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TOGETHER  
TOWARDS  
RESPONSIBLE  
ARTISANAL  
AND SMALL  
SCALE MINING



*Estelle Levin Ltd.*



REPORT

JUNE  
2012



## ARTISANAL AND SMALL-SCALE MINING IN AND AROUND PROTECTED AREAS AND CRITICAL ECOSYSTEMS PROJECT (ASM-PACE)

# LIBERIA CASE STUDY REPORT

FINAL REPORT BY DR. ROB SMALL  
30 JUNE 2012

The aim of **ASM-PACE** is to address the environmental impacts of artisanal and small scale mining (ASM) whilst building on its economic, social, and empowerment potential in some of the world's most important ecosystems. The project uses a scientific foundation of knowledge, participatory methods and rights-based approaches to work with miners and their communities – rather than in opposition – to design sustainable, win-win solutions that will last. The project is focused exclusively on ASM occurring in and around protected areas and critical ecosystems. ASM-PACE is a joint-programme of WWF and Estelle Levin, Ltd. Fauna & Flora International (FFI) is an implementing partner in Liberia. For more information please visit [www.asm-pace.org](http://www.asm-pace.org).

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- Promote the reduction of greenhouse gas emissions from deforestation and degradation of forests
- Support sustainable business practices and financial investments in development and infrastructure projects
- Improve the livelihoods of indigenous and local peoples
- Reduce wildlife poaching and the bushmeat trade
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**About this Report** This report dated January 2012 is a Final Draft version to be used for validation with stakeholders in Liberia. Any and all feedback should be sent to [estelle@estellelevin.com](mailto:estelle@estellelevin.com), [khund@wwfcarpo.org](mailto:khund@wwfcarpo.org), or via the ASM-PACE programme website at [www.asm-pace.org](http://www.asm-pace.org).

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This report is prepared from sources and data which ASM-PACE believes to be reliable, but ASM-PACE makes no representation as to its accuracy or completeness. The report is provided for informational purposes and is not to be construed as providing endorsements, representations or warranties of any kind whatsoever. The authors accept no liability for any consequences whatsoever of pursuing any of the recommendations provided in this report, either singularly or altogether. Opinions and information provided are made as of the date of the report issue and are subject to change without notice.

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# GLOSSARY

<b>Term</b>	<b>Definition</b>
<b>Amalgamation</b>	Mineral processing method which extracts gold from mined ore using mercury to create amalgam which is then decomposed leaving gold. <sup>1</sup>
<b>Artisanal and small-scale Mining (ASM)</b>	Mining conducted with rudimentary tools such as picks and shovels or simple machinery, usually informal or semi-formal individuals or small groups of people on a subsistence basis.
<b>Assurance</b>	An evaluation method that uses a specified set of principles and standards to assess the quality on an organization's performance, the underlying systems, processes and competencies that underpin its performance, and/or the reporting thereof.
<b>Concessions</b>	Mineral exploration areas within which companies are granted rights to operate and derive revenues from that operation.
<b>Consent</b>	Refers to indigenous/local communities' consent to mineral exploration within their territory/habitation areas.
<b>Consultation</b>	Refers to stakeholder consultation, aimed at understanding how key stakeholders perceive the Standards' individual and relative strengths and weaknesses.
<b>Critical Ecosystem</b>	The site is not a protected area but it is a WWF Priority Landscape, OR The site affected is not a protected area or a WWF Priority Landscape, but it is in one of the Global200 Priority Ecoregions. <sup>2</sup>
<b>Digger</b>	A type of ASM labourer whose role it is to recover the mineral, clear vegetation and boulders, removing overburden and extracting and transporting gravel. Often confused with the term 'miner'.
<b>Gazetting</b>	Classifying a place as protected
<b>Gold boy</b>	Local Liberian term for digger
<b>Gold-washing</b>	Concentrating the gold using water and gravimetric methods, e.g. with a pan or sluice.
<b>Industrial Mining</b>	Often termed medium- or large-scale, done by professional, corporate outfits legally and in the pursuit of profit. High level of mechanization and capitalization; low labour intensity.
<b>Miner</b>	In the context of this report, the term 'miner' refers to any person involved in artisanal and small-scale mining. <sup>3</sup>
<b>Protected Area</b>	A location that receives protection because of its recognized natural, ecological and/or cultural values. There are different kinds of protected areas, which vary by the level of protection depending on the enabling laws of each country or the regulations of the international organizations involved. The term 'protected area' also includes Marine Protected Areas. <sup>4</sup>
<b>Regulation</b>	A set of laws and rules imposed by a government, backed by the use of penalties that are intended specifically to modify the economic behaviour of individuals and firms in the private sector (based on OECD).
<b>Standard</b>	A set of officially approved principles and criteria designed to measure and safeguard specified social, environmental, and management issues in the industrial gold mining sector.
<b>Tailings</b>	Leftover material/waste from the mining process.
<b>Toxin</b>	An antigenic poison or venom of plant or animal origin, especially when produced or derived by microorganisms and causing disease when present at low concentration in the body.

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1 ARM-FLO definition: [http://www.communitymining.org/attachments/034\\_Gold%20Standard%20Mar%202010%20EN.pdf](http://www.communitymining.org/attachments/034_Gold%20Standard%20Mar%202010%20EN.pdf).

2 Olson & Dinerstein, 2002.

3 ARM-FLO definition

4 See <http://www.protectedplanet.net/search/> for more information

# ACRONYMS

<b>AGM</b>	Artisanal Gold Mining
<b>ASM</b>	Artisanal and Small-scale Mining
<b>ASM-PACE</b>	Artisanal and Small-Scale Mining in and around Protected Areas and Critical Ecosystems Project
<b>CCC</b>	Civilian Conservation Corps
<b>CI</b>	Conservation International
<b>D4D</b>	Diamonds for Development
<b>DRC</b>	Democratic Republic of the Congo
<b>ECOMOG</b>	Economic Community of West African States Monitoring Group
<b>ELL</b>	Estelle Levin Ltd.
<b>EPA</b>	Environmental Protection Agency
<b>ERU</b>	Emergency Response Unit
<b>EU</b>	European Union
<b>FDA</b>	Forest Development Authority
<b>FFEM</b>	<i>Fonds Français pour l'Environnement Mondial</i>
<b>FFI</b>	Fauna & Flora International
<b>GDP</b>	Gross Domestic Product
<b>GEF</b>	Global Environment Facility
<b>GNI</b>	Gross National Income
<b>GoL</b>	Government of Liberia
<b>ILO</b>	International Labour Organization
<b>LD</b>	Liberian Dollar
<b>LSM</b>	Large-Scale Mining
<b>MODEL</b>	Movement for Democracy in Liberia
<b>MLME</b>	Liberian Ministry of Lands, Mines and Energy
<b>MOU</b>	Memorandum of Understanding
<b>NGO</b>	Non-Governmental Organization
<b>PA</b>	Protected Area
<b>PRADD</b>	Property Rights and Artisanal Diamond Development Project
<b>PRSP</b>	Poverty Reduction Strategy Paper
<b>REDD</b>	Reduced Emissions from Degradation and Deforestation
<b>SCNL</b>	Society for the Conservation of the Nature of Liberia
<b>SDI</b>	Sustainable Development Institute
<b>SNP</b>	Sapo National Park
<b>UN</b>	United Nations

<b>UNDP</b>	United Nations Development Programme
<b>UNMIL</b>	United Nations Mission in Liberia
<b>UNOPS</b>	United Nations Office for Project Services
<b>USAID</b>	United States Agency for International Development
<b>US\$</b>	US Dollar
<b>WWF</b>	World Wide Fund for Nature or World Wildlife Fund

# EXECUTIVE SUMMARY

This report details a case study of historical and contemporary artisanal and small-scale mining (ASM) in and around Sapo National Park (SNP), assesses the ecological, social, and economic impacts of ASM, the key motivations of diggers/miners, the responses of affected stakeholders, including the sustainability of the 2010 SNP eviction and makes recommendations for future action. It is intended that the lessons learned from the SNP case will feed into the development of sustainable responses both locally and in protected areas in other countries, either directly through ASM-PACE intervention programmes or indirectly through publications (tools, guidance notes, and project reports).

This report forms part of an international project 'Artisanal and Small Scale Mining in and around Protected Areas and Critical Ecosystems' (ASM-PACE)<sup>5</sup> led by a partnership between WWF and Estelle Levin Ltd. (ELL). The aim of ASM-PACE is to address the environmental impacts of ASM whilst building on its economic, social, and empowerment potential in some of the world's most critical ecosystems. Fauna & Flora International (FFI) is the implementing partner of ASM-PACE in Liberia. FFI has been active in Liberia since the late 1990s.

A pre-verification version of this report was circulated to participants of the July 2011 study in April 2012 with follow up meetings conducted by members of the research team in May 2012. Its findings have been verbally endorsed by the Forest Development Authority, the Ministry of Lands Mines and Energy and members of participating ASM mining communities that border Sapo National Park during report verification meetings held by the research team in May 2012.

Key findings based on the field research carried out in July 2011 include the following:

## **Nature of ASM in/around SNP**

- Artisanal miners outside of SNP are following a seam of gold along the river that runs through SNP. Moreover, large-scale mining south of SNP is due to begin and the potential for displacing ASM participants towards SNP is high. It is likely that due to insufficient government monitoring, Large Scale Mining (LSM) push factors, and poor knowledge of Park boundaries by ASM participants that miners/diggers will soon once again be active in the Park.
- ASM occurring around SNP is alluvial and takes place year round, with participation fluctuating between rainy and dry seasons.
- Most of the artisanal diggers were Liberian nationals, ranging in age from teenagers to those in their mid-40s. Circa half of those diggers working at the time were either from the SNP Counties (Sinoe, River Gee and Grand Gedeh), more than a quarter from other counties (predominantly Lofa) and the remainder from other West African countries (Mali, Nigeria, Cote D'Ivoire and Guinea).
- Practically all of those encountered labouring at the ASM sites were men, with only two women found to be digging and washing gravel in shallow pits at one site. While there was a lack of women present on the mining sites, women are connected to the mining economy in other ways, such as working as shopkeepers. One particularly entrepreneurial female shopkeeper used to be a miner herself and now runs a shop that sells supplies and food to the diggers. A few of the male diggers that researchers interviewed stated that their mining allowed them to provide start-up capital for their wives' businesses in nearby trading towns.
- The diggers have mixed educational backgrounds with some working to find money for their next year of school fees and others being ex-combatants having known no other work.

## **Environmental impacts of ASM in/around SNP**

- Mercury is currently not used by mining communities to the north of the Park. Maintaining this situation will become increasingly difficult especially if, as suspected, legal ASM will continue to grow north of the Park. Furthermore, given the prevalence of mercury use in artisanal gold operations in West Africa generally and the high cross-border flows of people and labour within the region, a 'technology transfer' and the adoption of mercury or other hazardous chemicals in Liberia may happen soon.
- Siltation is a major issue affecting drinking water in the area. Researchers noticed only one small creek with clear water; all the others were highly disturbed, potentially from ASM activity. Other major environmental issues observed were forest clearance for mining and no backfilling or reclamation at some sites.

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<sup>5</sup> Formerly named ASM-PSEP.

- The current ASM activity that is taking place around SNP undoubtedly has secondary impacts on the integrity of SNP, whether this is through hunting, water siltation or encouraging in-migration and associated population pressures on natural resources.
- There is some awareness of environmental stewardship. The miners say that the Ministry of Lands, Mines and Energy (MLME) agents tell them they are required to backfill. This process is called “dig hole, cover hole.” However, this is inconsistently performed in practice.

### **Social and economic impacts of ASM in/around SNP**

- Through trade, and supporting services, such as carrying foodstuffs and supplies to ASM sites, artisanal mining activities are integrated into the local economy as opposed to a separate activity that can easily be removed by an external intervention.
- The average artisanal digger at legal ASM sites adjacent to SNP is estimated to equal or exceed the normal wage labour of 5USD (+food) per day. It is therefore unlikely that miners would be willing to abandon mining and move into another livelihood activity for economic reasons alone
- Tension between the miners and local governance structures (e.g. Town Chief, Clan Chief and Paramount Chief, etc.) was apparent.

There are ongoing sectoral governance issues that thwart progress on the sector:

- There is limited capacity in the Liberian government to effectively monitor ASM sites surrounding SNP<sup>6</sup>. Moreover, while there are Mining Inspectors at a county level, there is little or no budgetary allocation from the Liberian Government for MLME patrol staff<sup>7</sup> with some involved in ASM activities<sup>8</sup>; a situation will likely produce a conflict of professional interest.
- False dichotomies between ‘external’ miners/diggers and ‘local’ communities should be realized and acknowledged. It is incorrect to claim that solely foreigner/outsider miners were operating inside SNP or continue to operate adjacent to it. The research team found that the majority of miners are Liberian nationals. With that realization also comes responsibility by the State to seek pragmatic solutions that do not unnecessarily take away their citizens’ livelihoods. There is potential to find “common ground”.
- The interest of the MLME to enable the ASM sector is currently unclear given the lack of progress to implement proposed reforms<sup>9</sup> that would make formalization and professionalization of the activity more achievable and likely. Proposed reforms include changes to Class C regulations and licensing procedures, making any necessary institutional improvements, and/or moving to amend the Mining and Minerals Act.
- The ASM-policies of the two industrial gold mining companies in the region—and whose concession sites have been traditional ASM sites for decades in some cases—plan to engage with artisanal miners on the site. The nature and quality of relations between ASM actors and Aureus Mining are unknown, and Hummingbird Resources, which currently allows ASM activity to take place on its exploration site, has plans to develop a mine within the next five years and its ASM management plans are currently in preparation, according to the company.<sup>10</sup> If industrial firms choose not to allow ASM to continue in its current form, this could prove a significant disruption to the traditional economy and a “push” factor of additional artisanal gold miners into SNP.

With regard to the “voluntary departure”<sup>11</sup> and other eviction strategies, researchers have concluded that:

- *Eviction alone is not sustainable unless investment in improved national park governance is made:* The 2010 eviction of SNP was successful in removing illegal occupants from the park. However without the parallel implementation of effective Forest Development Authority (FDA) ranger patrols, the resolution of disputed boundaries and support for those formally engaged in mining, the cyclical nature of settlement and removal of occupants is set to continue. As it stands, the “voluntary departure” process, at least in the short-

6 MLME representative, ASM-PSEP Debrief with R Small 22 July 2011.

7 MLME Deputy Inspector of Mines report verification meeting with R Sambolah May 2012

8 MLME Patrolman, interviewed by R Small 18/7/11

9 See “Recommendations for Class C Mining Regulations and Their Implementation and Future Amendments to the Mining and Minerals Act in Liberia” (April 2010) by Dr. Jennifer Hinton for IBI International through the USAID Governance and Economic Management Assistance Program (GEMAP) Liberia Improved Budget, Assets and Mining Management (LIBAM) Project. Available at: [http://pdf.usaid.gov/pdf\\_docs/PNADT546.pdf](http://pdf.usaid.gov/pdf_docs/PNADT546.pdf)

10 Interview by RS with Bert Monro, Corporate Development, Hummingbird Resources, 12th October 2011.

11 “Voluntary departure” is the terminology in use by the Liberian government for the 2010-2011 eviction of illegal gold miners in Sapo National Park.

to-near term, has seemingly left people economically worse off than before because of the disruption of the local economy and livelihoods and alleged actions by the enforcement agencies to maintain the eviction of all persons from SNP. There is also increasing local hostility towards the government and especially the FDA, who many villagers see as directly responsible for the eviction and for the alleged post-eviction enforcement actions by the Emergency Response Unit (ERU), an elite security unit of the Liberian National Police.

### **Recommendations on the management of ASM in SNP**

Despite these challenges, a number of clear recommendations have emerged, specifically:

#### **To improve SNP-area ASM-sector governance and coordination**

- Creation of a national level forum for land-use planning between government agencies and determination and implementation of clear institutional roles in such planning and management activities (FDA, MLME, and Ministry of Agriculture);
- Integration of ASM working groups into regional County Forest Forums (for government, NGOs, and CBOs);
- Enhancement of the profile of ASM through the sensitization of local, regional and national government officials, NGOs and other organizations;
- Continued encouragement of community involvement in mineral resource management and related economic diversification efforts, particularly using participatory approaches that involve women and men, adults and youth;
- Implementation of feasible mineral rush-mining response plans inclusive of on-site monitoring, infrastructure, community health and control measures<sup>12</sup>;
- On the ground demarcation of SNP boundaries, combined with awareness-raising activities amongst park adjacent communities to ensure boundaries recognized.

#### **To manage and mitigate environmental impacts**

- ASM has been found to be conducted in a strict hierarchical system, with the licensed miner being the central point for establishment of mining rules. Environmental interventions would be best organized from this control point. Increased awareness and access to environmentally-responsible methods through demonstration projects, training and education;
- Support for training of miners and other community members in environmental management and provision of related guidance, particularly in areas of intense ASM activities;
- Sensitization of miners on environmental legal and regulatory requirements;
- Provision of adequate resources to government officers for support, monitoring and enforcement;
- Formalization of collaboration between mining authorities, forest and environmental authorities, miners, communities and others to develop and implement strategies for ASM in biologically sensitive areas.

#### **To address the scale of the issue, including the “Push” factors of ASM into SNP**

- Engagement with industrial mining operators whose activities are likely to displace ASM from existing sites to assess and understand how their activities might exacerbate the issue of ASM in SNP and what the possible range of constructive management responses might be.

#### **To work towards ASM sector formalization (and one that works in practice)**

- Creation of incentives for legalization, for instance related to provision of extension services and fair market access;

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<sup>12</sup> A mineral-rush plan does exist in the MLME but the MLME lacks the capacity to implement it if required. MLME Deputy Inspector of Mines report verification meeting with R Sambolah May 2012

- Allocation of resources required to support the formalization of the sector especially in relation to the provision of extension services;
- Gender mainstreaming of formalization efforts, including extension service provision;
- Staffing of mining departments and extension offices with both women and men to promote gender equity in access to services;
- Formalization of government commitment by *multiple* agencies to improved economic, environmental and social performance of ASM;
- Support the formation of ASM organizations including enterprise groups, associations and cooperatives. Both associations of miners and associations of “gold boys” (artisanal diggers) were found to already exist and these groups are recognized by each other. The existence of these groups may be an opportunity for organization of formalization efforts and development efforts.

#### **To improve the development performance of ASM in the region**

- Lobbying of formal and informal leaders to recognize the significance of ASM and increase these leaders’ role in advocating for the sector;
- Miners’, and digger’s, participation in local and regional programmes and development efforts;
- Advocacy for mining community needs, interests and opportunities by establishing links with key government agencies and NGOs;
- Mainstreaming of ASM within poverty reduction and development strategies, such as Poverty Reduction Strategy Papers (PRSPs), including identification of how mining revenues will be used to support poverty reduction;
- Formal collaboration with other sectors (manufacturing, trade, agriculture, forestry, water, health, education, etc.) in order to embed ASM into rural development strategies and programmes;
- Advocate inclusion of ASM within national budgets through collaboration between Ministries of Finance and other key Ministries (e.g. mining, health, labour, gender, social and economic development, infrastructure, environment, etc.);
- Mobilization of international (e.g. donor) support for the sector;
- Conducting an inventory of existing SME support programmes and sensitizing miners and communities about related opportunities;
- Value Chain Development whereby linkages can be established between miners and markets through collaboration with investment authorities, other government agencies (e.g. related to infrastructure projects or foreign activities), and registered buyers.

#### **To improve social performance of ASM**

- Co-identification and co-elimination of barriers to the empowerment of women working in conjunction with ASM communities;
- Implementation of integrated strategies to eliminate child labour in conjunction with community and international partners (e.g. ILO) and local and national governments;
- Implementation of mechanisms to ensure the fair distribution of mining benefits;
- Encouragement of community-based initiatives to monitor and improve the social and environmental performance of ASM;
- Support for the development of, and establishment of formal linkages with, community organizations (e.g. with key persons acting as a liaison); and
- Mitigation or prevention of conflicts associated with multiple land uses.

# 1. INTRODUCTION

This report details a case study of historical and contemporary artisanal and small-scale mining (ASM) in and around Liberia's only National Park, Sapo National Park (SNP). It forms part of an international project 'Artisanal and Small Scale Mining in and around Protected Areas and Critical Ecosystems' (ASM-PACE)<sup>13</sup> led by a partnership between WWF and Estelle Levin Ltd. (ELL), for which Fauna & Flora International (FFI) is the implementing partner in Liberia.

The aim of ASM-PACE is to address the environmental impacts of ASM whilst building on its economic, social, and empowerment potential in some of the world's most critical ecosystems. The project uses a scientific foundation of knowledge, participatory methods and rights-based approaches to work with miners and their communities, rather than in opposition, to design sustainable, win-win solutions. ASM-PACE's first country studies have been in Gabon, Liberia and DRC but there is a high level of interest to build upon this critical knowledge base by conducting assessments and developing responses in other countries and contexts where ASM is occurring in and around protected areas and critical ecosystems.

This case study assesses the ecological, social, and economic impacts of ASM around Sapo National Park, Liberia, the key motivations of miners, and the responses of affected stakeholders. It analyses past interventions that have sought to abate ASM activity in and around SNP in order to determine reasons for their success or failure. It is intended that the lessons learned from the SNP case will feed into the development of sustainable responses both locally and in protected areas in other countries, either directly through ASM-PACE intervention programmes or indirectly through their application by other stakeholders seeking to manage the issue of ASM in protected areas and critical ecosystems.

The findings presented in this report were gathered through guidance from the draft ASM-PACE Methodological Tool (see Annex 1), which is due to be published for wider distribution in 2012.

Sapo National Park was selected as a case study site as it has experienced multiple gold rushes and population booms in the last decade and has been the target of a number of interventions led by the government to evacuate the miners from the Park. In September 2010, presidential intervention led to a planned "voluntary departure" process of illegal settlers within SNP, the second such event within a five-year period. The process of the enforced departure was largely peaceful with a the majority of miners leaving the park voluntarily before the deadline, such that by the start of 2011 SNP was reportedly free of illegal ASM settlers. Accordingly, and to help characterize past ASM activity within the Park, fieldwork presented here was conducted with legal ASM communities lying on its northern boundary in July 2011.

## 1.1. Methodology

From the 13<sup>th</sup> to 23<sup>rd</sup> July 2011, five ASM communities were visited by the research team. The communities were made aware of the purpose of the study and were supportive of it. The team comprised of one consultant from Estelle Levin Ltd, one lead researcher from FFI's Cambridge headquarters, one Liberian FFI staff member from the Liberia country office, and one Liberian field assistant from the Sapo area, who spoke the local dialect and who served as translator as needed. The research team was often accompanied by a village elder who was known to the traditional leadership of the communities in the area. These camps and villages were all located to the north of SNP. During the course of the study the field team was based at a Forest Development Authority (FDA) field office. The FDA did not accompany the field team during the course of the research but they were aware of the project. The research team also secured the prior consent of the FDA and the Ministry of Lands, Mines and Energy (MLME) to undertake the study and for the two non-Liberian research team members to access Liberian mining sites. The schedule of the fieldwork can be found in Annex 2. Research methods of interview, transect walks and focus groups followed those as prescribed in the ASM-PACE draft methodological toolkit. So as not to interrupt the working day of gold diggers, miners and traders, interviews and discussions were held on an ad-hoc basis during the course of a week. An additional 'workshop' day was held with representatives from each of the ASM communities that were visited, the participants of which were nominated by their own community.

For the purposes of this report, "miner" refers to the legal license holder of the artisanal mining concession. "Digger" refers to the person typically employed by the miner who does the physical labour, described in section 3.2.2. At the research sites, diggers were often referred to as "gold boys".

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<sup>13</sup> Formerly named ASM-PSEP

ASM in this area was found to be well coordinated, structured and legal under Class 'C' licenses, although researchers learned of several potentially unlicensed and therefore illegal gold mining sites on their last day in the field. Due to time constraints, it was not possible to visit these sites. All of the ASM camps visited were linked through a mining chairman elected by the miners in the area. The post of Chairman circulates amongst the title-holding miners and acts as a contact point for dealings with surrounding communities and inspectors from the MLME. All of the miners (license holders) were from Grand Gedeh County, although not necessarily from the immediate area north of SNP.

Compilation and analysis of maps of the presence of ASM in/around protected areas and critical ecosystems (PACE) was made using data from ASM-PACE researchers in Liberia using GPS to gather coordinate points, as well as information from stakeholders, relevant websites and GIS analysis. However, the authors have chosen not to publish these maps in order to protect the identity and interests of the gold miners that they engaged.

Through a participatory focus group session a gold supply chain was mapped out by “gold boys” (artisanal diggers), traders, miners and the mining chairman (see Figure 1, below). For clarity this has been transcribed to a diagram that represents the movement of gold, goods, materials and cash between actor groups involved in gold production. It illustrates how gold production and trade takes place through a highly connected network of actors as opposed to a simple chain. For example: gold can move both from the gold boys to the miner in charge of a set of pits or via other sponsors such as local businesspersons or external gold traders. It is vital that such complexities of the gold production network is taken into account by organizations that wish to intervene in ASM rather than assuming homogeneity in those who partake in ASM.

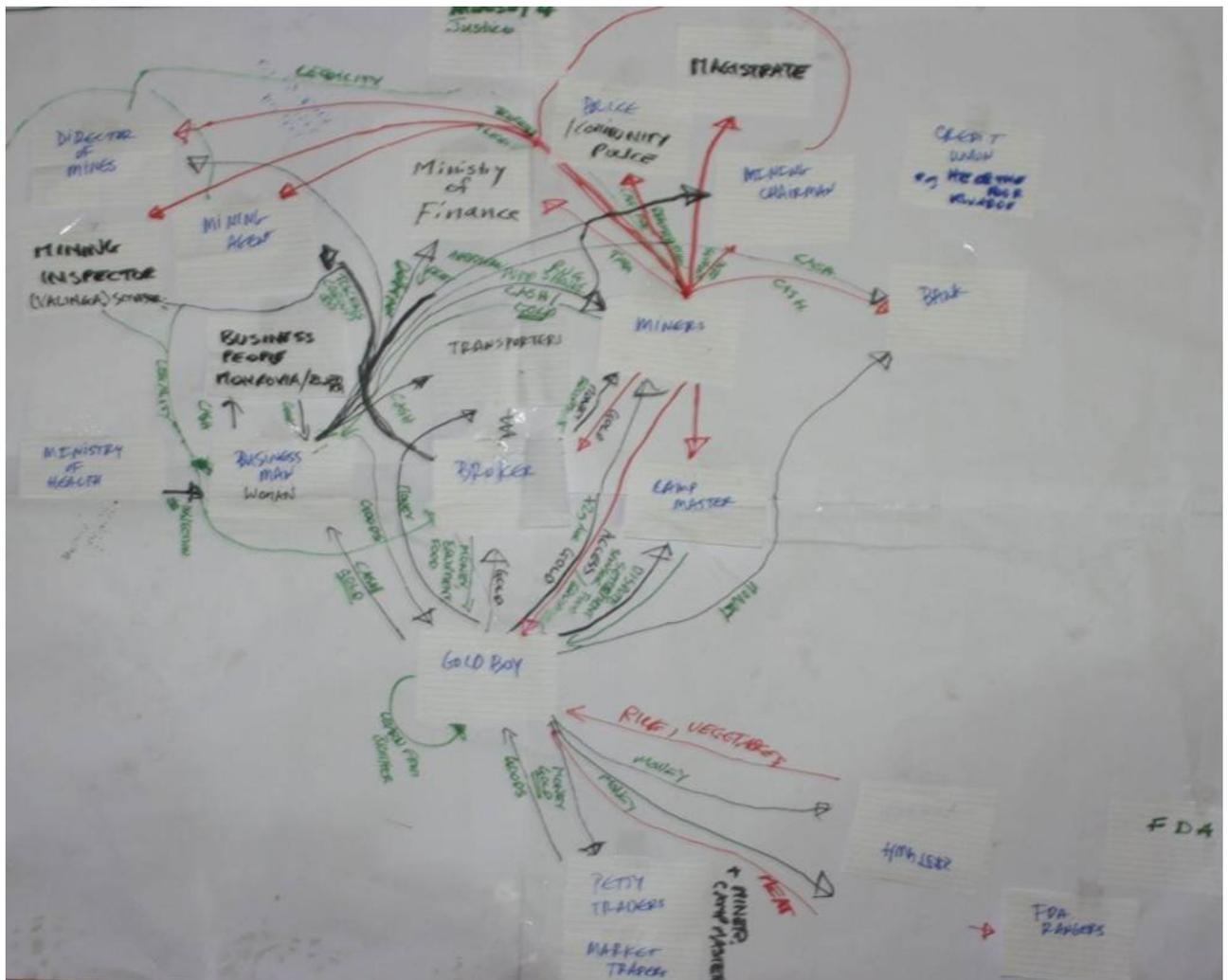


Figure 1 - Gold Production Chain from Participatory Focus Group (for refined version see Figure 6)

## 1.2. Research limitations

Research was limited by the following factors: (1) A short period of time (three weeks) for field research due to budgetary constraints; (2) Field research occurred in July 2011, which was at the beginning of the campaign period for the Liberian national elections, resulting in decreased availability of some Liberian government staff. Field research ended during the week of the country's "national celebration", which further limited the availability of government officials and also some NGO leaders; (3) Lack of data available from the MLME and FDA, due to a variety of reasons, including insufficient record-keeping systems regarding the ASM sector, insufficient GIS capacity, and also loss of documentation due to the civil war; (4) Lack of internet and telephone network linkages in the Sapo National Park area, which affected researchers' ability to communicate with potential interviewees, including the ERU, although attempts were made to meet them whilst in the field by using radio communications relayed through the FDA Jalays Town headquarters; (5) Data is a snapshot in time and is only correct for the time it was taken; and (6) ASM activities in protected areas especially are very dynamic.

Furthermore, and importantly, research took place after the government's 2010 eviction of miners from Sapo National Park and while the Emergency Response Unit (ERU)—an elite security unit of the Liberian government—was enforcing the order in cooperation with the Immigration authority, which had extra officers in the area. There were reports that the ERU had been searching homes, and confiscating unregistered/illegal weapons and also mining equipment from people found within SNP; the research team was told of these reports from multiple sources—from government staff to villagers—but are unable to verify them due to time and scope constraints. These reported activities at the time of the research may have contributed to people's willingness to be candid with researchers, however, the town and mining sites where the research team spent most of its time had not been visited by the ERU. Lastly, half of the research team was comprised of staff from Fauna & Flora International (FFI)'s Liberia office. While the team was cautious to present the purpose of the trip as research only and not to raise expectations of a programmatic intervention, the fact that FFI has active programmes in the Sapo area and led this study may have positively or negatively affected some participants' level of candour.

## 2. CONSERVATION, MINING AND THEIR GOVERNANCE IN LIBERIA

Liberia is bordered by Sierra Leone to the west, Guinea (Conakry) to the north and Côte D'Ivoire to the east. In 1980, a military coup marked the start of political and economic instability that would continue until the cessation of successive civil conflicts in 2003. This period left approximately 250,000 people dead and devastated the country's economy.<sup>14</sup> In 2011, Liberia was ranked 182 out of 187 countries on the UNDP Human Development Index, with it being estimated that 7 per cent of people were in formal employment and nominal GDP per capita stood at US\$265.<sup>15,16,17</sup> The economy is highly dependent on natural resource exports from the mining, forestry and rubber sectors.

The country contains around 40 per cent of the remaining tropical moist forests of the Upper Guinea region, which extends from Sierra Leone to Togo and is home to more than a quarter of Africa's mammal species and several Endemic Bird Areas. In terms of richness of species and endemism, the region is one of the most biodiverse systems in Africa and is considered a biodiversity hotspot.<sup>18</sup> It contains approximately 125 mammal species, 590 bird species, 74 known reptiles and amphibians and over 1000 described insect species. The Upper Guinean forests are, however, some of the most threatened in the world. Rapid deforestation has reduced the forest area in Liberia by nearly a quarter since 2005, with approximately 25 per cent of Liberia's forest having been recently logged.<sup>19</sup> Large forested concessions containing vast swaths of primary and secondary forest are being granted for timber, oil palm and for the mining of iron ore and gold. These commercial enterprises both directly impact the biodiversity of the region by deforestation and habitat degradation as well as opening up access to other areas to encourage the spread of slash and burn farming and hunting for both food and income generation.

### Conservation in Liberia

The FDA is the government body mandated with the management of the Liberian forest estate, an element of which is the creation, establishment and administration of Forest Reserves, Communal Forests and National Parks (FDA Act, 1976). There are currently three protected areas in Liberia, Sapu National Park, East Nimba Nature Reserve and Lake Piso Multiple Use Reserve. There are a further six proposed protected areas which include Wonegizi, Gola Forest Reserve, Grebo and Cestos Sehnkwehn. The FDA, through World Bank/GEF funding, is currently seeking to consolidate (COPAN) and expand (EXPAN) areas that come under legal protection in Liberia. The FDA follows the Liberian Government's 3C policy for Commerce, Conservation and Community as laid out in the 2006 Forestry Reform Law and is structured accordingly. Alongside conservation through the creation and management of protected areas, it is also hoped that the legal provision of community forests under the Community Rights Law will empower local communities to sustainably manage their own forest resources. In Liberia, National Park legislation forbids any economic activity, including mining, from taking place. How this policy functions in practice within the Ministry of Lands Mines and Energy (MLME) regarding national forest reserves awaiting upgrades to "national park" status is discussed in section 2.2 of this report.

Through the Environmental Protection Agency (EPA) Act of 2002, the EPA is tasked with implementing a framework environmental law. Accordingly it has oversight on the environmental impacts of mining operations, which gives it the mandate to "establish the requirements for Court issued environmental easement orders to facilitate environmental conservation and enhancement by imposing certain obligations on the use of land for the benefit of the environment" (EPA Act, 2002).

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- 14 IMF (2011) Liberia – Report for Selected Countries and Subjects [online] Available at: <http://www.imf.org/external/pubs/ft/weo/2011/01/weodata/weorept.aspx?sy=2008&ey=2011&scsm=1&ssd=1&sort=country&ds=.&br=1&c=668&s=NGDPD%2CNGDPDPC%2CPPPGDP%2CPPPPC%2CLP&grp=0&a=&pr.x=38&pr.y=12> [Accessed 10/8/11]
- 15 IMF (2011) Liberia – Report for Selected Countries and Subjects [online] Available at: <http://www.imf.org/external/pubs/ft/weo/2011/01/weodata/weorept.aspx?sy=2008&ey=2011&scsm=1&ssd=1&sort=country&ds=.&br=1&c=668&s=NGDPD%2CNGDPDPC%2CPPPGDP%2CPPPPC%2CLP&grp=0&a=&pr.x=38&pr.y=12> [Accessed 10/8/11]
- 16 UNDP (2011) Liberia: Explanatory note on 2011 HDR composite indices. [online] Available at: <http://hdrstats.undp.org/images/explanations/LBR.pdf> [Accessed 10/8/11]
- 17 World Bank (2010) Liberia Employment and Pro-Poor Growth. Report no. 59124-LR. [online] Available at: [http://www.wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/01/21/000333037\\_20110121011323/Rendered/PDF/591240Gra0ESW10111911110BOX358271B.pdf](http://www.wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/01/21/000333037_20110121011323/Rendered/PDF/591240Gra0ESW10111911110BOX358271B.pdf) [Accessed 10/8/11]
- 18 Conservation International (2007) Biodiversity Hotspots. [online] Available at: [http://www.biodiversityhotspots.org/xp/hotspots/west\\_africa/pages/biodiversity.aspx](http://www.biodiversityhotspots.org/xp/hotspots/west_africa/pages/biodiversity.aspx) [Accessed 10/8/11]
- 19 Christie, T., Steinger, M.K., Juhn, D. and A. Peal (2007) Fragmentation and Clearance of Liberia's Forests: 1986 – 2000. *Oryx* 41:539-543

It has been recognized that, in recent years, although there has been the development of stronger forestry laws, there is a need for additional legal, scientific and institutional development to build toward more successful biodiversity protection in Liberia.<sup>20</sup> Recommendations include the need to pass a new comprehensive wildlife law which aligns with the 2006 Forestry Law and the 2003 Environment Protection and Management Law and international regulations such as CITES, the urgent need to build institutional capacity to conduct legal mandates, and improved collaborations among and between government agencies and other institutions working to protect biodiversity in Liberia.

Fauna & Flora International have been working in Liberia since the late 1990s and currently has projects centred on bio-monitoring and community forestry in and around Sapo National Park, education and capacity building for Reduced Emissions from Degradation and Deforestation (REDD), and supporting the development of an institutional framework for sustainable palm oil.

**Map 1 : Existing and Proposed National Parks in Liberia.**



20 Environmental Law Institute (2007) Assessment of the Legal, Scientific and Institutional Frameworks for Biodiversity Protection in the Republic of Liberia. [online] Available at: [http://www.eii.org/pdf/liberia\\_biodiversity\\_report.pdf](http://www.eii.org/pdf/liberia_biodiversity_report.pdf) [Accessed: 1/9/11]

## 2.1. Mining in Liberia

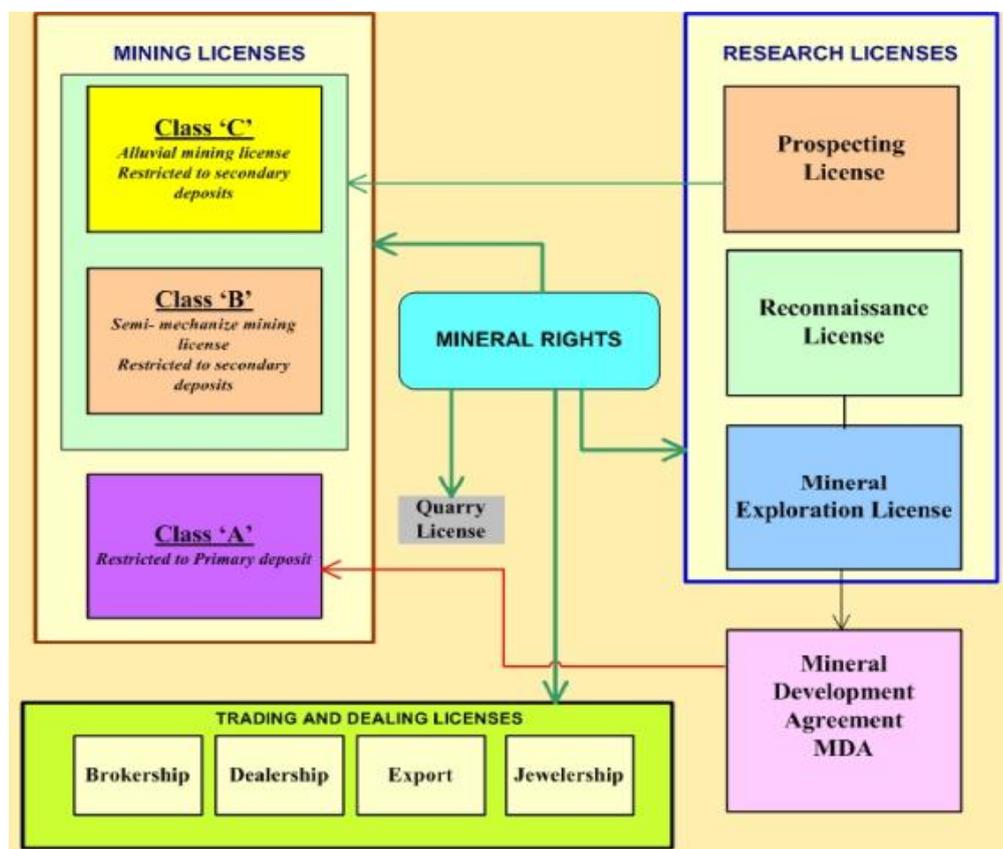
### 2.1.1. Exploration and large scale mining

Until the onset of a period of protracted conflict in Liberia, which spanned from 1989-2003, large scale mining (LSM) of iron ore provided up to 60 per cent of Liberia's export earnings and circa 25 per cent of GDP.<sup>21</sup> Although in 2009 the official contribution of the formalized industrial mining sector to GDP was negligible (0.2 per cent of GDP) LSM is once again becoming a significant sector within the Liberian economy with the recommencement of iron ore extraction in the Nimba hills by Accelor-Mittal in 2011.<sup>22</sup>

As with all forms of mining within Liberia, ASM is regulated and administered by the MLME through the 2000 Minerals and Mining Law. Other government bodies with relevance include the Environmental Protection Agency (EPA), the Land Commission, the Public Procurement and Concessions Commission, and the Forest Development Authority (FDA). The interplay between the mining-relevant legislation mandating these bodies' activities and the Minerals and Mining Law, further adds doubt to an already confusing mining code.

Although there are only two "Class A" license holders currently in Liberia, a large proportion of the country has been divided into Mineral Development, Exploration or Reconnaissance Areas, though it should be noted that these areas are mainly under Exploration Licenses. (See Figure 2, Table 1, and Map 2 below).<sup>23</sup>

Figure 2 - Liberian Mineral Titles (MLME, 2011)



21 IMF (2008) Liberia: Poverty Reduction Strategy Paper. IMF Country Report No. 08/219. [online] Available at: <http://www.imf.org/external/pubs/ft/scr/2008/cr08219.pdf> [Accessed 11/8/11]

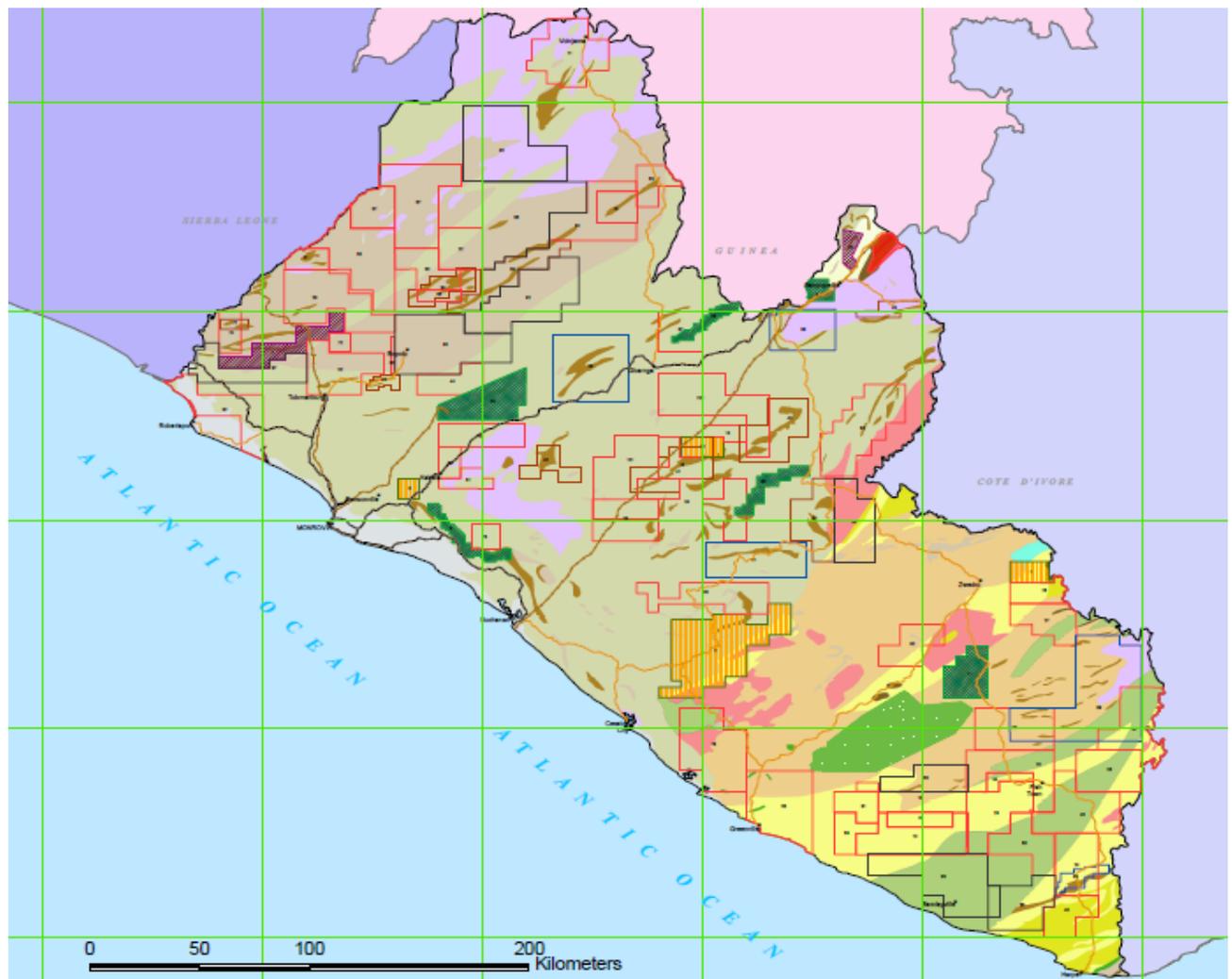
22 Bermudez-Lugo, O. (2011) The Mineral Industry of Liberia. 2009 Minerals Yearbook. United States Geological Survey.

23 This table is a summary of data presented on the Liberian Ministry of Lands, Mines and Energy Mineral Property map. MLME (2011) Mineral Property Map. [online] Available at: [http://www.MLME.gov.lr/doc/Mineral%20Property%20Map%20of%20Liberia\\_April2011%20update\\_1.pdf](http://www.MLME.gov.lr/doc/Mineral%20Property%20Map%20of%20Liberia_April2011%20update_1.pdf) [Accessed: 8/8/11]

**Table 1 - Liberia Mining Company Listings and Titles**

	Class 'A' Licence		Mineral Development Agreement		Mineral Exploration		Mineral Reconnaissance		Total	
	Licence Holder	Area (km <sup>2</sup> )	Licence Holder	Area (km <sup>2</sup> )	Licence Holder	Area (km <sup>2</sup> )	Licence Holder	Area (km <sup>2</sup> )	Licence Holder	Area (km <sup>2</sup> )
<b>Diamond</b>					3	2326.4			3	2326.4
<b>Gold</b>	1	457	4	1921.9	31	15687.4			36	18066.3
<b>Gold &amp; Diamond</b>					4	1917.8			4	1917.8
<b>Gold, Diamond and Base Metals</b>					2	583.6			2	583.6
<b>Gold and Base Metals</b>					10	5009.2	9	8400.3	19	13409.5
<b>Iron</b>	1	105.5	6	1731.2	9	3267.1	5	4540.5	21	9644.3
<b>Phosphate</b>					1	36			1	36
<b>Grand Total</b>	<b>2</b>	<b>562.5</b>	<b>10</b>	<b>3653.1</b>	<b>60</b>	<b>28827.5</b>	<b>14</b>	<b>12940.8</b>	<b>86</b>	<b>45983.9</b>

**Map 2 - Mineral Concession Map of Liberia (MLME, 2011)**



There have been issues regarding the overlapping of concession rights, which indicates that there may be insufficient mapping and allocation systems within the MLME, and insufficient co-ordination with other concession granting bodies, with a number of logging concessions known to overlap mining concessions. For example, Hummingbird Resources recently dealt with an overlapping mineral concession, whilst resources within Arcelor Mittal's concessions have been allocated to other companies in contravention of their Mineral Development Agreement, in addition to a large overlap with the East Nimba Nature Reserve, one of only two protected areas in Liberia.

Other than Arcelor Mittal's iron ore mine, the only other current 'Class A' mining operation in Liberia is for gold; this is owned by Aureus Mining covering 457km<sup>2</sup> in the west of Liberia close to the border with Sierra Leone. Aureus cites its site as historically being one of the most productive gold areas in Western Liberia which has been the focus of intermittent ASM activity for the past 50-60 years.<sup>24</sup> The nature and quality of relations between ASM actors and Aureus are unknown. However, Hummingbird Resources, which holds several exploration licenses in the southeast of the country, employs former ASM miners/diggers within their license areas.<sup>25</sup> On the whole this is through short-term renewable contracts (six months) and for infrastructure development.<sup>26</sup> Currently Hummingbird, which is in its Exploratory Phase at all of its concessions, allows ASM activity to take place and allows artisanal diggers to sell their gold independently. With a recent find in one of their Exploration blocks it is likely that Hummingbird will develop a mine within the next five years. There are currently no firm plans for management of ASM activity when or if this occurs.<sup>27</sup>

Gold mining in Liberia is reported to have begun at the turn of the 19<sup>th</sup> Century with the first significant rush taking place in 1943 in Grand Cape Mount County.<sup>28</sup> In recent post-conflict years officially reported gold production has increased dramatically, though there is no data available for the relative proportions from LSM and ASM (see Table 2 below).

**Table 2 - Liberian Gold and Diamond Production by Weight 2005-2009**

Commodity	2005	2006	2007	2008	2009
Diamonds (carats)	NA <sup>1</sup>	NA <sup>1</sup>	21,700 <sup>2</sup>	60,536 <sup>3</sup>	36,828 <sup>2</sup>
Gold (kg)	27	9	311	624	524

<sup>1</sup> Exports of diamonds under UN Security Council sanctions

<sup>2</sup> Source: Kimberley Process Certification Scheme

<sup>3</sup> Source: Central Bank of Liberia

### 2.1.2. Artisanal and small scale mining

The small-scale mining sector for gold and diamonds in Liberia is estimated to involve as many as 100,000 artisanal miners.<sup>29</sup> ASM activities have been reportedly taking place sporadically throughout Liberia for at least the past century.

The trade and exploitation of Liberia's mineral wealth, particularly timber and diamonds, was a notable feature of its recent conflict, with diamonds playing a significant role in the financing of the Sierra Leonean civil war, with Liberia as the export conduit for diamonds from rebel-held parts of Sierra Leone. In 2001, the UN instigated a ban on Liberian diamond exports, which was lifted in 2007 following Liberia's accession to the Kimberly Process (EU, 2007), allowing the country to resume legal diamond exports.<sup>30</sup> External support to the development of the ASM sector in

24 Aureus Mining (2011) Overview – Liberia [online] Available at: <http://aureus-mining.com/projects/liberia-2/overview> [Accessed 11/8/11]

25 Hummingbird Resources Plc. (2010) Share Placing Document. Hummingbird Resources Plc. Available at: [http://libweb.anglia.ac.uk/referencing/files/Harvard\\_referencing\\_2011.pdf](http://libweb.anglia.ac.uk/referencing/files/Harvard_referencing_2011.pdf) [Accessed 11/8/11]

26 Interview by RS with Bert Monro, Corporate Development, Hummingbird Resources, 12th October 2011.

27 Interview by RS with Bert Monro, Corporate Development, Hummingbird Resources, 12th October 2011.

28 Topographic Research Center, 2006.

29 IMF (2008) Liberia: Poverty Reduction Strategy Paper IMF Country Report No. 08/219, [online] Available at: <http://www.imf.org/external/pubs/ft/scr/2008/cr08219.pdf> [Accessed 10/8/11]

30 EU (2007) Kimberley Process: Liberia enters the diamond trade [online] <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/612&accessed=10/8/11>

Liberia has consequently been focused on diamond production and trade. An important recent example includes the USAID funded Property Rights and Artisanal Diamond Development Project (PRADD), a project which is also active in the Central African Republic and which focuses on improving both transparency and traceability of the diamond value chain and welfare in artisanal mining communities by increasing security of tenure over artisanal mining claims, which are usually based on traditional property rights that are difficult to enforce in case of dispute. Another recent development programme has been the UNDP-led Diamonds for Development (D4D) project. However, this ambitious project had trouble finding the necessary funds, and never got beyond initial scoping studies (which were however the first of their kind in Liberia) and the organization of several workshops for high-level officials from Liberia and neighbouring countries.

With the MLME focusing its attention on the establishment of large scale mines, at a central government level ASM is seen as an impediment to progress in the mining sector. Liberia is strongly promoting industrialization of the sector<sup>31</sup> (akin to Sierra Leone) and the regulatory framework around ASM is a significantly lower priority in a mining code that is geared towards encouraging industrial mining. Furthermore, the ASM provisions in the mining code are unsupportive of its realities, making it extremely difficult and unrealistically expensive for an artisanal miner to be legal.<sup>32</sup> In order to be legal, artisanal mines and diggers, who are mostly attracted to ASM out of poverty associated with the decline of rural agricultural livelihoods, are required to pay large amounts of money (and at a multitude of the official price) for a yearly mining license of 25 acres, something that is logistically impossible for even the most professionalized small-scale miners to cover in one year. Furthermore, the mining code neglects the dispersed, alluvial, easy-access nature of most artisanally mined diamond and gold deposits and the general lack of government capacity, and will, to adequately enforce legal artisanal production.

In Liberia ASM activities for all minerals are regulated through the granting of Prospecting and Class 'C' licenses by the MLME (see figure 2). Only Liberian nationals may apply for a Class C license which allows for conducting mining predominantly on a small-scale that does not employ large-scale, heavy duty or earth moving equipment<sup>33</sup> and which is restricted to secondary deposits. Each Class 'C' miner may apply for up to four licenses covering a total area of 100 acres. Currently the Class 'C' license is obtained for an initial fee of US\$300 (this includes a US\$150 demarcation fee and US\$150 actual license fee) from the MLME offices in Monrovia. However, in reality the costs of obtaining licenses may be substantially higher for ASM miners, with all Class C license holders and one gold broker interviewed in July 2011 suggesting that transport to Monrovia and additional, unofficial 'facilitation fees' charged by local mining agents and others can lead to a doubling or more of this fee. ASM-PACE researchers found that miners were also under the impression that it was a requirement that they should be 'recommended' to the MLME by local mining agents. Presumably, this may require a bribe or other favours to obtain this 'recommendation'.

In recent years there have been attempts to reform the policies and regulations relating to ASM. Accordingly the 2008 Mineral Policy of Liberia was supportive of ASM activities, for example stating that the MLME should facilitate the training of ASM miners in business and technical skills and in mercury-free gold processing, and should offer a micro-credit loan scheme. However, it was concluded within the draft policy that the cost of such measures would be prohibitive for the State who should rather create reasonable incentives and the streamlining of procedures that would lead to private investment in the ASM sector.

The procedures for the application and renewal for these licenses remains burdensome and there are currently 48 legal ASM miners operating in Liberia.<sup>34</sup> Currently the Ministry is focused on the development of the large scale mining sector.<sup>35</sup> This lack of ASM focus is reflected in the slow progress being made on the adoption of new licensing procedures and amendment of the Mining Act following recommendations made by Hinton (2010) as part of the now-completed USAID GEMAP programme.

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31 For example the 1st Liberian Mining, Energy and Petroleum conference that took place in April 2011 and was opened by the Minister of Lands, Mines and Energy and the President of Liberia (<http://www.limep.com/html/sponsors.html>)

32 Hinton, J. and Levin, E., (2011), Legal and fiscal regimes for artisanal diamond mining in Sub-Saharan Africa: Support for formalisation of artisanal diamond mining in Central African Republic, pp. 217-243 In: Geological Resources and Good Governance in Central Africa – Runge & Shikwati (eds), Taylor & Francis Group, London.

33 Elder, T.G. (2002) Mineral Legislation of Liberia. *Applied Earth Science* 111(3): 200-202.

34 MLME Deputy Inspector of Mines report verification meeting with R Sambolah May 2012

35 RS and CV interview with George Wren, Assistant Director of Mines and Prince Mamboo, Mining Inspectorate, 12/7/11.

The Liberian government currently lacks the financial and human resources to effectively monitor ASM sites, including those which surround SNP<sup>36</sup>, although it does have Mining Inspectors at a county level.

## 2.2. Mining in protected areas and critical ecosystems

In Liberia National Park legislation forbids any economic activity from taking place and as such any mining activity within a National Park boundary is illegal. The MLME has not issued licenses for mining within SNP, yet its right to give licenses for mining in national forests/proposed protected areas remains a contentious one<sup>37</sup>. The MLME maintains that it is not its responsibility to monitor the entry of illegal miners into National Parks but rather the responsibility of the FDA to report such ingressions to its mining agents<sup>38</sup>

There are Class B and Class C licenses issued by MLME within Gola National Forest, which is currently a proposed protected area,<sup>39</sup> and two concessions also overlap most of the East Nimba Nature Reserve. The only attempt to manage the small-scale mining activities in or around critical ecosystems and protected areas has been at SNP. Exploration licenses for gold also overlap with two further national forests and proposed protected areas – Grebo in the southeast which borders with Cote D'Ivoire and Wonegizi in the north which borders with Guinea. Small-scale gold mining was reported to be taking place in Grebo in 2007 by a rapid biological assessment team from Conservation International.<sup>40</sup> Representatives from the MLME maintain that they are legally able to award mining licenses within National Forests and Proposed Protected Areas and this provision also extends to Community Forests designated under the Community Rights Law.

## 2.3. Existing initiatives in Liberia's minerals sector

Problems caused by overlapping mandates between government bodies are further consolidated by poor inter-departmental co-ordination and communication. This was made evident both in initial separate meetings with the FDA and the MLME during a debriefing given jointly to these agencies by Small at the end of the field-work component of this study.<sup>41</sup> The former Managing Director of the FDA, John Woods, reported that three to four years ago there had been an attempt for inter-departmental communication regarding the issuing of mining, forestry and agricultural concessions but the relevant departments had met only once.<sup>42</sup> The most recent inter-departmental engagement came with the involvement of both MLME and FDA in the most recent eviction of ASM miners/diggers from SNP in 2010 (this is covered in further detail in Section 4).

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36 MLME representative ASM-PSEP Debrief with R Small 22 July 2011.

37 Interview with George Wreh and Prince Mambo, MLME, 12/7/11

38 MLME Deputy Inspector of Mines report verification meeting with R Sambolah May 2012

39 Pers. Comm. Birdlife International 22 July 2011.

40 Hoke, P., Demey, R. & Peal, A. (2007) Biological Assessment of North Lorma, Gola and Grebo National Forests, Liberia. RAP (44) Bulletin of Biological Assessment, Conservation International, Washington.

41 July 12, 2011, initial meetings with MLME and FDA officials.

42 RS interview with John Woods, former Managing Director of FDA, 27th July 2011.

# 3. ASM IN AND AROUND SAPO NATIONAL PARK

## 3.1. Profile of Sapo National Park (SNP)

### 3.1.1. Biodiversity and ecological importance

Sapo National Park (SNP) is the only national park in Liberia. It was established in May 1983 with an initial area of 1,308 km<sup>2</sup> that was increased to 1,804 km<sup>2</sup> in October 2003. It is at the centre of one of the largest intact blocks of the Upper Guinea Forest, with high rates of endemism. SNP is host to several species of conservation concern; this includes the pygmy hippopotamus (*Choeropsis liberiensis*), western chimpanzee (*Pan troglodytes verus*), Jentink's duiker (*Cephalophus jentinki*), western red colobus (*Procolobus badius*), black-and-white colobus (*Colobus polykomos*), sooty mangabey (*Cercocebus atys*), zebra duiker (*Cephalophus zebra*), and the Diana monkey (*Cercopithecus diana*).<sup>43</sup>

SNP is located in the south-east of Liberia within three counties, Sinoe, River Gee and Grand Gedeh. Approximately 15,000–20,000 people live 10km from the SNP boundary in almost 40 main villages.<sup>44</sup> It has been reported that up until 1973, but perhaps ceasing earlier, alluvial gold mining was carried out at Gayeepenloo within the Sapo National Forest.<sup>45</sup> Current artisanal gold mining (AGM) sites are known to lie both to the north of the park in two areas known as CVI and the Putu Ranges and to the south in two areas known as Money Camp and Government Camp. After the park was cleared of miners/diggers in 2010/11 many of the miners/diggers relocated to these and other alluvial sites in the area, notably to the north around Putu and to the south around the Dugbe River.

## 3.2. Profile of ASM activities

### 3.2.1. The nature and organization of ASM

This section provides insight into the political economy of AGM production in the environs of SNP by characterizing a portion of the gold commodity chain in order to understand how future interventions on ASM in and around SNP may be best targeted and conducted.

The ASM studied by the research team is alluvial and takes place year round, although participation fluctuates drastically with the rainy and dry seasons (Fig. 3). The numbers of diggers reportedly doubles from December to June (the dry season), attracting farmers from communities in the surrounding area<sup>46</sup> who are less busy in their fields, and mining costs decline. Conversely, wet season (from June to November) mining requires water pumps (and petrol to power the pumps) in order to extract rainwater and runoff from flooded pits. Periodic demands for cash also attract people to the mine sites, principally over the Christmas holiday period and also when people need to raise school fees.

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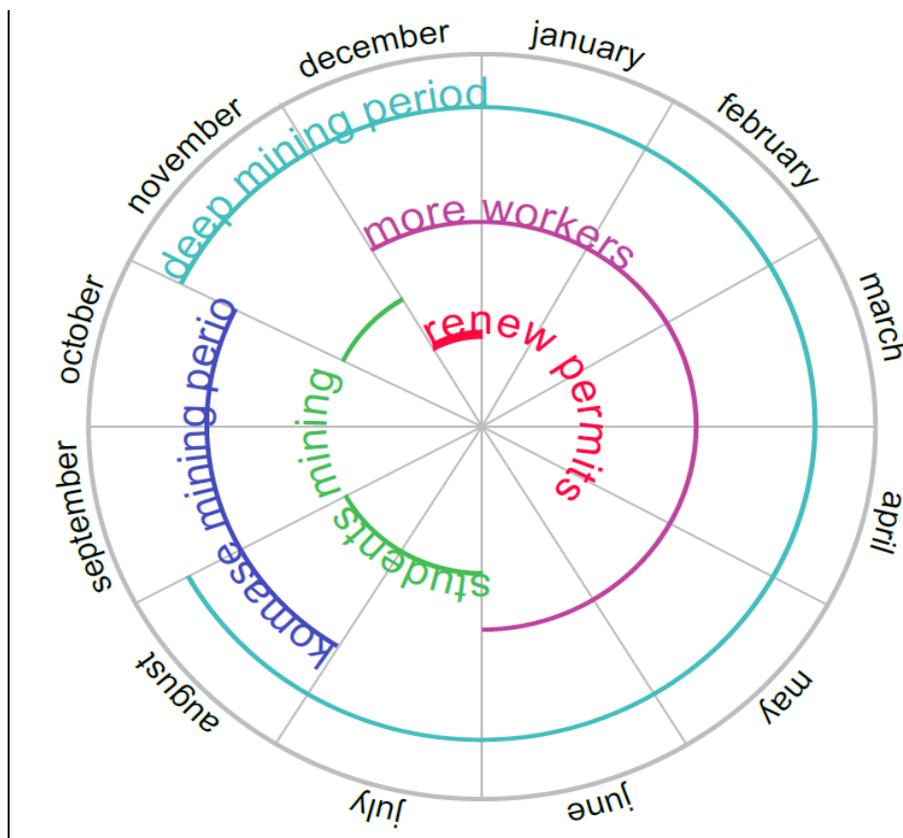
<sup>43</sup> Greengrass, Elizabeth, 2011. Exploring the Dynamics of Bushmeat Hunting and Trade in Sapo National Park. 6th October, 2011. Produced for Fauna & Flora International. Retrieved in December 2011. Available at [www.liberianfaunaflora.org/FFI/Download.aspx?p=30&ix=24](http://www.liberianfaunaflora.org/FFI/Download.aspx?p=30&ix=24).

<sup>44</sup> Greengrass, Elizabeth, 2011.

<sup>45</sup> Manvell, A. (2011) The Socio-Economic Setting of Communities Adjacent to Sapo National Park. Produced for Fauna & Flora International. Available at <http://www.liberianfaunaflora.org/FFI/Document.aspx?p=30&ix=22&pid=10&prcid=14&ppid=3024>

<sup>46</sup> Interview with Mining Chairman 17/7/11

Figure 3 - ASM Seasonal Calendar



### 3.2.2. Gold production and incomes

Within the mining camps gold was weighed using matchsticks<sup>47</sup> whereby: 1 Match = 1 Grain; 10 Matches or Grains = 1 Gram; 17 Matches = 1 Penny Weight.

The price paid by miners to gold boys was fairly uniform across the four mining sites visited with prices cited as ranging from 2400-2600LD/g (approximately the equivalent of US\$34-37/g).<sup>48</sup> At one site the miner placed a complete restriction on the gold boys selling to other traders and middlemen whereas at other sites gold boys were allowed to sell half of their finds to other parties. Gold traders reportedly purchased gold from the miners for 3000-3400LD/g (US\$43-48/g), which represents a 33 per cent mark up for the miners compared to the price paid to the gold boys, and represents 84 – 94 per cent of London fix.<sup>49</sup>

Gold boys at multiple sites reported their production level to be 2-6g/pit/day, equivalent to a range of US\$68 to US\$222/pit/day. For an average gang of 4 gold boys this equates to a daily income each of US\$17-55.5. It should be noted that one miner stated that his most productive pit of late had yielded 84g over a one month period, equating to 2.8g/day.

47 The use of matchsticks for weighing gold is not unique to Liberia e.g. MacGaffey, J. (1991) The real economy of Zaire: the contribution of smuggling & other unofficial activities to national wealth. University of Pennsylvania Press (p121).

48 Prices from interview with Mining Chairman (17/7/11), Gold Boys at Liberty Pits (18/7/11) and Geeblo Pits (20/7/11).

49 In mid-July the London fix price for gold was 51US\$/g.

**Figure 4 - Miner with artisanally-mined gold**



### **3.2.3. The ASM commodity chain**

The gold production and trading chain at a local level is primarily constituted by diggers (known locally as “gold boys”), miners, sponsors and local traders.

#### Gold boys

Gold is produced through the physical labour of ‘gold boys’ or diggers, most of who were found to be Liberian nationals, ranging in age from teenagers to those in their mid-40s. Circa half of those working at the time were either from the SNP Counties (Sinoe, River Gee and Grand Gedeh), more than a quarter were from other counties (predominantly Lofa) and the remainder were from other West African countries (Mali, Nigeria, Cote D’Ivoire and Guinea).

The men and boys organize themselves into groups of four to six people who dig and wash a particular pit (for the alluvial gold mining process please see Figure 5). All pits at the sites visited were dug by hand and drained with mechanical water pumps, the same water pumps being used to wash the auriferous gravel. The gravel is washed in a sluice box with a layer of carpet or ‘supreme’ to catch any gold particles. Tailings from this washing process are fed back into the pit from which the gravel was dug. The carpet is subsequently washed and panned in the same pit to isolate gold particles.

The groups of diggers share the gold produced amongst themselves and sell predominantly to the miner on whose claim they are working, to the sponsor that has pre-financed their food and equipment, or (less often) directly to a visiting gold broker.

Practically all of those encountered labouring at the ASM sites were men, with only two women found to be digging and washing gravel in shallow pits at one site.<sup>50</sup> The diggers have mixed educational backgrounds with some working to find money for their next year of school fees and others being ex-combatants having known no other work.

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<sup>50</sup> While there was a lack of women present on the mining sites, women are connected to the mining economy in other ways, such as working as shopkeepers. One particularly entrepreneurial female shopkeeper used to be a miner herself and now runs a shop that sells supplies and food to

The gold boys live in the mining camp run by the miner who owns the claim on which they work. At one of the mining camps, the miner owned the only trade store, which sold beer, rice and tools. At a different camp based in a local community, a satellite TV entertainment centre was run by the miner's younger brother. Such TV centres were also reported to be in use in the illegal camps when they were present in SNP.

Some gold boys reported the outward investment of their returns from digging such as for the payment of their children's school fees or funding small market businesses with their wives.

Typical of the gold boys found at the ASM sites was a man from Tapita, in Grand Gedeh County, who had begun gold mining in early 2011. He had a wife and two young children who lived in Zwedru, the county capital, 60 km north of the mining site. He had been encouraged to take up mining after the success of his brother who had moved to the site to mine in 2010. His brother had saved enough to buy his own pump and the man, who had previously worked for NGOs in Zwedru, felt AGM was a more profitable source of work. He was in the process of building his own house at one of the mining camps but planned that instead of his family coming to join him at the site he would send remittances to them. He did not think that his mining work had any impact on the environment, especially as the national park lay a long way away (actual distance 3 km). He was positive about the gold business and felt like it offered the best form of income that was available to him.

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the diggers. In addition, a few of the male diggers that researchers interviewed stated that their mining allowed them to provide start-up capital for their wives' businesses in nearby trading towns.

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Figure 5 - Gold boys digging pits, digging gravel, washing gravel, washing sluice box residue (clockwise from top left)



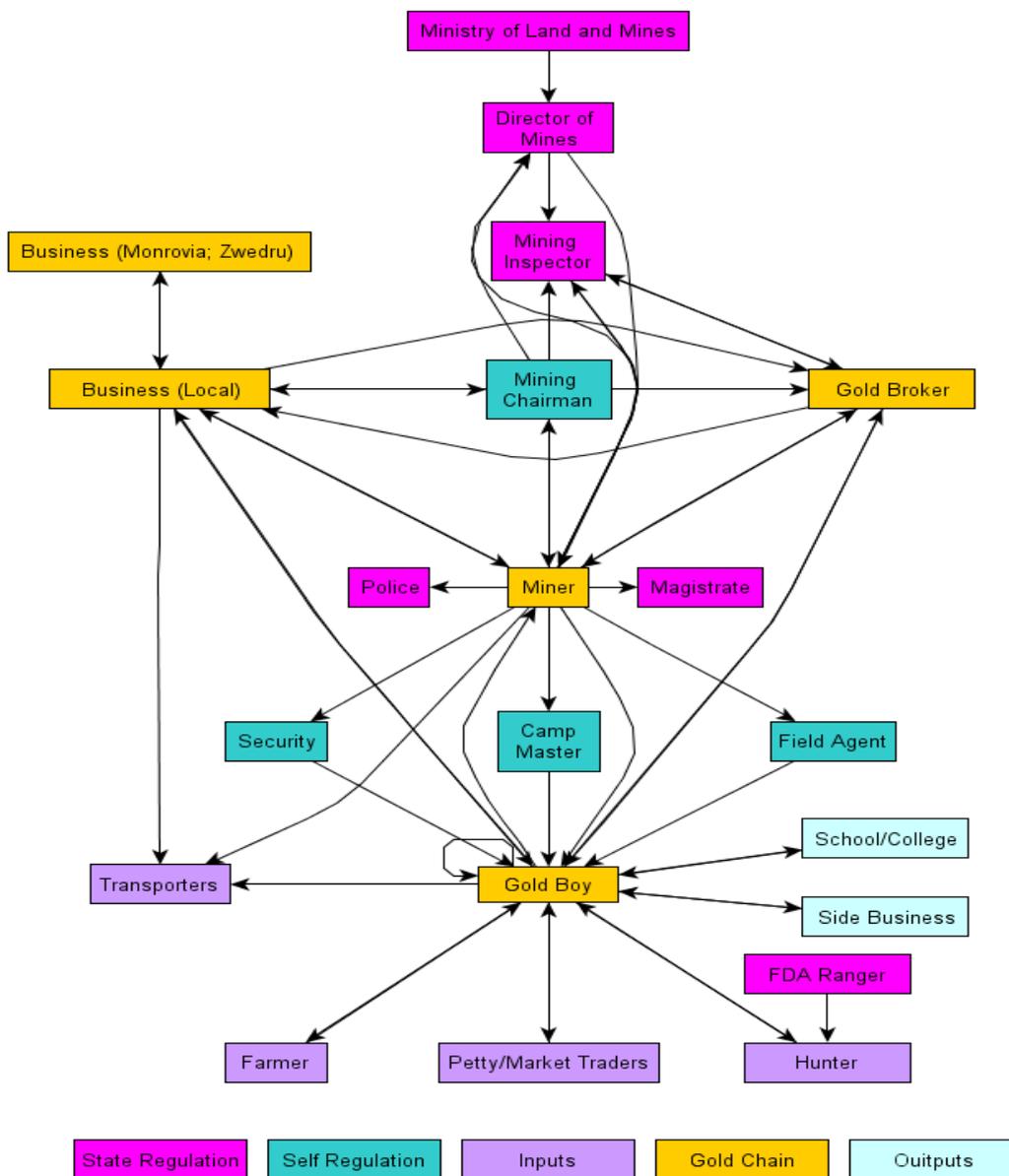
### Miners

All of the gold boys gain permission to work on the site from the miner who owns the right to mine, sell, and trade gold. The miners regulate the activities of the gold boys in several ways. Each mining camp has a Camp master who is responsible for the functioning and enforcement of rules at each camp. These rules include: no fighting, no stealing, and no stealing of another man's woman. Physical punishments are meted out for the breaking of rules and after three infractions the offender can be evicted from the camp.<sup>51</sup>

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51 During fieldwork there was an incident of a gold boy washing another group's pile of gravel at night - in effect stealing their gold. Violent repercussions were promised by the Camp Master and his 'security'.

Figure 6 - ASM Gold Commodity Network / Organization of Miners



Security staff is employed to maintain order and guard against theft of gold from the pits. The miner's field agent monitors the level of production at the pits and the gold boys' behaviour. The field agents had either previously worked or may still work as a gold boy in the pits. This form of organization echoes that of the mining camps that had been active within Sapo National Park.<sup>52</sup>

With the miners being the main buyer of gold from gold boys, they in turn are the most significant seller of gold to visiting gold brokers. As well as relying on itinerant visiting gold brokers they also have the means to travel and sell their gold further afield to buyers both in county capitals and Monrovia. As with the gold boys the miners also trade their gold for goods, such as fuel pumps, as well as selling for cash.

All of the miners interviewed (n= 4) had been involved in ASM for at least a decade, yet had only been legal Class 'C' license holders for a maximum of three years. They had worked their way up from being gold boys, to prospecting their own sites, to raising enough funds (and network of contacts) to acquire prospecting and mining licenses from the MLME in Monrovia. This evidence of advancement ups the stakes for gold boys to stay in mining rather than transfer into other livelihoods. In the area visited during fieldwork both established villages and newer mining camps were home to licensed miners, none of whom spoke of intensifying their mining operations to Class 'B' operations that

52 Chief Park Warden Feb-April Report 2005

would use machinery but rather wanted to expand into more sites through engaging more gold boys. All were aware of the MLME regulations regarding 'dig hole, cover hole' (i.e. no new hole should be dug without the old hole being filled in) in the area of land that was under their licensed holding, however the 'dig hole, cover hole' rules were inconsistently followed in practice.

There did appear to be tension between the miners and those in local positions of power (e.g. Town Chief, Clan Chief and Paramount Chief - all of whom are officially employees and local representatives of the Ministry of Internal Affairs according to current law). These local government officials complained to the research team about the quasi-independence and self-organization of the miners and their camps, which existed in parallel to their local forms of governance. This was countered by the miners who said that they do work with local officials; for example, on the request of nearby villages, the miners say they made payments towards the costs of the local health clinic.

### Sponsors

A variety of businesspeople, profitable gold boys, gold brokers and the miners themselves act as sponsors for groups of gold-boys. This is a relationship in which, in return for paying in advance for food, supplies and equipment, the sponsor will be able to receive gold at favourable rates, sometimes at half the price that would be paid to gold boys who are financially independent.

One of these sponsors in the area visited by the field team was a Nigerian man who had come to Liberia in the mid-1990s (perhaps as a member of the Economic Community of West African States Monitoring Group (ECOMOG), although this was unconfirmed). As well as being a pastor he sponsors groups of gold boys at sites towards Sapo National Park and obtains equipment for these groups from Guinea and the border town of Ganta where items such as water pumps are reported to be considerably cheaper.

### Local business

Local businesses, such as village trade stores, accept payment in gold (at the rate paid to miners of 2400-2600 LD/g) as well as cash from nearby ASM participants. Through trade, and supporting services, such as carrying foodstuffs and supplies to ASM sites, artisanal mining activity is integrated into the local economy as opposed to a separate activity that could easily be removed without significant local consequences..

Characterizing local businesspeople was a woman who ran a store in one of the mining villages. She was born in Nimba County but had moved to Grand Gedeh in the 1990s to partake in ASM activity and had eventually obtained a mining license in the early 2000s. Her trade store sells food, beer, water pumps, shovels and carpet to the gold boys. The sale of mining equipment is a profitable business with her, for example, being able to sell carpet for washing at double the price for which she buys it (US\$40 vs. US\$20). With her past experience as a miner she has also been paid to assist miners in the area complete the paperwork for acquiring their Class 'C' licenses.

She will trade in either cash or gold but, due to difficulties with a local mining inspector, she hopes to get a broker's license to overcome 'tips'. She finds it challenging to compete on price with visiting gold brokers but her business activities have enabled her to put her son through school and now University and she hopes to be able to expand her business into other villages in the area in coming years.

## 3.3. Impacts of ASM in and around SNP

Although there is reportedly no ASM activity taking place inside SNP it faces a real and growing threat by artisanal gold miners working close to its borders. Legal ASM is occurring directly upstream from the park and is currently operational on its borders with the high possibility of encroachment.<sup>53</sup> Illegal miners within Sapo National Park were successfully evicted in 2010, however the eviction is currently only being maintained with the assistance of the ERU, which, based on third party reports, plans to leave in late 2011 after the Liberian national elections. If it does leave, there will be little to prevent the re-entry of illegal miners within the park. FDA sources commented that there may be a plan for the ERU to train park guards in the patrolling, guarding and policing of SNP for a period of two years following the eviction, but researchers found this has yet to take place.

The current ASM activity that is taking place around SNP undoubtedly has secondary impacts on the integrity of SNP, whether this is through hunting, water siltation or encouraging in-migration and associated population pressures on natural resources. It is also highly likely that if the capacity of the FDA for the active management of SNP continues to be low then ASM activities will recommence within it.

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<sup>53</sup> Licensed miners who partook in the study maintain that they have no control over other miners or gold boys from re-entering SNP

### 3.3.1. Environmental impacts

Mercury is not in use in the SNP area due to both lack of availability and a rumour amongst the licensed miners that mercury use makes gold discoloured and unsellable. It is highly likely that this rumour is a result of mercury use without further refining, which would remove impurities such as residual mercury (typically 2-3 per cent), copper and silver and produce gold with its characteristic colour and brilliant lustre. Given the prevalence of mercury use in artisanal gold operations in West Africa generally and the high cross-border flows of people and labour within the region, it is considered highly likely that a ‘technology transfer’ resulting in the adoption of mercury or other hazardous chemicals in Liberia may happen soon.

Siltation is a major issue affecting drinking water in the area. Researchers noticed only one small creek with clear water; all the others were highly disturbed, potentially from ASM activity. Other environmental issues observed were forest-clearance for mining and no backfilling or reclamation at some sites.

As stated previously, there is some awareness of environmental stewardship. The miners say that the MLME agents tell them they are required to backfill through the “dig hole, cover hole” protocol. While this appeared to be in practice at some sites, when researchers visited one site in particular – which was 1.5km long area of pitted fields—there was no evidence of backfilling. The site was also home to a local MLME Patrol Officer (see Figure 7), suggesting this ‘dig hole, cover hole’ rule is often ignored and unenforced.

**Figure 7 - Abandoned mining pits 1km away from the SNP boundary**



Personal sanitation is a major issue at the legal sites. A major cholera or diarrhoea outbreak would not be surprising. In the mining camps visited in July 2011, there were no latrines, though one is being built at one of the newer mining camps that researchers visited. At a mining village located directly on the border of SNP and which houses an estimated 500 people, there were no formal latrines with people using the surrounding forest as toilets. This situation offers the potential of zoonotic disease spread.

Hunting is an age-old activity in and around SNP. All extraction of wild meat within Sapo National Park is illegal whilst outside, the hunting of certain species and using certain weapons (including snares) is prohibited. The October 2011 study of wild meat hunting and use around the park by Greengrass<sup>54</sup> identifies the greater threat to biodiversity

<sup>54</sup> Greengrass, Elizabeth, 2011.

to be due to the commercial, exterior market orientated hunting rather than hunting for the local market. Village-level hunting nonetheless provides an important source of income. Village-level trapping around farms, a less time-consuming and lower input, but more uncertain means of gaining meat, and of more limited conservation concern, was found to provide less income as most meat was consumed at home. In comparison to village-level trapping, full-time commercial hunters were found to earn between US\$1,000 and US\$2,000 *per month* (and each camp earning approximately US\$26,000 per year) and part-time hunters were found to earn between US\$120 and US\$250 per month, according to the 2011 Greengrass study. The most common animal hunted is the duiker (84 per cent). Elephants, pygmy hippos, chimpanzees, red colobus monkeys and other threatened species are also hunted.

Due to the level of integration between those involved in ASM and other aspects of the village economy it would not be feasible to attribute a defined proportion of the current impact of hunting on Sapo's wildlife to a particular income generating sector. However, the overall impacts may be discussed.

Since 2010 there has been an expanded effort in the monitoring of wildlife within SNP. The first stage of the bio-monitoring was the expansion of line transects throughout the park. Although formal transect surveys are yet to be conducted reports from the survey team suggest that the frequency of hunting is highest in the area of the park that is closest to the ASM sites that were visited in the course of this study.

### **3.3.2. Socio-economic impacts**

Several villages that surround SNP are known to have been involved in the ASM gold production that took place within the Park. Involvement was, and in some cases at sites outside of SNP is, through hosting mining communities and sites, and/or providing trade and transportation activities that service the miners' operations and subsistence. Although it is impossible to tell the value of this activity to those involved without an in-depth survey, especially at a time of vigorous police presence, the cessation of mining activity in the Park is likely to have restricted many people's income.

The hierarchical organization of ASM activity and actors seems to have disenfranchised other local forms of governance. For example the Ministry of Internal Affairs is locally represented by a Town Chief and Clan Chief; in one mining village they claim to have had no influence over gold mining activities. However, two of the miners that were interviewed said they did have to gain community consent for their activities, including payments to local leaders. Researchers did not obtain a view on whether these payments were consistent or if they were single payments. In the Mano River region generally (Ivory Coast and Sierra Leone), 'traditional tributes' are common as are the charging of surface rents. If this practice is not in place in this region, it would therefore be a departure from common practice in the larger region.

Furthermore, there does not seem to be any kind of written community agreement required nor any kind of specific types of cooperation during/after the mining process.

Figure 8 - Mining camp north of Sapo National Park Boundary, July 2011



### 3.4. History of ASM interventions at SNP

The Liberian conflict severely limited the active management of Sapo National Park from 1990 to 2003. In 1990 local development activities and employment opportunities linked to the park were brought to an abrupt end with the outbreak of civil war. Staff were evacuated from the park, some were killed, and all active management of Sapo as a conservation area ceased.

With the uneasy peace after the election of Charles Taylor as President in 1997 conservation interest was renewed at SNP and in the early 2000s a project implemented by FFI and funded through the British Government's Darwin Initiative commenced. This FFI project run in partnership with WWF allowed full time management of the Park to take place from 2000 to 2002 with additional funding from the Critical Ecosystems Partnership Fund that allowed this to extend to 2003.<sup>55</sup> Other conservation agencies active in this period were Philadelphia Zoo, the Society for the Conservation of the Nature of Liberia (SCNL) and Conservation International (CI). These organizations would go on to have significant roles in the extension of the Park's boundary and the first evacuation of ASM participants from SNP in 2005.

In 2002 a Memorandum of Understanding (MOU) was signed between the Liberian government and CI that would allow the extension of the SNP boundary westward and northward (see Map 3).<sup>56</sup> Both CI and FFI were involved in

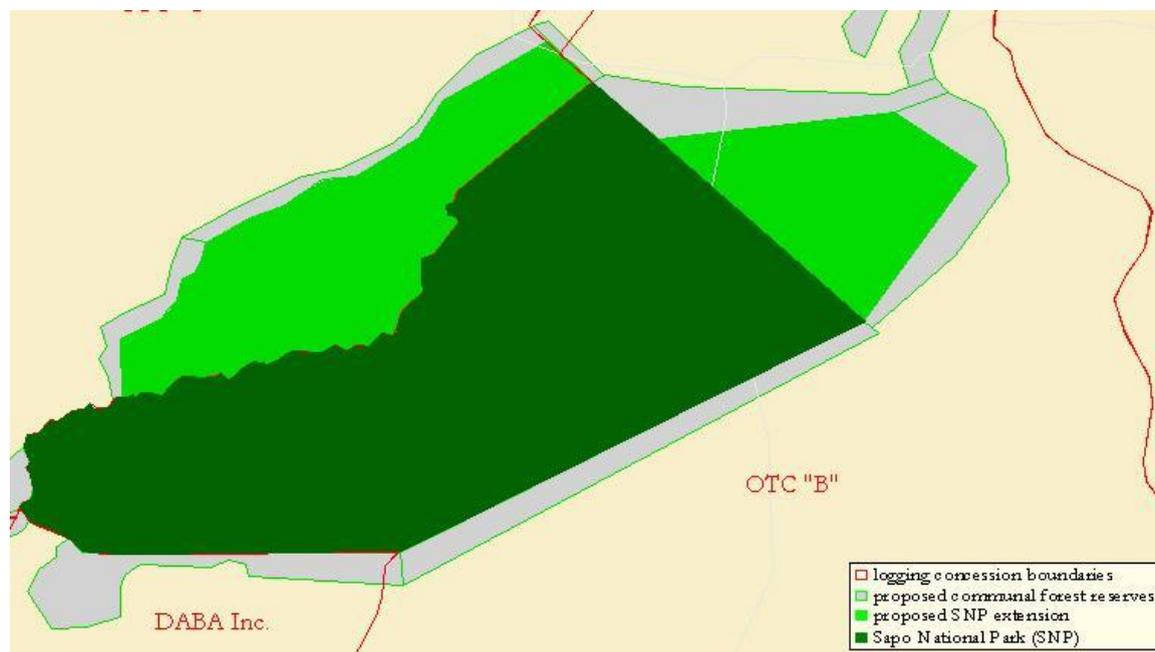
<sup>55</sup> FFI Briefing Document to US Ambassador, 2006.

<sup>56</sup> FFI Briefing Document to US Ambassador, 2006.

the process of biological, social and GIS surveys to identify these extension zones. In November 2002 FFI, CI, WWF, local government authorities (Sinoe, Grand Gedeh and River Gee Counties) and representatives from local communities attended a workshop on the Park extension. It is reported that 150 people attended this meeting but it is not known how many of them came from local communities. At the end of the workshop a resolution was created by the workshop attendees, presented to the Legislature by President Charles Taylor and, on his resignation, enacted into law by President Moses Blah in October 2003.<sup>57</sup>

However, in March 2003, with the onset of renewed conflict conservation activities at SNP once-again came to a halt. MODEL (Movement for Democracy in Liberia) forces overran the south-east of Liberia including SNP. At this point the Park staff fled. Conflict ensued until the resignation of President Taylor in August 2003. The first return visit by the FDA took place in November 2003, who found that the majority of SNP headquarters equipment and infrastructure had been lost, looted or stolen. Over the next year management of SNP began to re-develop.<sup>58,59</sup> By 2010 there were 27 FDA staff employed at SNP, including a Chief Park Warden, three zone wardens and rangers.<sup>60</sup>

**Map 3- Sapo National Park (dark green denotes original area & light green 2003 extension)**



The follow up process on the extended park boundary with affected communities after the cessation of the 2003 conflict remains unclear. There has been poor record keeping of the extension process in 2002-2003 which makes it very difficult for implementing agencies to follow up on as communities claim not to know who gave consent on their behalf. However, it is known that in 2006 the FDA attempted to raise awareness of the park extension.<sup>61</sup>

In 2008 the original northern park boundary line was erroneously re-cut by FDA rangers, reaffirming old boundaries. Although used in revised public awareness posters (see Figure 9), the new boundary is either not known or not accepted by villages visited during the field-work to the north of SNP.

57 Memo from Theo Freeman, Manager National Parks, FDA and John Kantor, Manager Forest Engineering/Support Services, FDA to Hon. John Woods, Managing Director, FDA, May 8 2006.

58 FFI/FDA Trip Report, December 2004.

59 FDA (2005) Report on the Sequence of Events at Sapo National Park (SNP) Since Invasion by Poachers (Miners and Hunters).

60 FFI (2010) Establishing the Basis for Biodiversity Conservation in Sapo National Park and in South-East Liberia: GEF Project Implementation Completion Report.

61 Memo from Theo Freeman, Manager National Parks, FDA and John Kantor, Manager Forest Engineering/Support Services, FDA to Hon. John Woods, Managing Director, FDA, May 8 2006.

Figure 9 - Community Forest poster showing SNP extended boundary



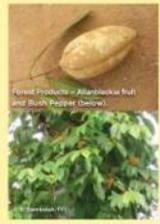
# YOUR FOREST. YOUR RIGHTS.



In October 2009, a law was passed by the Government of Liberia that enables communities to take legal ownership and management of the natural riches that can be found in some types of forest. The law in question, 'An Act to Establish the Community Rights Law of 2009 with Respect to Forest Lands' calls these types of forest **'Community Forests'**.

**WHAT DOES THIS MEAN EXACTLY?**

The community forest is managed and run by the community. The timber and other forest products (like fruits, rattan, thatch, medicines and animals) can be harvested for the benefit of the community.



**CAN THE COMMUNITY SELL FOREST PRODUCTS TO PEOPLE OUTSIDE THE COMMUNITY?**

**Yes** – the community may enter into small and medium-sized contracts for the sale of timber and non-timber products. Large timber concessions may also be negotiated by communities in partnership with the FDA. Communities have rights to at least 55% of money received as land rental for large timber concessions.



**WHAT HAPPENS TO THE MONEY THAT COMES TO THE COMMUNITY FROM THE SALE OF FOREST PRODUCTS?**

The money is shared between:-

- forest management activities, such as buying equipment, clearing boundary lines and patrolling.
- community development activities, such as building schools, clinics and bridges.



**WHO MANAGES THE COMMUNITY FOREST?**

The day to day activities are managed by the Community Forest Management Body (CFMB), which is made up of elected representatives of the community.



**HOW DOES A COMMUNITY ESTABLISH A COMMUNITY FOREST?**

- The community must have access to forest, for example, through a land title (ownership status) or access rights to the forest in question.
- The community must then apply to the District Commissioner of their District. The application is authenticated and subsequently 'certified' by the County Superintendent and the Minister of Internal Affairs, who endorses it for implementation by the Forestry Development Authority (FDA).
- The FDA then allocates the community forest to the CFMB.



**HOW BIG CAN A COMMUNITY FOREST BE?** A community forest may be any size. However, if the community forest is between 5,001 and 49,999 hectares, it can be managed by communities on their own.

**ARE THERE ANY CONDITIONS THAT MUST BE RESPECTED?**

- > The communities must manage their forests in a responsible and sustainable way, to ensure that the natural riches are not used up.
- > The communities must prepare management plans under the guidelines of the FDA to ensure that natural riches are used wisely.



If your community is interested in setting up a community forest, please contact a representative of the Forestry Development Authority or your District Commissioner, for further information and assistance.

PARTNERS OF FDA



**SECURE YOUR FOREST. SECURE YOUR FUTURE.**

FDA:- Telephone  
Lawrence Greene  
+ 231-6-512977

Gold was reportedly found in SNP in the late 1990s, with people working at pits intermittently without settling at formalized camps within the Park boundary.<sup>62,63</sup> When SNP fell under the control of the MODEL the number of illegal occupants of the Park grew, a significant proportion of whom were partaking in ASM. Estimates of the number of people residing within the park during this period vary: 2000-2300 (cited in the Chief Park Warden's Bi-Monthly Report, April 2005), 3000 (cited in the CI authored evacuation plan, June 2005), 5000 (cited in a CI funding application, June 2005).

Details of ASM activities in the Park at this time were included in the SNP's Chief Park Warden report of 2005. The two main camps in SNP were "Iraq" (previously called Gaye Penneh) and "Afghanistan", each with a set of smaller satellite camps (including Camp Baghdad, Camp Kuwait and Camp New Creation).<sup>64</sup> A hunting camp was reported to have been established at the abandoned Gbaboni research station. These Camps seem to have been hierarchically structured with a mining chairman in charge of each, a tribal court and high level of integration with local villages from whom the miners would purchase goods and pay monthly dues.<sup>65</sup> If dues were paid, this would be a key difference between legal and illegal mining and, potentially, local government relations. This should be further explored.

### **3.4.1. The 2005 evacuation and post-evacuation measures**

In January 2005 the United Nations Office for Project Services (UNOPS), part of the UN peace-keeping mission in Liberia, conducted an 'Assessment Mission' to Sapo with one of its objectives being an evaluation of the feasibility of evacuating illegal settlers from the National Park.<sup>66,67</sup> In March 2005 the Liberian Government and the UN issued a joint statement on illicit activities within SNP and an action plan for Park evacuation of illegal settlers was discussed.<sup>68</sup> The FDA and conservation NGOs deemed it vital that, for the future of SNP, it be cleared of people that had settled there during the Liberian conflict. Over-riding these concerns for SNP was the UN Security Council Resolution 1579, which stated that control of forest areas must be established as a criterion for lifting sanctions on Liberia's timber industry. Accordingly the UN Mission in Liberia (UNMIL), whose mandate included a responsibility to restore the proper administration and management of Liberia's environment and natural resources, worked in partnership with the FDA and Conservation International in the development and execution of the Park's evacuation plan.<sup>69,70</sup>

The 2005 evacuation plan was well documented, and is summarized in the timeline below. Prior to the evacuation the Sustainable Development Institute (SDI), a Liberian NGO, was contracted to conduct a demographic survey of the mining camps within SNP. The SDI reported 867 people present in the Park, 70 per cent of whom were from the three counties in which the SNP is located (Sinoe, Grand Gedeh and River Gee), 29 per cent from other parts of Liberia and the remaining 1 per cent from Mali, Ghana and Nigeria.<sup>71</sup> These population figures were much lower than previous estimates but it is thought that, drawn by a diamond rush at Champe, to the north-west of Greenville, many of the Park occupants had begun to leave of their own accord by mid-2005.<sup>72,73</sup> Details of evacuation routes and locations of mining camps are in Map 4 (below).

In all 587 people were evacuated from SNP at the end of July 2005. This process was deemed a success, but with the return of ASM activity between 2005 and 2010 the eviction did fail in providing a long-term, sustainable solution to the issue of artisanal mining in SNP.

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62 FDA (2005) Sapo National Park Bi-Monthly Report February 16-April 16 2005.

63 RS & CV Interview with Theo Freeman, Manager Conservation Division, FDA, 12/7/11

64 The naming of the camps would suggest that they were formed post 9/11.

65 FDA (2005) Sapo National Park Bi-Monthly Report February 16-April 16 2005.

66 FDA SNP Staff Report, January 2005

67 UNOPS (2005), Sapo Assessment Mission Report, 11-13 January 2005.

68 FDA (2005) Report on the Sequence of Events at Sapo National Park (SNP) Since Invasion by Poachers (Miners and Hunters).

69 UNMIL & NTLG (2005) Evacuation Plan, Sapo National Park 30 July 2005.

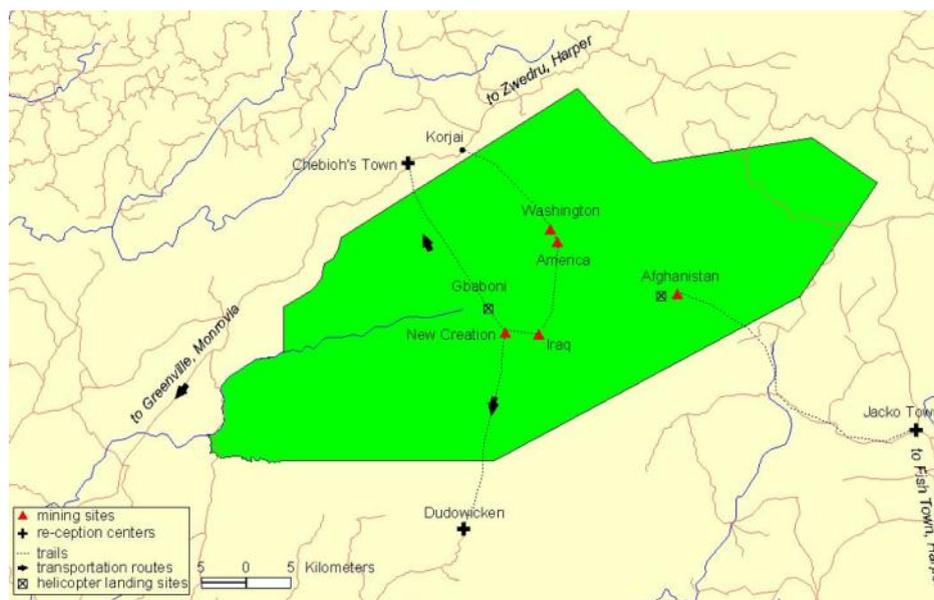
70 This action was deemed an evacuation as opposed to an eviction due to the assumption that people had sought refuge in the Park from the war and were carrying out their activities for sustenance

71 SDI report

72 FDA (2005) Sapo National Park Bi-Monthly Report February 16-April 16 2005.

73 Pers. Comm Garretson Touldee, Research Assistant, July 2011.

**Map 4 - Sapo National Park 2005 Evacuation Strategy**



**3.4.2. 2005 post-evacuation SNP activities**

It would appear that a key element in the 2005 Evacuation Strategy was the immediate implementation of the USAID funded ‘Civilian Conservation Corps’ (CCC) project that aimed to integrate community development and natural resource conservation through labour-intensive employment generation. This project took its title from a public work relief program that ran in the United States from 1933 to 1942 which provided unskilled jobs related to the conservation and development of natural resources on government owned land for unemployed men from relief families.

Following the ‘New Deal’ model the Liberia CCC project proposed the direct employment of 3000 Liberians in communities surrounding SNP, the strengthening of park enforcement, and the creation and management of the CCC Development Fund.

Due to changes in the release and size of funds available, the implementation of the CCC project was delayed by a year and the mass employment element didn’t eventuate. It was led by Conservation International with ActionAid Liberia (see Figure 10). The project conducted agricultural development projects (Gardening, Cassava, and Small Livestock) and a Micro-Loan scheme. These projects were centred on Jalley Chebioh, Ducor Free, Doodwicken, Putu Jarwoodee and Keh’s Town.

Critically, none of these projects targeted those directly involved in ASM. There was an assumption that the introduction of new livelihoods would displace income from ASM in SNP. As much as NGOs have tried to bring external livelihood options to residents around SNP, so too have the people with the means and motivation to recommence ASM within the Park. The presence of gold means that there is a continual option for additional income to the suite of livelihood options that are available to local communities and since 2003 has grown to be an integrated part of community’s economies. In addition, as our analysis of the political economy of ASM reveals, there is little incentive for miners to not mine given the chance of a high income compared to other livelihoods within the region (with the potential exception of hunting) and the fact that it offers prospects of professional advancement for some. Therefore, providing miners with alternative livelihoods options is unlikely to be an effective strategy for discouraging them from mining gold in SNP unless the viability and attractiveness of these livelihoods in comparison with gold mining can be adequately demonstrated to the miners.

Figure 10- CCC Sign Board near SNP Headquarters



### 3.4.3. 2005-2010 management efforts

FFI, in collaboration with the FDA, through the GEF funded project “Establishing The Basis For Biodiversity Conservation In Sapo National Park And In South-East Liberia” in effect took over the second element of the CCC project proposal. It was designed to bring SNP under effective conservation management, as well as bring up to 70,000 hectares of surrounding forest under sustainable-use conservation management in a manner compatible with local development. With co-funding support from multiple donors through several implementing national and international non-governmental organizations, the project aimed to establish basic contemporary conservation management practices for SNP.

Under a partner programme, co-funded by *Fonds Français pour l'Environnement Mondial* FFEM, several species of global importance were discovered within Sapo National Park, including a number of species new to science, confirming the high biological and conservation value of the park. Significant advances were also made in the establishment of communal and community forests in partnership with park adjacent communities. This was coupled with the provision of community livelihood support in communities around SNP, in the form of training and sensitization in animal husbandry, tree and vegetable nurseries, micro-financing, and farming inputs.

Throughout the period of this project’s implementation people were re-entering the Park and recommencing ASM for gold. At least 15 mining and satellite camps were established during this time and neither community development projects nor ranger training being conducted with the FDA proved capable to counter this. From almost zero occupancy after the successful evacuation of internally displaced persons from the Park in August 2005, occupancy slowly increased through to September 2010. At its peak in early 2010, there were an estimated 18,000 occupants with more than 1000 guns spread among at least 15 camps in the park.<sup>74</sup> It is important to note that these figures are unconfirmed and likely unreliable. The methodology for this population assessment was never defined.

These incursions have been attributed to a time lapse in active park operations, limited staff numbers and lack of ability to successfully prosecute the illegal occupants. Relations between the Park staff and the miners were poor and there were several incidences of shots being fired at unarmed rangers on patrols, leading to a large section of the park to be declared off limits due to security concerns.<sup>75</sup>

Weak enforcement of park regulations from 2005-2010 in SNP was combined with a perceived lack of support by the county court system and the national judiciary system, with few prosecutions of law breakers taking place. This situation not only undermined the efforts, authority, integrity and reputation of rangers and park management, but also sent the wrong signals to those engaged in illegal activities within the park. The combination of a deteriorated

74 Estimate from a report by Kayjay S.T. Gmatoh “Assessment Tour at the Sapo National Park from January 13th-22nd, 2010”.

75 FFI (2010) Establishing the Basis for Biodiversity Conservation in Sapo National Park and in South-East Liberia: GEF Project Implementation Completion Report.

relationship with the miners within the park, fears of insecurity (potentially related to the 2011 national elections), the appointment of a new County Superintendent for Sinoe, and reported lobbying from US-based Liberians to preserve SNP culminated in a second removal of settlers from the Park which took place in October 2010.

#### **3.4.4. The 2010 eviction**

The implementation of the 2010 eviction (called a voluntary departure by the Liberian government) was led by the FDA; participation by international partner institutions was only in support to relevant national participating institutions.<sup>76</sup> The clearance of illegal settlers from the Park was one of the three actions given to the new Superintendent of Sinoe County on his appointment by the President in late 2009. The other two were the clearance of the Sinoe County Rubber Plantation and the addressing of ASM in 'Government Camp' 70 km south of SNP (it is unclear what actions were planned or have been undertaken at this long-standing ASM site to the c. 50km south of SNP).<sup>77</sup> This was combined with an Eviction Strategy developed between 2008 and 2010 that resulted in the issuing of an eviction communiqué by the FDA in June 2010 at Zwedru. This process was broadly consultative at the national level, including contributions from government agencies, NGOs and UNMIL but it remains unclear as to how the miners or local communities were involved in the Strategy's planning and implementation.

At the end of July 2010 a general communiqué was announced, by radio and direct communication via community meetings, that gave illegal occupants of SNP three months to leave, after which time if they remained they would be forcibly removed by the ERU. This strategy echoed that of evictions from the Sinoe Rubber Plantation that had taken place at the end of 2009.

An assessment mission, coordinated by the FDA, was conducted from the 13<sup>th</sup> to the 22<sup>nd</sup> October 2010. Results suggest that most if not all the miners left the park voluntarily prior to the September 30<sup>th</sup> deadline. By the start of 2011, and in part due to the lack of supportive action for those that left in 2010, mining activity was reported to have resumed in SNP. In March 2011 the President authorized the engagement of the ERU, an elite armed police unit, in the 'clearance' SNP of illegal miners.

The ERU conducted patrols in SNP for several weeks from the 9<sup>th</sup> April 2011. Remaining occupants of the Park either left or were arrested and sent to Greenville for prosecution. No one was killed during this action. At the time of this writing, the ERU still maintains a presence at Sapo with a detachment based at Bilibokri, a couple of kilometres east of the FDA headquarters at Jalays Town. They have not made their mandate clear to the FDA but it is rumoured that they were in place with the aim of securitizing the park prior to elections rather than for a 'conservation' mandate per se.<sup>78</sup>

Between May and July 2011 the ERU conducted house searches, gun seizures and arrests in Chebioh, Korajayee and Jalays Town. These patrols for illegal guns (or guns whose registration had expired) and for illegal bush meat activity had reportedly been working on the basis of search warrants, issued by the court order in Sinoe County. Because of logistical challenges including a lack of mobile phone service in the SNP area, the unpredictability of the ERU movement, and the ERU's community engagement taking place in the south-east of the Park,<sup>79</sup> the research team was unable to meet with the ERU during the research period, although attempts were made.

Confrontations have also occurred between the FDA and local communities with one man the researchers heard from claiming to have had his gun taken from him when he was not in the park (it is not known if the gun was legally registered or not).<sup>80</sup> He referred to the park being 'hours' away; however a GPS point taken by the FDA marks this incident as being within the extended park boundary. This incident, brought up during a public meeting with the research team, reflects lack of clarity amongst local people, including those involved in ASM, as to the whereabouts of the park boundary.

In the 2010 eviction, there was little evidence of coordination between agencies or documentation of the process. Furthermore, unlike the 2005 eviction, there appears to have been little will or resources designated to replace or restore the evicted miners' livelihoods. This is compounded by many NGOs engaged in livelihood development (CI, CARE, and others) withdrawing from area, citing the difficulty of working in the region. USAID also recently announced that the south-east of Liberia would no longer be a priority area for funding. Several individuals involved in organising the eviction interviewed during the course of the fieldwork asserted that those involved in mining

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76 Interview with Theo Freeman, Manager Conservation Division, FDA, 12/7/11.

77 The Analyst (2010) Liberia: Exclusive Interview with Superintendent Milton Teahjay. The Analyst, [online] 8 October. Available at: <http://allafrica.com/stories/201010080726.html> [Accessed 10/8/11]

78 Interview with Theo Freeman, Manager Conservation Division FDA, 12/7/11

79 Interview with Chief Park Warden, Sapo National Park Headquarters, July 2011.

80 Meeting with Village Elders, 16th July 2011

activity in the Park were foreigners who did not need to be supported or compensated by the state. However the majority of those miners surveyed during the 2005 eviction (99 per cent) and interviewed during the course of this fieldwork (approximately 75 per cent) were Liberian.

As it stands the eviction process, at least in the short-to-near term, has undoubtedly left both the evicted miners and several park adjacent communities worse off than before, through livelihood disruption. This is compounded by the additional seizure of guns/snares by the ERU which, while legal, in a rural context means decreasing food security and increasing local hostility towards the government and especially the FDA, who communities see as directly responsible. Unless alternatives are provided or enforcement of the Park boundary is increased, illegal activities are highly likely to resume and in a context of deteriorated relations with government agents. As of the time of this writing, the ERU has remained in the area, along with an immigration unit and Sapo-based forest rangers, who are unarmed and have expressed a fear of retribution against them once the ERU departs the area. There appears to be no long term strategy in place to maintain the eviction, nor assist those displaced with viable alternatives for generating income. As such there is an immediate need for the development of an appropriate programme of work.

In June 2011 the FDA Bio-monitoring Team (supported by FFI) visited several of the mining camps in the centre of SNP. All of these were found to be abandoned and it has been since concluded that there is currently no active mining camps within the SNP boundary as of the time of this writing in November 2011.

**Table 3 - Key differences between 2005 & 2010 evictions**

2005	2010
Demographic survey conducted by independent organization	Demographic survey conducted using unverifiable methods
Follow up livelihood/enforcement projects planned and partially implemented. Multiple NGOs operational in the area and that were ready/willing to assist with post-eviction programmes	No follow up projects planned that were directly linked to the clearance of the park.  Limited NGO and declining donor presence in the region thereby diminishing the likelihood of future opportunities for supporting post-eviction programmes.
Process and planning of evacuation well documented	No documentation available, other than the Zwedru resolution.
Somewhat positive community relations between FDA and communities.	Deteriorating community relations following eviction and ERU presence/actions.
ASM Activity resumed in Sapo NP within a year of the evacuation	No ASM activity reported in Sapo NP a year after the eviction deadline

## 4. CRITICAL ISSUES AND RECOMMENDATIONS

The sustainable management of natural resources in the landscape in which Sapo National Park resides will be vital to its long-term integrity. Demand for the use and conversion of land in the South-East of Liberia for forestry, oil palm and all scales of mining are set to increase rapidly in coming years. Of this suite of resource pressures ASM participants are some of the most exposed and obvious targets for external interventions, including displacement by other natural resource companies. In order to avoid the need for future evictions, then the park rangers in SNP must be equipped to deal with the anticipated incursion of ASM and professional hunters into the park.

However, institutional will and commitment remain a challenge. Despite the programmatic need of ASM-PACE in the Sapo area, serious barriers remain, including lack of technical and financial government capacity, poor interministerial co-ordination and lack of prioritisation within the MLME. This is reflected in the failure to implement any of the changes proposed in 2010 to alter Class C regulations and license procedures or move to amend the Mining and Minerals Act. However, as of the time of this writing, the UN Security Council urged the Liberian government to “improve its control over the gold sector and adopt the necessary legislation to address threats to international peace and security in the region], and focus its efforts on establishing effective governance of the gold production sector”.<sup>81</sup> Therefore ASM may (or may not) arise as a priority, and perhaps through a security lens instead of an economic and conservation lens that is the focus of this report. Effective governance and conservation of SNP—including thoughtful reflection on what will work in the long term and to the benefit of the citizenry that reside around it—would be consistent with the UNSC recommendation and broader UN human rights and economic development goals as well.

### 4.1. Eviction approaches

A number of lessons have emerged in relation to eviction as a strategy for managing the issue of ASM in protected areas.

**Eviction alone is not sustainable unless investment in improved NP governance is made:** The 2010 eviction of SNP was successful in removing illegal occupants from the park. However without the parallel implementation of effective FDA ranger patrols, the resolution of disputed boundaries and support for those formally engaged in mining the cyclical nature of settlement and removal of occupants is set to continue.

**Timing and staging of events is crucial.** A key challenge is for organizations to be able to garner political will for the removal of illegal occupants, which in the case of SNP took several years, whilst timing the momentum of these events with funding for sustained follow up activities.

**Do a baseline of the ASM and an impact assessment of the planned eviction to ensure the Eviction strategy is likely to be effective and sustainable.** Sound data prior to the eviction on the actual impacts ASM is having on the environment, the motivations of those who are partaking in it, and the vested interests that sustain it should be gathered prior to eviction processes. False dichotomies between ‘external’ miners and ‘local’ communities should be realised and those earning a living on the boundary of the Park should be considered as a whole.

**Get a suite of organizations involved in the eviction process.** It is problematic for environmental NGOs to have direct involvement in evictions but the issue remains of how to ensure that they are done well; this could potentially be through the engagement of a human rights third party organization.

**Conduct conservation education with ASM and their service providers operating in or near protected areas and provided training in responsible mining techniques.** Where it is clear that eviction is unlikely to be sustainable and alternative livelihoods programme unlikely to attract miners away from mining, then ensuring the mining is done in as ecologically sensitive a manner as possible would be prudent.

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<sup>81</sup> UN Security Council 6684th Meeting (AM) on 14 December 2011. <http://www.un.org/News/Press/docs/2011/sc10485.doc.htm>.

## 4.2. Future steps for managing the issue of ASM in protected areas and critical ecosystems in SNP and in other areas of Liberia

It is certain that in coming years ASM will remain an issue critical to ecosystems and protected areas throughout Liberia. Continued effort will be required in order to ensure that the effective management of ASM within, and around, these mining sites is appropriately mainstreamed into Liberian conservation planning and activity.

### Recommendations on the management of ASM in SNP

#### To improve SNP-area ASM-sector governance and coordination

- Creation of a national level forum for land-use planning between government agencies and determination and implementation of clear institutional roles in such planning and management activities (FDA, MLME, and Ministry of Agriculture);
- Integration of ASM working groups into regional County Forest Forums (for government, NGOs, and CBOs);
- Enhancement of the profile of ASM through the sensitization of local, regional and national government officials, NGOs and other organizations;
- Encouragement of community involvement in mineral resource management and related economic diversification efforts, particularly using participatory approaches that involve women and men, adults and youth;
- Development of rush-mining response plans inclusive of on-site monitoring, infrastructure, community health and control measures;
- On the ground demarcation of SNP boundaries, combined with awareness-raising activities amongst park adjacent communities to ensure boundaries recognised.

#### To manage and mitigate environmental impacts

- Legal ASM has been found to be conducted in a strict hierarchical system, with the licensed miner being the central point for establishment of mining rules. Environmental interventions would be best organised from this control point.<sup>82</sup> Increased awareness and access to environmentally-responsible methods through demonstration projects, training and education;
- Support for training of miners and other community members in environmental management and provision of related guidance, particularly in areas of intense ASM activities;
- Sensitization of miners on environmental legal and regulatory requirements;
- Provision of adequate resources to government officers for support, monitoring and enforcement;
- Formalization of collaboration between mining authorities, forest and environmental authorities, miners, communities and others to develop and implement strategies for ASM in biologically sensitive areas.

#### To address the scale of the issue, including the “push” factors of ASM into SNP

- Engagement with industrial mining operators whose activities are likely to displace ASM from existing sites to assess and understand how their activities might exacerbate the issue of ASM in SNP (and other protected areas) and what the possible range of constructive management responses might be.

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<sup>82</sup> Further investigation is required in order to understand whether such an approach would be feasible with unlicensed/illegal ASM participants

### To work towards ASM sector formalization (and one that works in practice)

- Creation of incentives for legalization, for instance related to provision of extension services and fair market access;
- Allocation of resources required to support the formalization of the sector especially in relation to the provision of extension services;
- Gender mainstreaming of formalization efforts, including extension service provision;
- Staffing of mining departments and extension offices with both women and men to promote gender equity in access to services;
- Formalization of government commitment by *multiple* agencies to improved economic, environmental and social performance of ASM;
- Support the formation of ASM organizations including enterprise groups, associations and cooperatives. Both associations of miners and associations of “gold boys” (artisanal diggers) were found to already exist and these groups are recognised by each other. The existence of these groups may be an opportunity for organization of formalization efforts and development efforts.

### To improve the development performance of ASM in the region

- Lobbying of formal and informal leaders to recognise the significance of ASM and increase these leaders’ role in advocating for the sector;
- Miners’ participation in local and regional programmes and development efforts;
- Advocacy for mining community needs, interests and opportunities by establishing links with key government agencies and NGOs;
- Development of formal collaboration between mining and health ministries, as well as international agencies and NGOs to develop and implement a strategy for HIV/AIDS in ASM;
- Mainstreaming of ASM within poverty reduction and development strategies, such as Poverty Reduction Strategy Papers (PRSPs), including identification of how mining revenues will be used to support poverty reduction;
- Formal collaboration with other sectors (manufacturing, trade, agriculture, forestry, water, health, education, etc) in order to embed ASM into rural development strategies and programmes;
- Advocate inclusion of ASM within national budgets through collaboration between Ministries of Finance and other key Ministries (e.g. mining, health, labour, gender, social and economic development, infrastructure, environment, etc);
- Mobilization of international (e.g. donor) support for the sector;
- Conducting an inventory of existing SME support programmes and sensitizing miners and communities about related opportunities;
- Establishment of linkages between miners and markets through collaboration with investment authorities, other government agencies (e.g. related to infrastructure projects or foreign activities), and registered buyers.

### To improve social performance of ASM

- Co-identification and co-elimination of barriers to the empowerment of women working in conjunction with ASM communities;
- Implementation of integrated strategies to eliminate child labour in conjunction with community and international partners (e.g. ILO) and local and national governments;
- Implementation of mechanisms to ensure the fair distribution of mining benefits;

- Encouragement of community-based initiatives to monitor and improve the social and environmental performance of ASM;
- Support for the development of, and establishment of formal linkages with, community organizations (e.g. with key persons acting as a liaison); and
- Mitigation or prevention of conflicts associated with multiple land uses.

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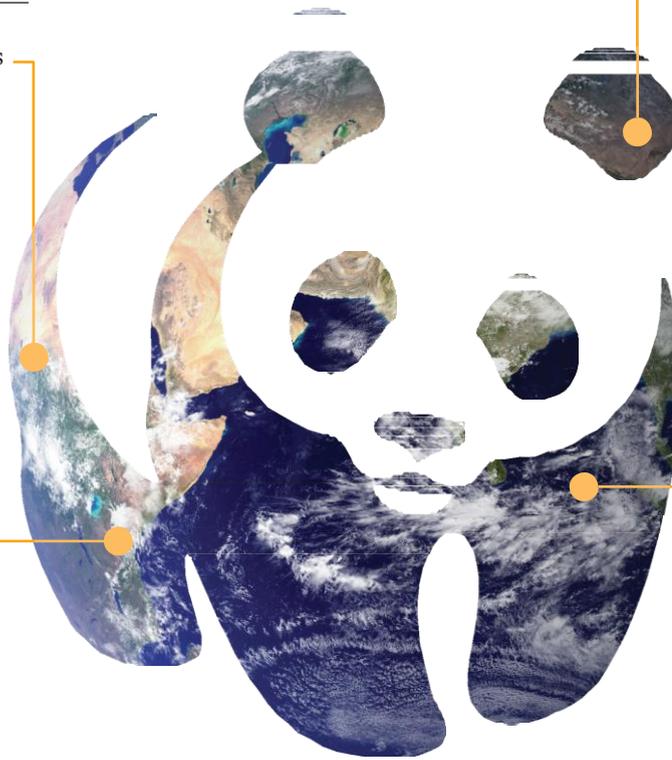
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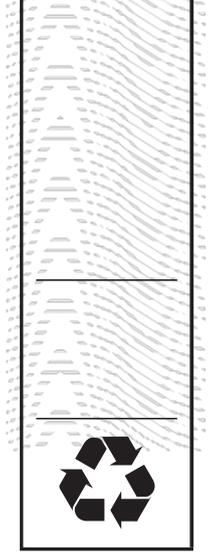


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