# Ethiopia: Transformation of "Rain-fed Lootable Mining" Economy in Dead End?

Gezaey Desta (MA in Peace and Security Studies) Department of Political Science and Strategic Studies, Mekelle University, PO box 231, Mekelle, Tigray, Ethiopia

## Abstract

Worldwide, particularly in the developing countries, pushed by grinding poverty, artisanal (and small-scale) mining is alarmingly being practiced. This type of mining is either a strong predictor of large-scale mining or is another side of the same coin. In either or both cases, poverty, conflict and ecological marginalization are common denominators almost over all mineral "resource blessed" countries which sooner or later turns into "resource curse". Hence the findings indicate that the sector is primitive, excluded in periphery, inefficient, conflict and insecurity-ridden, occupied by ever broadening hostile actors. It is mediated by necessity, seldom materializing opportunity, steep market demand, and legal and institutional loopholes. Worst still, the interventions and responses by the state miss the points of concern and are misguided. In a nutshell, neither the lootable mining sector nor the occupants verge transformability primarily due to respective characteristics. **Keywords**: Lootable, ASM, not-legalized, Nomadic, transformation.

### 1. <u>Theoretical Context of Artisanal and Small-Scale Mining Economies</u>

**ASM is poverty-driven as well as perpetuating** mostly the development of ASM is directly related to the economic indicators of a country- strongly poverty related. The causing factor for the existence of ASM in Africa is simply "abject poverty and dwindling livelihood choices with over 40% of Africans living below the poverty line and Vulnerable to a great variety of natural and man-made forces" (d'souza, 2002:46). In the case of the African continent, the macro-factor that causes Africans turn to ASM is primarily poverty in its various forms. In many parts of Africa subsistence farmers supplement their meager income by seasonally mining: at times of economic recession. Obviously, war causes poverty. Evidently, the over 25 armed conflicts since 1963 in Africa which affected more than 60% of the population, ASM become the last resort for many people. This was common in Sudan, DRC, Angola, Sierra Leone, and Liberia.

Natural disasters and environmental shocks like the volcanic activity in the DRC and in Cameroon, floods and cyclones that devastated Mozambique, severe draughts affected Eastern and Western Africa countries also force people to ASM. Therefore, ASM is an operation often in subsistence basis that struggle to survive from day to day focusing on immediate concerns rather than long-term consequences (d' souza 2002; CBNRM NET, 2003:2, 6; MMSD Global Report, 2002:15; Avila, 2003:19).

ASM places sustainable livelihoods at stake only providing emergency poverty relief and daily subsistence (Hoadley and Limpitlaw, 2004:1-3). ILO estimation 1998 argued that given the mutually reinforcing nature of poverty and ASM and the spurring poverty in sub-Saharan Africa ASM dependants have increased significantly, and will have been continued to do so. Worse still, ASM remains with only to have value as a disaster-coping mechanism in the midst of spurring global poverty, recurrent natural disasters due to global warming and higher stockpiles of unemployment and reduced opportunities for traditional livelihood activities effected by civil wars and internal strife finally incubating huge number of miners.

M. Hoadley and D. Limpitlaw (2004:3) contend that in developing countries ASM appeared to be the most pertinent economic response to poverty and crisis, there are often few, and at times no alternative to ASM and many people are forced into ASM because of poverty and dim employment opportunities.

ASM sustains negative circles of trapping poverty where both the sector and the government are caught in negative cycles and circles of cause and effect. Kevin pcj d'souza (2002:47) explains that a poverty trap results from a denial of choices and opportunities whilst living in a marginal and vulnerable environment. the genesis of gold mining in Burkina Faso as intimately linked to drought periods in the 1980s taking as a "last resort in regions where the soil could no longer be cultivated and many cattle had died," (Werthmann, 2006: 123).

**ASM is a Way of Life-** Artisanal and small-scale mining is more than simply an industry with the potential to contribute positively to foreign exchange earnings and employment, it is a way of life. For instance the ILO has *conservatively* estimated that "between 11 and 13 million in habitants of the developing world, including downstream industry employees, dependent families and associated servicemen, depend upon its existence for their livelihoods." (CBNRM NET, 2003:2). As to the actors involved in production, according to this community- based natural resource management network (CBNRM NET), ASM operators include seasonal subsistence farmers, rural community dwellers, retrenched large scale mine workers and nomadic peoples.

With regard to Africa, despite its inaccurate estimates due to many of the miners work causally,

*seasonally or informally*, across the continent between 3.2 and 4 million people are directly involved in ASM. ASM in Africa also affects the livelihoods of a further 16 to 28 million. The worrying fact is that experts claim that the number of people seeking to work in this sector in many parts of Africa (d'souza, 2002:45) is expected to triple over the next 10 years.

Shoko (2003: 1-4) similarly contends that in the Zambezi basin of the SADC region, the estimation that people have directly or indirectly benefited small-scale and alluvial panning of minerals reach up to 2 million. Accordingly, the labor intensive nature of this sector provides income and employment to large number of people who are in broader term "uneducated, poor and live in remote areas where no opportunities exist for formal employment". In the southern Africa region alone, ASM sector employ up to 10 million people directly and in the SADC countries too, mining is the single alternative for agriculture and its employment figures spurs during the recurrent drought. In this region, women and children constitute more than 50% of the employed forces. Similarly, up to 15 million people in China are estimated to be involved in this sector.

ASGM (gold mining) involves still underestimated, 10-15 million miners of which women and children constitute 4.5 and 1 million in respective manner. As a way of life hence in over 55 countries at least 100 million people depend on ASGM for its income and is also believed that this sector produces 20-30% of the world's gold- 500-800 tonnes of gold per year (Module 3, n.d.a:2-4). In South Africa more than 30,000 miners are involved in ASM. Furthermore, across countries, women proportion varies from 50-75% (Hoadley and Limpitlaw 2004:1).

*ASM is often informal, illegal and open-access-* in many countries ASM remained, and continued to be, informal sector. This is mainly because either the government does not recognize the ASM sector or lacks means to control the compliance to laws and regulations or both<sup>1</sup>.

The lack of political will to formalize or legalize the ASM sector can be stimulated by possibility for corruption and money laundering and related illegal practices in the womb of personal interests (Global Report on ASM 2002).

Mikael Ross (2003b) argues that illegal substances such as "blood diamonds" command high price in the global market since they are illegal and hence groups with such criminal networks benefit more from such trades. The "lootability" and "non-obstructability" nature of such "diffuse resources" poses problematic since their exploitation is hard to control by the central government. Accordingly, alluvial diamond production in DRC and Sierra Leone is more suitable for looting and smuggling out (Basedau, 2005:25).

Another dimension of ASM is its *open-access*, non-property regime, nature where communities see no justification for involvement in the management and control of the activities as there are no direct benefit streams from the sector (Shoko, 2003:3). ASM despite too illegal, for instance, in Mozambique (95%), Niger (95%), Brazil (90%), and 80% in China, Guinea, Philippines , India, and 70% in Colombia, it overwhelmingly contributes to the recognized gold production, like in Colombia contributing about 90% (Avila, 2003:17-18). In Ghana too, 80% of diamond comes from ASM (MMSD Global Report on ASM 2002:12).

ASM is Human Right/Security Insensitive- the human rights and security hardly flourish in such an informal, illegal and primitive artisanal sector.

As to child labor, the MMSD Global Report on ASM (2002:23-25) summarizes the child labor issue: causes, effects and trends.

Children start washing gold from 3 years on; from 6 years on they can be seen breaking rocks with hammers or washing ore. Children as young as 9 can be observed underground, and at 12 boys are widespread working underground in many countries and do the same work than adults. In the Cerro Rico in Potosi, Bolivia half of the total amounts of 8000 miners are children and adolescents.

*That* report list causes for child labor poverty being grand of which: specifically low family income, lack educational infrastructure, lack of parents' interest to educate their children, lack of parents awareness for the risk of children in mining, lack of orientation concerning their children' future, lack of legislative, enforcement and labor inspection, and culture. These adversely affect the children: drop-out of school, physical or psychological development problems, health problems due to mercury pollution or heavy loads and incalculable accidents.

Regardless ratification of the ILO convention on the rights of the child by most African states, due to abject poverty, AIDS orphanage and lack of monitory means, there exist considerable gaps for children exploitation. Due to lack of efforts to stop it, to improve the sector, to provide regular employment or incentive to go to school and enforce laws, these children are not only exposed to immediate risk but they are also jeopardizing their long term development both physically and mentally (d' souza, 2002:51).

<sup>&</sup>lt;sup>1</sup> Local traditional and cultural behavior; lack of knowledge of the legal requirement; little incentives of the government to operate legally; high tax burden; limited access to mining title; demanding bureaucratic procedures to gain and remain formal; limited danger of sanctions in combination with the possibilities to evade the imposition of the law by corruption

From gender perspective, 45-50% of all ASM workers in Africa are women (varying from 5% (Gabon and RSA), 35 (Guinea), 45% (Ghana and Burkina), 50% (Mali) and 75% (Zimbabwe). This wide range of women involvement in ASM in Africa is associated with family based responsibilities. In Africa despite women's better management of these sectors, they are more constrained to get financial, legal and technical support (d'souza, 2002:50).

The participation of women in ASM is not confined to only mining but also a range of activities including food, drink and tools supply, gold trade and sexual services. Due to combinations of lack of collaterals for loan and negative attitudes towards them, a UNIFEM study found that only 6% of women miners had been able to obtain a loan to invest in their mining operations (Ibid: 22).

Further, obstacles and constraints related to gender issues in this sector in African countries include the fact that women are faced by host of traditional challenges, against asserting their rights, like illiteracy, insufficient technical knowledge, chauvinist attitudes, patriarchal views, social taboos and family responsibilities. Women are not part of the decision making process, are deprived of their property ownership, even from their mining lands by companies or by officials denying them mining licenses. Women are engaged in illicit mining for subsistence far away from equity (CSO, n.d.a:10).

Women involvement in ASM is generally high as compared to large scale mining. For instance in Guinea, women comprise 75% of ASM followed by 50% in Madagascar, Mali and Zimbabwe and 40% in Bolivia and in the Gaova region of Burkina Faso the exploitation and selling of gold has traditionally been a female-only activity (MMSD Global Report on ASM, 2002:21). Importantly, mainstreaming gender issues to mining polices help alleviate poverty since they often spend their income on family needs as contrary to male counterparts who tend to be rather frivolous and irresponsible (d'souza: 50-51; Global Report on ASM, 2002:21-22)

Regarding Human Right violations (of civil, political, economic, social and cultural rights), *United Nations Human Right Team Group Discussion paper on mining and Human Right in Mongolia* (2006:1-15) has reviewed human right/security threats for herders: a) their right to subsistence (farming and animal husbandry) has been violated for pastureland and surface water resource have been destroyed. For instance, since gold mining require large amount of surface and ground water and often use it inefficiently, "according to Mongolia's 2003 water census report, more than 3000 rivers, streams, lakes, ponds, springs and mineral water sources have completely dried up"; (b) when local economic opportunities are destroyed, they will be denied of the right to sustain and improve their lives; (c) polluted, contaminated, destructed and depleted (unsafe and unhealthy) environment has violated the right to live in safety (d) denial the right to participate in decisionmaking regarding their lands minerals; (f) as the herder have to forcefully move out of their lands, their rights to education, health care and social welfare services are denied; (g) they have been denied the right to participate in monitoring and rehabilitation of their damaged lands and resources, and (h) the forced abandonment of their traditional life style due to mining on their lands denied their right to preserve their culture and way of life.

The absence of providing Artisanal miners information on how to protect their rights (as the sector might be so *peripheralized*) perpetuate the all sorts human rights and security violations primarily the right to (a) life, live in a healthy and safe environment, food and adequate nutrition, health care, education, vote and participate in civic affairs, etc (Ibid:9)

**ASM is Conflict Inherent**- Moira Feil and Jason Switzer (2004: 3) on their work *Valuable minerals and conflict* address the tinderbox nature of mining in the sense that conflict can arise over land claims and access to resources with the entry of any type mining. Communities may be relocated so that companies can reach the valuable minerals beneath the soil. The dispute can intensify when locals are offered insufficient compensation, excluded from decision-making processes, and find their livelihoods threatened.

The heart of conflict here lies on the dynamics created by sudden gold digging fortune seekers that influx onto the communities' land illegally. Massive influx of gold diggers threaten the environmental and economic resources of local agricultural communities complicated by the belief that land and gold are considered natural as well as supernatural resources (Werthmann 2006:120). The question of land and gold belonging generates competition between these stakeholders. L. Obara and H. Jenkins (2006: 6) appeared to argue that another bone of contention raised by local communities and NGOs point to ASM and companies as lacking compatible, clear and legitimate right of access to resources. As are commonly reported conflicts between *artisana*l miners and police, companies, license holders, local citizens and local authorities are pervasive (UNHR Team Group, 2006:9-10). The local population seems to have at least three options that is toleration, negotiation or expulsion (Werthmann, 2006:132).

Another conflict dimension in this sector is among ASM miners themselves and against large-scale mining companies, between the license holders and illegal ASM: constant competition over plots of land overlying rich mineral deposits, ASM miners commonly encroach onto the land concessions awarded to large scale mining companies by miners yet relying it for subsistence, reopening of suspended operations, prospects of new sites and reluctance to giveaway, and relocate from, their ancestral lands, absence of alternative source of

livelihood, ASM miners are considered as an **unpaid 'geologists'** that after they effectively find the gold potential for companies, they are expulsed as illegal intruders or trespassers, they mutually mistrust and resent for ASM consider companies as depriving of their lands and livelihood (Hilson, 2001:18-20; Obara and Jenkins, 2006:5-7; d'souza, 2002:53, 2009; Feil and Switzer 2004).

In similar treatment, ASM is conflict inherent, particularly when it takes the form of 'gold rush' (or sudden rush) - when large size of new miners arrive, it is frequently observed to come into conflict with the local people. It too attracts local residents to leave their farms and after the rush is over they see few lasting benefits.

Further, conflict causation between ASM and large scale-mining companies is that the former have often congregated around the later taking advantage of their best access and perhaps re-mining their waste (d'souza, 2002-53). ASM is conflict-ridden because of its informal and illegal nature that *sustains illiciting* compounded by low or no control; it perpetuates rebel activities like in DRC, Angola and Sierra Leone (Ibid). This might flame and entrench war economy and rent-seeking. Finally, in areas where ASM developed to *associations and cooperatives* have proven *conflictual* failing to define shared objectives and long-term vision as members prioritize their interest (Avila, 2003:24-25).

ASM is Antithetical to Environmental Security-A combination of lack of awareness, lack of information about affordable methods to reduce impacts and lack of incentives to change contributes to environmental tragedy. Among the plethora of ASM related environmental impacts include : land degradation and soil erosion damage, landscape destruction, mercury pollution, cyanide pollution, direct dumping of tailing and effluents into river, threats from improperly constructed dams, river damage in alluvial areas, river siltation, and acid mined drainage (AMD) (d'souza, 2002:52-3, 2009; Feil and Switzer 2004).

D'souza (P.53) argues two critical challenges escalate the environmental tragedy: (a) subsistence (short-term survival strategy) nature of the ASM operation and (b) (African) governments "no" commitment or lack the capacity to control and monitor the operation- which is too remote and inaccessible.

In short, due to the informality of the sector, seasonal operations, lack of official statistics and definitional problems, the actual number of people employed in this sector is conservatively underestimated and is inaccurate. Yet it is crystal clear that ASM is undertaken extensively worldwide (Africa, Asia, Oceania, and central and South America) particularly in developing countries. The MMSD country research studies has identified Ethiopia among the 45 relevant ASM countries list<sup>1</sup>

### 2. The Ethiopian "Rain-fed Mining" Sector Context in Transformation Impasse

This section briefly summarizes the problems plaguing the mineral sector, its nature and characteristics, its causal underpinnings, potential effects, the emergent scenarios therein and the ways forwarded that streamlines the points for intervention.

Currently, the *Artisanal and Small-Scale Gold Mining* (ASGM) sector in western Tigray, Ethiopia, is of a clarion call issue which *pours salt to the wounds* of historically torn ecology. It matters both a mining affected communities', and beyond, socio-economic, environmental and security dynamics. In positive direction, the mining sector can be a conduit to address a plethora of development and security concerns. In the negative direction of ASGM, it sustains grinding poverty, conflict, capital flight, corruption and marginalization.

Two interrelated issues are here worthwhile. Firstly, the primitive *nature* of the sector prepares a ground for conflict and security risks. Secondly, the emergent transformational efforts (in dilemma) are primarily *an old wine in new bottle* that are short of addressing and capturing the underpinning roots of the problem. As to the first specter in *its nature: artisanal* mining is poverty-driven-and-feeding, miners vary from (semi)permanent, seasonal, home-based/or jungle-based, emergent "rush gangs", a luring sector that seldom materializes promises, complex groups (*- poverty trapped prisoners of hope*) and so on.

And as to the *physical and spatial characteristics* of the mineral and mining areas in insecurity causation, in strict sense, there exists no water-tight distinction between "point" and "diffuse" minerals. Both are water dependent. Yet "point" or concentrate mineral resources trigger *intense* conflict than "diffuse"/disperse ones in situation of *greed-and-grievance*. Put differently, "diffuse" mineral resources are *relatively peaceful* but *uncontrollable* than "point" minerals. Yet in "rain-fed/barto" gold mining, "diffuse" resources by and large escalate conflict, damage environment, widen conflict areas, etc. "Point" minerals are mined due, mainly, to: exhaustion of alluvial or "barto"(*rain-fed*) gold, dry seasons, motive for good and quick rewards, temporary (until exhaustion) control, inaccessibility to "barto" areas by local forces and so forth.

<sup>&</sup>lt;sup>1</sup> CAR, Congo, Guinea, Kenya, Madagascar, Namibia, Nigeria, Niger, Sierra Leone, Uganda in Africa, Laos, Malaysia, Myanmar, Thailand and Vietnam in Asia, and Chile, Colombia, Dominica Republic, French Guyana, Guyana, Mexico, Nicaragua, Surinam and Venezuela in Latin America and the Caribbean(MMSD Global Report on ASM, 2002:10-11). Furthermore, this report revealed Burkina Faso, Ghana, Malawi, Mali, Mozambique, South Africa, Tanzania, Zambia, Zimbabwe, China, India, Indonesia, Papua New Guinea, Philippines, Bolivia, Brazil, Ecuador and Peru as most important ASM countries.

"Lottery" gold mineral can be both "point" as well as "barto". "Point lottery" gold mining is much conflict-stricken among mining actors than "rain-fed diffuse lottery" but the opposite is true for soil degradation and conflict with local people. "Diffuse" minerals can be alluvial or "barto". "Diffuse" minerals can also be scattered "point" minerals. "Point" minerals demand physical strength, patience and "jiwa" (group) formations. Environmental damage and influx of miners is by far larger in "rain-fed diffuse" minerals. *Home-based* miners are entirely occupied in "rain-fed-diffuse" gold mining. "Rain-fed diffuse" gold sector becomes highly *lootable* in the rainy season than the "point" mineral in the dry season. The converse is also true in the dry season. The spatial and physical characteristics make it so lootable.

In the second concluding point, *exacerbating challenges* complicated the mineral sector: the government begun to legalize; miners do not want to be legal due to their *mobility*; government allow farmers to defend their lands, farmers have no capacity to defend the mass influx of miners nor the government have capacity/commitment as well as *space* to control them. *Dilemma* is ripe. Except *kushet Maichew*, the rest local communities lack cooperation to defend against invaders which in any case does not work out the underlying problem.

Such challenges are grouped into: *production-side* and governance-side. *Production-side* challenges or risks include that mineral production process is uneconomic, inefficient, and unviable; no environmental considerations, no rehabilitation and sustainability efforts and duties; production process depletes and degrades the local natural resources (the life sustaining capital) of the poor sedentary farmers; mineral production process is carried out in the midst of human and physical environment that are both *conducive and exposed* to multidimensional threat and vulnerability risks; the production process, objects and environment spark conflict and lit security risks at three levels, i.e. resource area and mineral control, exploitation process and benefit-sharing and long-term risks.

Another emergent issue is governance-side and transparency problems. The ASGM sector continued to be an "island of wealth" in the absence of legal and policy mechanisms for about two decades. Since the sector has been out of administrative machinery with "zero" cost of entry, poor people in the sector has been victim to predatory smugglers and the affected people has lost and continued to lose its *goose that lays the golden egg*-multi-pronged marginalization and impoverishment risks upon the agricultural base of livelihood.

Artisanal gold miners too continued to behave and act in *Wildman* fashions that survive in the rule of nature across jungle areas. Worst still, the gold miners are unmanageable -neither capable nor agreeable for transformation. Moreover, the formalization processes are complicated due to *manipulations* and misguidance at *cooperativisation* levels. This is mainly because the sector is a manifestation of *necessity* rather than cause of opportunity. The scenario found to be that grinding poverty pushing out needy and greedy actors to the "Island of wealth" posing marginalization risks as an opportunity cost on the local people.

The sector feeds the gold producers in the *jungle* from *hand-to-mouth* while well enough for the predatory smugglers and perhaps for the new "legal" associations. This is because the old smugglers continue to monopolize the *legal Unions* whereas the local Customs Authority "expropriating" their long lasting mainstay of livelihood labeling them "illegal" and "lords of black marketing". The 100% artisanal mode of gold extraction, growing sack by market and local livelihood, *not-legalized*, open-access, "distant", *uncontrollable* status made the sector extremely *lootable* and a tinderbox of insecurity.

The *paradox* of transparency and formalization process of the mineral sector lies for instance in the way "Cooperative Unions" are organized and vested with rights and duties. *Firstly*, some *gold cooperatives unions* have *dual* task rights: producing as well as transaction (buy and sale). Since producers and buyers at cooperatives level are *not transparent*, their sale and legal exportation is equally dim. *Secondly*, since gold market in the Cooperative- Individual miners' encounter is *not transparent*. *Thirdly*, since the gold production process is *precarious*, backbreaking, and exploited by the market, all Production Unions have preferred not starting. Hence, the *new legal market* in place is rather better to coin "a black eye-glassed market" which "systematizes (potential) exclusion and *rentierism*". It in turn makes *greed-and-grievance* and crime ripe and perhaps "institutional". In other words, the *transformational interventions* miss the points of concern.

Does a *mere* abundance of valuable mineral resources in the midst of abject poverty *inevitably* ignite insecurity and risk on local livelihood? In my finding, the concrete issue that ties the bone of contention is not essentially the valuable mineral but the *process of making it* – unintended side- effects. This manifests at three stages: as an *engagement*, as a *process* of production and as a *spillover effect*. A secondary conflict issue is, however, the *valuable* mineral- strengthened by market and dwindling source of livelihood. This is the overlap of scarcity and abundance. *Poverty* and market trapped increasingly joining actors in the sector. Nature and *context*, seasonality, causality, difficulty and *perpherality* of the ASGM sector are the most salient reasons for its informality and *not-legalized* status.

With the current trends, expansion possibility of the sector including into large-scale mining is **strong**. Despite the *status quo* formal interventions, the *resource* "curse" conflict and impoverishment risks will unfold:

child labor, school drop-outs, alcoholism and STDs hazards are rampant. The vulnerable nature of the sector entails socio-economic and political detriments: extravagant unskilled labor force with crowding-out effect and the sector is isolated serving only short-term consumption and debt repayment ends. Two concurrent issues are missed: the mineral wealth is abused and simultaneously affected peoples' rights are violated with alarming negative synergies on (human) security.

In comparison to other same works, similar to earlier findings (Auty 2001), (Lujala 2003) (Le Billon 2001, 2002, and 2005), Snyder and Bhavnani (2005) and (Ross 2003), the sector is quite *lootable*. Further, as D' souza (2002, 2009), Chupezi, et al (2009), MMSD Global Report on ASM (2002) and World Bank/CASM Report (2005) point out the sector is conflict prone, itinerant, necessity pushed, mediated by exclusion, legal fault lines and ever-expanding mineral market demand and a recipe for lasting insecurity mainly at production areas. The "resource curse thesis" (Auty 1993) and *context matters* (Basedau 2005) at macro-level are partially existent, since ASM is a halfway to large-scale mining, with strong probability- GCU and *Ezana plc* as illustrative stepping actors. A, little bit similar, finding on Mining Cooperatives inharmonic and frenzy nature (Avila 2003) is that they are incapable, inefficient, uninterested and exclusive in production, misleading in establishment, boundlessly oligopolistic and misguided.

My *findings* yet dispute the World Bank/CASM Report (2005) claim that limits *artisanal* miners' daily income only to about \$1 which I found to be about \$1 for the home-based miners and about \$7 for the jungle-based ones. However, the difference could be due to absence of large-scale mining which could have monopolized the rewarding reserves and the facts that market price differ on valuable *mineral*, *time* and country *specificity*.

The lootable minerals-insecurity nexus is thus well proof in the context of artisanal mode of mining in dominance, growing contribution, as *hand-to-mouth* "alternative", to sources of livelihood and reluctance of the by the state.

Lastly, the sector needs comprehensive policy interventions for which end this *project* owes to *propose* a *transformative* ways. In *broader* setting, the stakeholders need to mainstream **six** *priorities* to address: conflict, poverty, marginalization, vulnerability, stereotyping, and "nomadism" of the artisanal gold mining.

In the fore, it is a clarion call to facilitate ASGM sector transformation from a transitory shock coping responsive activity into a serious business venture and to change affected and mining communities from vulnerable and marginal enclaves of individual-based *not-legalized nomadic* miners into integrated, sustainable and resilient ones.

*Secondly*, ASGM should be *people-centered* rather than only profit-motivated or employment opportunity and collaborations among multi-stakeholders are of critical value.

*Thirdly,* revenue and benefit-streaming to affected communities/people and infrastructural provision to both miners and mining affected areas are needed.

*Fourthly*, gathering relevant data (sector profile) about poverty impacts, risks, hazards and opportunities of the ASGM sector; identifying (and mapping) *champions/spoilers* at all levels, priorities and mechanisms for intervention; set clear and feasible objectives in constructive, consultative and participant approach in the sector.

*Fifthly,* promote the sustainable livelihoods of mining affected as well as *nomadic* gold miners towards *diversifying* the local economic activities; enhancing the ASGM capacity to holdback the rural-urban migrants by fostering local economic multipliers.

*Sixthly,* adopt pluralist, holistic and multi-pronged approach to eliminate or reduce its isolation and sub-optimal resource exploitation due to primitiveness, risky, hazardous and criminalized nature of the sector.

*Seventhly*, the transformation process should go beyond mere legalization and formalization: need to broaden source of income in off-mining sectors in a sisterly mode.

*Eighthly*, the necessity to shift mentality and mechanisms towards resource management (besides extraction) is crucial. The reality of "island of prosperity in the sea of poverty" is a recipe for "resource curse". Hence *good governance* plays pivotal role in controlling, monitoring, managing, promoting and transforming the artisanal mineral sector becoming a blessing.

*Ninthly,* promoting STDs awareness creation in mining areas, adopting CSBP and establishing early warning system and proactive mechanisms across mining affected communities is of a timely request.

*Tenthly*, two well renowned frameworks are relevant in searching for remedy of the ASGM sector. One is the *Yaoundé Vision (2002)* (in Pedro 2004) which underlines the mainstreaming of the artisanal mining in *poverty reduction strategic papers* (PRSPs) of African governments for which their *laws and policies* in the sector need to be reviewed accordingly. The second framework is *CASM's Vision* on ASM provides, in its strategic plan (2004-06) (in Pedro 2004), essential ways: advance integrated rural and regional development, effective and equitable legal framework, local infrastructure and services, fair markets and credits, complying with international standards on child labor and occupational safety, use environmental friendly techniques (for extraction) and establish positive and productive relations with all stakeholders including local communities,

artisanal miners, GCU and (the emerging) "large-scale gold mining".

A final "all" encompassing recommendation by Jon Hobbs, CASM chairman (World Bank/CASM 2005) in seeking to achieve a productive, profitable and self- sustaining, artisanal mining sector, I assume a conduit to transform the sector in study, envisions *5Rs*: Reinvestment of income to improve performance; Rights protection; Responsibilities, both social and environmental, that complement those rights; Revenue generation within the sector; Regulatory measures to ensure formal ASM structures. For this purpose, the sector needs to be formalized with a FPIC laying CSBP on the heart of *legal* mining.

#### References

Alkire, Sabina (2003) A conceptual framework for human security, Working paper 2, center for research on inequality, human security and ethnicity, CRISE, Queen Elizabeth House: University of Oxford. www.crise.ox.ac.uk/pubs/workingpaper2.pdf (accessed on 12 Jan. 2010)

Artisanal Mining Transaction Coordinating Core Process Brochure 2009, Addis Ababa

Amoah, Antwi- Boasiako (2003) 'Proliferation of Surface Mining in Ghana: A Threat or a Blessing to the Poor in the Mining areas? A Case Study of Tarkwa Mining Area', MA Thesis www.lumes.lu.se/database/alumni/02.../amoah\_antwi-boasiako.pdf(accessed on 2 Jan. 2010)

Auty, Richard M. (1993) Sustaining development in mineral economies: the resource curse thesis, London: Rutledge.

(ed.), (2001) *Resource Abundance and Economic Development*, Oxford: Oxford University Press. www.flipkart.com/.../resource-abundance-economic-development-richard/0199246882(accessed on 4 Feb. 2010)

Avila, Eduardo Chaparro (2003). Small-scale mining: a new entrepreneurial approach www.eclac.cl/publicaciones/RecursosNaturales/4/LCL1834PI/Lcl1834i.pdf(accessed on 11 Jan. 2010) Basedau, Matthias (2005) Context Matters: Rethinking the resource curse in Sub Saharan Africa, edited by the

German overseas institute, Hamburg, working papers global area studies, No. 1, available at www.duei.de/working papers. (accessed on 7 Dec. 2010)

Best, Shedrack Gaya (2004) 'Conflict Analysis' in *Introduction to Peace and conflict studies in West Africa, A reader*, UPEACE Africa Programme, Ibadan: Spectrum Books Limited.

(2004) 'The methods of conflict Resolution and Transformation' in *Introduction to Peace and conflict studies in West Africa, A reader*, UPEACE Africa Programme, Ibadan: Spectrum Books Limited

Canan, Guduz and Diana Klein (2008) Conflict sensitive approaches to value chain development. USAID May 2008 microREPORT 101 Washington, DC: International Alert for USAID, 2008.www.internationalalert.org/peace\_and.../practice\_note1\_march2010.pdf (accessed on 4 Feb. 2010)

Chupezi, Julius, Verina Ingram and Jolien Schure (2009) Impacts of artisanal gold and diamond mining on livelihoods and the environment in the Sangha Tri-National Park landscape, Tieguhong, Center for International Forestry Research, CIFOR, Bogor, Indonesia. http://www.cifor.cgiar.org/Knowledge/Publications/DocumentDownloader?a=d&p=%5Cpublications%5Cpdf\_fi

les%5CBooks%5CBChupezi0901.pdf(accessed on 4 April 2010)

Collier, Paul & Anke Hoeffler (2004) Greed and Grievance in Civil War, *Oxford Economic Papers*, 56: 563–595. www.saramitchell.org/collierhoeffler.pdf (accessed on 4 Dec. 2010)

Collier, Paul (2000) Doing Well out of War, In Mats R. Berdal & David M. Malone (eds.), *Greed and Grievance: Economic* Agendas in Civil Wars, Boulder and London: Lynne Rienner.www.peacebuildinginitiative.org/index.cfm?pageId=2036 (accessed on 4 Dec. 2010)

CSO (n.d.a) To mine or not to mine? Sierra Leone Diamond Company (SLDC) trucks with gravel containing, diamonds in tefeya town, sandor chiefdom, kono district, www.nmjd.org/report/To%20mine%20or%20not%20to%20mine.pdf (accessed on 23 Jan. 2010)

D'souza, Kevin J (2002) Artisanal and small-scale mining in Africa: a reality checkwww.epiq2.com/pubs/sierra\_leone\_mining.pdf (accessed on 3 Dec. 2010)

(2009) Artisanal and small-scale mining: the poor relation, EBRD, mining conference 24<sup>th</sup> Nov. 2009 www.ebrd.com/oppor/ngo/new/minreport.pdf (accessed on 19 Feb. 2010)

de Soysa, Indra (2002) Paradise Is a Bazaar? Greed, Creed, and Governance in Civil War, 1989–99, Journal *of Peace Research*, 39 (4): 395–416. www.svt.ntnu.no/iss/Indra.de.Soysa/cv/cv.pdf (accessed on 3 Dec. 2010) Endabaguna Wereda Health Centre Profile of Affected and Dead People (1998-2002 EC)

Faleti, Stephen Ademola (2004) 'Theories of Social conflict' in Shedrack Gaya Best (editor), *Introduction to Peace and conflict studies in West Africa, A reader*, UPEACE Africa Programme, Ibadan: Spectrum Books Limited

Fearon, James D. (2004) Why Do Some Civil Wars Last So Much Longer Than Others? *Journal of Peace Research*, 41 (3): 275–301. www.silkroadstudies.org/docs/publications/2005/JPR.pdf (accessed on 5 Jan. 2010)

(2005) Primary Commodity Exports and Civil War. *Journal of Conflict Resolution*, 49 (4): 483–507. jcr.sagepub.com/cgi/content/refs/49/4/483 (accessed on 5 Dec. 2010)

Francis, David J. (2004) "Peace and conflict studies: An overview of basic concepts" in Shedrack Gaya Best (editor), *Introduction to Peace and conflict studies in West Africa, A reader*, UPEACE Africa Programme, Ibadan: Spectrum Books Limited

Governance and Social Development Research centre (2009) Helpdesk Research Report: Community-based Approaches and the Extractives Sector in Situations

of Fragility and Conflict www.gsdrc.org/docs/open/HD636.pdf(accessed on

5Feb. 2010)

Hibret Tabya Profile Surveys (2001, 2002 EC)

Hentschel, Thomas et al, (2002) Global report on artisanal and small scale mining, iied and WBCSD, No. 70. January 2002. www.asmasiapacific.org/download file.php?uid=46 (accessed on 2 Dec. 2010)

Hoadley, M and D. Limpitlaw (2004) The artisanal and small-scale mining sector and sustainable livelihoods, 9 September, Proceedings, School of mining engineering, university of the Witwatersrand, Johannesburg, South Africa.

web.wits.ac.za/NR/rdonlyres/90EC1E8A.../0/2004resreport.pdf (accessed on 6 Jan. 2010)

Homer-Dixon, Thomas F., 1999. *Environment, Scarcity, and Violence,* Princeton: Princeton University Press.www.columbia.edu/~ek2570/uni361%20-%20syllabus%20-%202010.pdf (accessed on 6 Dec. 2010)

Ibeanu, Oke (2004) "conceptualizing Peace" in Shedrack Gaya Best (editor), *Introduction to Peace and conflict studies in West Africa, A reader*, UPEACE Africa Programme, Ibadan: Spectrum Books Limited

Jahan, Selim (2005) "Environment, conflicts and human security: Analytical linkages, evidence and policy options". Paper presented at the international conference on Environment, peace and Dialogues among civilizations and cultures, organized by the Islamic Republic of Iran and UNEP, 9-10 May 2005, Tehran

Kahl, Colin H. (2006) *States, Scarcity, and Civil Strife in the Developing World*. Princeton: Princeton University Press. www.scribd.com/.../Demography-Environment-and-Civil-Strife (accessed on 6 Jan. 2010)

Kaldor, Mary, 1999. *New and Old Wars: Organized Violence in a Global Era*. Cambridge: Polity Press/Stanford University Press. www.sussex.ac.uk/ir/documents/new security challenges.pdf (accessed on 5 Jan. 2010)

Klare, Michael T., 2001b. *Resource Wars: The New Landscape of Global Conflict*. New York: Metropolitan Books. www.polsis.uq.edu.au/dialogue/vol-1-3-5.pdf (accessed in Dec. 2010)

Le Billon, Philippe (2001) The Political Ecology of War: Natural Resources and Armed Conflict. *Political Geography*, 20: 561–584. www.cmi.no/publications/file/3283-natural-resource-wealth-conflict.pdf (accessed in Jan. 2010)

(2005) *Fuelling War: Natural Resources and Armed Conflict*, Abingdon and New York: Routledge, for the International Institute for Strategic Studies.

(2008) Diamond Wars? Conflict Diamonds and Geographies of Resource Wars, *Annals of the Association of American Geographers*, 98 (2): 345–372.www.geog.ubc.ca/~lebillon/CV\_lebillon.pdf; linkinghub.elsevier.com/retrieve/pii/S0301420707000049 (accessed in Feb. 2010)

Lujala, Paivi (2003) "Classification of natural resources", Norwegian university of science and Technology, Dragvoll Paper prepared for presentation at the 2003 ECPR Joint Session of Workshops, Edinburgh, www.essex.ac.uk/ecpr/events/jointsessions/paperarchive/.../Lujala.pdf (accessed on 5 Jan. 2010)

Lujala, Päivi, Nils Petter Gleditsch & Elisabeth Gilmore (2005) A Diamond Curse? Civil War and a Lootable Resource, *Journal of Conflict Resolution*, 49 (4): 538–562. www.cmi.no/publications/file/3283-natural-resource-wealth-conflict.pdf; jcr.sagepub.com/cgi/content/refs/49/4/538 (accessed on 3 Jan. 2010)

Miranda, Marta, David Chambers, and Cathorine Coumans (2005) Framework for responsible mining: A guide to evolving standards, (October 19) available at www.frameworkforresponsiblemining.org. (accessed on 5 Jan. 2010)

Module 3 Mercury (n.d.a) Use in Artisanal and Small Scale Gold Mining www.chem.unep.ch/mercury/awareness\_raising.../E\_01-16\_BD.pdf (accessed on 6 Dec. 2010)

MoME (2009) Yework Kontraband Be Guji na Borena Zone (in April) translated from Amharic

Obara, Louise and Heledd Jenkins (2006) Land use disputes in Ghana's mining communities: Developing Sustainable strategies, The center for business relationships, accountability, sustainability and society, Working paper series, No. 36www.brass.cf.ac.uk/.../Final\_Ghana\_Mining\_land\_Use\_Disputes\_Working\_Paper.pdf (accessed on 13 Jan. 2010)

Partnership Africa Canada (2009) diamond and human security annual review 2009www.pacweb.org/.../annual-reviews-diamonds/AR\_diamonds\_2009\_eng.pdf (accessed on 12 Jan. 2010)

Pedro, Antonio (2004) Mainstreaming mineral wealth in growth and poverty reduction strategies, ECA policy paper, No. 1, Addis Ababa, Ethiopia www.informaworld.com/index/747877940.pdf (accessed on 4 Jan. 2010) Reporter Gazeta, Sunday October 8, 2002 EC (Amharic)

Ross, Michael L (2001a) 'Does oil hinder democracy, world politics', 53(3):325-61

(2004) What Do We Know About Natural Resources and Civil War? Journal of Peace Research, 41 (3): 337–356. jpr.sagepub.com/cgi/content/refs/41/3/337 (accessed on 23 Jan. 2010) (2006) A Closer Look at Oil, Diamonds, and Civil War, Annual Review of PoliticalScience, 9:265–300. arjournals.annualreviews.org/doi/abs/10.../annurev.polisci.9.081304.161338 (accessed on 12 Jan. 2010) Samset, Ingrid (n.d.a) Natural resource wealth, conflict, and peace building, program on states and security, Ralph Bunche Institute for international studies, the City University of Newvork.www.statesandsecurity.org or www.cmi.no/publications/file/3283-natural-resource-wealth-conflict.pdf (accessed on 19 Dec. 2010) Shoko, Dennis (2003) Small-scale mining and alluvial gold panning within the Zambezi Basin: An ecological time bomb and tinder box for future conflicts among riparian stateswww.ddiglobal.org/.../SSM%20and%20Alluvial%20Gold%20Panning%20within%20Zambezi%20 Basin.pdf (accessed on 14 Jan. 2010) Switzer, Jason (2001) Armed conflict and natural resources: the case of the mineral sector. Discussion paper for the July11, 2001 experts' workshop, www.iisd.org/pdf/2002/envsec mining conflict.pdf (accessed on 21 Feb. 2010) Tadjoeddin, Mohammad Zulfan (2007) A future resource curse in Indonesia: The political economy of natural resources, conflict and development, CRISE working paper No. 35, October 2007, department of international development, university of Oxford, www.crise.ox.ac.uk/pubs/workingpaper35.pdf (accessed on 2 Feb. 2010) The community -based natural resource management network (2003) Artisanal and small scale mining, CBNRM Net News Letter. No. 22. August 2003. www.car.org.bw/.../Final%20report%20CBNRM%20review%20vol.%202.pdf (accessed on 5 Jan. 2010) The Federal Democratic Republic of Ethiopia Constitution (1995) United Nations Human Rights Team Group (2006) Discussion paper for the national dialogue: "mining and human rights in Mongolia" Prepared by Center for human rights and development, Ulaanbaatar rimmrights.org/.../final%20discussion%20paper%20amended%20CHRD%20(i).pdf (accessed on 4 Jan. 2010) Weinstein, Jeremy M. (2007) Inside Rebellion: The Politics of Insurgent Violence. Cambridge: Cambridge University Press, assets.cambridge.org/97805218/60772/.../9780521860772 copyright.pdf (accessed on 5 Jan. 2010)

(2004a) 'Does taxation lead to representation?' British Journal of political science 34(2):229-49.

Werthmann, Katja (2006) "Gold Diggers, earth priests and district heads: land rights and gold mining in South Western Burkina Faso" in R. Kuba and C. Lenz (eds) Land and the politics of belonging in West Africa, Leiden: The Netherlands

World Bank/CASM (2005)the millennium development goals and small-scale mining: a conference for forging partnerships for action, Foundation for Environmental Security and Sustainability (FESS), Workshop Report, The World Bank, Washington, DC (June 16 -17, 2005)http://www.artisanalmining.org/userfiles/file/CASM\_MDG\_Report\_8\_19\_05.pdf (accessed on 20 Jan. 2010)

Yemaedn Awajoch, Dembna Memeriawoch (proclamation No. 52/1993, 53/1993, 20<sup>th</sup> April 1994, 22/1994, 23/1994, 22/1996, 23/1996, 118/1998, Sept. 2009)