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Stakeholder Participation and Knowledge Sharing in Integrated Coastal Zone Management in Vietnam

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Abstract

Literature on knowledge sharing, participation and social learning argues that a lack of consensus on the definitions and interpretations of these terminologies is created by the complexity of natural resource management. This lack of consensus has led to a wide variety of interpretations, definitions and reviews of existing terminology. This variety is researched for this article and placed in relation to results from an empirical research on knowledge sharing and participation in Integrated Coastal Zone Management in Vietnam.

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1. Introduction

Knowledge sharing and participation in integrated coastal zone management (ICZM) and natural resource management (NRM) do not only require participating in a process, but also understanding the physical environment (Berkes, 2009). This type of knowledge sharing and thereby knowledge generation are essential to NRM and therefore require a specific form of participation. Herein, stakeholders do not only act as co-decision makers but are empowered and have the capabilities to create ecological and management knowledge and skills. This article aims to provide insight in this complexity of NRM and the discussion that exists on social learning, participation and knowledge sharing. Social learning has been introduced in NRM since a few decades. The definitions of social learning differ greatly; both in relation to the interpretation of the terminology as to the usefulness of the concept in practice. This article will not provide an answer to the questions posed in literature but aims to contribute to the discussion by providing empirical evidence.

2. Methods

Literature review was conducted to identify theories, conceptualisations and operationalisations on participation and knowledge sharing. These concepts were researched in the context of ICZM in specific and NRM as an

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umbrella concept. No exclusion criteria were used based on date of publication. Only articles that are related to environmental management or social-ecological systems were included. Additionally, the concepts of social learning and change were researched: this inclusion criterion is based on the results of the empirical research. Articles researched focus on NRM, co-management, knowledge sharing, social learning, stakeholder participation, and sustainability science.

The literature review is placed in relation with empirical research conducted in Vietnam in 2010. This research was conducted in Thua Thien Hue and consisted of interviews with 14 key stakeholders of ICZM. These interviewees consisted of stakeholders from national and local government institutions, mass organisations, research institutes and universities, and representatives of ICZM programmes. Analysis of the interviews was done by the use of coding analysis. The literature review is supported by the findings of the empirical research and used as empirical evidence.

3. Results

When knowledge sharing (knowledge generation), (stakeholder) participation and social learning are researched, authors agree that the complexity of NRM processes (Berkes 2009; Pahl-Wostl, Mostert & Tabara, 2008; Johnson et al., 2012; Reed, 2008; Rodela, 2011; von Kroff, 2012), creates a lack of consensus on the definition and interpretation of the terminology (Berkes, 2009; Reed et al., 2010; Rodela, 2011). In the following paragraphs we will provide an overview of the current understandings and trends that exist in literature.

3.1. Knowledge sharing

Sustainable ecosystem management depends strongly on the acquisition and use of integrated systems of knowledge (Roux et al., 2006). Many questions however remain on who the stakeholders in these knowledge systems are, which knowledge has to be incorporated and what the role of these stakeholders is?

Roux et al. (2006) state that knowledge flows between science and management are important especially in times of change. Science is considered as the arena of "experts" and management is seen as the domain of "decision makers" (Roux et al., 2006). No specification is given to who these experts and decision makers are. This lack of specification is problematic in NRM as the concepts of stakeholder participation and co-management indicate that all stakeholders should be able to act as co-decision makers (Soncini-Sessa, Castelletti, & Weber, 2007). If all stakeholders are co-decision makers, then no differentiation exists between experts and decision makers. But even if this differentiation is not correct, or as it is the case of Roux et al. (2006) is not accurately defined then the problems of knowledge sharing still occur. Knowledge sharing in NRM requires a new definition and categorisation of stakeholders, one which allows for distinctions between knowledge types but which at the same time recognises their role as decision-makers.

Roux et al. (2006) recognises the problems that exist with the exclusion of end-user knowledge in knowledge sharing processes. They state that early and on-going interaction with end-users is the surest way to increase compatibility between innovations and resource management needs. Hereby, it is important to recognise the difference between explicit and tacit dimensions of knowledge (Roux et al., 2006). Explicit knowledge refers to organised or interpreted data which is endowed with relevance and purpose. Tacit knowledge on the other hand is a mix of experiences, values, contextual information and intuition. It is this knowledge that gives people their capacity for action (Roux et al. 2006; Matzler, 2008): it is highly personal and difficult to formalise, making it problematic to share (Bapuji and Crossan, 2007; Martzler, 2008; Roux et al., 2006). Our research agrees with these conceptualisations: we deducted that often tacit knowledge is considered as less important and too much of an effort to include. Stakeholders in Vietnam state: "Scientists and managers are not willing to listen to end-users. End-users are willing to share their knowledge but scientists and managers are not willing to put in the time and effort".

3.2. Social learning as a process or outcome?

When the concept of knowledge sharing is researched social learning is often the concept identified in which this knowledge sharing occurs. Confusion however exists as to whether social learning is a process or an outcome of participatory processes.

Von Korff et al. (2012) subscribes to the definition of social learning by Muro and Jeffrey (2012); "social learning is a process of communicative actions where multiple actors collectively learn about and develop an understanding of each other's interests, concerns and preferences through dialog and deliberation". The question as to what extend this social learning can be translated into practices is still open. Furthermore, when participation is brought into relation with co-management (Berkes, 2009; Leys & Vanclay, 2011; Pahl-Wostl et al., 2007; von Korff et al., 2012) social learning is closely linked. The emphasis is placed on "collaboration and the development of shared practices between different stakeholders to respond flexibly to unexpected developments and to include new insights and changing circumstances into management decisions" (von Korff et al., 2012). von Korff et al. (2012) interpret social learning as an outcome. This interpretation is not generally accepted in literature or by our empirical research. Johnson et al. (2012) state that social learning is both an outcome and an input (Berkes, 2009). Our research showed that social learning is not only an outcome but also an aspect of the ICZM process. Stakeholders do not only learn about and develop understanding of each other's interest but also generate new knowledge based on this. This new knowledge leads to the development and implementation of ICZM policies and programmes. If social learning is only viewed as an outcome of a participatory process than stakeholders are not allowed to act as co-designers, co-producers or co-decision makers (see also Soncini-Sessa, Castelletti, & Weber, 2007).

3.3. Social learning from an individual, network or system perspective?

In order to answer the question as to whom the stakeholders are in knowledge sharing processes, it is necessary to define from which perspective knowledge is shared.

According to Rodela (2011) participation and knowledge sharing in NRM are viewed from an individual-centric, network-centric and system-centric perspective. This division is supported by Pahl-Wostl et al. (2007); here the differentiation is made on the level of representation in multi-scale social learning processes. From an individual perspective social learning is a process embedded in past experience and/or observations of the other participants (Rodela, 2011) which occurs on the micro-level (Pahl-Wostl et al., 2007). Social learning is network-centric as actors are vast, interact over a long period of time and are included in relation to their specific interests (Rodela, 2011). This interpretation is supported by Reed et al., (2010). Reed et al. (2010) indicate that often little distinction is made between individual and wider social learning. Learning occurs in an individual; however it mostly occurs through social interaction with others (Reed et al., 2010). More than one person can therefore learn as an emergent property of the reinforcing interactions between people, through networks (Reed et al., 2010) on a meso-level (Pahl-Wostl et al., 2007). Our research confirms these interpretations. In Vietnam, social learning occurs on an individual level for example fishermen learn through experience and observation of each other. Furthermore, fishermen are also organized in fishery association in which they learn through social interaction with each other. The question we pose ourselves is whether this distinction in necessary; where does the individual end and the network begin?

Rodela (2011) also identifies social learning on a system-centric level. This indicates that social learning is a process involving system-wide advances in which interest is for change that moves the social-ecological system towards a more sustainable trajectory (Rodela, 2011; Johnson et al., 2012). This perspective was confirmed by our empirical research and by literature (Diedrich, Tintoré, & Navinés, 2010; Lozoya, Sardá, & Jiménez, 2011; Balaguer, 2008; Pahl-Wostl, Mostert, & Tabara, 2008). Our research indicates that social learning in ICZM occurs on all three levels simultaneously. This is supported by Berkes (2009) who states that although learning occurs at the level of the individual, it is too narrow to only focus on individual learning as we need to embrace the various learning processes that seem to operate in environmental management (Berkes, 2009). It is recognized that individuals and organizations learn; learning in a wider social system however remains controversial (Berkes, 2009).

3.4. Social learning and participation

The concepts of participation and social learning are often not well defined and used in an incorrect manner. In order for social learning to take place in practice, better understanding of the differences between these two concepts is necessary.

Reed et al. (2010) identify key problems with the term of social learning as it is used in literature. Social learning as a concept is often confused with the conditions or methods necessary to facilitate social learning, such as stakeholder participation (Pahl-Wostl et al., 2007; Reed et al., 2010). Participatory processes stimulate and facilitate social learning, but it cannot be assumed that participation inevitably leads to social learning (Reed et al., 2010). Reed et al. (2010) state that without clarity on the definition of social learning it becomes difficult for practitioners to facilitate social learning in social-ecological systems.

Johnson et al. (2012) holds promise for sustainable management of complex social-ecological systems as researchers and managers seek to understand the mechanism behind effective participatory environmental management processes. However as von Korff et al. (2012) state, the question remains as to what extend social learning concepts and applications can be translated into practice in NRM processes.

3.4.1. Social learning, change and experience (the emergence of co-management)

In literature, little is found on the influence of change and experience on the process of social learning. Our research shows that social learning and participation are directly linked to change and experience. We discovered that the level to which such learning occurs is directly linked to the level of reluctance for change. Stakeholders in Vietnam indicate that stakeholders with a low level of power have more experience with social learning and participation and therefore have a low level of reluctance for change. It is at this level of power, that we see a change in mentality and ultimately in behaviour. Reluctance for change in stakeholders with a high level of power is directly related to the rigid and hierarchical political tradition of Vietnam. As it is stated by von Korff et al. (2012) participatory processes are influence by the context in which they are used; for example authoritarian and rigid regimes. Stakeholders that hold true to this tradition and have a high level of power do not subscribe to the inclusion of all stakeholders. Stakeholders state: “end-users in ICZM do not posses valuable knowledge and lack the capabilities to contribute.” Our research deduced that this reasoning is directly linked to their lack of experience with participation and knowledge sharing. Stakeholders who have had this experience have lost their reluctance; those who haven’t are not convinced of its value.

When the concepts of change and experience are linked to social learning the concept of co-management emerges. Three forms of management exist; co-management, adaptive management and adaptive co-management (Berkes, 2009). Co-management in NRM can be viewed as a form of power sharing. In Vietnam, as it is in most countries (Berkes, 2009), resource management falls under the jurisdiction of the central government. There are however some opportunities for power sharing. In Vietnam, stakeholders with a low level of power often have a disadvantage when it comes to power sharing (Berkes, 2009). Our empirical research shows that these disadvantages are addressed by the slow introduction of ‘success-stories’ by the stakeholders with a low level of power. This is achieved by institutional and capacity building, and power sharing (Berkes, 2009).

4. Conclusion

For this article, we reviewed participation, change, knowledge sharing and social learning in the context of NRM; compared with an empirical research in ICZM. Hereby, we identified the complexity of social-ecological systems and the opportunities and challenges that are related to the desire to achieve sustainability. Literature reveals that social learning is an important aspect of NRM. Literature does not agree on the definition and interpretation of social learning. Social learning is closely linked to participation, change, knowledge and experience. Confusion

exists as to what the relationship between these concepts is. The linkage creates confusion on whether social learning is an outcome or a process in natural resources management, whether it can be translated into practice and whether it benefits the participatory process.

We have made an attempt to provide an overview of the different interpretations of social learning and participation in NRM. We are however unable to provide definite answers to the questions asked in literature. As the introduction of social learning in NRM is still a relatively new evolution, more research is needed. With this article we hope to aid in the discussion on social learning and participation in NRM. The comparison with our research provides an example of how social learning and participation is interpreted in the context of Vietnam.

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