IMPACT OF INCENTIVES IN THE DEVELOPMENT OF SOCIAL FORESTRY: A CASE OF THE MATENGO HIGHLANDS IN TANZANIA

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Abstract

A study was done to analyze impact of incentives on development of social forestry in the Matengo highlands in Tanzania. Data was obtained from synthesis and analysis of monthly and weekly field reports, and scrutiny of the empirical experiences learned as a result of researcher's participation in the action research. Results indicated that incentives did not yield only expected positive outcomes, but also unexpected conflictual outcomes mainly due the fact that community is made up of social entities with diverse resources in form of thinking, meditation, purposes, interests etc, some wanting to use such resources in a way of meeting their personal ends at the expense of the public good. The unintended outcomes negatively impacted on the social forestry. It was recommended that understanding of the role of incentives, and attitudes of the actors under incentive environment, is imperative for decision making as regards improvement of social forestry or other community based environmental conservation initiatives.

Keywords: *community, environmental conservation, incentives, conflictual outcomes, heterogeneous community, Matengo, Tanzania.*

Introduction

Various authors define incentives deferentially. As signals that drive certain action (Meijerink 1997); as inducement and incitement of an action (Enters 2001); as bribe or sweeteners (in the context of development projects) (Smith 1998); as policy instruments (Enters 1999) in the context that they are important for influencing and cultivating the implementation of policy objectives (Comerford 2004); and as positive and/or negative outcomes expected by people in their actions within certain working rules of their physical and social environments (Ostrom 1997, North 1994).

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Incentives are categorized as financial/monetary and non-monetary (Comerford 2004), material or non-material (Petersen *et al.* 2004, Ellingsen & Johannesson 2007), direct, indirect incentives and disincentives (Emerton 1999, Comerford 2004). The direct incentives are mechanisms that are directed towards specific objectives for the intention of conditionally inciting conservation of the nature whereas the indirect incentives are mechanisms encouraging people to conserve environment by formulating some general enabling conditions. The disincentives are mechanisms that discourage people from doing certain actions (e.g. degrading natural resources) (Emerton 1999). Both direct and indirect incentives are important in stimulating investments and participation of the community and other non-governmental stakeholders in environmental management, and are interdependent (Enters *et al.* 2003).

The use of incentives is by no means a new experience in conservation of natural resources around the world (Baker 1998). In essence, change of approach from state based to participatory natural resources management (e.g. in forest management) constructs around facilitating community's participation in management of the resources by providing them with extrinsic incentives, which in-turn result into intrinsic motivation to participate in management of the resources (Bloomley & Ramadhani 2006, Baskent *et al.* 2008). They include materials incentives such as free tree seedlings, subsidizing forested land, sharing of benefits accrued from sustainable environmental friendly investments (e.g. ecotourism) at the local level, and restructuring of the institutional instruments (e.g. policies, legislation etc) at the higher policy levels (Giger 1999).

Different views exist as regards the provision of direct incentives and their impacts on achieving the long-term outcomes, which are the primary purposes of many conservation-oriented projects. On the one hand, there is belief among project practitioners and researchers that the long-term project outcomes cannot be attained unless some short term benefits (direct incentives) are offered to the target groups (Douglas 1994). On the other hand, however, some evaluators have queried such a belief on the basis of evidence from empirical cases in which, although the short term benefits were provided, after the project time, the target group abandoned the long-term strategies (IFAD 1996, Pretty & Shaxon 1998, Hellin & Schrader 2003). Besides, the opponents further argue that there are empirical cases wherein outcomes have been achieved without providing direct incentives to the target group, or rather in the absence of the project approach as a whole. In addition, the opponents argue, the provision of incentives leads to consignment of the target group as beneficiaries instead of providers of the environmental services. In that case, the empowerment of the community, imperative for sustainability, is not achieved, leading to inability to achieve and sustain the

long-term benefits after the end of the projects (Giger 1999, Hellin & Schrader 2003).

While the incentives are important for social forestry development, the long-term nature of investment required for tree planting up to the realization of the benefits might hinder tree planting when there is a short term and more economically feasible alternative economic option, such as crop cultivation. Local people's consideration of tree planting thus will come if the labour and capital investment for alternative livelihood is not likely to yield outstanding economic returns (Ubukata & Jamroenpruksa 1997, Salam *et al.* 2000).

Although there is a growing research on impact of incentives on conservation of natural resources, there is still a limited knowledge on consequences of the same on the development of social forestry in Tanzania. The current study analyses the impact of a direct socio-economic incentive (the hydromill mini-project) on development of social forestry in the *Matengo* Highlands in Tanzania. The article is organized as follows: it first introduces the case study, then highlights the methodology used to collect the data, followed by an analysis on impacts of the hydromill project (an incentive) on the tree nursery management and planting, and finally to policy implications and conclusion sections.

Social Forestry in *Matengo* Highlands in Tanzania

In 2002, a three year (2002-2004) environmental management project was started in the *Matengo* Highlands. The project was a result of recommendations from Miombo Woodland Agro-ecological Research Project (MWARP) implemented from 1994 to 1997 through a partnership of Sokoine University of Agriculture (SUA), Japan International Cooperation Agency (JICA), Mbinga District, and the *Matengo* Highlands local community. The research had uncovered environmental degradation as one of the priority concerns in the area. The above-mentioned stakeholders resolved to initiate social forestry to rehabilitate the degraded environment by planting trees around the degraded areas, such as sources of water on the hilltops, and around the homesteads to provide people with alternative sources of wood for household consumption, to meet environmental and socioeconomic interests. To encourage participation in social forestry, an incentive was introduced. Based on the priority social economic problems uncovered from the research, milling service was another priority problem in the area. A hydromill project (an incentive) was thus initiated with the assumption that since it is operated by hydro-power, the local people would perceive the importance of conserving water and thus will participate actively in the social forestry. A tree nursery and hydromill micro-projects were therefore initiated, and the ownership was granted to the village community while other stakeholder facilitated the process. The hydromill project was run on service

provision basis whereby the community decided how much they would afford to pay for meeting operational costs of the project.

Following the inception of the micro-projects, a committee was appointed to steer, monitor, and coordinate the projects activities. This committee was called *Sengu* and its members represented all institutions in the village (i.e. church, women, villagers, and village government). *Sengu* in *Matengo* context meant people originating from the same ancestor, coming and eating together, under the leadership of an elderly person, while discussing important issues (Nsenga *et al.* 2004). Naming the supervising committee in line with the traditionally recognized institutions meant recognition of potential for indigenousness. Training was given to the committee to build its capacity to undertake its roles effectively. The committee operated under the village government and had to regularly report the progress of the project's activities to the village government, community, and to the stakeholders during the stakeholders meetings. While the committee undertook the supervisory, monitoring and coordinating roles, the whole village was accountable for the projects implementation and sustainability.

The implementation process emphasized community participation right from the onset of social forestry activities. The whole village approach was adopted with the assumption that participation of whole village community in planning, implementation, monitoring and evaluation of the initiatives with facilitation from non-local based stakeholders (CARITAS, SCSRD and District council), success of the initiative under question was highly guaranteed.

The implementation of the projects at the outset seemed harmonious. However, two years later, things fell apart, and the source of the falling apart surrounded the incentive (hydromill). It is the aim of this study to uncover how the incentive affected the social forestry activity.

Methodology

This study is based on the field experiences through the two years (2002 to 2004) action research project (SUA-JICA) that was conducted in the study area, the Matengo highlands. Records of various experiences and qualitative information by the researcher were complimented with monthly reports by other researchers, and the weekly reports that were composed by the *Sengu* committee during its weekly meetings to evaluate progress of the environmental management initiatives. The data was analyzed using the content analytical method.

Impacts of Hydromill Project (Incentive)

The hydromill mini-project derived both intended and unintended outcomes, as presented in Figure 1. However, this study is confined to the

analysis on how the unintended outcomes impacted on environmental conservation (tree nursery management and planting) in the *Matengo* highlands. The unintended outcomes of the hydromill project included power struggle, falsity, interpersonal hatred, conflict mongering and unstable leadership. Suffice it to mention nonetheless, that as always for any intervention, the unintended outcomes affect the intended ones. The projects or interventions try to identify and address them to make sure that they are made as positive as possible, or at least they cause minimum harm to the intervention. Although in practice it is hard to separate the unintended outcomes, for the matter of analysis they will be studied one by one. Hereunder the unintended outcomes are elaborated before analyzing their impact on social forestry at the *Matengo* highlands.
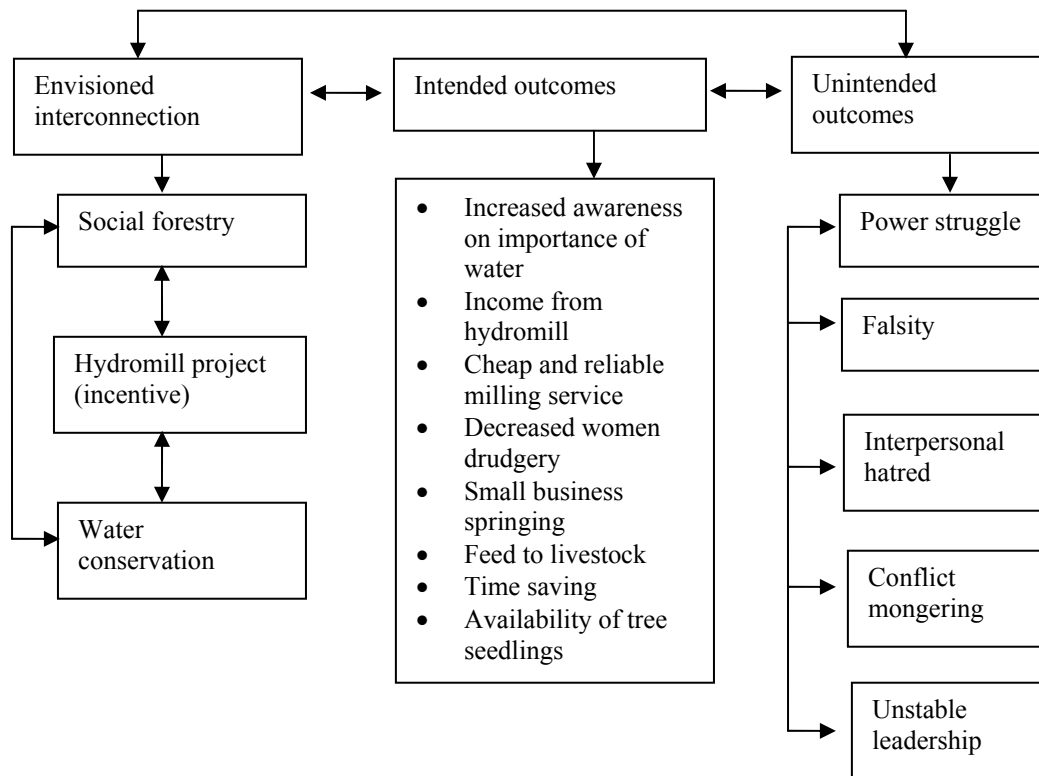
Power Struggle

Power, in the context of this is study, refers to attributes that a person or group of social actors possess and use to influence and alter actions and behaviours of other social actors (Pérez-Cirera & Lovett 2005). The inception of hydromill project has created various expectations among the people in the community. While others see the project as a rescue to the milling problems they have had for a long time, some of them, especially the local elite, think about how they might capture the intervention for their personal benefits. Their exclusion in the supervising committee, therefore, makes them devise counteractions against the committee. Knowing that they cannot easily dismiss the committee, they plot mechanisms to persuade and stir some other actors who may have a stake in the project. In this process they use the authoritative organs, pretentiously expressing their concern as the possible undesirable fate they are going to face and which will endanger their positions due to the actions of the committee. This was learned in the following response from the *sengu* committee:

> Some ex-village leaders and the hardliners[2] stirred up and persuaded the village leaders that if they were not careful the *sengu* committee was going to overpower them and people might vote them out during the coming elections; and as the committee was becoming very strong they might select the *sengu* committee members into village government. They told them that the *sengu* committee was starting to make decisions beyond their boundary of jurisdiction.

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[2] For the context of this study, a *hardliner* is a person who is conflict lover, conflict stirrer, inquisitive, gossiper, close monitor, with high convincing power, is able to manipulate facts to mislead others, could be a person with wider exposure; he might have worked outside the village and/or even in towns; he could be a local elite.

The struggle for power seems to be one of the reasons for this movement. The ex-leaders and hardliners might have anticipated the possibility of their being appointed into the committee if the government dismissed the *sengu* members due to the concern and generosity they have expressed to the village leaders. They don't show this openly, nonetheless, but they bury their hidden agenda within the shoes of the village leaders. They pretend to be concerned with fate of others while trying to undermine the participatory initiative to suit their own ends at the expense of the majority (Baland & Platteau 1999).

Figure 1: Intended and Unintended Outcomes of Incentives to Environmental Management.

Falsity

Personal interests to the hydromill project (the incentive) cultivated the spirit of telling lies among some individuals in the social forestry projects at the *Matengo* highlands. Lying is used as a weapon to undermine and humiliate others seeming to be committed in facilitating achievement of the majority interests in the participatory work. These messages concerned sensitive issues that could incite actions against the committee by the authoritative organs and community in the village. For example, the

hardliners and ex-leaders spread the message that the donor (JICA) had issued Tanzanian shillings one millions to facilitate environmental rehabilitation, but that money was shared among the members of the committee to meet their personal provisions. Although this was a lie the village government could not take part in analyzing the truth behind it. Lies can cause great harm to the participatory intervention. This becomes critically the case when the trust is made between the informers and informed such that the informed do not take time to search truth behind the received messages.

Interpersonal Hatred

In social life, it is practically inevitable to avoid interpersonal conflicts among the community[3]. It might be because of the diversity of behaviour and preferences among the individuals (Kumar & Kant 2007). Interpersonal conflicts might also originate from some past interactions in resource use where one or some of users felt discontented with the relationship (Christie *et al.* 2003a). Other possible cause of the interpersonal conflicts is jealousy (Qashu 1999). It is worse when the interpersonal hatred transcends the personal boundary and endangers the attainment of the public good. In the social forestry at the *Matengo* highlands this proved to be the case. Some individuals from the community had personal conflicts with individuals in *sengu* committee and, at the expense of the common good, engineered underground movements to shame the committee members, without even thinking through the effects on the project as a whole. This indicates that when people are encouraged to participate as a group in the social forestry programme they are not in practice as a single unit, but rather as individual entities bound together by the common purpose. They, therefore, carry their individual behaviours, attitudes and preferences with them into the participatory arrangements. Understanding of this can be an important clue for understanding causal outcome relationship among the parties that in one way or another come into conflicts; in fact it might assist in determining a solution for the cause rather than for the outcome, thus salvaging the participatory effort (Christie *et al.* 2003a).

Conflict Mongering

This is a tendency whereby an individual or a group of persons stir others into conflicts by pretending to sympathize with one of the parties for the potential unpleasant consequences likely to hit another party. It is especially the case when the conflict mongers envisage that their movement will potentially result in punishment, disgrace or shaming of an individual or a

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[3] http://www.timbersnursery.com/11.doc

party they hate. While conflicts are commonly inevitable in societies, it is astonishing to see conflict mongers happy in devising instruments of disgrace for other innocent actors and at the expanse of public benefits. Such a situation was evidenced in the case of environmental conservation in the *Matengo* highlands, whereby the ex-village leaders and the hardliners' personal hatred toward *Sengu* committee stirred up conflict between the committee and the village government on the one hand, and the committee and the village community on the other. Conflict mongering may result in punishment and humiliation of individuals or parties that are innocent. *Sengu* committee in the present case, for example, was consequently humiliated and dismissed from its jurisdiction, only later to find that what was done against them was unjust.

Unstable Leadership

Leadership is a very important attribute for showing the way. The role played by the leaders in the community based initiatives is one of the crucial determinants for achieving the desired ends or failure in realizing the same (Meizen-Dick & Knox 1999, Sangita 2008). Ideally, to become a good leader, one quality virtue is embodiment of rational judgment and analysis of the situation to avoid asymmetry and personal attributes in addressing emerging circumstances for a common good. When the leadership is destabilized, this weakness is turned into an opportunity by opportunists to fulfil their personal interests. While the ends of the few selfish actors are guaranteed in such situations those of the public fade away. Leadership instability is one of the critical reasons for falling apart of the social forestry activities at the *Matengo* Highland. Instead of considering the veracity or falsity of the message from the conflict mongers, the leaders listened to the lies, and consequently acted incorrectly against the *sengu* committee. Seekers of personal interests know and use the unstable leaders as a ladder to achieve their personal ends. Nonetheless, when things have gone wrong, these individuals shy away, leaving the leaders to be blamed for any errors.

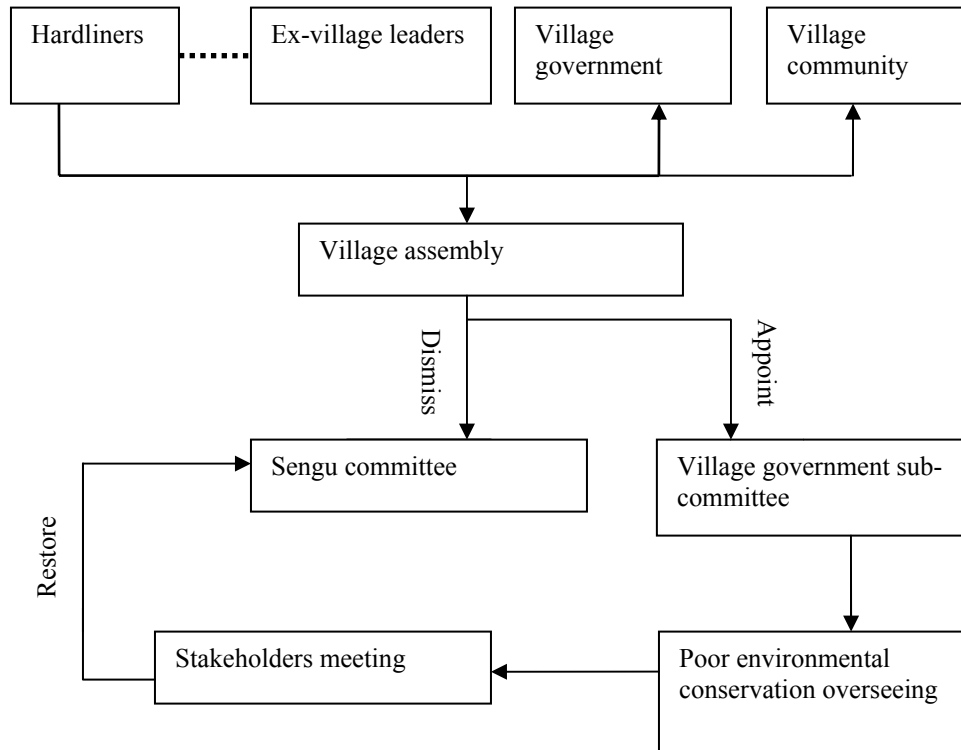**Impacts of the Interplay of Unintended Outcomes of Hydromill on Social Forestry**

The impacts of the interplay of the unintended outcomes of the hydromill incentive are presented in Figure 2, and can be outlined as:
- Suspension of the *Sengu* committee and appointment of government sub-committee;
- Poor performance of the environmental conservation endeavour.

The deterioration of the environmental conservation endeavour triggered:
- Call of the stakeholders meeting to discuss the situation;
- Restoration of the Sengu committee.

Figure 2: Impacts of Interplay of Unintended Outcomes of Hydromill Incentive on Social Forestry

Note: Dotted line indicates alliance. Full line indicates influence or outcome.

Dismissal of the Sengu Committee and Appointment of Government Sub-Committee

The unintended outcomes resultantly managed to influence decision making of the government, and the voting power of the villagers. Through the village assembly, the *Sengu* committee was voted out and declared as "dismissed". At this point the *sengu* opponents had accomplished one of their missions; the second one could probably be their appointment by the government to become overseers of the project and thus justify their accessibility to the hydromill project (access the revenues). Nonetheless, contrary to this likelihood, the government appointed itself to form a sub-committee for overseeing the hydromill and tree planting activities. In other words, the village government appointed some of its members to form a new supervising committee. Such appointment nonetheless was unethical in view of the regulations the stakeholders had laid down. If the government itself supervised the project, to whom would it be accountable? The implication of

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the government appointing itself was that the right of the people participating and assuming ownership of the initiative was eliminated. This therefore disrupted the whole concept of the community based natural resources management and brought to the village the centralized natural resource management, which had already failed. The historic experiences of the failed village projects (e.g. village shops, milling machines etc.) and mismanagement of funds under village government management roused further scepticism for government's decision[4].

Hydromill revenues, but not tree planting, attracted the government members to intervene in the project. A few days after its appointment, the village sub-committee started to raise the concern that the work of supervising the social forestry was difficult, and they should thus be considered for some remuneration. It might appear that the government members had intrinsically longed for intervening into the project, and the *sengu* accusation just gave them avenue for operationalizing their desire. Even though they had displaced *sengu* committee nonetheless, the funds could not be accessed because of the trust and legitimacy the bookkeeper had before the local people, and even among the government itself. Being a church leader (Father), and based on the trust he had acquired in the community, he continued to keep the hydromill revenues even when the former *sengu* committee had been dismissed.

This impact shows us how diverse the community is. Various interests, expectations, thinking, preferences attitude towards the incentive is the central problem among the resource users on the community side, and between the community and the government scale. This reality was concealed at the outset because the intervention was made through participatory negotiations between the local actors (the village government and the community) and other stakeholders (the Sokoine University of Agriculture, the JICA, and Mbinga district council). The local stakeholders thus might have not preferred to express their differences while the external actors were with them. The reality becomes explicit at the implementation stage, when the local community and government assume primary authority to manage the social forestry and hydromill projects. While the unfolding reality on the one hand indicates how diverse the community is in terms of their preferences, behaviour, thinking, purposes etc., on the other side, shows how hard it might be for the non-place actors to understand the community when planning for participatory natural resources management, as the present case has indicated.

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[4] Informal communication with elders in the village

Poor Performance of the Social Forestry Work

Desire for hydromill revenues appears to have prompted jumping into a decision of supervising social forestry activities, but at the same time the capacity of doing so was low among the government sub-committee members. While the deterioration of the social forestry and hydromill projects became evident and escalated as days went by, it was not easy for the government to acknowledge that it had undertaken an irrational decision, and that it had failed to manage the social forestry and hydromill activities. Acknowledging a failure is like a father telling his child "I am sorry"—something not common in many societies. However, nothing could be concealed in the eyes of the local people as they could witness frequent breakdowns of the hydromill and poor performance of the tree nursery along with the incapacity of the government sub-committee to take decisions and follow them up. As the local people started questioning the rationality of sacking *sengu* committee after perceiving that they were misinformed, the deteriorating situation triggered stakeholders to call for meetings to address the situation. Through the negotiation process and having experientially felt the problems, the *sengu* committee was restored to the jurisdiction of overseeing social forestry and hydromill projects.

The use of local people as a ladder to achieve some personal interests of a few individuals is what appears in the present impact. The local people were misinformed about the *sengu* committee and persuaded to vote it out. They had thus been used to meet the demands of a few individuals, though again they had ultimately to suffer the consequences. Although when voting out the committee that outcome could not be predicted, the poor performance of the new government sub-committee revealed the reality. It now became easy to convince the community after stakeholders meeting to accept the restoration of *sengu;* this is a vivid example of 'learning through practice'. It needs not much argument for people to see the value and importance of a certain institution to them when they can easily ascertain this from the practical reality. In other words, although some deadlock can occur in the participatory work, it can give people lessons of dealing with future contradictory situations.

Policy Implications

While incentives are used in social forestry development, it is not guaranteed that the use of the incentives exclusively brings out what is expected. The expected outcomes in most cases are associated with unintended ones. The unintended outcomes of the incentives, if positive, can contribute to the improvement of the intended outcomes or even bring new positive outcomes in addition to the intended ones. On the other side, however, negative unintended outcomes can lead to the disruption of the

intended goals of the initiative as a whole. Policy makers and development practitioners need to underscore that the community is not unique but diverse, made up of social entities of different interests, thinking, purposes, power structure etc. no matter how much effort is invested to artificially put it together. While these resources can be important for dealing with unpredictable challenges that may compromise the achievement of the anticipated goals, they are on the side likely to be applied in selfish and conflictual ways, at least by some individuals, resulting in marginalizing others and causing destructive outcomes to any participatory initiative. Decision makers on the application of the incentives in participatory management therefore need to be aware of these potentials. The challenging question could nonetheless be "what should be done to reduce or rather turn the negative influences of the incentives into positive inducements, and thus improve the outcome of the intervention?" This can perhaps not have a single answer. For this research for example, the stakeholders' negotiation worked, at least, to terminate the deadlock and restore participatory spirit, though further follow-up would be required as to what transpired in practice after the negotiation process. Nonetheless, this is sometimes achieved after some experiential 'learning by doing' process. In essence, any sort of participatory decision-making or problem solving process should be encouraged. Since conflicts occur between or among the people, the same people can attain the solution to the conflicts even though an outside facilitator may be required.

Conclusion

It can be concluded from the present study that incentives do not necessarily, nor exclusively, bring the intended outcomes, but that they can lead to a mix of intended and unintended (desirable and/or undesirable) outcomes. This is primarily due to differentiated and sometimes implicit attitudes of individuals of a specific social community towards the incentives and the purpose they are planned to serve. Conflictual outcomes could however be used as challenges rather than impediments, thus enabling improved achievement of the planned endeavour. More underscoring of intermix between incentives to achieving a particular goal and factual achievement of the same is imperative especially in the community based environmental management or similar endeavours. Understanding of the role of incentives and attitudes of the actors under an incentive environment is an imperative key that can be used by decision makers for strategizing effective and sustainable community based environmental conservation initiatives.

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