. The research focused on the various innovation outcomes, the emerging conflicts and whether innovators acknowledged responsibility in conflict resolution. The team collected a broad array of quantitative and qualitative material through observations and open, in-depth interviews with 20–30 households per village. Additional interviews were held with local officials, clients and other resource persons in the villages and in Hanoi, including Vietnamese research institutes, NGOs and government agencies. The team combined positivist approaches and categories with more naturalistic and constructivist-based information that centered on the perceptions of the different actors on what was taking place. The data collection was an iterative exercise involving observations and interviews in the field, transcribing, discussing and interpreting the interview recordings and then further refining, coding and analysing the data before the second round of data collection, in line with the research procedures of grounded theory.
The following section presents the empirical part in four case descriptions. We subsequently carry out a comparative analysis and use this to develop a five-stage model that presents our conceptualization of responsible innovation as it took place in the case studies. We associate the model with a range of theoretical ideas so as to position the model in a broader theoretical context. The idea is not to use the theoretical associations to support the model, rather the theoretical embedding serves (i) to demonstrate the multifaceted nature of responsible innovation, (ii) to avoid reinventing conceptualizations that are insensitive to existing theories; and lastly, (iii) to provide pointers for framing further research. In the concluding remarks we underline the key differences between “projectified” CSR and the stakeholder approach and our understanding and interpretation of responsible innovation as a societal process in this developing country.

4.2 Case Studies: Four Small Producers’ Clusters in Vietnam

Van Phuc

Van Phuc is a silk craft village, west of Hanoi, with a long history of high-quality silk weaving. Historically, middlemen and later state-owned enterprises, handled the distribution of silk products to the domestic market. Following government reforms that introduced the free market economy in the 1990s, silk-weaving families started to open retail shops and benefit from the growing demand for silk products, spurred on by the increasing number of domestic and foreign tourists coming to the village. The retail shops have stimulated the silk industry in the village and brought prosperity, particularly between 2001 and 2008. The silk weavers and silk dye workshops enjoy higher and more stable incomes, but not to the same extent as the shop owners. The village administration receives more taxes and rent for land and this has increased the money available for public spending.

The coming of the retail shops has led to a change in the approach towards quality; there is now more demand for lower-priced silk, implying a lower quality. The lower prices and higher production volumes meant that the small household production units have had to increase productivity, but several of them were unable to do so. As a result, a number of household enterprises closed down. This was not considered to be such a big issue in the village since most weavers had specialized skills and swiftly found employment in the dominant and rapidly expanding workshops. The increased production volumes and new products—designs and colours—also meant an increased use of chemicals, particularly in the dyeing process. For years, the dye workshops have discharged untreated waste water from the dyeing process into the open sewage system. Today villagers, research institutes and the local administration have all expressed great concern about the surface water quality in and around the village. More and more people in Van Phuc consider the pollution as a serious threat to the village and associate it with the occurrence of more serious and fatal diseases. Most dye workshops owners are less concerned and see the pollution as a fact of life and an acceptable consequence of making money in the silk industry.

Villagers link the pollution to several textile-related companies around the village that discharge polluted waste water. However, the precise sources of the pollution - from the village and factories around - are not clear, and neither are the impacts on human health. Research institutes have examined the pollution and its impacts and
produced several scientific articles on the matter. However, the villagers do not have access to straightforward and practical information about the origin and effects of the pollution or possible solutions to the problem.

There is a growing mood in the village that the pollution is a problem that violates people’s right to live in a safe environment. However, the general attitude among small producers and shop owners is that the problem is an acceptable trade-off for increased economic prosperity. The dye workshop owners do not want to take any action to change their practices. As individuals, they consider themselves as small players in a larger complex. The small producers assume that pollution in Van Phuc—which comes from many sources—can only be addressed by the government and that it is the government’s responsibility to do something about it. The villagers feel some sympathy for the dye workshop producers and do not blame them for the pollution. They recognize that these workshop owners are poor and trying to survive.

The richer shop owners do not see themselves as having a responsibility to solve the problem. The main street—where they have their shops—is some distance from the polluted areas. However, they do see that the pollution will eventually have an adverse effect on tourists coming to visit the village and that does worry them.

Small producers and other villagers are looking to the government for a solution. The village administration is assuming responsibility and developing plans to move the polluting workshops to a location just outside the village where they will be concentrated and provided with a waste water purification plant. The dye workshops, weavers, shop owners and villagers consider this to be a solution and do not feel the need to take further action. They also like the idea of developing new land outside the village, more—as they mention—because they are currently facing a shortage of land than because it will address the problem of pollution. While the local administration has developed plans, it is not evident how these will be implemented. The funding is not yet secured and there are complicated legal issues involved.

*Phu Vinh*

Phu Vinh is a village south of Hanoi where household production units have produced rattan and bamboo products for more than 300 years. Until a decade ago they mostly produced household items, such as baskets and bins, for everyday use. These were mostly sold on the Vietnamese market. Before the end of the cold war and the collapse of the eastern European communist bloc, these products were exported to communist nations under bilateral trade agreements.

After the introduction of the free-market economy in Vietnam in the 1990s and the implosion of socialist cooperation, the government established new enterprise and export legislation, allowing private enterprises to enter into export contracts with Western countries without restrictions or government involvement. Entrepreneurs from the village and Hanoi saw new opportunities and started to establish export companies just outside the village. The business became prosperous, particularly between 2001 and 2009, with exports principally going to new and lucrative markets in USA, Canada, France and the Netherlands.
Once an overseas contract had been signed, the export companies outsource the work to middlemen in the village who in turn subcontracted the order to household enterprises scattered around the village. The small producers do the actual craft work (weaving) and deliver the semi-final rattan and bamboo products to the middlemen and export companies who then do the final colouring and varnishing, as the last step before shipment overseas.

While the export companies have enjoyed handsome profits the system has brought less prosperity for the small-scale producers. To maximize their profit in a free market system, the export companies have increasingly imposed lower unit prices on the small producers.

Today, the small-scale producers get only half the unit price for their rattan products that they did five years ago. Today a small-scale producer earns on average 20,000 VND/day (0.87 euro). This has created conflict between them and the export companies. The producers complain about the lower unit price and increasingly suffer from poverty. Today, 13 percent of the population in the village lives under the government-defined poverty line. Weaving is mostly done by older people and children, while young able-bodied workers look for employment elsewhere.

New environmental problems have also emerged. To meet international quality standards and design requirements, small producers, middlemen and export companies now use more chemicals to whiten, soften, colour and dry the bamboo and rattan. The waste water—containing high concentrations of chemicals—is usually discharged into the surface water with no concern or consideration about the effects. Nobody knows the exact level of pollution or what health impacts are to be expected.

Another emerging problem is the depletion of rattan and bamboo as a result of the increased production volumes of recent years. In the past, small producers, middlemen and export companies were not concerned about a possible depletion. Today the problem is evident for all to see and input prices have risen sharply. The small producers, middlemen and export companies involved did not do anything to address this issue until 2009.

The export companies take a hard-line business attitude and do not see that they have a role to play, or a responsibility to modify unit prices to reduce poverty. They see poverty alleviation as the role of the government. The small-scale producers have a different view and blame the export companies for offering such low prices, arguing that they could share more of their profits.

The village administration recognizes and sympathizes with the problems of poverty faced by the small-scale producers, yet is unable to interfere with the economic process and the free market price setting mechanism. In addition, they are closely connected—through family ties—to the export companies. In recent years, the export companies have helped the local authorities to construct a school and a medical clinic, have planted trees and provided tables and computers for the administration’s offices. The local government has facilitated the procedures for renting land and completing export license procedures.
There are limited opportunities for interactions between these different actors. There are no village meetings where all the parties involved can come together to discuss the issues of poverty and the environment. The export companies receive government support to organize training for the small-scale producers (weavers) so that they can learn about new designs, but do not listen to their complaints about low prices. The small-scale producers have attempted to unite and to set up an association but this did not succeed due to the many conflicts of interest in the village.

*Duong Lieu*

Duong lieu is a traditional craft village that has been producing cassava and canna noodles for decades. Within the village, production is divided into households that produce starch—an intermediate product from cassava and canna—and households that produce the noodles from starch.

Some 10 years ago, small-scale producers and medium-sized companies around the village started to look for alternative products to add more value. These alternatives included medicine pills, soft drinks, cardboard boxes and candy. Candy production has been particularly successful in helping noodle producers generate a better income.

Over the past seven years, these new products started to generate more income than noodles. Although not anticipated, people also found that the work was cleaner and lighter than noodle production. Moreover, these new products produce hardly any environmental pollution. By contrast, the starch producers in the village discharge vast amounts of organic solid waste from peeling the cassava and canna and discharge the waste water into the open sewage system. The amounts of waste have been increasing over past years as a result of the increased demand for starch for the new products. The starch waste is becoming an increasing source of debate and conflict. Many of the villagers—particularly the starch producers—ignore the problem and consider it as a trade-off for their livelihoods. But more and more villagers are bothered by the pollution and concerned about the health impacts and link the pollution to several diseases that have recently become more common. Research institutes and nongovernmental organizations (NGOs) have carried out environmental impact studies and negative reports about the environmental situation have been presented in the media. The villagers are worried and somewhat irritated about this as they think it will have a negative impact on demand for their products.

The household enterprises involved in producing the new products consider the waste issue to be the problem of the starch producers and do not see that they have any role to play in addressing this issue. They ignore the potential to allocate some of the wealth they create by producing candy to pay for the environmental damage it causes. The village administration has welcomed the idea of alternatives to polluting starch production, such as other types of economic activities that do not involve starch.
**Bat Trang**

Bat Trang village, situated east of Hanoi, has been a traditional ceramics craft village for centuries. In the old days, small producers in the cluster produced a variety of ceramic items in traditional pottery kilns, fired with wood and coal. This resulted in severe air pollution: the roads and alleys in the village were covered in black dust from the kilns and a smoky haze hung in the air. By the 1990s, Bat Trang was reported as being one of the most polluted villages in the Red River Delta.

The inhabitants and village administration became aware of this environmental problem and were concerned about the many cases of lung diseases and other respiratory health problems. The small-scale producers worked together with the local authorities and NGOs to try to develop alternative firing methods. In 1997 the village administration and the German development agency organized a workshop on business development and the introduction of new kiln technologies that would improve quality, increase competitiveness, use less energy and produce less air pollution. Early innovators took up these ideas and purchased a liquefied petroleum Gas (LPG) kiln from Japan for initial trials. They also experimented with improved oven technology from South Korea and Taiwan. By 2001–2002 the LPG technology was working well. Today there are companies in Bat Trang assembling a modified version of the LPG kiln and two-thirds of the small producers in the village have switched to this technology.

Early innovators mention that personal profit was not the only reason for developing the technology. They also took the environmental situation into account and wanted to promote the image of Bat Trang as a ceramics village based on family traditions. The villagers, and particularly those involved in the ceramics industry, see that the introduction of LPG technology has brought a variety of positive outcomes. As expected, the innovation resulted in a better quality of ceramics and LPG uses half the energy of a charcoal oven, saving substantially on energy costs. The improved competitive advantage made it possible to access new (international) markets.

Poverty in Bat Trang was a common phenomenon 20 years ago, but today poverty rates are below average for the province and far below the national average. According to the village’s administration, the gap between rich and poor in Bat Trang has not widened, something which has had occurred in other craft villages in the Red River Delta.

The new technology also bought positive environmental outcomes which were quickly noticed. There was a dramatic improvement in air quality: much less smoke is emitted these days and black dust is now almost absent in the village. Villagers report, with satisfaction and a certain pride, that the village is now much cleaner and greener. Over the years a collective process of becoming more environmentally aware has been underway. Although the profit argument may have been dominant, the small-scale producers also mention that they took environmental considerations into account. Having seen the benefits of the LPG kilns in past years, they are convinced that they have made a difference in creating a cleaner environment for themselves.

The Ceramics Association, established in 2002, has played a prominent role in the introduction of LPG oven technology. Virtually all the small-scale producers in Bat Trang are members of the association. The association
functions as a discussion and exchange platform and actively promotes LPG kiln technology, amongst others highlighting the environmental arguments. These discussions about the societal implications have come about naturally because the inhabitants of Bat Trang feel strongly connected through family ties and their shared history in ceramic production. In this sense the innovation process was a collective process and the villagers recognized their responsibility, rather than looking to the government for a solution. They have not sought much external assistance to help them move forward.

4.3 Interpretation of the Case Studies

The case study descriptions show that small-scale producers in all four clusters operate and manage their businesses without the use of preconceived CSR or stakeholder involvement practices prior to the innovation process. The innovations brought economic benefits and the inhabitants of the villages where the innovations took place experienced unexpected social and environmental side effects, sometimes positive and sometimes negative. The villages had varying levels of formal and informal systems and mechanisms to enable different actors to identify and discuss these social and environmental changes. In some cases the entrepreneurs were in denial about the effects of changing their practices and in others they thought that the trade-off between the benefits they experienced and the problems experienced by others was acceptable. In cases there was open conflict between actors due to the violation of de facto rights, unfair distribution of economic benefits, harming of others’ economic interests and changes in power relations. Despite the lack of any formal deployment of notions derived from CSR or processes for stakeholder engagement, we did find evidence of societal processes enabling the community to address the negative environmental and social outcomes of innovation. In the following section we will compare and analyze the different cases, using a variety of theoretical associations to help us to conceptualize and position responsible innovation as a societal process.

Perception of Societal Change

The cases show that the societal process starts with the recognition by the community of a societal or environmental change. There are differences in how villagers perceived these. In the rattan bamboo case villagers are clearly aware of increasing poverty levels in some parts of the community over recent years and consider this to be unacceptable. In the ceramics case more or less all the villagers have experienced improved air quality. By contrast, the social and environmental consequences in the silk and cassava cases are less clear-cut and not commonly agreed upon. Some community members in these villages are aware of increased pollution and see serious health problems emerging, while others do not.

Quotes: perceptions of societal change

“Some people complain about the pollution. I do not really see it. We always discharge the waste into the sewer.” - Starch producer, Duong Lieu cassava village (May 2010)

“In the last few years there have been many more cases of cancer in the village. Now villagers are beginning to become aware that we have a serious environmental problem.” – Villager, Van Phuc silk village (November 2009)

“20 years ago in Bat Trang the streets were always filled with smoke and were black from the charcoal. Now the village is much cleaner.” - People’s Committee administrator (May 2010)
The concept of bounded rationality described in economic theory is useful here. It addresses the ways in which human beings perceive, interpret and understand the world around them. Simon (1957) argued that the rationality of individuals is limited by available information, the finite amount of time that people have and their cognitive limitations in interpreting the complex environments in which they operate. In evolutionary economics, in which innovation plays a key role, the theory of bounded rationality is used to describe how human perceptions and understanding, decisions and actions are shaped through conformity to social rules; formal and informal institutions including local traditions, mental models, collective insights and conventional wisdom (Dequech 2001). Despite the increasing evidence about pollution, the villagers in Duong Lieu (cassava) conform to a set of social rules which prevent them from complaining about the pollution. In such a case the intervention of outside parties can play a key role in changing perceptions within a community. A research institution, an NGO or government agency can promote public awareness about longer-term social or environmental impacts. Government extension programmes and campaigns often aim to inform people about harmful societal changes (Demirel and Alkan 2006).

Over the research period, we witnessed changing perceptions among the small-scale producers and community actors, due to them learning and developing new insights. Individuals, groups, or organizations perceive and react to changes in their environment through a process identified by Argyris and Schön (1978) as single-loop learning. Experiential learning - the process of making meaning through the transformation of direct experience (Kolb 1984) - was particularly relevant in the daily reality of the case studies. Experiential learning can be both an individual, as well as a joint, process. It is referred to in the literature as a social learning process; as it is often beyond the capacity of any single actor to understand the nature of these emerging societal problems (Pahl-Wostl 2006, Beers et al. 2010). This process is evident among some of the small producers’ clusters. The cases of Phu Vinh (rattan and bamboo) and Bat Trang (ceramics) are good examples of social learning and how a shared perception of a common problem developed. The “community of practice” literature is also relevant here. A community of practice is defined as “a group whose members regularly engage in sharing and learning, based on their common interests” (Lesser and Storck 2001). The Bat Trang Ceramics Association is a clear example of such a community of practice.

There are also differences between the cases regarding the extent to which the communities develop, or failed to develop, a “critical mass” of common perceptions. Once a shared understanding and perception of an issue takes shape among a community, a gradual development of a critical mass of concerned community members occurs; in this way the societal outcome becomes part of the community’s “agenda”. This occurred in Phu Vinh (rattan), where the majority of people in the community saw emerging poverty as a societal problem. In Van Phuc (silk) a growing critical mass of awareness about pollution looks set to emerge, but in Duong Lieu (cassava) the new pollution problems are mentioned by few individuals. The literature refers to such an accumulation of perceptions as a “tipping point”. This concept was introduced by Gladwell (2000) who defined it as “the moment of critical mass, the threshold, the boiling point—the levels at which the momentum for change
becomes unstoppable”. That tipping point is usually reached through an “information cascade”, which occurs when people observe the actions/conclusions of others and then arrive at the same perception (Bikhchandani et al. 1992).

**Linking Innovation with Societal Change**

Once a critical mass of the community has perceived a harmful societal change the cases show that its members will go on to identify its cause. We found marked differences in the way in which the communities linked recent societal changes with innovations. In the rattan case, the community has no doubts that the lower prices offered by the export companies to local producers have resulted in more poverty among small-scale producers. Similarly in the ceramics case, there is general agreement in the community that cleaner air is a result of adopting a new technology. Conversely, the links are less obvious in the silk and cassava candy villages. The scattered workshops over the villages and other local sources of pollution make it difficult to trace who is contributing to the increased pollution and to what extent. Moreover, the innovators in the silk and cassava cases are not actually producing the pollution themselves. The cassava starch producers in Duong Lieu—who themselves did not innovate—pollute more due to the increased demand by the innovative households making new products. This is also the case in Van Phuc where the silk dye workshops pollute more due to increased demand by shop owners, the actual innovators. There is no clear agreement about the exact causes of the pollution because of the complexity of these environmental pathways.

<table>
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<tr>
<th>Quotes showing social and environmental consequences (or not) of innovation</th>
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<tr>
<td>“The LPG technology brought us prosperity and clean air. The village is a pleasant place thanks to the LPG technology.” – Ceramics producer, Bat Trang (May 2010)</td>
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<td>“There is no doubt that the lower price is the reason for our new poverty problems.” – Rattan weaver, Phu Vinh (May 2010)</td>
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<td>“There are many new factories around so it is difficult to know where the pollution is coming from.” Village administrator, Van Phuc silk village (November 2009)</td>
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<tr>
<td>“Regular research has been carried out but the researchers never came back with the results. Nobody can tell us where the pollution is exactly coming from.” – Dye workshop owner, Van Phuc (May 2011)</td>
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<tr>
<td>“The area around my house is not so polluted. The starch produces some pollution but it is mostly the alcohol factory in the village.” – Candy producer, Duong Lieu (May 2011)</td>
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External agencies, such as research institutions, the government and NGOs can also play a role in helping people to better understand the impacts of innovation. Innovation systems theory is relevant here (Lundvall 1992, Edquist 1997). This states that the innovation process takes place in a network of institutions in the public and private sectors whose activities and interactions initiate, import, modify and diffuse new technologies and research and development (R&D) outcomes. This process usually involves some mechanism to respond to the broader social and environmental consequences of the innovation.

As with perceptions of societal change, learning within the community is instrumental to developing an understanding of links between innovation and societal change. Learning may involve developing new insights
into the origin of societal changes. The community has to question the issues that gave rise to the societal changes; if they are able to understand that they are related to an innovation (or another recognizable cause), then second-order or double-loop learning has taken place (Argyris and Schön 1978). The social learning process may resolve information gaps or overload and filter the information required in order to understand whether or not there is a link. Through social learning, actors can begin to see different aspects of a problem and constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible (Beers et al. 2010).

Dissatisfaction with the Trade-offs

Once an innovation has been linked to a societal change a community can respond in different ways, as our case studies show. This is particularly evident in the different ways in which harmful changes are weighed against benefits such as prosperity, income, employment and stability, which is in fact a social cost–benefit analysis. For instance, in Phu Vinh (rattan), the small-scale producers are finding the new problem of poverty unacceptable and do not see any compensatory benefits. The result is dissatisfaction and an emerging conflict with the export companies. On the other hand, in Van Phuc (silk) there is a common perception that the new problems of pollution are sufficiently compensated for by the economic benefits of innovation and the community sees the pollution as an acceptable trade-off. A similar story emerges in the cassava candy case, where no overall conflict of interests has emerged about the harmful environmental consequences, which are both contested and sufficiently compensated by the economic outcomes.

Quotes: trade-offs: acceptable or not?

“Due to the lower prices we have new poverty. Many men have to go out of the village to find a job. We think that the export companies destroyed our traditional business. We are really unhappy with this situation.” – Rattan weaver, Phu Vinh (November 2009)

“We have a stable income but some more environmental problems. That is not too bad. Outsiders tell us that we have an environmental problem. For us it is okay as long as we earn more money” – Starch producers, Duong Lieu (November 2009)

“More and more people think that there is too much pollution. The problem just grew bigger and bigger, we asked the People’s Committee to take action.” – Villager, Van Phuc (May 2010)

“The pollution in Bat Trang became so bad that we as ceramics producers had to take action” – Early innovators, Bat Trang (May 2010)

Specific actors may not be able to weigh up the situation due to misinformation or limited information about the value of the innovation. This could be the result of the bounded rationality mentioned earlier or a deliberate attempt by the more powerful originators of a harmful societal change to cover up the level of value creation and keep this out of sight, a situation known in economic and contract theory as information asymmetry (Akerlof 1970). Actors that benefit directly from an innovation may keep this information hidden from the community, or suggest a misleading picture of the situation. Value-chain theory relates this issue to governance issues (Gereffi et al. 2005, Helmsing and Vellema, 2011). The dominant actors in the chain may have the power to hide
information and sow discord in order to safeguard their appropriation of value. The export companies in Phu Vinh (rattan), who are reluctant to disclose information about their incomes and profits, are an example of this.

When harmful societal consequences are not compensated for by benefits, conflicts can emerge among people with differing interests and resources (Mills 1959). These can create social structures that reflect the unequal distribution of power and resources in society. In practical terms, these conflicts stem from the perception that one’s own needs, interests, wants, or values are incompatible with someone else’s (Mayers 2000). They create a social situation in which a minimum of two actors are striving to acquire a set of scarce resources at the same time. Dissatisfaction provides the potential for conflict, also known as the “latent phase” in the process towards conflict (Brahm 2003).

Glasl (1999) shows how parties in a conflict lose the ability to cooperate in a constructive manner as they share fewer common and mutually beneficial experiences and lose the links that used to bind them in the past. He identifies several “points of no return” which contribute decisively to this escalation. Initially, there is a hardening of positions. The content of the conflict becomes the centre of attention, and each party trusts that it will be possible to solve the problem to their satisfaction. In subsequent stages further polarization and debate take place. Small-scale producers in the rattan village have reached the point where they no longer feel that it is productive to talk to the export companies. From this point on the behaviour of the parties towards one another is likely to become more negative, as will the images that each party have of each other. As the conflict escalates, the parties slide into a situation where each feels threatened and endangered by the actions of the other. In the last stage of the model, threatening begins and might lead to violent acts (Libiszewski 1992).

Voluntary Acknowledgement of Responsibility

When actors in the community feel disadvantaged and conflict arises, innovators can react to these concerns in different ways. The innovators might be sensitive and exhibit altruism or feel a sense of responsibility for the outcomes and arrange for some form of compensation within the community (Schacter and Marques 2000). Internal mechanisms within the community could push the innovators to acknowledge their responsibility in resolving the emerging conflict. In Bat Trang, where pollution was recognized to be a problem, the small-scale producers included environmental considerations in their assessment about whether or not to invest in LPG-fired kilns.

Acknowledging responsibility:

“During the time of the charcoal oven, I felt the effects of the bad air quality on my health.” - Early innovator, Bat Trang (May 2010)

“We feel sorry for the poor households but there is nothing we can do. It is not our responsibility. We produce products in a free competitive market.” - Export company manager, Phu Vinh (May 2010)

“I have worked for several bosses in export companies in Phu Vinh, and CSR is very new to them, actually they are only focused on profit’ - Administrator (and university student) in rattan export company, Phu Vinh (May 2010)
On the other hand, the innovators could intentionally not take responsibility, acting opportunistically and selfishly taking advantage of circumstances with little regard for principles or the welfare of others. Such behaviour involves misusing the ignorance of others by seeking self-interest with guile (Williamson 1986). This situation can often escalate into a conflict. In the rattan case, the export companies lowered the price they offered and opted for opportunistic behavior, following the principles of the free market game.

Altruism and opportunism are discussed within the context of morality. Frederiksen (2010) distinguishes several moral frameworks upon which CSR policies are based. These include moral egoists, libertarians (who believe in not violating anyone else’s rights), utilitarians (who promote the best possible outcome), and supporters of common-sense morality. Most CSR and stakeholder literature contains the assumption of the societal interest of the entrepreneur as an individual or organization that is willing to accept responsibility and to redistribute benefits and important decision-making power to stakeholders (Stieb 2009). These strands of CSR and stakeholder literature assume a variety of motives among dominant actors, once responsibility for outcomes is acknowledged.

While there are well-intentioned innovators who are willing to compensate others for harm caused, the scale and complexity of the problems, uncertain causality and bounded rationality may all make it difficult to know how to do so. Even if the causes are known it may still be difficult to establish the appropriate level or method of compensation. When there is proximity between the actors, as in the clusters in Vietnam, it should be easier for the innovators to arrive at acceptable compensation arrangements for the community.

**Enforced Responsibility**

In cases where there is no internal settlement of the conflict or voluntary compensation and the escalating conflict remains unsolved, innovators could be pushed by an external force or a new institutional arrangement to acknowledge responsibility and realize some form of resolution. In the silk village, the local administration sees its responsibility as addressing the pollution problem. If this does not happen the community is likely to end up with an unresolved and escalating conflict, as witnessed in the rattan case.

**Quotes: The role of third parties (government)**

“The local administration hires staff to clean up, but they do that only once a month. This is not enough” - Household producer of starch, Duong Lieu (May 2010)

“We want to move the starch production out of the village to the mountainous areas where the cassava is grown.” - People’s Committee administrator, Duong Lieu (November 2009)

“We see the pollution as a problem that the local administration has to solve. We have plans to move the polluting dye workshops to an area outside the village where we will install a water purification plant. However we do not yet have the
A third party, for example a court of law, can also be called in to intervene and to act as an arbiter. However, in many developing countries there is limited awareness of, or access to, *de jure* rights and poor people are often excluded from the formal legal system (Barendrecht 2009). There are no or few formalized processes for local actors to claim their rights as a result of failing laws, judiciaries and other legal mechanisms (Buscaglia and Ratliff 2000). An alternative is that resolutions might be arrived at through informal and multi-actor conflict resolution arrangements (Crowfoot and Wondolleck 1990).

A final difficulty here is that disadvantaged parties may lack the courage to fight a claim and therefore assume a position of powerlessness. This partly depends on the cultural patterns within the community. For example intimidation might play a key role in some countries. In the case of Vietnam, social mores about harmony, not complaining and accepting one’s destiny are likely to be more decisive (Warner 2003). Some societies stress tolerance and are less inclined to engage in behavior that is seen as creating conflict.

*The Societal Process towards Responsible Innovation*

In sum, based on the evidence developed from our cases we advance a suggestion to conceptualize responsible innovation. From the empirical material and theoretical insights drawn from the literature, we propose a five-stage model (Figure 2.1) of a societal process, depicted below. The process either ends in an unresolved conflict or moves into the zone of what can be termed responsible innovation; innovation that takes account of social, environmental or distributive issues and is acceptable for the community concerned.
Figure 4.2: The societal process towards acknowledging responsibility

<table>
<thead>
<tr>
<th>Stage 1: Harmful or not?</th>
<th>Stage 2: Link or not?</th>
<th>Stage 3: Conflict or trade off?</th>
<th>Stage 4: Altruism or opportunism?</th>
<th>Stage 5: Responsibility?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not perceived as harmful</td>
<td>Understood as not linked to innovation</td>
<td>Trade off, actors feel compensated by the other outcomes of the innovation</td>
<td>Innovators acknowledge responsibility in conflict resolution and compensate (altruism)</td>
<td>External intervention, new institutions or conflict resolution mechanism make the innovator or other parties acknowledge responsibility</td>
</tr>
</tbody>
</table>

Societal change (people, planet)

| Societal change perceived as harmful | Not perceived as harmful | Understood as not linked to innovation | Emerging (latent) conflict between innovators and actors, who feel insufficiently compensated | Innovators do not acknowledge responsibility; conflict escalates (opportunism) | No new system for conflict resolution Unresolved conflict. |

Theoretical associations:

<table>
<thead>
<tr>
<th>Bounded rationality</th>
<th>Bounded rationality</th>
<th>Cost benefit analysis</th>
<th>Opportunism/altruism</th>
<th>Third party conflict resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>External parties</td>
<td>External parties</td>
<td>Emerging conflict</td>
<td>Value chain governance</td>
<td>Institutions, institutional change/reform</td>
</tr>
<tr>
<td>Single-loop learning</td>
<td>Double-loop learning</td>
<td>Information cascade</td>
<td>Morality</td>
<td></td>
</tr>
<tr>
<td>Critical mass</td>
<td>Information cascade</td>
<td>Information cascade</td>
<td>Scale and complexity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Conflict prevention systems</td>
<td></td>
</tr>
</tbody>
</table>
4.4 Concluding Remarks

We have considered the applicability of CSR theory and stakeholder perspectives in innovative small producers’ clusters northern Vietnam. Our intent has been to develop a view of what constitutes responsible innovation in the context of a developing economy. Our conclusion is that there are limits to the extent to which projectified CSR practices can explain what happens on the ground in such a context.

We found that small producers in the cases in Vietnam do not consciously design procedures to anticipate or avoid environmental and social impacts. They work in a context that is characterized by risk, uncertainty, bounded rationality and weak formal institutional setting which implies high costs associated with information. Yet the innovation activities and societal consequences take place in the community in a direct and visible way. Unforeseen outcomes of innovations emerge and manifest themselves in the villages. Adaptive and informal institutional mechanisms may or may not enable the actors involved to react to these changes, whether through compensation or conflict. Experience and learning are critical in mediating and resolving the emerging conflicts. These can result in compensation or adaptations to the initial innovation. The assessment of societal impacts and the conflict resolution mechanisms do not involve external normative frameworks; rather people in the community decide what is important for, and fair to, them. However, the involvement of third parties seems essential for sharing information about the impacts, sorting out the understanding of complex situations and causality and in the mediation of conflicts. Although the processes do not follow the principles of the stakeholder approach or CSR practices, they do resemble the early origins of CSR which recognize the relationship between people and between people and resources.

An essential feature in this emergent and experiential learning-based mechanism is the quality of the process of human interaction. Quality concerns the community’s ability to adapt and resolve conflicts so that they can enter the “responsible innovation” zone. Ideally, this involves an open and transparent discourse in which powerful actors do not seek to dominate the process to benefit their own interests. The actors affected by the innovation outcomes have a voice and are able to speak, which characterizes the deliberative and empowering capacity of a broad base of community members to achieve process justice and fairness. The quality of the process of human interaction is embedded and shaped in a specific institutional context. In sum, table 4.2 lists the key differences we identified between the CSR and stakeholder engagement approaches and the societal process as analyzed and conceptualized in this chapter.

Table 4.2 Key differences between CSR/stakeholder engagement and the societal process model

<table>
<thead>
<tr>
<th>Projectified CSR/stakeholder approach</th>
<th>Societal process model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned project and foresight-based</td>
<td>Emergent and experience based</td>
</tr>
<tr>
<td>Quality of the analysis</td>
<td>Quality of the process</td>
</tr>
<tr>
<td>Expert system</td>
<td>Perceptions of community members</td>
</tr>
<tr>
<td>Predefined steps and procedures</td>
<td>Open process</td>
</tr>
<tr>
<td>One central actor</td>
<td>Multi-actor and social learning</td>
</tr>
<tr>
<td>Compliance with project framework that may include external values and norms</td>
<td>Community fairness</td>
</tr>
<tr>
<td>Dominance of the central actor</td>
<td>Empowerment of actors</td>
</tr>
<tr>
<td>Absolute outcomes</td>
<td>Compensation of outcomes</td>
</tr>
</tbody>
</table>
The factors that steer the societal model can be seen as embedded in a variety of theoretical associations, including bounded rationality, emergent learning, third parties and formal and informal institutions. The societal model proposed in this chapter does not explain the institutional context for a community to move towards a responsible innovation zone. It would be informative to explore why one case ended up in the zone of responsible innovation while others remained as unresolved conflicts. Further research could explore hypotheses regarding the role of institutional factors and the extent to which the nature of the innovation and the scale and complexity of the problems play a role. We believe that these Vietnamese case studies and our proposed “grounded view” of responsible innovation represent the reality facing many small producers and communities in developing countries.

References


