

Full Length Research Paper

Trade-offs Between Extractive Industry and Biodiversity Conservation in East Usambara Mountains, Tanzania: Analysis of Power, Power Relations and Valuation Perspectives

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Abstract

In April 2003, the East Usambara Mountains ecosystem in northern Tanzania was invaded by small scale individual illegal miners extracting gold, and this posed enormous threats to this high biodiversity in the area. The government therefore started evicting these miners. Using the trade-off approach this article examines the issues involved in evicting these miners and it further highlights the socio-economic and governance factors at play and their influence at local, national and global scales. Results show that the major challenge is absence of a process mechanism for good and equitable decision making and that this is not made any better by the unequal and varied values and valuation methods. The article concludes by recommending, among other things, empowering the local communities and decision makers by providing them with relevant information pertaining to the issue before a decision is made and to dramatically improve participatory processes for all the concerned persons.

Keywords: Trade-off in decision making, extractive industry, biodiversity conservation.

INTRODUCTION

Background

The East Usambara Mountains ecosystem is part of the Eastern Arc Mountains range, which is one of the biodiversity hotspots in the world (Mathew, 2007) and home to arrays of endemic flora and fauna (Mathew, 2007; WWF, 2004). The ecosystem includes reserved forest blocks like Amani Nature Reserve (ANR), Nilo Nature Reserve, Derema Forest Reserve and others. These forest blocks offer diverse benefits, including ecological, economic, cultural and social benefits. Although the East Usambara Mountains are an important ecosystem, it is threatened among others by unregulated activities such as illegal timber harvesting. Furthermore, encroachment for forest-based resources, farming and mining has resulted in near constant and potential fatal disturbance to this ecosystem including destruction of water sources and pollution.

The management of East Usambara Mountains

Forests in attempting to incorporate the sustainable development concept has gradually shifted from fortress conservation approach towards community conservation. For instance, the Tanzania national forest policy of 1998 and wildlife policy of 1998 (revised in 2007) emphasize community participation in management of forests and wildlife (MNRT 1998; MNRT 2007). As a result, Participatory Forest Management (PFM) and various Community-Based Conservation projects have been initiated in East Usambara. Despite efforts of integrating needs of local communities in the conservation of East Usambara Mountains, and despite the area being of biological importance globally, there is an outcry of unsustainable human activities. About 60% of East Usambara Mountains' original natural forest has been lost and only half of what remains is classified as dense (Reyes et al., 2006). The area has been facing transformation to intensive crop production, which is increasing threats to biodiversity (MNRT 2007).

Decisions

In 2004, the government of Tanzania gave an order to the local miners to stop mining and to leave the forest reserves in East Usambara (Burgess et al., 2004). The purpose was to prioritize long-term ecosystem services rather than short-term benefits from minerals (“water is more precious than gold” – statement by former President Benjamin Mkapa (Burgess et al., 2004). However, this government order has not been successfully implemented. Illegal gold exploration and mining activities are still going on at the expense of biodiversity. Therefore, the objective of this study was to understand the perceived benefits of gold mining and biodiversity conservation to local communities and to analyze power, power relations and participation in the decision making process. Studying valuation, participation, power and power relations gives a better understanding of how trade-offs between conservation and development can be negotiated and reconciled.

MATERIAL AND METHODS

The study was conducted in five villages in the East Usambara Mountains (Figure 1) for a period of one month. The villages were chosen based on their closeness to the forest reserve, presence of illegal mining activities, extent of forest utilization and dependence on forest products, and experiences in conservation interventions. The sample size justification was based on Boyd et al. (1981) argument that a sample size of about five percent is a fairly representative one under such circumstances of widely spaced villages. The data collection methods employed included focus group discussions, questionnaire survey (Appendix 1) and Participatory Rural Appraisal (PRA). Focus group discussions involved village leaders, ANR and Tanzania Forest Conservation Group (TFCG) staff, Forest Officers from Muheza district and Tanga Regional Mining Officer. PRA exercises involved at least 20 individuals in each village while questionnaire survey involved household heads and other villagers above 20 years of age. The assumption was that respondents of 20 years and above had good knowledge of the area and activities going on. A total of 200 questionnaires sent out.

Qualitative data were analyzed with the help of content analysis method while quantitative data were analyzed with the help of Statistical Package for Social Sciences. Chi-square test was used to assess whether the answers were significantly different from different respondents. Cross-tabulation was also applied to find relationships between variables and to provide ideas whether the patterns described in the samples were likely to apply in the population from which the samples were drawn. Data collected through PRA and group discussion techniques such as identified problems and their ranking were compiled and analyzed with the help

of the local communities and the results were communicated back to them for verification.

RESULTS

Local Community’s perception on costs and benefits of forest reserves

Out of the 200 questionnaires submitted, a total of 148 respondents (74%) were received back and used in the analysis.

The majority of respondents to the questionnaire survey indicated that the forest reserves render diverse benefits to the local community (Table 1). However, 14.2% said they did not get any tangible benefit. This is probably because what is perceived to be benefit to one individual is not necessarily seen as benefit by another. Some of the benefits mentioned by respondents such as ecosystem services (source of rain/water, clean air/carbon storage and sequestration) and revenue from eco-tourism extend to national and global scales. Apart from domestic uses, water from these forests is also important for hydropower production. The other benefit at national and global scales is attraction to tourists of the unique flora and fauna that are endemic to this area, for example, *Anthreptes rubritorques* and *Bubo vosseleri* (EAMCEF, 2008).

On the issue of costs associated with conservation, 16.2% of the questionnaire respondents mentioned crop raiding by wild animals, 8.1% indicated lack of access to land under the reserves and 1.4% complained that their clove trees and homes were at risk of being destroyed by falling trees from the reserve. Despite these and other costs incurred due to presence of forest reserves, respondents also observed that destruction of the reserves could lead to a number of costs to the local community and beyond as indicated in Table 2.

Impacts of gold mining within and outside the forest reserve

Agriculture is the main source of income in East Usambara; however, gold mining gained popularity since 2002. About 39.9% of the respondents reported to have had earned some income from gold. Of these 14.1% owned mining blocks (rental or landlords), 2.7% were casual laborers, 21.7% were doing businesses related to gold mining (hardware, food and beverage) and 0.7% were buying and selling gold. It was also established that, in the past, more than 70% of the (illegal) miners came from outside the study area, but at the time of this study more than 90% were from within.

Gold traders and miners benefited most from this mining (Figure 2). At the beginning, the majority of the beneficiaries were non-natives (70%). Of the few natives, the majority (21.7%) were doing small

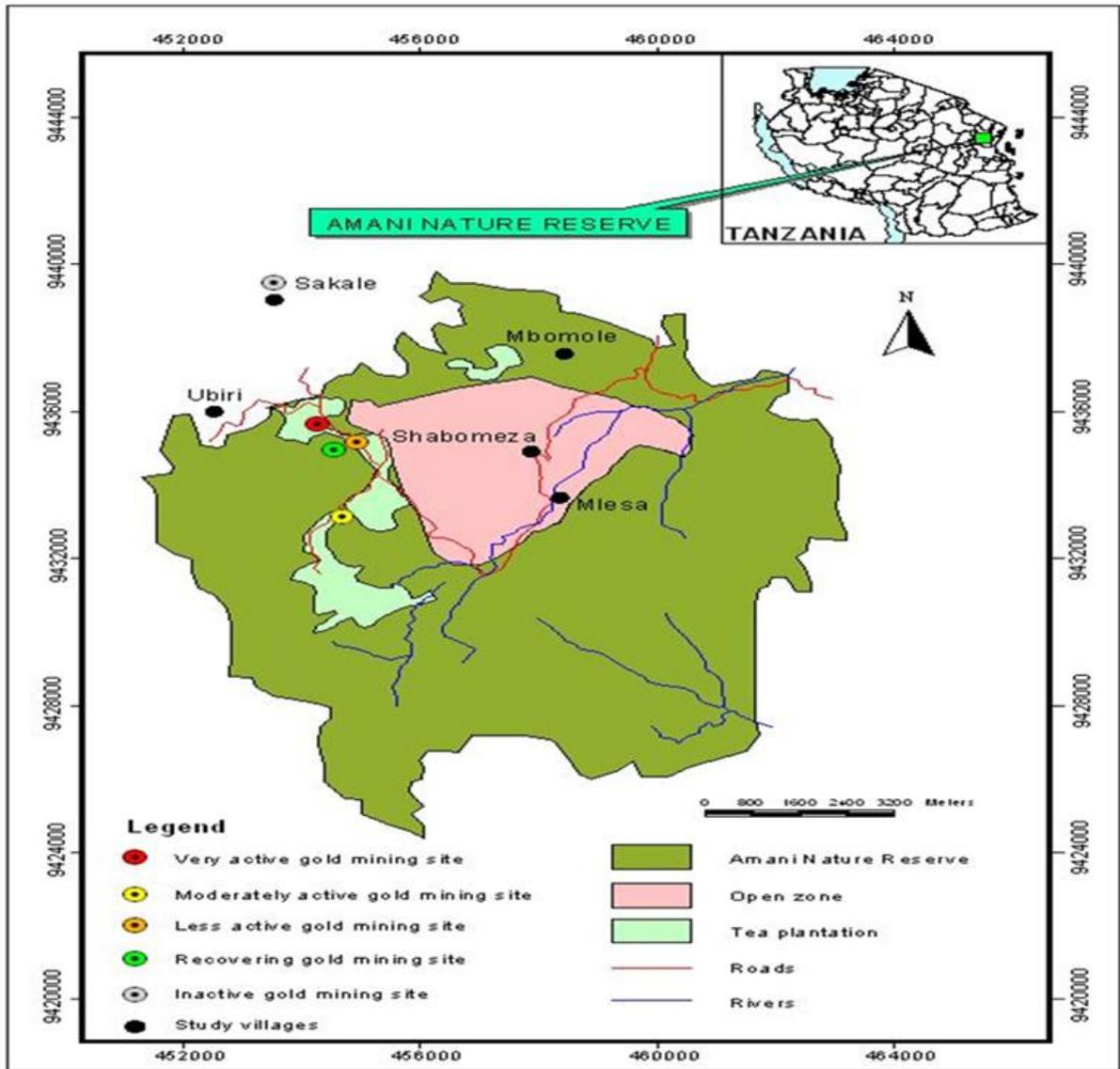


Figure 1. Map of Amani Nature Reserve (ANR) showing study villages and Gold Mining Sites (Source: Modified from ANR, 2009)

Table 1. Local level perceived benefits from the Forest Reserve by respondents

Benefits to individuals	%
Rain/water	71.6
Firewood	60.1
Clean air	33.1
Medicine	18.2
Tourism/20% from ANR	12.2
Timber	7.4
<i>Allanblackia stuhlmannii</i> nuts	5.4
Poles	3.4
Fruits and vegetables	1.4
Fodder	0.7
Honey	0.7
Bush meat	0.7
No Tangible benefit	0.0

Note: Total number of respondents were 148

Table 2. Local scale perceived costs of destroyed / absent forest reserve close to communities

Cost to be incurred if the forest vanishes	%
Drought	88.5
Less firewood	4.1
Lack of sacred places	0.7
Loss of biodiversity	1.4
Loss of medicine	0.7
Outbreak of diseases	0.7
No cost	0.0

Note: Total number of respondents were 148

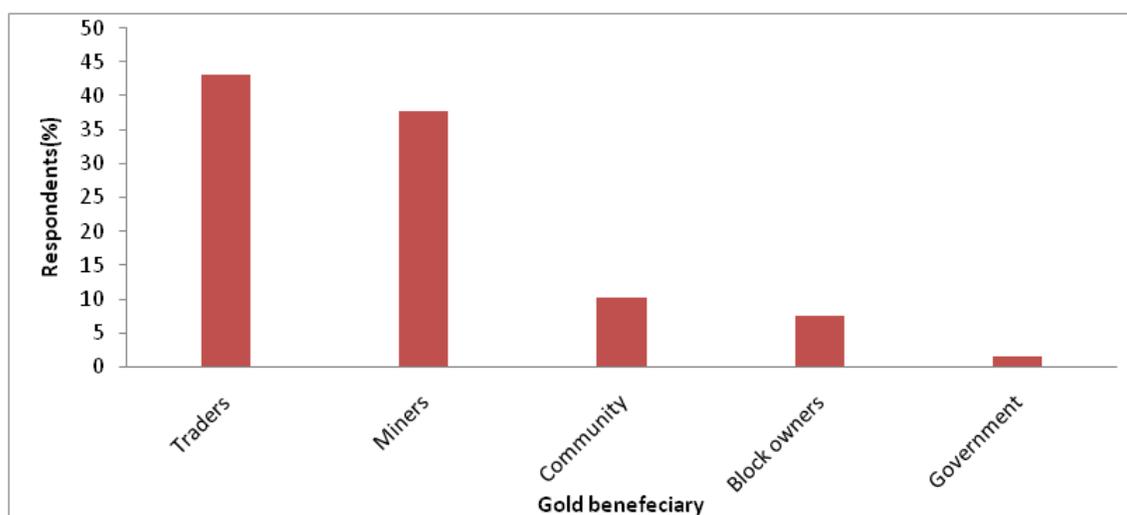


Figure 2. Perceived Beneficiaries of gold mining in East Usambara

businesses like selling local brew. However, at the time of this study more than 90% of the miners were natives, hence the major beneficiaries of the illegal gold mining. This shift in beneficiaries of mining occurred when the government evicted the first group of invaders who were mainly non-natives. The results also show that gold mining brought in quick money and increased people's income enabling them to build better houses and to send children to school within a period of 2 years from date of their starting to work in the mines.

Up to the time of this study, illegal gold mining was still going on in the forest reserve despite the government's decision to stop it. Although the mining was continuing, due to its illegal status, no respondent wanted to be associated with it, but they reported that a few individuals especially the youth were mining at night. About 62.8% of the respondents reported that dirty, polluted water and reduced flow of rivers were the main negative impacts of gold mining in the forest. Another 40% mentioned crime in forms of theft, robberies and rape and this was perceived as an evil spirit brought by non-natives. The third negative impact was contagious diseases (34%) such as HIV/AIDS, which may have increased due to immigration. Other negative impacts

included shortage of food, absenteeism from schools, unnecessary tree felling and loss of family ties.

Despite all these negative impacts, when respondents were asked as to why the community could not stop the activity, 51.4% blamed poor relations and lack of communication between community, ANR and the government. However, 26.4% were convinced that gold mining could not be stopped because it was more beneficial to their communities than forest reserves. A few (2%) pointed out that illegal gold mining could not be stopped because some ANR staff and village leaders were somehow behind it. The situation was made complex by the fact that some residents mined on their farms and stopping them was regarded as unfair treatment. This may indicate that either the people are unaware of the country's laws or they just disregard them.

Local community's participation in conservation decision making

About 62.2% of the respondents reported not to have been involved in decision making. Involvement in

decision making was taken to mean local people giving their views and opinions over issues, choosing what suits them, well informed on projects running in their areas and on their rights and responsibilities. Those who were involved mentioned a handful of responsibilities that they undertook such as being members of village councils, encouraging others to conserve the forest, being East Usambara Tea Company (EUTCO) representatives, cooperating with ANR when need arose, for example re-planting areas destroyed during gold mining and fighting bush fires. About 26.4% reported not being involved in decision making and that their village councils made decisions on their behalf (Figure 3). These results show that, in decision making, the people are mostly represented through institutions, but this does not mean that the peoples' views are presented and neither does it mean that when they are presented they are given due consideration (The Aarhus Convention 2000). It is also important to note that since the communities are heterogeneous, there is bound to be possible contradictory opinions about conservation and mining, and it is, therefore, necessary to receive as wide a hearing as possible.

Apparently, village councils act as a bridge between local communities and other institutions, and are regarded as the voice for their communities (Figure 4). Although the work of village councils as representatives of communities was recognized by all respondents, 21.6% were unsatisfied with the decisions made for them and questioned the decision-making process. Poor participation was the main cause of dissatisfaction as evidenced by 17.6% who reported that they would have been happy if participation started at grassroots. However, 2% reported that they would have been satisfied if institutions would not make decisions for them. Surprisingly 8.8% of the respondents had never been involved in decision making in their communities and didn't know who made the decisions for them.

Community participation in conservation and development projects

Four villages (Sakale, Mbomole, Mlesa and Shebomeza) were implementing conservation and development projects while one (Ubiri) had only been reached by conservation-related projects. Discussions with village leaders revealed that, in principle, these projects were open to every interested villager. However, only 33% and 25% of the respondents reported to have been participating in conservation and development projects respectively. Also, 16.9% and 12.8% of those who were participating in conservation and development projects respectively participated only at implementation stage, whereas only 0.7% participated from planning stage to evaluation. Partial involvement of community members in East Usambara is also reported by Jambiya and Sosovele (2001).

Institutions that Govern Conservation and Mining in East Usambara

Conservation and mining institutions mentioned during PRA discussions included village councils, VECs, ANR, Tanga Catchment Forest Project and Resident Mines Office in Tanga. TFCG and World Wide Fund for Nature (WWF) were the only NGOs mentioned to fight illegal mining in various ways. Pairwise ranking was used to rank the institutions whereby the best was ranked based on participation in conservation of forest and water resources. Community members were not aware of any company or institution dealing with mineral resources and, therefore, only an officer in the Resident Mines Office in Tanga was interviewed as a representative of institutions dealing with minerals.

Powers and power relations in decision making process

Results from the questionnaire survey show that, in general, village councils were perceived to be more involved in making decisions on conservation matters followed by village assemblies, government institutions, individual village leaders, Amani Natural Reserve (ANR), Village Executive Committees (VECs) and individual villagers (Figure 5). These results also show that respondents perceived institutions to have more powers. However, the respondents were not aware of any external institution or NGO with powers to make decisions. Village assembly may be said to represent a village community but, it should be noted that, only a few individuals attend the meetings and only a few of those contribute ideas.

In addition, the PRA exercise showed that the sources and types of powers held by the decision makers varied. This variation in power among decision makers is an indication that there is also variation in the use of those powers among them and among community members. That there is some power struggle within a heterogeneous community is expected, primarily because within the community there are groups that are privileged and those that are not. The privileged group tends to take control of the community processes and leave the marginalized groups unattended to (Kajembe and Monel, 2000) and unsatisfied (Table 3).

DISCUSSION

Application of Integrative Framework

An Integrative Framework (IF) is a tool that helps with understanding the complexity of situations and trade-off problems, and comes across as a simple and useful approach to better understanding conservation and development trade-offs. In East Usambara Mountains

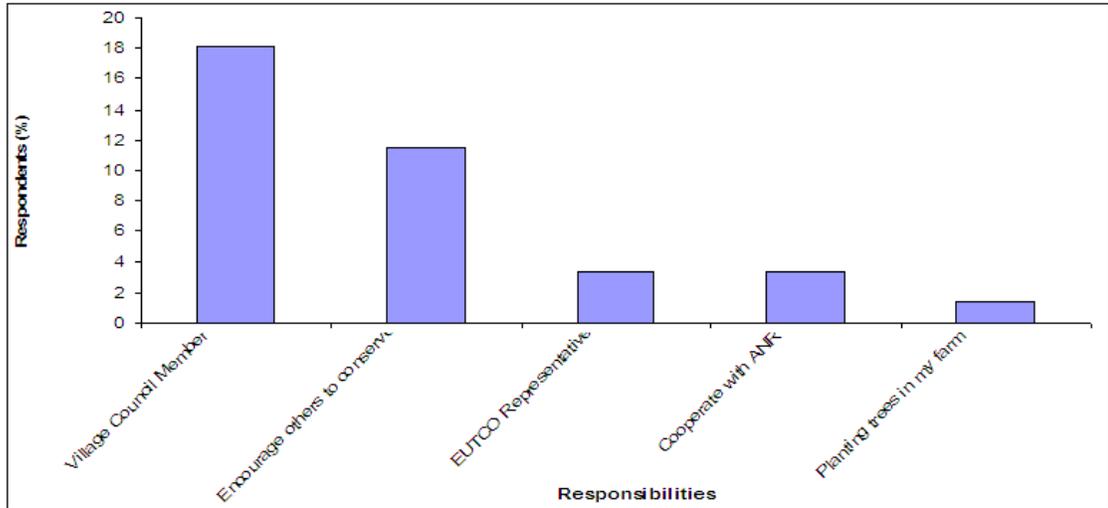


Figure 3. Responsibilities of community members in the decision making process

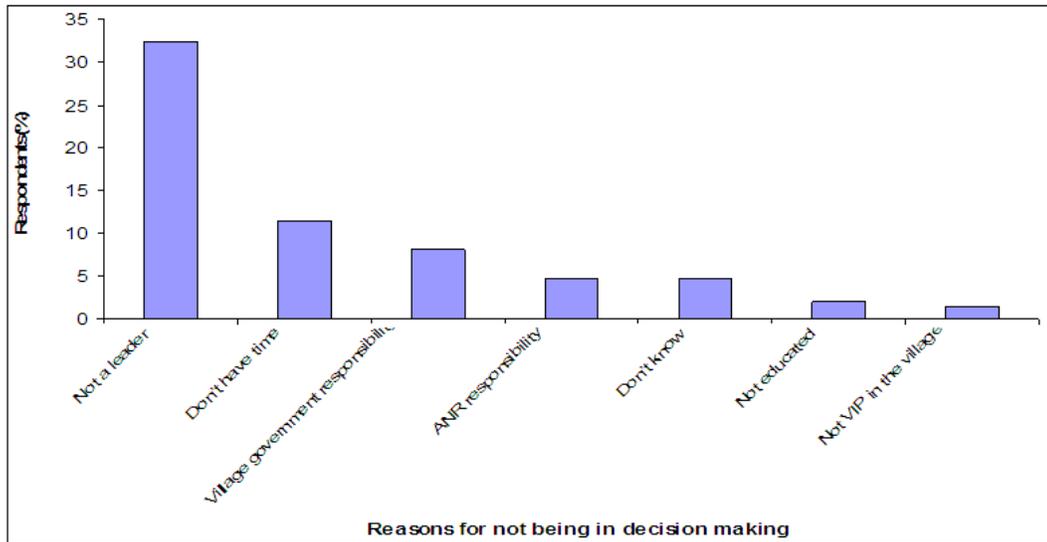


Figure 4. Reasons for not participating in decision making

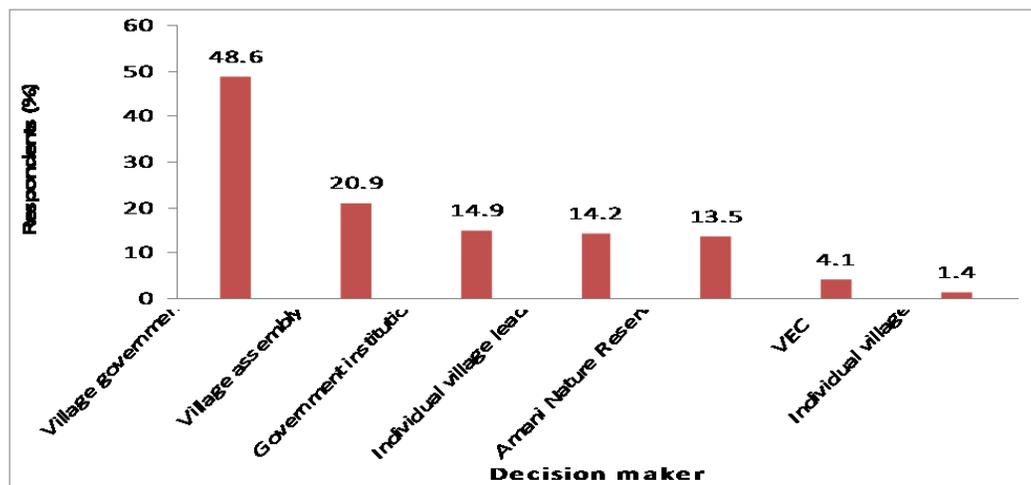


Figure 5. Respondents' perceptions on decision makers

Table 3. Sources and Types of power held by various decision makers

Decision maker	Source of power	Type of power
Village councils	Government power & information	Institutional
Village assembly	Unity	Constitutional
NGOs (TFCG & WWF)	Money, education	Strategic and Institutional
ANR	Government power, education, information money,	Institutional
Other government institutions (police, schools & hospitals)	Government power, education, information & money,	Institutional
VEC	Government power, & information	Institutional
Individual village leaders	Education, Information & money	Strategic
Individual villagers	Education & property ownership/money	Strategic
Traditional leaders	Magic	Institutional

the IF may have been applied by various conservation and development stakeholders, including the local community, NGOs, private sector, institutions, District councils and Ministries. They were attracted by the forests and other unique biodiversity in them, minerals, water and fertile soils especially for tea plantations, resources that exist together in one locality – extraction of one jeopardizes existence of the other. Conflicts resulting from conservation or extraction of these resources received attention of government institutions and NGOs at local, national and global scales. The value attached and preference given to each resource differed among actors at these scales. In general, the local community who were the key stakeholders felt somehow oppressed and neglected as they were neither given room nor empowered to choose what they wanted or to decide how to manage the resource(s) they themselves wanted. Also, they saw themselves being only implementers and not planners and decision makers. When the government stopped gold mining without negotiation, the rights of the mining folks were not considered. But, it is important that grassroots participate in identifying and negotiating trade-offs between conservation and mineral extraction.

Contexts and Perspectives in which the IF was applied by the above actors

The contexts in which the IF was applied differed in perspective as explained below and they include valuation, process and power as advanced by the trade-off approach (McShane, 2011; Pulgar-Vidal et al., 2010).

Valuation perspective

It should be noted that, in this case study, the valuation perspective was not based on valuation methods like Cost-Benefit Analysis, Cost Effectiveness Analysis, Linear Programming or Risk Benefit Analysis; rather it was based on open-ended focus group discussions,

questionnaire survey and PRA. The values conflict one another. For instance, forests attract wild animals like monkeys, which destroy crops. Also, a large portion of East Usambara Mountains is occupied by forest reserves and tea estates both of which reduce the land available for peasant agriculture and settlements. One needs to note that, residents of this area were originally forced up the mountain slopes to give way to sisal estates on the plains.

Value of the extractive industry was realized at local, national and global scales. This value is affected by economic and political dynamics at all three scales consequently affecting the stakeholders' motivation for valuing and/or participating in biodiversity conservation. For instance, the global gold price boom gave people incentives to look for gold anywhere leading to illegal mining, which started towards the end of 2003. At local scale, quick and big money from gold (through direct employment, businesses and selling of land (potential areas for gold)) was reported as a benefit. At national scale mining is valued as a form of employment, which contributes directly to poverty reduction. Gold mining has become one of the top contributors to the Tanzanian economy (Lu and Marco, 2010).

Value of conservation was also viewed at local, national and global scales. Globally, the forests on East Usambara Mountains are important for biodiversity conservation – they harbor considerable endemic flora and fauna species ((EAMCEF, 2008). Ecosystem services are also of global importance. The wetlands (much targeted for gold mining) are habitat for the long-billed apalis (*Orthotomus moreaui*), which is critically endangered (World Wide Fund for Nature, 2004). At national scale, the forests are valued not only for biodiversity conservation but also as a source of revenue from eco-tourism, and water for domestic, industrial and agricultural uses.

The local people appreciate and value the forests for rainfall and water supply. But, they felt that they have carried the burden of ensuring that water continues flowing down stream although they themselves did not realize much benefit. One man complained by saying

that, “*We are only proud of being able to access fresh water up here before it is polluted but, honestly, downstream water users benefit more.*” Other benefits such as medicines and NTFPs like *Allanblackia* fruits were also appreciated. The value of forests as a source of firewood was not so much appreciated because firewood could be obtained outside the reserves.

If all conservation-related benefits accruing from East Usambara Mountains ecosystem could be assigned a monetary value and upstream communities compensated for their conservation efforts, they could serve as a catalyst for conservation by the local communities. But, because this has not been done, these long-term and sustainable benefits are easily compared to and even out competed by unsustainable short-term benefits from extractive industry.

Process perspective

In East Usambara, various stakeholders have, in one way or another, been involved in processes of decision making in conservation and/or development. At local scale, local communities (through respective village councils and few individual villagers), East Usambara Tea Company (EUTCO), ANR, and central and local governments make decisions. At national scale the Ministry of Natural Resource and Tourism through Forestry and Beekeeping Division and NGOs like TFCG and WWF make decisions while at global scale WWF plays part in decision making on both conservation and extractive industry. However, the level and period of participation differ from stakeholder to stakeholder.

In the case of stopping gold mining, ANR and central government were the main decision makers at local scale. Although village councils were also mentioned, in most cases they were implementing decision(s) made by central government and ANR. This could mean that local community representatives are not empowered to make decisions and/or participate in decision making. In Tanzania, villages hold regular quarterly meetings (village assemblies), which are a requirement by law (URT, 1982). But, only a few villagers attend them and those few who attend and actively participate are usually not bonafide representatives but just proactive and interested individuals. This was revealed when respondents who said they were involved in decision making were asked as to what their responsibilities were. They said they just attended village assembly meetings but kept quiet throughout the meeting. The participation is further denied when there are infrequent village assemblies.

At national scale, the decision to stop mining was advocated for by the Forest and Beekeeping Division, TFCG and WWF. It could be argued that conservation and development issues in East Usambara have been blown out of proportion and that too much emphasis has been given to conservation by these institutions due to

the global significance of biological diversity in this area. If the local people had received as much attention, maybe things would have been quite different. It was noted that, village councils that were supposed to speak for their communities and connect institutions to villagers were said to be implementing decisions from ANR and central government and to be biased in disseminating information. For example, the youth and ordinary villagers complained that they were not given chances to give their opinions over issues and that they were not given information on new projects being established in the villages. This suggests that, stakeholder analysis is inevitable for a true and fair participation. Although many policies in Tanzania emphasize local community participation in decision making especially on management of natural resources, these communities are not empowered to make or even to participate in the making of the decisions, consequently, community participation in many instances has become theoretical rather than practical.

Power perspective

In East Usambara, real power is held by government and its institutions. This is because, although the government is emphasizing devolution through grass root participation (URT, 1982), in most cases the lower/local level just implements decisions imposed on them. For example, there have been numerous instances of governance by directives from central government, which interfere with the community participation principle (Policy Forum 2008). Also, the context and extent of participation by grass roots in decision making is not consistent at village, ward and district levels. For example, while the provision of policy, planning and budgeting information to the public is now a prerequisite as part of the planning process, some local authorities limit the extent to which citizens can participate in the process (Policy Forum 2008).

Central government through Forest and Beekeeping Division, ANR and Muheza District Commissioner's office and the police force stopped mining activities in East Usambara. The decision was imposed from above and there was no room for discussion. Also, the locals perceived that the government and its institutions could decide anything and they would not argue and they had a feeling that they would not be given a chance anyway. For instance, one man at Mbomole village stated that, “*These institutions are oppressing us. We don't have room to argue for anything and they can decide whatever they want. After all, they are the government and we are just implementers you know.*”

To some extent the government's exercise of powers in this case might have been influenced by international conservation NGOs and donors due to the fact that they and especially IUCN, UNDP and WWF had invested heavily in biodiversity conservation in East

Usambara Mountain forests. For example, the forests are a Man and Biosphere Reserve. Gold mining within the forests, therefore, was perceived as a mockery to the international biodiversity conservation organizations who had invested heavily in the area (Doggart et al., 2002).

Interaction among the three perspectives

Six categories of stakeholders in conservation and gold mining in East Usambara Mountains were identified. Influence and importance of these stakeholders depended on perceived power and responsibility of each in decision making, promoting or hindering conservation and/or gold mining. The majority of local community members had not participated in decision making regarding conservation and/or gold mining issues. Possibly, as a result of this, illegal mining continued due to problems related to process (51%), valuation (26%) and power (2%) as indicated in the results. The forest, water and mineral policies, which govern conservation of forest and water resources and extraction of minerals conflict with one another. At the time of this study, Forest and Beekeeping Division through EAMCEF, which received aid from various donors was addressing the illegal mining problem and cross-cutting issues like water and inadequate awareness on the values of East Usambara Mountain forests. However, the Division's responsibility is to protect biodiversity and water sources by responding to threats. By undertaking these responsibilities, the Division worked towards meeting the target of National Biodiversity Action Plan hence fulfilling the goal of the Convention on Biological Diversity (CBD), which entered into force on 31 December 1993 and was signed and ratified by Tanzania.

The government of Tanzania issued a decree to stop gold mining activities in East Usambara but, contrary to this decree, illegal mining continued. One most likely reason is that the government did not give a comparable alternative source of livelihood to the local community (MNRT, 2006; Mwanyoka, 2006; Vihemäki, 2005). Although the values of both conservation and extractive industry in East Usambara were appreciated at all scales (local, national and global), there was no consensus among stakeholders on which one to choose between the two. The situation was made more complicated by the complexity in process whereby even village councils, which were meant to represent the local community, were only implementing directives from the higher scale(s) and sometimes even withholding information from the community members they were supposed and expected to represent.

CONCLUSION

The major gaps identified by this analysis were the undervalued ecosystem services and the quick and large

sums of money earned from gold coupled with the slow and little money from eco-tourism and other socio-economic activities. Process gaps included lack of participation, lack of common platforms for local community members to present and argue their cases and inability of these locals to prevent invaders. Power gaps included government being the sole legal owner of forests and gold. Also, local communities had no power to prevent or at least control illegal mining and neither could they effectively present their cases.

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SECTION B: COST OF FOREST DEGRADATION / DESTRUCTION

Code	Question	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
BCFD1	Drought	5	4	3	2	1
BCFD2	Less firewood	5	4	3	2	1
BCFD3	Lack of sacred places	5	4	3	2	1
BCFD4	Loss of biodiversity	5	4	3	2	1
BCFD5	Loss of medicine	5	4	3	2	1
BCFD6	Outbreak of diseases	5	4	3	2	1
BCFD7	No cost	5	4	3	2	1

SECTION C: SPECIFIC SOURCES OF INCOME

Code	Question	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
CSS11	Own mining blocks (rental or landlords)	5	4	3	2	1
CSS12	Casual laborers	5	4	3	2	1
CSS13	businesses related to gold mining (hardware, food and beverage)	5	4	3	2	1
CSS14	Buying and selling gold	5	4	3	2	1

SECTION D: PERCEIVED BENEFICIARIES FROM GOLD MINING

Code	Question	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
DBG1	Traders	5	4	3	2	1
DBG2	Miners	5	4	3	2	1
DBG3	Community	5	4	3	2	1
DBG4	Block owners	5	4	3	2	1
DBG5	Government	5	4	3	2	1

SECTION E: IMPACTS OF GOLD MINING

Code	Question	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
EIG1	Dirty / Polluted water / Rivers	5	4	3	2	1
EIG2	Crime (Theft, robberies, rape, trespassing, harm – butchering and fighting, etc)	5	4	3	2	1
EIG3	Contagious diseases (HIV AIDS)	5	4	3	2	1
EIG4	Shortage of food	5	4	3	2	1
EIG5	Absenteeism from school	5	4	3	2	1

SECTION F: IN YOUR VILLAGE WHO DO YOU PERCEIVE HOLDS MORE POWER IN DECISION MAKING

Code	Question	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
FVP1	Village Government	5	4	3	2	1
FVP2	Village Assembly	5	4	3	2	1
FVP3	Government Institutions	5	4	3	2	1
FVP4	Individual Village leaders	5	4	3	2	1
FVP5	Amani Nature Reserve	5	4	3	2	1
FVP6	Village Executive Committee	5	4	3	2	1
FVP7	Individual Villagers	5	4	3	2	1
FVP	NGOs working in the Village	5	4	3	2	1

SECTION G: REASONS FOR NOT STOPPING THE MINING ACTIVITY

Kindly tell us why there has been no stoppage to mining despite Government efforts to stop the activity:

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SECTION H: DECISION MAKING PROCESS

Are you involved in the decision making process in your village?

If so how?

If not why?

SECTION

Kindly provide any other relevant information.

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