# A Precarious Future

## The Informal Settlement of Agbogbloshie
## Accra, Ghana

**The Centre on Housing Rights and Evictions**
**(COHRE)**

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# GLOSSARY OF ACRONYMS

| | |
|---|---|
| **ACHPR** | **African Charter on Human and People's Rights** |
| **AMA** | **Accra Metropolitan Assembly** |
| **BNH** | **National Housing Bank** |
| **CDS** | **City Development Strategies** |
| **CEDAW** | **Convention on the Elimination of All Forms of Discrimination Against Women** |
| **CEPIL** | **Center for Public Interest Law** |
| **COHRE** | **Centre on Housing Rights and Evictions** |
| **ERP/SAP** | **Economic Recovery Programme/Structural Adjustment Programme** |
| **ESIA** | **Environmental and Social Impact Assessment** |
| **ESIS** | **Environmental and Social Impact Statement** |
| **GAMA** | **Greater Accra Metropolitan Area** |
| **GDA** | **Ga District Assembly** |
| **GDP** | **Gross Domestic Product** |
| **ICERD** | **International Convention on the Elimination of All Forms of Racial Discrimination** |
| **ICESCR** | **International Covenant on Economic, Social and Cultural Rights** |
| **IMDC** | **International Marine and Dredging Consultants** |
| **KLERP** | **Korle Lagoon Environmental Restoration Project** |
| **NGO** | **Non-governmental organisation** |
| **PGA** | **Peak ground acceleration** |
| **TMA** | **Tema Municipal Assembly** |
| **UNDP** | **United Nations Development Programme** |
| **UNMDG** | **United Nations Millennium Development Goals** |
| **UNHSP** | **United Nations Human Settlements Programme** |

## EXECUTIVE SUMMARY

The informal settlement of Agbogbloshie is situated on the left bank of the Odaw River, in the upper reaches of the Korle Lagoon in Accra, Ghana. It is a settlement that was formed in the early 1990s, and has since grown to nearly 30,000 people. In May 2002 the Accra Metropolitan Assembly (AMA) served the residents of Agbogbloshie with an eviction notice. Community residents responded with an appeal to the High Court for an injunction to restrain the AMA from following through on the eviction. (Daily Graphic, 3 June 2002.) On 24 July 2002 the Accra High Court rejected the community's request, and gave the AMA authorisation to evict. (Daily Graphic, 2 August 2002.)

The Centre on Housing Rights and Evictions (COHRE) was initially asked to provide support to the Center for Public Interest Law (CEPIL), in developing legal arguments in support of the community. COHRE subsequently submitted a letter to the Government of Ghana and the AMA, in which it outlined the international legal obligations that would be violated if the forced eviction of the Agbogbloshie community were to occur. The letter highlighted that Ghana is a party to the International Covenant on Economic, Social and Cultural Rights (ICESCR); the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD); and the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). All of these instruments protect the right to adequate housing. General Comments No.4 and No.7, issued by the Committee overseeing the ICESCR, confirm the right to be protected from forced evictions.[1] Furthermore, Ghana, as a State party to the African Charter on Human and Peoples' Rights (ACHPR), has additional legal obligations to respect and protect housing rights and prevent forced evictions.[2] The letter pointed out that the planned evictions would not only violate Ghana's own Environmental and Social Impact Assessment, but also the above-mentioned international human rights law, as evidenced by the following transgressions:

(1) all feasible alternatives to the planned eviction have not been considered;
(2) the 28 May 2002 notice provided too little advance warning;
(3) residents of the affected community have not been consulted throughout the process; and
(4) alternative housing or adequate resettlement sites have not been provided.

After the Accra High Court rejected the community's plea, COHRE provided a legal memorandum to CEPIL, in the form of an *amicus curiae* brief suitable for submission to a court on appeal, which illustrated that the High Court's legal conclusions were seriously flawed. For instance, the High Court held that the "ultimatum to Plaintiffs to vacate the Sodom and Gomorrah area (a section of Agbogbloshie) or be evicted does not … constitute an infringement on any of their fundamental human rights as enshrined in the constitution or any other international convention of which Ghana is a signatory".[3] This was in spite of the fact that the eviction would clearly violate a number of rights guaranteed by several international conventions, including Article 11 of the ICESCR,

[1] For further information on protection from forced evictions as a right in terms of international legal instruments, see Annex A.
[2] See African Commission on Human and Peoples' Rights decision: 155/96 The Social and Economic Rights Action Centre and the Centre for Economic and Social Rights/Nigeria (holding that the African Charter on Human and Peoples' Rights implicitly guaranteed the right to adequate housing, including the prohibition on forced eviction).
[3] Ruling on forced eviction of 30,000 dwellers at Agbogbloshie, Accra (Misc. 1203/2002), In the High Court Of Justice, Ghana, Held in Accra on Wednesday, 24th July 2002; Before His Lordship, Yaw Appau, J; Issah Iddi Abass & 10 Others Versus Accra Metro. Assembly & Anor) See. http://www.cepil.org/casestory.asp?id=41.

which the Government of Ghana ratified on 8 September 2000 and Articles 14, 16 and 18(1) of the ACHPR, which the Government ratified on 24 January 1989. In spite of these obvious contradictions, however, the Agbogbloshie community has thus far decided not to appeal the decision of the Accra High Court.

After two field visits to Agbogbloshie COHRE came to better understand the situation, and it soon became clear that more than legal support would be necessary to resolve the critical issues facing this community. International experience has shown that exclusive focus on the legal dimension of a situation, such as that found in Agbogbloshie, is unlikely to result in a sustainable outcome for all stakeholders, nor for the broader community. COHRE believes that this looming crisis can best be resolved through negotiation, providing there is a clear understanding of the issues on all sides. In the case of Agbogbloshie, COHRE feels that these issues are not yet fully recognised, and that this has impeded an effective discussion. Consequently, COHRE commissioned an in-depth study of all relevant issues, on the basis of which COHRE would like to encourage a dialogue between the various parties in government and in civil society about the wider issues associated with the eviction of Agbogbloshie residents. The study was conducted between October and December 2003, and its results form the basis of the following report.[4]

The court case that endorsed the right of the AMA to evict the residents of Agbogbloshie, centred on the issue of illegal occupation of the land, yet ignored the Government's obligations, under international human rights law, not to interfere with persons able to provide their own housing. During the course of the study it became clear that the authorities actually had three concerns, and that illegal occupation was only one of the issues at stake.

The second was the settlement's physical location. The Korle Lagoon and the banks of the Odaw River are, though heavily polluted at present, an environmentally sensitive area. The Government and the AMA have developed a programme, the Korle Lagoon Environmental Restoration Project (KLERP), which is designed to restore this vital marine and river system to a cleaner and more natural ecological state. Agbogbloshie is believed to constitute the primary source of pollution for the Korle Lagoon. Furthermore, it appears that under the terms of the loan funding for KLERP, the continued presence of Agbogbloshie has significant (and negative) cost implications for the government.

The third concern of both the Government and the AMA is that the settlement of Agbogbloshie presents a serious health risk for the residents. The COHRE study subsequently focused on these three issues for its analysis.

## Illegal Occupation

It is critical for the effectiveness and stability of any long-term housing solution to directly address the question of "illegal" occupation, and the legal right of the people to

[4] The principal consultant in the investigation was Prof John Abbott, PhD, CEng, an expert in slum upgrading and integration of informal settlements. This report is based on his field report, and includes further writing and editing by Jean du Plessis, Bret Thiele and Dan Strickland. COHRE also wishes to thank the Center for Public Interest Law (CEPIL) who provided advice and logistical support, and Farouk Braimah who assisted with the field research on which the report is based. Photographs were taken by John Abbott, Jean du Plessis and Bret Thiele.

occupy the land on which they have built their homes. The legal status of residents, and their right to land tenure, is a fundamental issue with far-reaching implications. Without security of tenure, the very foundation of a peoples' housing remains in question, and they, in essence, remain vulnerable.

To better understand the situation at Agbogbloshie, COHRE undertook an investigation of the community's origin, as well as its recent history. Initially formed by a governmental effort to ease overcrowding in Accra (growing at a rate of over 4 percent per year… a rate the Government is admittedly unable to keep up with in terms of providing land and housing), Agbogbloshie grew significantly when Ghanaians from the north escaped the tribal conflict of 1995. As the community developed and created its own market opportunities, the population swelled further. As urban drift worsened the overcrowding in Accra, and people sought to escape the increasing poverty and rising rents, the community was further enlarged.

Agbogbloshie is not the only "illegal" settlement in the Accra area. Informal communities have sprung into existence throughout the region, resulting in serious overcrowding and the prevalence of unsanitary conditions. The Government has been forced to tolerate informal housing on a large scale, simply due to its inability to provide tenable alternatives.

Agbogbloshie gained its particular notoriety because it is the largest and most conspicuous of the informal communities. It has come to be widely seen as a test case, challenging the traditional system of tribal ownership, and is perceived to have the potential to set an important precedent for the resolution of future land and housing issues.

Indeed, the Government acquiesced for years to the existence of Agbogbloshie, and even went so far as to provide services such as water and electricity to the community. However, with the continued pressure of an ever-increasing population, exacerbated now by the possibility of financial profits from new development schemes, the system is clearly failing. Nearly 80,000 land cases are currently before the Accra High Court, and more are filed every day. The Government is seeking resolution, but it seems both unreasonable and unproductive for the authorities to simply declare now that a community which has existed for years is "illegal".

It has been stipulated that Agbogbloshie must be destroyed to allow KLERP to proceed. The determination of the Government to go ahead with this was confirmed recently, in January 2004, when the Ministry of Tourism and Modernisation of the Capital City said that the people would be cleared out of the area by September. (Evening News, 14 January 2004.) The Government has suggested that displaced Agbogbloshie residents would either return to the north, or meld gracefully into Accra, but COHRE's investigation indicates that the forced eviction of Agbogbloshie has the potential to create a humanitarian disaster.

## Physical Location

The second concern, about the location of Agbogbloshie, stems from the Government's assertion that the community is the primary source of pollution in Korle Lagoon, and that its continued presence would lead to the failure of the restoration project and (not insignificantly) the loss of loan funds. The premise that Agbogbloshie is the primary

pollution source is due to the fact that Agbogbloshie's waste is highly visible, and also, in no small part, to the findings of KLERP's Environmental and Social Impact Assessment.

This Assessment examined flooding and storm drainage systems, water supply, housing and existing sanitary conditions, concluding that Agbogbloshie is the major contributor to the Lagoon's pollution load. However, upon closer scrutiny, it is clear that the Assessment exaggerated the negative impacts of the settlement, and in some instances made demonstrably false statements. It concluded that all human waste was discharged into the Lagoon when, in reality, Agbogbloshie boasts a sophisticated toilet management system, with much of the waste either buried or removed by tanker. Far from being the main contributor, COHRE's study determined that Agbogbloshie accounts for less than 5 percent of the Lagoon's pollution load.

The spatial relationship between the settlement and the Lagoon was also examined. The restoration project plans include the construction of a weir across the Odaw River, to divert the dry weather river flow to the sea. This is an implicit acknowledgement that the pollution of the Odaw River will continue into the foreseeable future. It seems only reasonable that Agbogbloshie, sited above this protective weir with several other settlements, should be considered in the same light as the other communities. COHRE determined that the real question of whether Agbogbloshie is a threat to KLERP was never properly addressed, and that viable alternatives were not given proper consideration.

## Health Risks

The third concern focuses on the condition of Agbogbloshie itself, and whether or not the topography and soil characteristics can support a healthy community. Informal settlements typically have poor environmental health conditions. Often their occupation of marginal land presents a real physical risk to the residents. COHRE carried out an analysis of the settlement to accurately evaluate this health risk, and looked into the site's potential for ameliorative groundwork. Fortunately, the investigation revealed that the area could likely be physically upgraded to ease concerns about health risks.

## Conclusions

After a careful and thorough review, COHRE recognises that the Government of Ghana has legitimate concerns about Agbogbloshie. It represents what will, in all likelihood, be a precedent-setting case for land tenure. The resolution of its housing crisis will have to confront head-on the notion of traditional tribal land ownership. The community is accused of being a prime polluter in an area which could potentially receive substantial funds for development and environmental restoration. Furthermore, it is viewed as a public eye-sore and a health risk to its own inhabitants.

And yet, the handling of the Agbogbloshie situation could be an excellent opportunity for the Government of Ghana to show forethought and an awareness of international concerns. Rather than resort to a forced eviction, which would worsen overcrowding and the current housing crisis, this is a chance for Ghana to gain the respect and admiration of the world community, and to have Agbogbloshie serve as a model for resolving future housing problems.

COHRE feels that the concerns the Government has shown can all be resolved

satisfactorily and still allow Agbogbloshie to remain. With respect to the tenure issue, the study illustrates that Agbogbloshie could be used to develop a new policy of informal land management in Accra that would make a major contribution to solving its land crisis. This policy would necessarily involve some form of payment for the land and regularisation of the tenure situation.

Regarding the relationship between the settlement and the Lagoon, the study found that, contrary to current perceptions, the two are indeed compatible. Agbogbloshie could remain without threatening the future viability of the restoration project. Furthermore, the project's reputation would be enhanced internationally if it could show that it was able to integrate the urban poor into an environmental restoration project.

And, finally, the study illustrates that it is, indeed, feasible to upgrade Agbogbloshie *in-situ*.

**In the light of these conclusions, it is strongly recommended that the Government of Ghana ought to carefully reconsider the issues in this case.**

**In addition, given the importance and significance of these issues for the future of both the Agbogbloshie community and the city of Accra, it is further proposed that the Ghana office of the UNDP, non-governmental organisations and community-based organisations should urgently come together to explore the above concerns, and to formulate constructive proposals.**

**COHRE would be happy to contribute to this process in any way possible.**

# INTRODUCTION

Sub-Saharan Africa presently has the highest rate of urban drift of any region in the world. People are migrating from villages to the cities in substantial numbers, seeking economic opportunity, relief from poverty, and, in some cases, escaping actual physical conflict. The subsequent burden that they have placed on land and housing in urban centres is huge. Informal settlements, or slums, constitute the fastest growing and the most common form of urban habitation. UN-Habitat, in its recent study of slums[5], discovered that 72 percent of all urban dwellers in sub-Saharan Africa now live in slum communities (United Nations Human Settlements Programme, 2003 a:15). The study also determined that, as a governmental response to housing crises, eviction was largely futile, and only served to shift the problem to other parts of the affected city, rather than solve the underlying causes (ibid.:130). Both UN-Habitat and the Cities Alliance[6] stress the wisdom of an alternative approach to eviction; that of upgrading existing slums. They point out that this is the most effective available method to achieve Target 11 of Goal 7 of the United Nations Millennium Development Goals (UNMDG). By 2020, Target 11 seeks "… to have achieved a significant improvement in the lives of at least 100 million slum dwellers" (United Nations). The Cities Alliance emphasises that achieving this will depend on the international development community and member governments embracing this concept, and developing both city-wide and nation-wide upgrade programs (Cities Alliance, 2003).

The settlement of Agbogbloshie (or 'Sodom and Gomorrah', as it is sometimes incorrectly and derogatively called), has become a focal point for Ghana in its struggle with the challenges of urban overcrowding. Situated in an environmentally sensitive area, poised for development, the community is both a vibrant and contributing part of the local economy, and simultaneously an eye-sore and a potential health risk. Furthermore, its very existence challenges the traditional tribal land ownership system. As the largest and most conspicuous of the informal communities, it has become a test case for the Government of Ghana, and their efforts to resolve urban congestion.

Though the Government of Ghana tacitly overlooked Agbogbloshie for years, as it did with other informal communities springing up in and around Accra, the Korle Lagoon Environmental Restoration Project (KLERP) brought a focused attention to the community, and, ultimately, an eviction notice from the AMA.

The Accra High Court rejected Agbogbloshie's plea for reconsideration, basing their ruling on the principle that "the squatters are engaged in unlawful occupation of public land [and because of this] they cannot thereby assert their constitutional rights" (ibid).

This rigidly legal interpretation of land occupation by the urban poor does not reflect

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[5] The operational definition of a slum recommended by UN-Habitat for international usage is an area that combines, to various extents, the following characteristics:

- Inadequate access to safe water;
- Inadequate access to sanitation and other infrastructure;
- Poor structural quality of housing;
- Overcrowding;
- Insecure residential status.

[6] The Cities Alliance is an international support organisation formed by local authorities around the world with the support of the World Bank. The Alliance seeks to facilitate an international attack on urban poverty by focusing efforts in two areas: city development strategies (CDS) which reflect a shared vision for the city's future, and city-wide and nation-wide slum upgrading.

either the realities of urbanisation, nor the newly emerging international consensus on how best to cope with informal urban settlements which have formed without the agreement or permission of the landowner. This investigation by COHRE will attempt to determine the truth of Agbogbloshie's role in Accra's housing crisis, its real relationship with the Korle Lagoon, and whether or not it is a realistic option for the community to co-exist with the new restoration project.

Despite the conservative finding by the Accra High Court, the Government of Ghana nevertheless acknowledged, in its Shelter Strategy 2001, that "Conventional approaches to the delivery of shelter in both the public and private sector have had limited impact on solving the housing problem. Only a fraction of housing delivery has been able to filter to the low-income population where the need is greatest" (ibid.:10). This document clearly recognised the critical importance of using what it terms "non-conventional strategies" (ibid.:10-11) if the housing condition of the urban poor is to be significantly improved. At the same time, though, it underlined the difficulty of defining just what those "non-conventional strategies" should be;

> "The underlying problem that besets Ghana is that on the one hand it has realized the significance of non-conventional strategies to housing, yet on the other hand, it is confronted with a monstrous task of articulating such a complex issue into a refined process to be promoted and implemented on a nation-wide basis" (ibid.:11).

Illegal occupation of land is not the only concern that the authorities have about Agbogbloshie. It's location on the banks of the Odaw River place it squarely in the middle of a simmering environmental controversy. At the moment, both the Government of Ghana and the AMA believe that the community must be destroyed and the residents forcibly evicted for the restoration project to be successful. They have come to this conclusion through the evidence put before them by the Environmental and Social Impact Assessment (ESIA) carried out in preparation for KLERP. The question, however, is whether this evidence is based on substantive research and analysis? Is it accurate? Did the study adequately consider all possible alternatives? Much is at stake here, not the least of which are the lives and livelihoods of almost 30,000 Ghanaians. If Agbogbloshie does become a model upon which further action is based, the number of people affected could be in the hundreds of thousands.

In actuality there has only been one attempt to examine the relationship between Agbogbloshie, Korle Lagoon and the Odaw River system. This was through the Environmental and Social Impact Statement (ESIS) developed for KLERP, under the assessment program, by the International Marine and Dredging Consultants (IMDC, 2001). Unfortunately, it appears that those preparing the ESIS failed from the outset to take an objective stance, and began their investigation with the assumption that the relocation of Agbogbloshie was a foregone conclusion. As a result, COHRE feels that the depth and extent of the study were inadequate. Perhaps those involved simply did not have the requisite level of knowledge and understanding of informal settlements or urbanisation processes to be able to make an unbiased judgement of the nature and extent of these impacts.

Whatever the motivation might have been, it appears that the ESIS team focused on identifying the negative influences that Agbogbloshie's continued presence would have on KLERP, and may not have considered the possibility that the community could

successfully co-exist with the restoration project. Furthermore, they failed entirely to look at the impact that KLERP might have on the settlement and its residents, and what its presence will mean to the 30,000 people living in the community.

Ordinarily, a restoration effort would identify all regional pollution sources and, as accurately as possible, quantify their contributions to the eco-system. Next, a cost-benefit analysis would be carried out, and determinations made as to which pollution sources could be eliminated or ameliorated. None of these actions were performed by KLERP's ESIA.

Unfortunately, such a detailed investigation lies outside the scope of COHRE's study, but what it can do is examine Agbogbloshie's relative role in the pollution load of the Lagoon, and how this compares to that of neighbouring communities.

In order to answer these questions and provide an objective assessment, COHRE made a series of visits to the settlement during October and November 2003, during a ten day visit to Accra. Interviews were held with members of the government, the community, as well as international and non-governmental organisations (NGOs).

COHRE acknowledges that the Government and the local authorities have important and legitimate concerns. To present a convincing argument for them to work with the community of Agbogbloshie, and incorporate it into KLERP, COHRE understands that all of their concerns must be addressed. This study will attempt to view Agbogbloshie in relation to Accra and its housing crisis, the settlement's relationship to KLERP and whether or not they can co-exist, and will also look honestly at the local health risk. In this way, COHRE hopes to present accurate and well-balanced findings which can contribute to a meaningful discussion and resolution of the Agbogbloshie issue in particular, and, in a broader sense, of Ghana's housing crises.

# SITUATIONAL ANALYSIS: LAND AND HOUSING IN ACCRA

## Location and Political Economy

Accra is on the south-facing coast of Ghana, facing the Gulf of Guinea, at a latitude of 5.5 degrees N (see figure 1 below).

Accra is both the administrative and commercial centre of Ghana. Its economy contributes between 15 and 20 percent of the country's gross domestic product (GDP), and accounts for 10 percent of the country's employment. Its economic base lies in manufacturing, construction, wholesale and retail trade, transportation, storage, communications, finance, insurance, and property. Natural threats are erosion and flooding, while man-made hazards include indiscriminate disposal of human excreta, noise pollution and problems with both refuse and human waste management (UN-Habitat, 2003).

**Figure 1: Map of Ghana**
(Source: UN-Habitat 2003b)

## Demographics

Accra is rapidly growing, situated in a country that itself has one of the highest growth rates in the world. This is extremely important to understand when considering the possibility of a large-scale eviction. In July 2000 the population of Ghana was 18.9 million (GSS, 2002). This is an increase of 53.7 percent over the 1984 population of 12.3 million. While the growth rate between 1990 and 2000 was 2.6 percent annually, this is expected to decline in the future. Nonetheless, the expectation is for a population of 25 million by 2015.

This is the country-wide average, however. Urban growth is significantly higher than rural growth. Presently the percentage of Ghana's population living in cities is approximately 34 percent, slightly low but generally in line with that of sub-Saharan Africa as a whole. However, by 2025, this figure is expected to reach 60 percent (Studio, 2003). In the greater Accra region, the growth rate over the coming period is expected to be up to 4.4 percent annually. The population of the greater Accra area, comprising the

Accra Metropolitan Assembly (AMA), Tema Municipal Assembly (TMA) and Ga Assembly (see figure 2), currently had a population of 2.9 million in 2000, while the City of Accra itself (an area broadly contiguous with the AMA) had a population of 1.7 million. Given the continuation of the above-mentioned trend, this metropolitan figure is expected to have increased to 4 million by 2020 (Grant and Yankson, 2003:65). The majority of these newcomers will be poor and will, in all likelihood, be living in slums and informal settlements. Currently, 61 percent of Metropolitan Accra already live in informal settlements. With current demographic trends, this means that if the government is not able to make a significant improvement to its housing delivery, the figure for those living in informal settlements will rise to a staggering 75 percent of Accra's population by 2020. This is the setting, then, within which the Agbogbloshie dilemma needs to be explored.

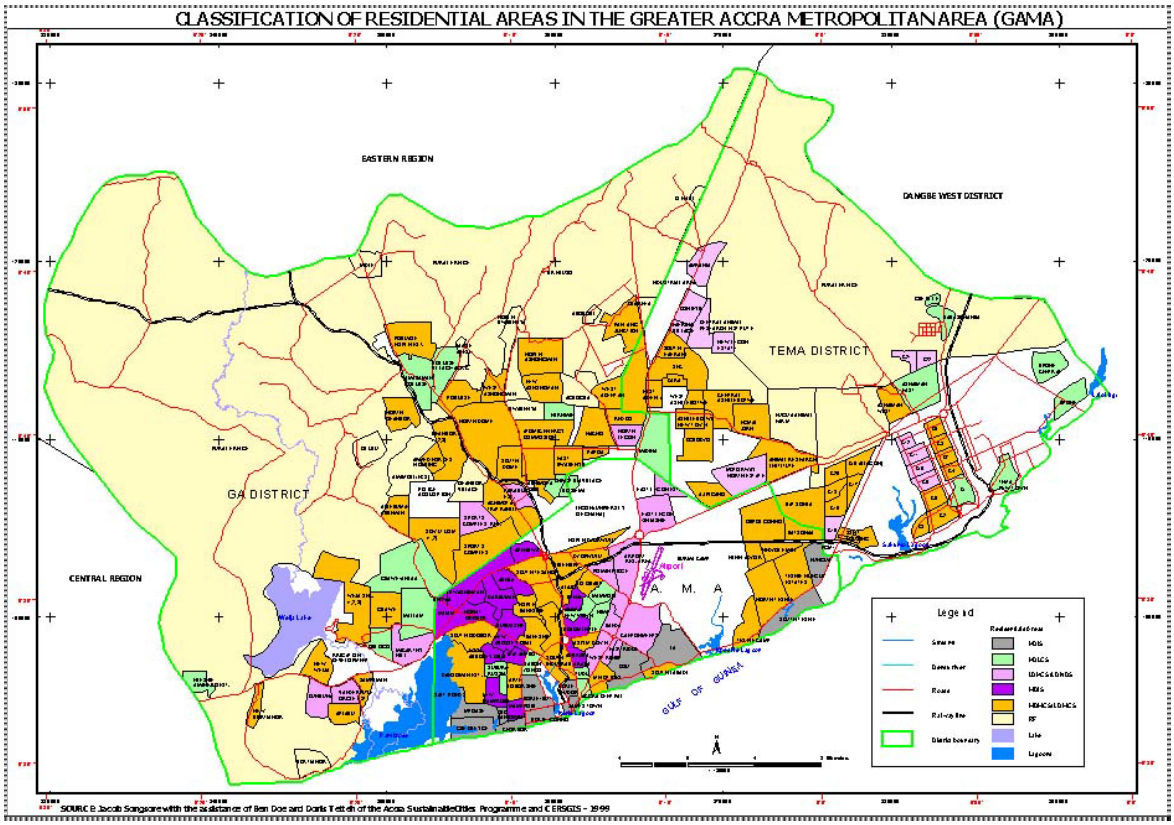


**Figure 2: Map of Accra**
(Source: University of Ghana)

## Land

The greater Accra metropolitan area (GAMA) comprises three of Ghana's one hundred metropolitan assemblies: the AMA, the TMA area, and the Ga District Assembly (GDA). It stretches for roughly 36 miles from east to west and 18 miles from north to south (Grant and Yankson, 2003:65; Studio report, 2003:91; Yeboah, 2000). Of the three districts, the AMA is the most urban, and constitutes what is regarded as the formal city of Accra. This area is bounded by the Gulf of Guinea to the south, the grounds of the University of Ghana to the north, the eastern end of Tema Township in the east, and Korle Lagoon in the west (see figure 3 below) (Grant and Yankson, 2003:65).

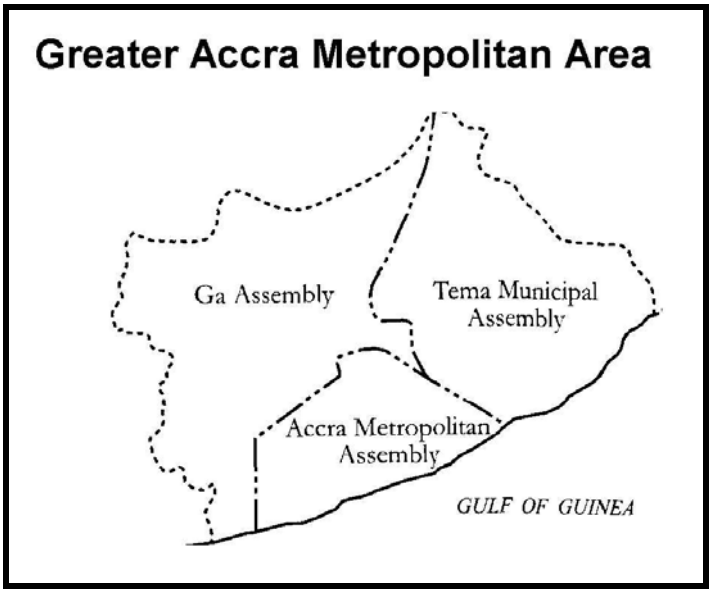


**Figure 3: District boundaries in Accra**
(Source: Grant and Yankson, 2003:66)

The current urbanisation trend places a heavy demand on land in Accra, which is further complicated by the land ownership structure. The Ghanaian government formally recognises the ownership of private, public, state-owned and customary land – that which is managed by tribal chiefs or family heads (the "stool" lands) (Studio, 2003:91). Due to the complexity of this system, it is very difficult to change land use once it has been built upon (Gough and Yankson, 2000). In addition there is an absence of a systematised land management system (Government of Ghana, 1999:11-14), causing problems with planning, land titling, and ownership dispute. As a result "The scenario is one in which rapidly increasing demand for residential land, deriving from escalating demand for shelter, is not matched by adequate land delivery. [The result is] of continuously rising land prices which increasingly makes land less and less affordable to the moderate and low income groups who face the added misfortune of access to the rather limited credit facilities" (ibid.:12-13). The result is that it is virtually impossible for poor people moving into Accra to acquire land, which leaves renting in existing residential areas or land invasion as the only alternatives.

## Housing

A recent study of Accra[7] (Studio, 2003) classifies housing in GAMA by distribution of income:

7 The purpose of this section is to situate the Agbogbloshie settlement in the context of the current housing crisis facing Accra. There are a range of detailed in-depth studies of various aspects of housing, covering the areas of housing delivery, availability and ownership/rental. Key studies that the report draws upon are listed in the bibliography.

1. High-income: housing 10 percent of the population, characterised by well-planned settlements with sophisticated infrastructure and spacious, well-landscaped grounds,
2. Middle-income: housing 32 percent of the population, characterised by planned developments with fair infrastructure. Building materials and services are of reasonable quality,
3. Low-income: housing 58 percent of the population, characterised by un-planned settlements, with inadequate, poor-quality infrastructure. Population concentrations are high. There is poor drainage and high levels of erosion.

The situation in the AMA, however, which contains the old city area, is even worse due to higher densities and aged and deteriorating housing. It is estimated that in this area up to 61 percent of Accra's population live in squatter settlements, many in violation of government laws addressing city planning, building regulations and land ownership (Studio report, 2003:132, derived from GSS, 2002a). The high demand of housing in the AMA is due to its proximity to economic opportunities.

The government has been woefully unsuccessful in constructing new housing. In the country overall there is a housing deficit estimated at 300,000 units. In GAMA, the gap between supply and demand is continuously widening, as only 40,000 of the 125,000 needed units are supplied annually. To date this crisis has been mitigated by a huge increase in rental accommodation (64 percent of residents fall into this category, many of these living in unhygienic and overcrowded conditions) (Ibid.:110). And as housing reaches the saturation point, the number of places available to either construct rental accommodation, or sub-divide existing dwellings, is shrinking.

The Government, consequently, is making a major effort to increase housing. This may begin to satisfy the demand in the high and middle-income markets. However, international experience in this area indicates that it is unlikely to help the low-income groups in any meaningful way.

The central issue is that of affordability, both of owned and rented accommodation. This is recognised as a major problem in Accra. Grant and Yankson state that the number of Accra households in poverty more than doubled between 1988 and 1992: from 9 to 23 percent, and that the 2000 population census demonstrates a further increase in poverty in the Accra region. It is in linking these two elements, delivery and affordability, where the real problems lie.

## The National Government's Shelter Policy

In 1999 the National Government of Ghana, through its Ministry of Works and Housing, produced a National Shelter Strategy. The second part of the document is the strategy report, which examines all the components of a shelter strategy and concludes with an Action Plan for Implementation and Monitoring.

The document acknowledges that the existing housing system has failed to meet effective demand over the years, resulting in increased overcrowding, and declining quality and reduced access to services. It notes that urban inhabitants are often restricted to sub-standard structures and unsanitary environments, pressed together in squatter and slum settlements (Government of Ghana, 2001:7). To address this situation, it sets out

objectives for the shelter strategy, foremost among which are:

> "To accelerate home improvement and the upgrading and transformation of the housing stock in order that shelter of adequate quality may be available to the population as a whole;
>
> To improve the environment of human settlements with a view to raising the quality of life through the provision of good drinking water, sanitation and other basic services;
>
> To make shelter programmes more accessible to the poor;" (p9).

Of particular importance is the following statement:

> "In Ghana as in most other African countries, the conventional approaches to housing have been operating in parallel with other approaches to housing delivery. These approaches harness the often ignored or untapped resources of the low income population and channel them into a housing delivery process with only minimum desirable intervention from the public sector. Several developing countries have had success in improving delivery of shelter to the poor through the use of "non-conventional strategies".

However, in Ghana where approximately 90 percent of the housing stock is produced informally, very little attempt has been made to utilise such approaches in the housing delivery process. One of the principle thrusts of the [shelter] strategy is the pivotal role that will be played by non-conventional approaches in shelter delivery.

The strategy document recognises that there is:

> "gross inefficient use of existing land supply. . . in which rapidly increasing demand for residential land . . . is not matched by adequate land delivery" (p12).

The document then provides alternatives for making more land available for housing. These alternatives include a number of important and necessary features, and cover all facets of land delivery. The problem is that they are all conventional land/housing delivery systems, which to date have been admittedly inadequate. Given that there is a demand for housing across all income groups in Accra, it is difficult to see how any of the solutions proposed can benefit the poor to a significant degree. It also begs the question as to how the non-conventional strategies on housing, that were given such prominence in the earlier part of the report, can be integrated into this process of land reform? Similar criticisms can be levelled at the other sections of the policy document, dealing with financing mechanisms, building materials and construction and institutional arrangements.

There are numerous international case studies demonstrating that housing delivery cannot meet demand, regardless of the reforms carried out within the conventional institutional structures. Of these, probably the best examples are those of Brazil and South Africa. The Brazilian study, in particular, shows a striking resemblance to institutional reform suggested in the Shelter Policy. This Programme is summarised briefly below (from Abbott et al, 2000).

> "In Brazil, the Military government that took control of the country in 1964 devised an institutional and financial housing and urban planning scheme, in which the National Housing Bank (BNH) provided mortgage funding for housing. The bank was financed through the workers' unemployment fund, which deducted 8 percent off all Brazilian employees' salaries (Bolaffi, 1992:100). The housing finance system, which promoted home-ownership, had the purpose of strengthening the construction industry, in order to provide employment (Pasternak Taschner, 1995:205). While close on 5 million housing units were constructed in the two decades that the system operated, this was far below its target, besides only a quarter of the units, representing no more than 8 percent of the Bank's investment, reaching the low income bracket. The remaining 92 percent was invested in housing for the wealthy" (Bolaffi, 1992:102).

Another example is South Africa. There the government demonstrated that it is possible to successfully target the urban poor and provide housing to them on a large scale. However, a scheme such as this one (which operates through capital subsidy) requires adequate access to land, as well as major subsidy financing. Neither of these critical elements are available to the Government of Ghana at the present time.

The weaknesses outlined above are implicitly acknowledged by the government's handling of its National Shelter Strategy. The document was produced in 1999, though sources date it from 2001 (Studio report, 2003:118). When COHRE asked for copies of this report, it was said to still be in draft form, and proved to be difficult to obtain. And yet the strategy document contains an action plan that was to start in 2001 (pp70-82).

The government is, admittedly, in a very difficult position. While it is extremely sympathetic towards the plight of the urban poor, and fully recognises their needs for shelter, it must, at the same time, reform the economy so that the provision of land and housing can be significantly improved. And it has already acknowledged the difficulties inherent in identifying and moving to a more informal approach to delivery.

## Agbogbloshie and its relationship to the National Government's Shelter Policy

Agbogbloshie may be the only settlement in Accra of any significant size that is illegal with respect to the residents' occupation of the land, but it is not the only area where houses have been constructed illegally without the permission of the landowner. In actuality there are many similar situations, with people illegally occupying railway land, road reserves, servitudes, and open areas of public space. These, however, are all relatively small and inconspicuous.

Agbogbloshie's size and location have made it a target for eviction, as well as assuring that it will set a precedent for future housing policy decisions. In other communities, the majority of 'illegal' dwellings are in officially recognised residential or mixed-use areas where there is existing land title attached to the original dwellings. Notably, there is some kind of relationship between a formal dwelling (and formal ownership of a piece of land) and the illegal structures that have been built for rental, or devolved ownership, on or adjacent to that land, even where this encroaches on government land. Furthermore, there tends to be a defined spatial boundary to such areas. This allows the myth to be

perpetuated that such settlements do not constitute illegal occupation of land. It also allows the government to pass responsibility for much of this housing to private landowners. This, regardless of the fact that the majority of residents in those areas live in makeshift accommodations, lack access to adequate water and sanitation, and live in overcrowded conditions with serious environmental health problems.

At the heart of the Agbogbloshie debate is the fact that it challenges the whole basis of land ownership in the city, and that this has the potential to cause severe ethnic and communal rifts. However, the experience from other countries in the developing world, including Ghana's close neighbours, indicates that the AMA is mistaken if it believes that the removal of Agbogbloshie will make this issue disappear. The reality is that existing formal areas have very little space remaining for further infilling and densification. Accra will begin to experience new forms of land occupation by the poor at an increasing rate. UN-Habitat sums up the situation as follows;

> "As a result [of land and housing distortions similar to those described above for Accra] the urban poor and large segments of low and low-to-medium income groups have no choice but to rely on informal land and housing markets for access to land and shelter. This situation has led to the rapid spatial expansion of irregular settlements. Informal land and housing delivery systems remain the only realistic alternative for meeting the needs of low-income households" (UNHSP, 2003:168).

If the Government of Ghana and the AMA truly wish to avoid large-scale illegal occupation of land, then they will have to, as the UN document states "develop strategies that permit land to be accessed for unauthorised settlements by informal deals with the landowner" (whether private or state). (ibid:168). Essentially, this means creating a similar situation with regard to land occupation as currently takes place with shelter provision in formal areas.

In this context, Agbogbloshie could provide an important and valuable pilot project that would open the way for a policy based upon the mutual recognition of unauthorised land occupation through a process of negotiation and consensus. A policy to upgrade and develop the settlement would be fully in keeping with the objectives of the National Shelter Strategy of implementing a 'non-conventional' approach to housing. And it could provide the first step in creating an informal land market that will begin to address the growing urban crisis.

The alternative is to add a further 30,000 people to the influx of those seeking land and shelter in Accra. COHRE feels that the AMA has been misled in thinking that the majority of residents will return to the northern part of the country. The vast majority will stay in Accra, exacerbating the ever-increasing congestion.

# THE PHYSICAL, SOCIAL AND ECONOMIC REALITY OF AGBOGBLOSHIE

## The Historical Development of Agbogbloshie

The general perception of Agbogbloshie, by those governmental officials with whom discussions were held, is that it is populated by Ghanaians from the north of the country who were displaced by the fighting that took place in the early 1990s. The reality is a far more complex settlement pattern, and is in effect a microcosm of what is happening among Accra's poor.

A survey of Agbogbloshie in 2000 indicated that two thirds of the population had been living in Accra five years previously (IMDC, 2001:99). The majority may have come from the north, originally, but Agbogbloshie was not their first home. Though rural-urban migration, or urban drift, certainly plays a part in the make-up of Agbogbloshie's population, there were other significant contributing factors.

The origins of the current settlement can be traced back to the Non-aligned Movement Conference of 1991. As part of the urban programme developed for that conference the government undertook an exercise to de-congest Accra, and in particular address what was seen at that time as the major problem of hawkers. The City Council removed many of these hawkers to the edge of Agbogbloshie, adjacent to the Abosseyokai main road, in what was intended to be a temporary move. During that period of relocation a handful of people made an agreement with the chief to settle temporarily on the land.

In a separate exercise, which took place around 1993, the AMA chose to relocate the yam wholesale market to the area. This, in turn, led to the gradual emergence and development of a larger wholesale food market, which also took place under the auspices of the AMA. The operation of this market (in particular the yam market) is very labour intensive. In addition there are major concerns about security.

Much of this produce (yams being particularly important due to their bulk), is trucked down from the north, and must be protected until sold. Due to inadequate secure storage, the produce can only be kept safe if it is guarded continuously. It is also important that the trucks have a rapid turn around time, if they are to be cost effective, so additional personnel are required for off-loading. These criteria created the initial demand for trustworthy labour, which was achieved by bringing people in from the food producing areas.

Workers would come and stay, and so the market became both their home and workplace. Many were young and female. Initially they slept at the market, but as it developed and their numbers increased, the need arose for additional accommodations. In addition, the trucks needed mechanics and welders to maintain them, so a servicing market developed. The development of this particular facet of growth in the settlement is, therefore, a direct consequence of the AMA's actions. It's notable that this market is, economically, hugely beneficial for the city.

The second contributor to settlement growth was linked to the 1995 conflicts in the north between the Kokomba, Nanumba and Dagomba peoples. Many fleeing this war

came to Accra, and chose Agbogbloshie as a home because of the yam market. It is a common phenomenon that people moving to cities from rural areas choose a settlement inhabited by those from their own area, and this was true in the case of Agbogbloshie.

There were other causes of both settlement and development taking place during this period, due to very different circumstances. In 1983, Ghana initiated an economic Recovery/Structural Adjustment Programme (ERP/SAP) (Songsore and McGranahan, 2000:2). The country had been in economic and social decline for a number of years before that, with major declines in GDP, real income per capita, government revenue and public sector investment (ibid.). The SAP reversed many of these declines, particularly in relationship to overall growth and investment. However, the impact on the income of the poor was less positive and also took much longer to turn around. Thus the average earnings of all employees in 1985 was only 25 percent of its 1974 level, while the minimum wage was, in real terms, approximately one third. Furthermore, poverty levels continued to increase throughout that period (and still do so).

Although the GAMA "stands out as the richest area in Ghana with the highest mean per capita household expenditure and the lowest incidence of poverty" (ibid.:4) this has to be seen in perspective. Firstly, this situation needs to be viewed against the changing income distribution profile of the city. On the one hand, a survey by Songsore and McGranahan suggests that "overall recent migrants to the city have been selective with regard to income, with higher income earners moving into the metropolis from other towns" (ibid.:4). On the other side is the rapid increase in labour retrenchment and the encouragement of a more skewed income distribution as a result of the SAP. Songsore and McGranahan show this impact on the poor in Accra (30-50 percent of all labour retrenchment taking place in the GAMA) with major retrenchments in both the government and private sectors, as well as drastic reductions in the wages paid to employees in local government.

This changing income profile needs to be viewed in context with what is happening to the cost of accommodations. The lack of meaningful investment in housing during the 1970s and 1980s, coupled with the pressure of rural-urban migration, placed enormous demands on the housing market, which in turn had a major impact on the cost of accommodations. Land prices in the GAMA rose rapidly during the 1990s as a result of improving market conditions, which has led to an explosion of previously suppressed demand for land (which is seen as one of the most profitable investment opportunities in Accra). This has, as indicated earlier in the report, had a major impact on the poor.

On the demand side, the net result of the SAP was a drop in affordability levels, with a consequent need for lower rents. Yet on the supply side, unfortunately, the opposite was happening. The direct result of SAP is that people who were once secure in their accommodation can no longer afford to live there. They are pushed down the housing ladder by a combination of deteriorating personal finances and rising housing costs. And a significant number are pushed out of the housing market altogether, due to their inability to pay rents. The only options available to them are either to find vacant land and build, or to rent in an area where rents are less expensive. In Accra's case, where even the poorest formal areas are in high demand, this means some form of land occupation without the owner's permission. Hence the growth in shacks along railway lines, in road reserves, and, ultimately, in Agbogbloshie. Since this influx is not linked to the earlier causes, it populated an area (now part of Agbogbloshie) which was originally separate from the market settlement. This community was given the name of 'Sodom

and Gomorra'.

A fourth migration stemmed from the economic opportunities presented by Agbogbloshie. The changing land and housing market in Accra led not only to higher rents, but also to a demand for higher deposits. It is not unusual for landlords to demand two to even four years rent in advance. In addition, many landlords refuse to allow their tenants to operate businesses from their accommodation, while the planning department of the local authority also seeks to prevent this type of multiple-use in areas classified as residential. As a result, it becomes financially more attractive to move to Agbogbloshie, construct a building and operate a business from this new home. The business can supply either the internal market in the settlement, or be used as a manufacturing base for a wider scale. Once a settlement reaches a certain size it gains its own economic momentum, its population fuelled by both a high internal birth-rate and ongoing inward migration.

In summary then, it is suggested that the reasons for the growth of Agbogbloshie are much more complex than the government and the AMA recognise. There are at least four different economic and social driving forces behind the establishment and growth of Agbogbloshie. These are:

- Spill-over of population associated with the size and growth of the adjacent market.
- In-migration from the north, as an outcome of the tribal conflict.
- Social downward movement in accommodation by those forced out of more costly accommodation in Accra, due to the financial impact of the SAP.
- Demand for land by those seeking economic / business opportunities in an area free from the bureaucratic constraints and high rentals that exist in the recognised formal areas.

Agbogbloshie is a direct outcome of these forces currently at work in Accra, as that city undergoes major social and economic change. Understanding its origins makes it clearer that forcing the people out will not solve the problems. It would simply add to the overcrowding and environmental health problems in adjacent areas. The reality is that the majority of people are living in Agbogbloshie as a result, directly or indirectly, of government policies. Some choose to live there. Some would choose to live elsewhere if they could, but have no real alternatives.

This issue is less about illegal land occupation than it is about how the poor survive. Local authorities have a responsibility to manage the area under their jurisdiction effectively, and to the benefit of all residents. In 2000, 65 percent of those in Agbogbloshie stated that they had been living in Accra five years previously. That figure will be even higher now. These people are not going to disappear or "go back to the North" if Agbogbloshie is destroyed. They are now long-term residents of Accra, and history shows that they will stay in Accra. If they are forced out, experience from other countries indicates that they will add further to Accra's congestion, or form another Agbogbloshie.

## Physical characteristics of the Agbogbloshie site

The land occupied by Agbogbloshie is 31.3ha (IMDC, 2001:94). It is in a triangle of land bounded by the Abosseyokai Road, the Odaw River (in the upper reaches of the Korle Lagoon) and the Agbogbloshie Drain, and is flat, with gentle gradients in some areas.

The land has been settled for a considerable period of time. The early settlement of the 1960s (then called Fadama) was comprised of Ga, who had title rights (communal land rights) from the local chief (Stool land). These people were removed due to the perennial flooding that took place in the area. The situation was becoming untenable, as more people began to die or suffer with the floods. Eventually, the government decided to resettle the people living there.

In the period following this relocation, the government undertook a dredging exercise and used the soil to reclaim land and raise the level of some of the flooded areas along the Odaw River, including Agbogbloshie. Some of these reclaimed lands were allocated for use by Government (State Housing Corp; State Transport Corp) and light industry. The area of Agbogbloshie, however, was left unused. Overall the area appears to be less prone to flooding now than it used to be, while a dredging operation going on currently will have a further positive benefit. The Odaw River bank was also used, for a short period in the 1990s, as a municipal solid waste site. However, this landfill section comprises only a narrow strip of land and does not encroach significantly onto the settlement.

No information could be obtained on the nature of the underlying soil structure. However the one trial pit which was excavated revealed a clay formation, lying just below the surface. The clay appeared to be saturated, and had water channels running through it at 4-500mm below ground level. There has been a general consolidation and raising of the area, over a period of time, by the people spreading sawdust. Although not a good fill material due to its high bulking factor, this does not constitute a major structural problem. Over time different sand and soil particles infiltrate the sawdust and improve its compaction.

While further studies are necessary to determine the exact nature of the ground conditions, the preliminary study indicates that the site could be used for housing development, particularly with light structures. A study of a geotechnical survey commissioned by the author for an informal settlement upgrade in Cape Town, South Africa, has relevance here. This site had extremely poor ground conditions, with silty sands of very low bearing capacity (CBR values often less than 3 at 90 percent modified AASHTO compaction) (Cowburn, Isherwood and Associates: 1999). Yet this project was approved by the local authority for full upgrading, including engineering infrastructure services, at a cost that was less than that for a conventional Greenfield site development. The nature and condition of the Agbogbloshie site should not provide a barrier to the future *in-situ* development of the settlement.

## Risk Analysis

Because informal settlements tend to be sited on ground that is generally considered to be physically marginal, this makes them prone to a number of risks. The main ones faced by Agbogbloshie are; flooding, due to the nature of the site and its proximity to the river; environmental health, due to poor drainage; lack of facilities and overcrowding; and fire,

due to the nature of house construction. In addition there is also the risk of earthquakes, since Accra lies within a recognised earthquake zone.

Before discussing risk with respect to Agbogbloshie, it is worth noting that much of Accra is considered a high-risk area. The GAMA identified three strategic risk areas where it was urgent that emergency services and disaster management be improved. These areas related to Earthquakes, Flooding and the Threat of Epidemics (Studio, 2003:206). It is important to recognise this contextual risk framework when looking at the viability of Agbogbloshie. Any attempt to quantify risk in the settlement needs to look at the level of risk relative to surrounding areas, particularly if risk is used to justify eviction.

Flooding:

The original Fadama settlement was relocated partly in response to the high flood risk. While this remains a problem, there are no indications that the risk of flooding is any greater than for other low-lying areas upstream. In fact, with the completion of the dredging and landscaping of the right bank of the Odaw River, the flooding risk in Agbogbloshie has been reduced significantly. This is because the river now has a greater capacity, while the extensive landscaping has created a large overflow detention pond system on the opposite bank. In addition the settlement could be further protected, were hydrological studies to indicate that this was still necessary, by the construction of small berms along the river bank. As a result of these remedial measures already underway and the potential for further protection, flooding from the river system is not seen as a major risk for Agbogbloshie, nor would the concern warrant its relocation.

There is, however, a second cause of flooding. This is internal flooding caused from the inability of the site to drain storm water quickly enough. This is clearly a risk, but is not of the same order of magnitude as flooding from the river, since it is predictable and localised, and therefore people can take appropriate action to prevent loss of life and property. That is not to say that storm water is not a serious problem in the settlement; simply that it is considered more of a potential threat to sustainable development than as a risk *per se*. It is further discussed in this context in the next section of the report.

Environmental Health:

Agbogbloshie undoubtedly has a poor environment in terms of health risks. The greatest concern arises from the stagnant water found randomly throughout the settlement. This is a source for water-borne diseases, and for the breeding of insect vectors, particularly mosquitoes. The existence of these ponds further highlights the critical need to address storm water drainage (see the section on storm water below). In addition there are respiratory problems associated with settlements such as Agbogbloshie, where people live is small rooms at high density and with little ventilation. According to the ESIS (IMDC:96) there is one private healthcare facility in the settlement. The owner reports that prevalent diseases are malaria, gastro-enteritis, upper respiratory diseases, sexually-transmitted diseases and skin diseases. A number of these can be attributed directly to the poor physical condition of the settlement. This means that they would be reduced significantly if the area was developed.

At the same time, however, it needs to be recognised that Accra itself is a high-risk area with respect to potential epidemics. The ESIS points to the high incidence of water-

borne and respiratory diseases in other low-income areas of the catchment. Furthermore there are important positive factors that reduce the level of risk of epidemics in Agbogbloshie. The first of these is the high level of personal hygiene (see the section on Water Supply below). Given the environment in which they live, many people in Agbogbloshie look well-nourished, maintain a high level of personal hygiene, and take pride in their personal appearance. The clinic does, however, indicate a high incidence of under-nourished children, in spite of the fact that, overall, the children look well (see figure 4).

**Figure 4: Children in Agbogbloshie**

The reality is that this area is like most low-income settlements. It has a wide range of socio-economic conditions. There are sections of the population that are very poor and whose access to water, food and adequate housing is marginal. The description of the settlements' history indicates that the area is likely to have a significant group that fall into this category. This is a phenomenon of urbanisation and structural adjustment. It is not a specific phenomenon associated only with Agbogbloshie. Evicting this group of marginalised poor is not going to help their situation or solve a problem; it is merely going to move it elsewhere.

Another positive element of environmental health in Agbogbloshie is that cooking is done outside the dwelling, thereby significantly reducing the respiratory problems associated with cramped living conditions. The third important factor stems from the nature of house construction. Single layer timber construction generally means that, while rainwater is kept out, there are still gaps in the façade. This increases the amount of through ventilation, and hence the turnover of air within the dwellings. All of these are beneficial effects. It is the poor drainage that is considered to provide the greatest environmental health risk. This could be addressed, however, by improving Agbogbloshie's storm water management system.

Fire:

The construction material of Agbogbloshie houses is almost exclusively wood. Given the dense nature of the settlement, and the absence of formal roads that could act as fire breaks, the risk of fire is potentially very high. However, potential risk does not necessarily translate into disaster. There are three factors that need to be taken into

account in assessing fire risk: potential fire hazards, community awareness and the ability to respond to fires when they do occur.

Fire hazards in Agbogbloshie are generally lower than in settlements elsewhere (for example Cape Town in South Africa, where fires destroy hundreds of informal settlement dwellings each year). The main cause of fires in informal settlements is from paraffin stoves being knocking over. The use of these stoves in Agbogbloshie is not significant. Cooking is done primarily using wood to heat large pots. Furthermore, the climate allows cooking to be done outdoors. All of this reduces the fire risk significantly. Coupled with this is the high level of awareness of fire risk. This is seen in the cooking technique, where fires are small and manageable (encouraged by the high cost of fuel) and relatively far from the dwellings. Finally, cooking takes place primarily during the day, a factor that also reduces fire risk. In Cape Town almost all of the serious fires begin during the night.

And finally, there is the ability to respond to fires. External access is admittedly difficult. Therefore the community tries to manage its own response. This has been successful. Figure 5 shows an area of the settlement shortly after a fire broke out in a hut in April 2003. The community immediately knocked down the houses adjacent to the one that was on fire in order to create a firebreak and prevent the fire from spreading. This tactic, while unfortunate for the residents whose dwellings were destroyed, succeeded in preventing a major fire.

**Figure 5: Agbogbloshie after the fire of April 2003**

And the reality is that, had the fire spread, those dwellings that were demolished would have burnt down anyway. Unfortunately, community response does not always work. A fire in December 2003 could not be contained and destroyed a small section of the settlement. However, the community again responded to this by improving road access. These examples indicate that there is an approach to hazard management within the settlement that indicates a high level of both awareness and organisation on the part of the community. It indicates that fire risk can be managed, but this would need to be improved by extending and formalising the access network. This would allow better access to fire-fighting vehicles, and would also provide a system of fire breaks.

Earthquakes:

The risk from earthquakes, termed the seismic hazard, is expressed in terms of peak ground acceleration (PGA), measured in $m/s^2$. According to the Global Seismic Hazard Map Project (1999) Accra shows a moderate PGA of 1.2 $m/s^2$. This is on a par with New York, for example (Studio Report: 78). The real concern is the lack of preparedness in Accra, even for such a (relatively) minor earthquake. In this context though, Agbogbloshie is not seen as being particularly different from the other low-income areas in the city. Consequently, there is no perception of added risk in the settlement.

Overall, then, there certainly are physical risks associated with the settlement of Agbogbloshie. However, while several of them do need to be addressed, none is considered sufficiently dangerous as to warrant the removal of the settlement on the grounds of risk.

## Physical Conditions

Water Supply:

The water supply to the settlement comprises a number of 20/25/32mm diameter steel pipes. These have been installed in an ad-hoc way over the years, tapping into the distribution main in Agbogbloshie Main Road at different points. Currently the majority of these are under the control of the Ghana Water Authority, though there may still be a number that constitute illegal connections.

The water mains have been constructed at different times, as demand for water increased. These were installed more as emergency or temporary connections than as permanent ones. Thus they have been laid on or close to the surface, where they are vulnerable and can be easily damaged, particularly by vehicles (see figure 6).

**Figure 6: Water mains laid on the surface**

The water mains run in a bundle along the edge of the main road (figure 7). At the major junctions some of these divert into the settlement (see figure 8). From that point they are reticulated through Agbogbloshie as single lines. There does not appear to be any formal network distribution system.

**Figure 7: Bundled small diameter water main supply on Abosseyokai Road**

**Figure 8: Water distribution into Agbogbloshie from Abosseyokai Road**

All of the water supply points seen during the visits to the settlement were metered (see figure 9) and there were stopcocks in various places to cut off flow in case of pipe breakage. The metered supply was the responsibility of an individual, who controlled the use of water from that point.

**Figure 9: Water meter to water seller**

The metered water would be supplied to the home of the owner and would also be used to fill a reservoir. These reservoirs take one of two forms, the first being a large, partly submerged, concrete tank, which could hold up to 20$m^3$ or more (see figure 10), or a small plastic tank, of approximately 2-3$m^3$, situated above ground (see figure 11).

**Figure 10: Large storage tank constructed by private water seller**

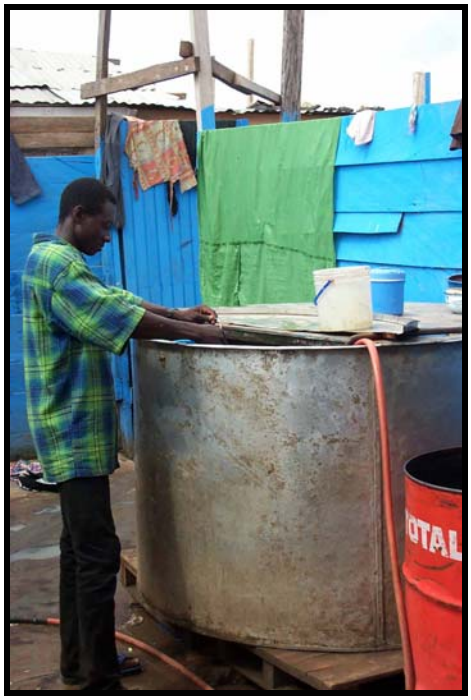

**Figure 11: Small storage tank constructed by private water seller**

In both cases the tank is adjacent to a public shower block (see figures 12 & 13). Access to the public shower is by payment, following which customers are given a bucket to fill from the reservoir.


**Figure 12: Public shower block A**

**Figure 13: Public shower block B**

The number of shower points is not quantified. However, from a site inspection it is clear that there are a large number of such points (in excess of one hundred). There is a public bath owners association in Agbogbloshie that is in the process of numbering all public ablution blocks. However, if the total number of shower blocks was assumed to be one hundred, and the site taken as 30ha, this would place everyone within a distance of less than 200m from a block.

Finally there is the important issue of the reliability of water supply. This is generally very good, with no mention being made of unpredictable interruptions. When there is a need for the Water Company to stop the supply for maintenance reasons, this information will be known in advance and all tanks filled prior to the disruption. The impact on the community is limited and controlled.

Overall, the water supply is significantly better than that found in most informal settlements, while the level of personal cleanliness and hygiene is one of the highest seen in an informal settlement anywhere. The shower points were in continuous use during a

number of inspections of the site. This situation is worth comparing to other cities in Africa, such as Cape Town or Nairobi, where there would not be a single shower point in an entire settlement.

Sanitation:

There are two predominant positions used by people for defecation; sitting (using a toilet pan) and squatting. The residents of Agbogbloshie use the latter, with cleansing using paper. This generally takes place in a cubicle in one of the toilet blocks that have been built within the settlement. The toilet blocks themselves are divided into two halves, for men and women respectively. Their condition varies from well-constructed concrete block (see figure 14), through well-constructed wooden structures, to poorly-constructed wooden structures (see figure 15). Toilet blocks range from four to sixteen cubicles.


**Figure 14: Well-constructed public toilet block**


**Figure 15: Poorly-constructed public toilet block**

There are a number of sanitation options available. By far the most common is the pan system. Here defecation is direct to a pan, which is removed and cleaned at intervals. The

disposal of excreta from these pans takes one of two forms. One option is to tip the pan into a cesspit constructed under or adjacent to the toilet block (see figure 16). In this case a tanker, operated by the waste disposal contractor employed by the AMA, empties it. Alternatively it is removed off-site and disposed of in a hole in the ground or into the Lagoon itself. The hole is dug specifically for that purpose, on the rubbish tip to the west of the settlement (adjacent to the Lagoon). However, the last two methods are only employed by the toilet block owners living on the edge of the settlement close to the Lagoon, and are generally linked to the smaller, poorer toilet blocks. Hence disposal of faecal waste directly into the Lagoon represents only a small fraction of the total human waste generated in the settlement.

**Figure 16: Cesspit below toilet block**

The second system of sanitation (after the pan system) is the pour flush toilet, which is operated by a small number of the better toilet blocks. Here the floor of the toilet is formed into a pan, smoothed down by a concrete screed. An outlet is set into the floor (see figure 17), and waste is flushed directly to the cesspit below by a small amount of water. Emptying of the cesspit is again by tanker.

**Figure 17: Example of a pour flush latrine**

A visual inspection of the settlement indicated that the large majority of residents use the toilets provided for defecation. However, because there is a payment attached, these may not be accessible to poorer sections of the population. An inspection of the Lagoon bank indicated some evidence of defecation on the banks, but not a significant amount. This serves to confirm the impression gained by an inspection of the water facilities that the overall level of cleanliness and personal hygiene in the settlement is high.

Electricity:

Electricity is supplied to the settlement of Agbogbloshie by the electricity supply authority, and reticulation is via overhead cable. The nature of the reticulation system tends to be random (see figure 18), rather than ordered. Nonetheless electricity is available to the majority of dwellings. While there are illegal connections, the majority of electricity connections appear to be legal ones. Rented accommodation is supplied with a power supply upon payment of an additional rent. The standard mode of supply is termed a light. This is a connection to a light socket, from which is also taken a single plug point for low-current use such as a radio.

**Figure 18: Random electricity distribution with both legal and illegal connections**

Solid Waste Management:

There is no formal system of solid waste management in Agbogbloshie. Waste is therefore either dumped on the periphery of the settlement (the most common disposal option) (see figure 19), within the settlement itself (less common than in many settlements elsewhere) (see figure 20), or used as fill material.

**Figure 19: Solid waste on the periphery of Agbogbloshie settlement**

**Figure 20: Solid waste within Agbogbloshie settlement**

It should be stated that much of the solid waste seen on the river side of the settlement does not appear to come directly from the settlement. There are large quantities of solid waste brought downriver from upstream. In addition, it appears that the soil cover that was used on the old solid waste dump is being eroded (see figure 21), exposing the waste, which is then blown further afield by the wind.

**Figure 21: Exposure of the old landfill site**

Access and movement networks:

There are two forms of access in Agbogbloshie, vehicular and pedestrian. The first of these is limited to a number of separate entrances to the settlement from the Abosseyokai road. These roads penetrate some way into the settlement before slowly disappearing (see figures 22 & 23). The quality of the roads is generally poor, with extensive undulation and potholing. The major activities requiring vehicular access (mechanics' yards, timber yards, scrap metal) are to be found on these roads.

**Figure 22: Main road into Agbogbloshie**

**Figure 23: Main road as it reduces in width**

In contrast, a network of paths serves the majority of the settlement. At first glance this appears to be random. As is often the case with informal settlements however, there is an underlying logic to the footpath network. In the case of Agbogbloshie the backbone of the network appears to be a series of routes that traverse the settlement from Abosseyokai road to the Odaw River. These then extend out to the east of the settlement, turning towards the Agbogbloshie Drain. The formal area defined by an old

market complex is in the middle of the settlement, where access takes the form of a rectilinear grid.

At present the network of roads and paths provides the basis for a sustainable access network. However, this may not be the case for much longer. The settlement is facing the same pressures on space and demand for housing as is the rest of Accra. The result is a slow but steady encroachment onto the existing network, particularly the roads, by new shacks.

Housing:

The dominant material of house construction, as aforementioned, is wood. Construction is relatively simple, but sound. Two types of foundation are used. In the first a concrete slab is thrown, or the earth is compacted, to provide a base for the house, which is then situated at ground level. In the second the floor is raised above the ground and a suspended wooden floor is fixed to cross beams, which are then tied to short stub columns dug into the ground. The walls of the house vary. The most common is wide planking (300-400mm) of between 20-30mm in thickness (see figure 24) which is nailed to the outside of timber columns. The planks may be either butted or lapped. A second method is to use smaller planks, perhaps 100mm by 20mm, and to create lap joints, as in a typical clapboard house. Finally, a third alternative is to use large sheeting (usually plywood) and to butt these together to form large wall panels. Generally there is no additional weather-proofing applied to the timber. The roofing is normally of tin, though in some cases wooden sheeting is used.

**Figure 24: Example of house constructed from wooden planks**

The quality of construction varies, reflecting a range of socio-economic conditions. While overall quality is good, there are sections of the settlement where housing construction is poor. A range of additional dwelling types is shown below (figures 25 and 26).

**Figure 25: Additional dwelling type A – double storey house**

**Figure 26: Additional dwelling type B – plywood sheeting**

Storm water:

The impact of storm water was mentioned in the previous section on flooding. This section focuses on the physical situation in the settlement, where in fact there is no formal storm water drainage. However the majority of the settlement does have a gradient, albeit a very low one. Only one area of physical depression was identified. The absence of formal drainage means that the rains, which are linked to rainy seasons and therefore tend to be of high intensity, cannot drain easily. The result is that many of the alleyways effectively become storm water drains. Figure 27 shows the level to which the storm water rises under these conditions, as indicated by the owner of the building.

**Figure 27: Level to which flood waters rise during storms**

**Figure 28: Example of blockage of internal storm water drains by solid waste**

The community has made a number of attempts to construct storm water channels. On the whole, though, these have not been successful. The main problems are a lack of adequate gradient and blockage by solid waste (see figure 28 above). So while these channels may contain storm water flow under low-flow conditions, they do not clear it completely, with the result that they continue to hold water long after the storm has passed. This creates a health risk. The two photos (figures 29 & 30) below show the conditions of these drains at two different times, the first soon after a rain and the second several weeks after. The conditions in the drain can be seen to have deteriorated significantly, with the second photo showing how the standing water has become

increasingly anaerobic (i. e. lacking in oxygen).

**Figure 29: Conditions of storm water drains immediately after rains**

**Figure 30: Conditions of storm water drains several weeks after rains**

Over the site generally, the water slowly drains away once the rains have stopped. Most roads and walkways soon become dry and passable. The only exception is where the storm water has created natural drains through the settlement (generally in the more central areas) and here there can be some standing water for considerable periods (see figure 31). Finally, it is worth noting that, over much of the settlement, drainage is not directly into the Odaw River. There are channels running along behind the bank of the river and adjacent to the solid waste dump. Some water runs to the Abosseyokai Road, and some runs into the Agbogbloshie Drain.

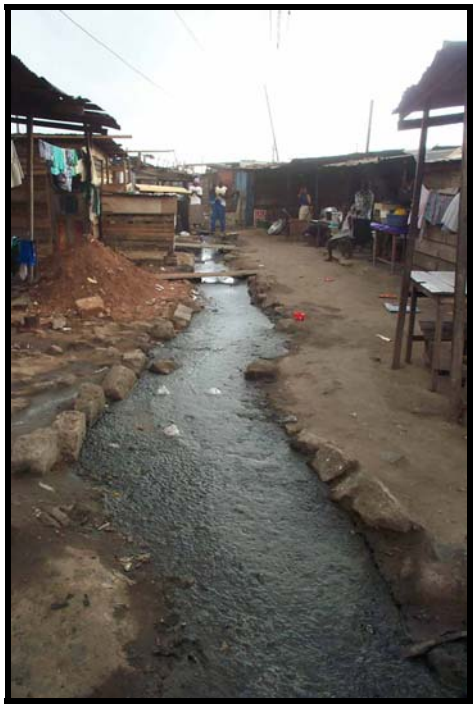

**Figure 31: Example of a storm water channel formed by rain**

From an upgrading and developmental perspective, storm water management is considered to be the most serious need within the settlement. Although it would be necessary to carry out a more detailed topographic survey, there is no reason at this stage to think that the area cannot be serviced in this way. Much of built-up area within the Odaw River catchment has a low-gradient, and yet has such drainage. In addition, the height of the settlement area above the river indicates that there is sufficient gradient for a piped system. This may need to be supported by retention ponds to allow for high-intensity storms that coincide with the times when the river is high.

Solid waste:

There is, as noted, no solid waste removal system in Agbogbloshie. There is continual accumulation of rubbish in the settlement, which has a detrimental effect on the quality of life and on the environmental health of the community. The whole question of solid waste disposal is given a high level of importance in the ESIS, giving the impression that Agbogbloshie is the primary source of solid waste in the Odaw River and the Lagoon. For this reason a more detailed analysis of solid waste generation has been left until the later section of this report which deals with the Environmental and Social Impact of Agbogbloshie on KLERP.

What is important to stress at this stage is that solid waste management differs from other infrastructure services in that it does not require a fixed investment. It is, essentially, a management issue and is related to the current expenditure budget. Thus Agbogbloshie is no different with respect to solid waste collection than any other low-income area. There are many options now available to manage solid waste collection in poor communities, and a number of these could be applied in Agbogbloshie.

## Economic Development

Two aspects of economic development are covered here: housing investment and local economic activity.

Housing represents a significant economic investment for the community of Agbogbloshie. A characteristic of many informal settlements is the poor quality of both building materials and construction. Materials include cardboard and plastic as well as wood and tin. A study of housing typologies in Cape Town (Webb and Abbott, 1999) found that the materials used were of generally low quality and could not be re-used in an upgrade situation.

In contrast, the housing at Agbogbloshie is of a higher standard, with the materials being substantially better. This means that the investment in housing is significant. Discussion of materials costs (predominantly timber for general construction, doors and windows, and roofing materials) indicated that the current cost of construction of a medium grade dwelling in Agbogbloshie is on the order of 100,000 cedis per $m^2$ of floor area. This equates to just over US$11 at the current exchange rate (8,850 cedis = US$1). This appears to be a reasonable figure based upon the current cost of second hand materials.

There are a number of different ways to estimate the total land covered by buildings. The ESIA of KLERP uses an overall area for the settlement of 31.2ha, and from aerial photos calculates that the housing covers 20ha. Given the nature of the access network, the absence of gardens and the high housing density, a coverage of 60 percent will be assumed. This gives a covered area of 12ha, or 120,000 $m^2$. Using the above cost of 100,000 cedis per $m^2$, this gives a total housing investment cost of 12 billion cedis, or US$1.3 million. To place this investment in perspective, the governmental housing budget for new units for low and moderate-income groups (for the whole country) is given as 175 billion cedis (Government of Ghana, 1991:110)

Moving to the broader economic development context, a striking feature of Agbogbloshie is the extent of the economic activity that is taking place within the settlement. It is important to recognise the importance of this activity, which is not a typical feature of informal settlements elsewhere. An extensive economic opportunity analysis of an informal settlement in Cape Town, South Africa (Baumann and Abbott, 2001) shows a more usual situation. There 10 percent of the population were identified as owning businesses in the settlement, of which one third were identified as being the main source of income. Two thirds of the businesses are retail activities, where there is little value added. The key points here are that little of the money earned outside of the settlement actually finds its way back into the community, and that there is a very low utilisation of skills within the settlement. The situation in Agbogbloshie is significantly different, and indicative of a much more complex economic sector with a wide range of diverse activities. This determination is based upon visual inspection, however, and a priority in working toward the future development of the settlement should be a detailed economic survey.

There are a number of dominant features that emerge from this qualitative inspection of the settlement. The first is how much greater the value-added economic activity is, compared with South African or Kenyan informal settlements. For example the timber for house construction is brought in from outside, but sorted and cleaned for resale internally (see figure 32). Then, there are business activities that cater for needs both

inside and outside the settlement. Typical of the internal activities are personal services such as hairdressing (figure 33) and food production (figure 34), dressmaking and shoemaking. Businesses generating income outside the settlement include workshops (figure 35) and manufacturing (figure 36).

**Figure 32: Economic activity A – timber yard**

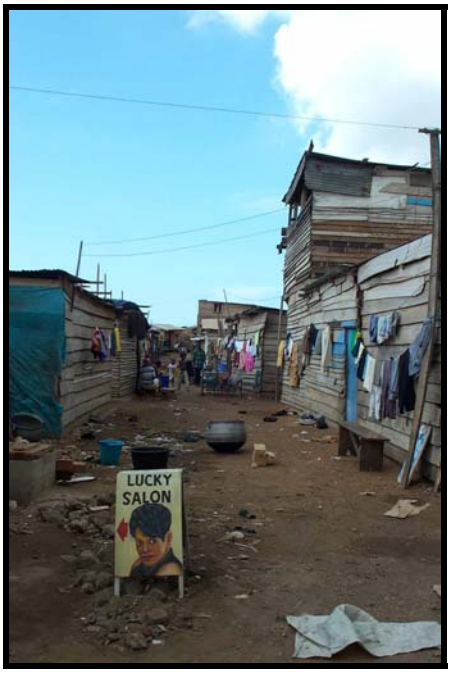


**Figure 33: Economic activity B – hairdresser**

**Figure 34: Economic activity C – food production for local sale**

**Figure 35: Economic activity D – small workshop**

**Figure 36: Economic activity E – manufacture of football machines**

The second feature of business activity in Agbogbloshie is the extensive and generally professional reselling of utility services, as well as the provision of basic needs. Water and sanitation facilities provide the most obvious example of this, but there are also electricity and telecommunications services (see figure 37). While it is not possible to put a price on these business activities without a detailed economic survey, there is no doubt that they make a significant contribution to economic activity. They also ensure that the majority of the community has access to clean water and toilet facilities, thereby contributing significantly to improved health. In the context of the UNMDG, these are all significant and positive factors. Destruction of the settlement would represent the loss of key development goal indicators for a substantial number of people.

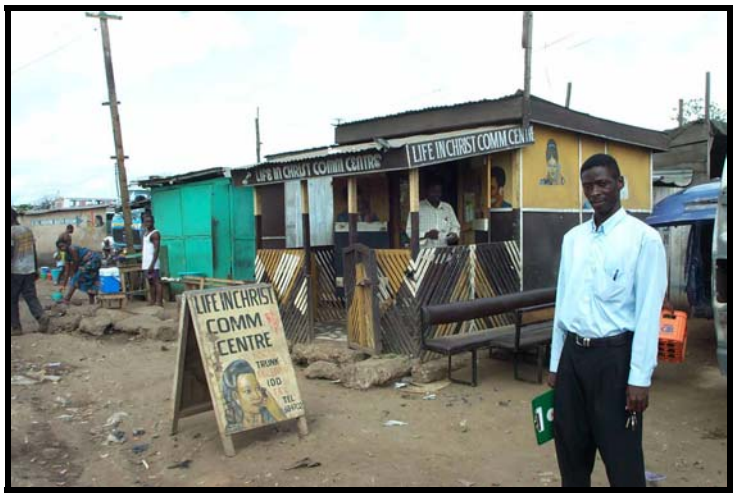


**Figure 37: Economic activity F – Telecoms Centre**

Finally, there is a strong relationship between the settlement and the adjacent markets. The young women associated with this trade number in the hundreds, perhaps even more. The economic value of this symbiotic relationship should not be under-estimated. Any discussion of eviction and of moving the markets should include the cost of such a move in social and economic terms.

Surely it is unrealistic to expect (as the ESIS does) that moving the market will mean that many people will go back to their original homes in the north. The reality is that they have jobs in the market, and are more likely to move with the market. No provision has been made by the local authority to accommodate those affected by such a move. They will have to find makeshift accommodation that is likely to be significantly poorer than that currently used. Furthermore, this move will substantially increase the physical vulnerability of the young women of the population, who are already among the most at risk.

# AGBOGBLOSHIE'S RELATIONSHIP TO THE KORLE LAGOON ENVIRONMENTAL RESTORATION PROJECT (KLERP)

## KLERP's Background

"The Korle Lagoon has become one of the most polluted water bodies on earth, serving as a cesspool for most of Accra's industrial and municipal waste" (Boadi and Kuitenen, 2002:302). The Lagoon is the principle outlet to the sea for the city of Accra, and 58 percent of the Accra Metropolis (an area that is broadly contiguous with the current AMA area) live in the catchment. In 1994 the AMA and the government of Ghana embarked on the sustainable Accra project, with the support of the United Nations Development Programme (UNDP), UN-Habitat and other donors. This project identified and prioritised a number of key environmental issues, foremost among which was the need to improve the quality of the Korle Lagoon.

Solicitation of funding for KLERP commenced in 1997, whose aim was "restoring the lagoon to its natural ecology and realigning the lagoon to improve its hydrological efficiency to increase the flow of water in the lagoon, and finally develop it into a major tourist attraction" (Boadi and Kuitenan, undated:2). US$73 million was raised from the Government of Ghana, the OPEC fund for international development, the ARAB Bank for Economic Development in Africa, and the Kuwait Fund for Arab Development (ibid. ). The project started in March 2000, and was originally targeted for completion in December 2003.

## Agbogbloshie's geographical relationship to KLERP

There are serious concerns within the AMA and the national government about how to deal with the 'illegal' occupation of government land by an informal settlement, and it was this specific issue that formed the basis of the legal appeal by the residents against eviction. However, it is clear that this situation is exacerbated by the specific location of Agbogbloshie on the banks of the Korle Lagoon. Furthermore, the primary motivation for the eviction of the residents at this point in time, and the issue that triggered the AMA threat of eviction, comes from the perceived needs of KLERP.

The concept of converting the Lagoon to recreational use, with extensive landscaping on both sides of the Lagoon and the Odaw River system, is not a new one. It originates from the preliminary concept plans for the city that go back to the early 1990s. At that time the area of land now occupied by the informal settlement was seen to be part of that landscaped area. This made sense, since the Korle Lagoon was perceived as extending back to the point where the Abosseyokai Road Bridge crosses the Odaw River.

This specific land-use scenario has been carried forward and incorporated into both the current Master plan for Accra (ref) and into KLERP. However, there has since been a major change in thinking at the project level. Between 1984 and 2000 the population of the AMA area grew from 970,000 to 1.7 million, and this figure could grow to 2.5 million by 2020. This places an immense burden on the city's infrastructure, and contributes to the pollution of the Korle Lagoon. In carrying out an environmental impact assessment

for a major scheme such as this one it is, of course, natural and critical to look at the negative impacts that affect the project. What is harder to defend is that one small group of people (in fact less than 2 percent of the total population) living in this catchment of 1.7 million, where 74 percent are living in conditions equally as depressed, should carry the primary responsibility for this wider pollution. Yet this is essentially what the ESIS has suggested.

The KLERP ESIS makes the following statement.

> "Sodom and Gomorra does not have a drainage system and all the wastewater from bathrooms and homes drains directly into the lagoon. The ground and surrounding area is totally unsuitable for the mass construction of toilets and other septic facilities. It therefore means that the settlers of Sodom and Gomorra cannot be retained in the area after the dredging works are completed" (IMDC:8).

There is no discussion of moving other low-income communities. Yet the conditions in Agbogbloshie are, in many respects, no worse than in the other settlements. The reality, accepted implicitly by the ESIS, is that poor environmental conditions do not *per se* constitute a valid argument for eviction. Furthermore, this statement about Agbogbloshie lacks supporting evidence, and cannot be accepted as a valid professional opinion.

What is of greater concern is that the ESIS recognises that there are serious and extensive social and economic costs involved in the destruction of Agbogbloshie, yet it does not attempt to quantify these costs. The ESIS has simply refused to consider the full impact of KLERP on the settlement. When reading the ESIS, and particularly the Social Impact Assessment component, it becomes clear that those responsible for the ESIS had already decided, prior to the study, that "The settlement of Sodom and Gomorra, which is strategically located within the active core area of KLERP, constitutes one of the greatest negative impacts on the project" (IMDC:8). It appears that the sole purpose of the ESIS is to lend weight to this argument, through the presentation of settlement conditions in such a way as to reinforce this pre-determined conclusion.

One of the strategies used by the ESIS to show Agbogbloshie in a negative light (from an urban environmental perspective) was to separate the description of Agbogbloshie from the description of the remainder of the catchment communities. This means that the structure of the ESIS avoids the need for a critical analysis of these 'negative impacts' in comparative terms.

There are four major areas of interaction that need to be explored when assessing the relationship between the settlement and KLERP. These are:

- the nature of the spatial relationship between the settlement and the project;
- the environmental and physical conditions of the settlement, and their impact on the project;
- the social impact of the project on the settlement and the community; and
- the economic livelihood of the settlement and its residents, and the consequential impact on the project.

## The spatial relationship between Agbogbloshie and KLERP

Much is made in the ESIS of the fact that run-off from the settlement discharges directly into the Lagoon. The first issue, therefore, is to define what constitutes the Lagoon. In its natural state (prior to the urbanisation of the catchment) the Lagoon system was more extensive that it is now, extending much further upstream. KLERP acknowledges, however, that this condition cannot be re-created, and so redefines the Lagoon spatially. It does this through the creation of a weir across the Odaw River, downstream from the confluence with two smaller subsidiary streams. The plan is to "provide a by-pass drainage system to restrict dry weather flows from ***entering the lagoon***" (COHRE's emphasis) (IMDC: table 6.1) Thus the Lagoon has now been defined as that body of water that lies between the future weir and the sea. Since the Agbogbloshie settlement lies upstream of the proposed weir, it is invalid to say that its run-off flows directly into the Lagoon. It is in exactly the same situation, with respect to the pollution of the Lagoon, as are the rest of the catchment communities.

A senior official from the Ministry of Works and Housing made the point that the dry weather flow should not be seen as sewage, implying that the run-off from Agbogbloshie *is* considered raw sewage. The composition of Agbogbloshie's run-off will be discussed later, but with respect to the river system, the construction of the weir is in itself an implicit acknowledgement that the water quality in the river system is going to be polluted into the foreseeable future. This is further acknowledged in the ESIS, which states that "The proposed solution is to intercept and divert all dry weather flow into the lagoon up to a maximum of 2m3/sec. The ***wastewater*** (COHRE's highlight) will be screened and pumped offshore via a proposed new sea outfall pipe" (IMDC:6). Given this perception, it is important to recognise that the contribution Agbogbloshie makes to organic pollution constitutes only a small percentage of the total organic pollution load entering the river system (see the sections on sanitation and storm water).

From a spatial perspective, therefore, there is no reason whatsoever why Agbogbloshie cannot be integrated into KLERP. The settlement lies in a triangle extending down to the confluence of the Agbogbloshie Drain with the Odaw River, and, as mentioned previously, is therefore above the proposed weir protecting the Lagoon from pollution. The entire east bank of the Odaw River, extending 30m inland from the high water mark, could be turned into either a soft or hard surface. This could be landscaped and incorporate a path system, or a berm could be built with a path on top of it. There are a number of different ways in which Agbogbloshie could be integrated into KLERP. Nor should this integration hinder the funding of the KLERP. On the contrary, it should enhance funding prospects, for it would demonstrate a real attempt to integrate the needs of the poor into an environmental project. In the present situation, the funders are supporting a mass eviction of poor people to support a green agenda. This is, and will inevitably be exposed as, a contradiction of purposes which cannot withstand international scrutiny.

## Environmental conditions in Agbogbloshie and the Korle Lagoon catchment

COHRE's study addresses the following environmental and physical conditions and impacts: demography; water supply; sanitation; housing; flooding; storm water drainage; solid waste and health. This is an extensive analysis, as it covers a range of issues in each

of the different sectors. As the findings from each sector are very similar, the detailed analysis and review is included as Annex B. The following section of the report will provide a summary of the findings.

The ESIS supports the removal of Agbogbloshie, arguing that its continued presence represents a major negative impact on KLERP. This conclusion, however, is based upon weak, often emotive, arguments and is difficult to justify on the basis of what is presented. The ESIS has two major faults. It is trying to make two points about Agbogbloshie, which should have been treated separately but which the report continues to mix together. The first issue relates to the physical conditions in Agbogbloshie itself. The argument here is that the physical conditions are so bad that the people living there should be removed. The second issue relates to pollution in the Lagoon. Here the ESIS seeks to place much of the responsibility for pollution on Agbogbloshie. Both arguments are seriously flawed.

In quantifying the physical conditions in Agbogbloshie, the ESIS drew upon the findings of a social and economic survey of 150 dwellings in Agbogbloshie that took place in 2000. It also made statements about the condition of services and amenities within Agbogbloshie. In many cases these statements were incorrect. And at no time did the ESIS attempt to place Agbogbloshie in the context of comparative living conditions in Accra, even though it had the information to do so.

The COHRE study did carry out such a comparative analysis, however, and the results are detailed in Annex B. They show that the physical environment is not significantly different in Agbogbloshie to that existing in many of the formal areas within the Odaw River catchment. In those areas there are large numbers of informal dwellings with inadequate water and sanitation facilities, and extremely poor shelter conditions. In fact, judged by these criteria, Agbogbloshie actually fares better than those communities in the formal areas. There are more shower points and more toilet facilities, and the quality of shelter is, overall, higher.
In other areas, particularly storm water and solid waste, the situation in Agbogbloshie is undeniably worse, but people living the formal areas also have generally poor conditions.

Finally, in the area of general health there does not appear to be a significant difference between those living in Agbogbloshie and those living in other poor areas. On the basis of this comparative analysis it is difficult to see how Agbogbloshie can be singled out for relocation, while there is no discussion about moving others who are living in equally poor conditions.

With regard to pollution of the Lagoon, the ESIS does not make any systematic attempt to quantify the pollution loads entering Korle Lagoon, nor to analyse the sources. It does, however, have extensive information on pollution sources scattered throughout its report. By examining these numbers the COHRE study found that it was possible to gain some understanding of relative pollution loads. The study looked at both the organic pollution of Agbogbloshie and the solid waste generation. Overall, it found that Agbogbloshie contributes approximately 5 percent of the organic pollution of the lagoon and up to 10 percent of the solid waste. Both of these, however, could be greatly reduced by improved management and formalisation of the area.

## Social and economic impacts

The social and economic situation in Agbogbloshie has already been described in some detail in this report, with further information in Annex B. It is COHRE's belief that the ESIS has completely failed to adequately consider these issues, even though they are among the most important objectives of any ESIA.

An environmental impact assessment's primary purpose is to look at both the positive and negative impacts of the project on the surrounding areas and communities. KLERP's ESIS argues "In the operations phase there are limited negative impacts and the positive impacts predominate" (IMDC:8), and continues "The potential significant impacts of the KLERP on human environments were assessed and strategies and socio-economic implications such as land use or ***settlement*** (COHRE's emphasis) and overall sustainability of the project examined" (IMDC:8). In the case of Agbogbloshie, this latter statement is simply not true.

In discussions held in Accra with members of government, academia and the legal profession, there was a general consensus that, were Agbogbloshie to be situated in a location other than its present one, it would most likely not attract the same attention from government. What is focusing attention on the settlement, and driving the desire of the AMA to evict the residents, is its perceived strategic location in the core area of KLERP. Given this, there is a responsibility for an ESIA to very carefully evaluate the impact of the project on the settlement. This is explicitly acknowledged in KLERP's statement quoted above. And yet, the ESIS fails completely to address this issue.

The social impact component of the assessment raises the most serious concerns regarding the impartiality of the report. The ESIA contains an analysis of the area that gives a brief history of both the market and residential areas, and looks at a number of social indicators such as household composition, ethnicity and residence. It also attempts to quantify settlement population and density, and contains some significant and highly pertinent findings. For example, five years previous to the social survey that provided the data quoted in the report (Field Surveys, 2000) 65 percent of the residents were living in the Greater Accra Region. The report, however, makes no attempt to use this analysis with respect to KLERP. Yet, these results do have a high degree of relevance, as evidenced by the statement; "According to Cernea (1990) forced population displacement may lead to impoverishment" (IMDC:108).

This is an understatement of major proportions. There is no longer any 'may' about the outcome of a forced eviction. Much work has been carried out since 1990 on the impact of such removals. There is now recognition of the critical importance that social networks in such settlements make to poor peoples' abilities to survive, and manage the shocks and negative trends that are a part of their daily life. All international organisations and the majority of governments recognise the negative impact that such evictions have on communities, as well as the real price that they inflict on the authorities.

The AMA does not appear to be aware of such findings, nor of their implications. Furthermore, having provided the quotation from Cernea, the ESIS neglects to explore its implications, stating simply that this is an issue that will have to be dealt with by the AMA. Such a statement goes against the principles of an ESIS, which has an obligation to look at the impact that a project has on surrounding areas and communities.

Overall, it is clear that this ESIA document had little concern for the people of Agbogbloshie. Its statement that "The potential impact and consequences of Sodom and Gomorra to the sustainability of the project . . . if Sodom and Gomorra co-exist with the project" (IMDC:8) is never evaluated. The report starts from the premise that the settlement will be removed, and proceeds to build an (in COHRE's view, flawed) argument to support the removal.

Finally, there is the issue of the economic impact of the project on the people of Agbogbloshie. Again, this should be a central component of an independent ESIA, but there has been no attempt to carry out a cost-benefit analysis, either on the settlement or on the market. Yet this cost is significant, and will have to be borne by the city, by the Government of Ghana, and by the communities. It is not included in the loan agreement. The loss of housing investment alone is on the order of 12 billion cedis. The full cost of relocating the market and the loss of economic opportunities in Agbogbloshie will amount to much more than this. The absence of a cost-benefit analysis represents a serious failing on the part of the donors, and leaves them open to the criticism that they are pursuing environmental objectives at the expense of the poorest, and most vulnerable, section of the population.

# CONCLUSIONS AND RECOMMENDATIONS

## Findings of the study

The current popular view of Agbogbloshie, which is shared by the majority of politicians and officials in the AMA, and also by many in National Government, can be expressed as follows;

*Agbogbloshie is a settlement created by the occupation of land without the permission of the landowner (in this case the Government of Ghana). It is situated in an area of strategic environmental importance, and appears to represent a threat to the restoration of Accra's most important marine resource. It is totally informal, having little by way of conventional infrastructure, and is perceived to constitute a degraded physical environment.*

There is, however, another view of Agbogbloshie;

*Agbogbloshie is a microcosm of the city of Accra, a city where almost two thirds of the population live informally. It is a community with extensive social and physical networks, which provide a basis for as many as 30,000 people to live, and work, in the city. It is home to these people, who have made a substantial investment in building houses. It boasts a thriving and productive economy, and it is an integral part of a wider economy built around the provision of food to Accra.*

Should such a settlement be allowed to stay? On what basis should decisions be made? One point is clear. Eviction, in today's world, would be a political disaster for Ghana. If the world watches 30,000 people being forced out of their homes on television, and sees those homes destroyed, this would do irreparable harm to the country's reputation. This is a reality that the government must face, and consider carefully in its decision regarding Agbogbloshie's fate.

In truth, there appear to be good reasons, at least superficially, supporting the view that the settlement of Agbogbloshie should be moved, as well as reasons why it should remain. What is needed is a well-informed, clear and succinct understanding of the issues involved, and the relevant benefits and disadvantages. This will then enable those ultimately responsible for the decision to make an informed and equitable decision, one that takes into account the needs not only of those living there, but also of the city as a whole. The purpose of this report has been to provide the information that will assist the authorities to make such a decision.

There are three conditions that would provide a rational basis for a decision to relocate the people of Agbogbloshie:

- The people have occupied the land illegally and the land is required for another purpose.
- The settlement constitutes a serious threat to the surrounding environment.
- The settlement is a high-risk area and people need to be relocated for their own good.

It is important for all parties to recognise that these are the ***only*** three conditions that

could (singly or collectively) justify relocation. It is morally indefensible to make decisions that have a major impact on the lives of so many people on any lesser basis.

These facts have not been available prior to this point in time. To rectify this, COHRE's report has addressed Agbogbloshie on three different geographical levels, which incorporate the three key conditions for removal outlined above. This will address all of the government's concerns, not only about this particular community, but about informal settlements in general.

The first of these three levels covers the metropolitan area. It examines Agbogbloshie in the context of what is happening with regard to urbanisation in metropolitan Accra. The second level looks at the settlement within its immediate environment, specifically at its location on the banks of the Odaw River and the Korle Lagoon. And the third level is local, covering the settlement itself.

**COHRE's report finds a strong case for upgrading and developing Agbogbloshie *in-situ*. The basis of this finding is summarised below for each of the three relevant levels**.

## Agbogbloshie in a metropolitan context

At this level the two key issues that dominate the debate are land and housing, with the former being the more complex due to its political sensitivity. Ghana operates under a traditional system of land ownership, which has proven to be extremely resistant to change. With growing population pressure and increased mobility, however, it is being heavily stressed. Although this is felt everywhere, it is in the urban areas, and particularly in Accra, where the effects are most acute. With support from the World Bank the Government has developed a Land Administration Programme, which should facilitate improved land management. In addition the Government, through its work on the National Shelter Policy, has identified the blockages that are preventing both improved access to new land as well as the efficient and effective utilisation of existing land (Government of Ghana, 2001:12). However, the implementation of these policies will take time. And international experience indicates that they will be most useful in benefiting those with the capital to access land at market rates, namely the upper and middle classes. The proposed changes are unlikely to benefit the urban and rural poor in the short to medium time frame.

Simultaneously, the market condition that has heretofore helped to provide shelter for the low and low-to-medium income groups (rental of rooms or makeshift shacks in formal areas) is also reaching the saturation point.

Both of these constraints on access to shelter are occurring when the population of Accra is growing at a rate in excess of 4.5 percent annually. This means that an already saturated housing market is facing the prospect of having to accommodate as many as one million additional people over the next 15 years, the majority of whom will be poor.

Again, if international experience is any guide in this situation, then the next major wave of urbanisation is going to include some form of illegal land occupation on open areas. The Government is faced with a choice. It can either attempt to evict all of those who settle in this way, or it can pre-empt illegal land occupation by creating some mechanism for informal settlement, in a way that is acceptable to the Government, to landowners,

and to those requiring land. This is certainly not an easy mandate, but it is a critical and necessary one.

With Agbogbloshie the government has reached a crossroads in the urbanisation of Accra. If it holds to the current legal ruling, then it will be obliged to remove all communities who are perceived to have settled illegally on Government land, and encourage private landowners to do the same.

An alternative does exist. If the government can find a way of developing Agbogbloshie to the satisfaction of all interested and affected parties, then it will have created a valuable pilot project, one that could help to lay the foundation for an innovative yet informal land transfer system. Agbogbloshie, far from being a problem settlement, can become a pilot study that contributes to an efficient management scheme for urban-dwellers in Accra. COHRE believes that this is both possible and feasible.

## Agbogbloshie and the Korle Lagoon

This level of the study explores the relationship between Agbogbloshie and its immediate environment, the Korle Lagoon and Odaw River catchment, and the proposed environmental restoration project. The key issue here, which is central to an objective evaluation, revolves around the initial definition of the relationship. In this case, there has to be an openness to the possibility that the two can co-exist. Any other starting point introduces a subjective bias.

Important considerations are:

- Are there reasons why the settlement and KLERP cannot co-exist?
- If so, what is the cause of this incompatibility, and how strong is it?
- What is the impact of the project on the settlement?
- Can remedial action be taken to bring about co-existence?
- If so, what is the nature of this remedial action?
- What is the outcome of a cost-benefit analysis comparing sustainable co-existence with removal and relocation?

Agbogbloshie lies in what has been defined as the core area of KLERP. This, justifiably, gives it greater prominence than other geographical locations slightly further away from the Lagoon. Even COHRE's estimate of a 5 percent contribution that Agbogbloshie makes to the pollution load of the Lagoon is still a significant one, and the case against Agbogbloshie retains, at this stage, some validity. This, then, requires the analysis to be taken a step further, which asks the questions whether remedial action can be taken to ensure co-existence, and what would the nature of this remedial action be? COHRE's conclusion is that adequate remedial action can be taken.

The next issue involves exploring the impact of the settlement relative to other areas within the catchment. It is important to recognise that the remedial action that will need to be taken to ensure the co-existence of Agbogbloshie and KLERP is no different from the action that will need to be taken to make many other communities in the catchment suitable for co-existence. A definitive answer as to whether Agbogbloshie should be removed or not can only come from a cost-benefit comparative analysis.

It is fully recognised here that comparisons with other areas of the catchment can only be taken so far. The reality is that other areas are formal, in the urban planning sense. And this means that they do have the rudiments of physical services. Thus the cost of co-existence could be higher for Agbogbloshie than for other areas. However there are other factors to be borne in mind, not least of which is the cost of the proposed eviction. Before proceeding any further, a detailed cost-benefit analysis should take account of both the social and economic cost of both removal and relocation. This analysis would have to include a number of issues:

Firstly, Agbogbloshie already has a significant, and fairly mature, local economic base, which will be destroyed if the area is cleared. It also has a significant investment in housing infrastructure and a well-organised, retail sector, privately managed for physical infrastructure (water, sanitation, electricity and telecommunications).

Secondly, Agbogbloshie is an integral and vital part of Accra's wholesale food market. The decision to relocate this market has not taken into consideration the cost of such a move.

Thirdly, the settlement has strong social networks which have a value in terms of social capital. There is also the aspect of adding 30,000 people to the city's homeless, who will need to find accommodation and work. All of these factors need to be set against the cost of bringing the settlement to a point where it can successfully co-exist with KLERP.

And, finally, the procedures which will have to be followed for the eviction to be in compliance with applicable international standards, involve numerous steps, each of which will has associated time, money and other opportunity costs.[8]

Internationally, there is a strong divide between those who are seen to pursue a green agenda (ecological restoration at any price) and those who advocate a brown agenda (where economic development is the priority). Too often these two are perceived as mutually exclusive while in fact they can often, as here, be integrated. KLERP could be a more holistic and sustainable project if it was one that could integrate poor communities into its overall plan.

## Agbogbloshie, the informal settlement

The possibility that informal settlements might be developed in physical and in socio-economic terms is a difficult concept to grasp, particularly for those with little understanding of such communities. When seen for the first time, informal settlements appear to be dangerous settlements with high levels of poverty and appalling environmental health conditions. They are certainly lacking in basic amenities, and the lack of a formally structured environment does give the impression of a chaotic situation. In practice, however, they are functional settlements, and their conditions can often be improved significantly.

Certainly some settlements cannot be upgraded, for a number of diverse reasons. This report would do the residents of Agbogbloshie no favours if it were to insist on upgrading regardless of the viability of such an exercise. This is an important point, and

[8] See Annex A.

this report does not lightly recommend upgrading. It does so from a firm belief that it is physically possible in Agbogbloshie.

There are a number of constraints that would limit or prevent upgrading. These are related to levels of risk, access and circulation, technical feasibility (which is often linked to cost) and internal community strife. In the case of Agbogbloshie, however, the overall environment appears to be favourable to upgrading. Each of these four constraints has been explored to varying degrees, and it is possible to make a preliminary assessment of each.

**Risk -** The different aspects of risk were examined in the evaluation of Agbogbloshie. None of them were seen to be serious enough to warrant relocation. All major risk elements could be brought down to acceptable levels through *in-situ* development.

**Access and circulation -** There is a reasonable access network within Agbogbloshie that could provide the basis for a sustainable network. It would need to be improved in some areas, but it does form a basis for future development.

**Technical feasibility -** There are some difficult physical conditions in Agbogbloshie that would require further investigation. These deal primarily with the ground conditions and the storm water. At this stage, however, and based upon previous experience, neither of these appears to present an insurmountable obstacle to development. More specific details of these, and other technical aspects of the site, are given in the next section.

**Community dynamics -** The community does not appear to have any major rifts that would prevent development from taking place. The major problem with regard to potential areas of strife relates to the relationship between the community and the previous land-owners. The land issue is seen as the most critical in terms of its potential to cause strife. This issue would have to be addressed.

It is clear that, far from being a problem that needs to be removed, there are positive benefits in Agbogbloshie being retained and developed, and these benefits apply at a number of different levels. At the city level, Agbogbloshie presents a real opportunity to the Government of Ghana and to the AMA to address one of the most pressing needs of Accra - housing for its low-income population. At the local level the development of Agbogbloshie could provide an internationally important example of how to integrate the poorest section of the population into a major wetland restoration project. And, at the community level, Agbogbloshie could provide an important pilot project for Ghana that will allow it to develop a methodology for the upgrading and development of informal settlements.

It is, however, recognised that the upgrading and development of Agbogbloshie needs to address a number of legitimate concerns on the part of Government and the community. It would need to be subject to a number of pre-conditions, as follows;

- There is mutual agreement on the issue of security of tenure and land ownership, to the satisfaction of Government, the AMA, the residents of Agbogbloshie, and the historical landowners of the site.
- The upgrading is technically and financially feasible. This would be dependent upon a more detailed technical investigation and costing of physical development. It is recommended that the community approve the professional group proposed by the

AMA to carry out this study (and include the right of veto).

- The community of Agbogbloshie is supportive of a plan to upgrade and develop the area and is willing to play a pro-active part in the process.
- The upgrading proposal plans include and support the poorest group in the area, who might otherwise be marginalised by the upgrading process.
- The major development principle guiding the upgrade is that of minimum relocation (further discussed in the next section).
- That funding is found for the upgrading.

## The basis for informal settlement upgrading - the way forward

Understanding informal settlement upgrading:

An important feature of informal settlements is their geographical location, and consequently their physical nature. Thus the majority of informal settlements tend to occupy land which is either environmentally degraded or prone to natural disasters (floods, slides, collapse), conditions that, collectively, refer to what is called marginal land (Abbott and Douglas, 2000:chapter 1.1). It is often the case that reports recommend the relocation of a specific informal settlement because they encounter one or more of these physical constraints (see, for example, the IMDC report). Alternatively they may simply express such strong emotional concern that they lend weight to this view indirectly (Studio Report, 2003:113-4). The reality is, however, that almost all informal settlements experience one, oftentimes more, of these adverse physical conditions. The removal of an informal settlement because it has the generic physical constraints applicable to the majority of such communities is clearly a meaningless pursuit. Rather, the purpose should be how to use the development of that specific settlement in a way that best meets the needs of the city as a whole.

To achieve this, governments need to pass through three stages of understanding. The first is the stage of **acceptance**, where there is an acknowledgement that informal settlements are a common and recognised form of urban development, which serves an important purpose. They are also, in many cases, the only means by which the poor can obtain shelter.

The second stage is an **understanding** of the underlying purpose served by these settlements. Gilbert and Gugler, referring to the pioneering work of Turner and others in the 1960s, stated the following;

> "They [Turner et al] demonstrated that the shanty, which was so often, and of course sometimes rightly, denigrated as the ultimate in penurious living conditions, was frequently the basis of an adequate shelter. Rather than being a shack without services, it was the foundation upon which the more fortunate, better off, or more innovative sought a way to improve their poverty" (pp.117-8).

Upgrading is a process that seeks to support these endeavours of the residents. If the process did not support such efforts, the upgrade would fail in its purpose.

The third stage relates to the **approach** taken to intervention. Abbott and Douglas have demonstrated that "The upgrading of informal settlements differs quite fundamentally from the development of vacant land for housing, in both the wider approach to the problem and the detailed implementation" (Abbott and Douglas, 2000:chapter 1.1). Hence the methodological approach has to be specific to the settlement. In essence, this means that the community has to play a major role in decision-making if the upgrading is to achieve its objectives, support the local population, and be successful.

Providing a framework for the upgrading of Agbogbloshie:

What follows is the outline of an approach to the upgrading and development of Agbogbloshie, covering the major steps in the process.

- Create a partnership between the Government and the community that provides a channel for communication.
- Agree that the basis for future discussions will be an in-principle minimum relocation policy. This does not mean that no-one will have to be relocated; to facilitate integration and upgrading, some people might have to move. What it means is, rather, that relocation will be kept at a minimum, and that decisions on relocation will be taken by consensus. This is a critical step in building trust between the parties.
- Carry out a basic demographic and socio-economic analysis of the area to gain an understanding of who is living there and what their circumstances are.
- Identify priorities for development.
- Draw up an action plan for development that can be used for funding purposes as well as providing a development plan.
- Having gained an understanding of what needs to be done, identify roles and relationships in the partnership between the Government and the community, and draw in external agencies as appropriate.

The Government's priorities have been already been defined, in terms of land regularisation and the ability of the settlement to co-exist with KLERP. These have to be seen as an integral part of the upgrading process. Similarly, the community will have priorities that will need to be treated in the same way. A review of the situation in Agbogbloshie indicates that these issues can be resolved satisfactorily. However, this is going to depend, ultimately, on the availability of resources.

Funding the development of Agbogbloshie:

The funding of the project is, of course, crucial. And the Government and the community need to play an equal part in ensuring that resources are found. Two points are of critical importance. The Government must recognise the potential international goodwill that this project would generate. This could be an ideal project for donor funding, from both multi-lateral and bilateral agencies, particularly so if it is given prominence as a pilot project for the city.

From the community's side, there are international NGOs already committed to lending support, particularly in the information-gathering and community-training elements of

the project. For this effort will only succeed if there is a significant community contribution towards its success, through the mobilising of community resources.

All parties need to recognise the challenging but unique opportunity that Agbogbloshie represents. It is nothing less than a chance to change the direction of development in Accra, and benefit the community while simultaneously helping the city in its wider objective of creating a functioning and attractive hub for West Africa.

## Conclusions

1. There is a contradiction in the attitude of the Government of Ghana towards Agbogbloshie. There are many forms of illegal settlements in Accra, involving both land and housing, and the Government takes a tolerant and progressive attitude to these. Yet the Government maintains an uncompromising position toward the community of Agbogbloshie.

2. The Government has a genuine concern about Agbogbloshie, but its reasons for wanting to evict the residents are complex and multi-faceted. Three areas of concern have been identified. These relate to the wider implications of illegal settlement on the fragile land tenure system in Accra, the implications for the future of KLERP, and the poor physical environment in Agbogbloshie itself. If there is to be a meaningful debate about the future of Agbogbloshie, then all three of these concerns must be addressed.

3. The first concern of illegal land occupation is more complex than indicated in the court case. Agbogbloshie is the first informal settlement of significant size in Accra to be formed through the illegal occupation of land. Because land is emerging as a critical issue in the city, and because there are already serious tensions about how to manage land ownership and land tenure, Agbogbloshie represents a serious threat to the existing structures of ownership. A resolution of the tenure issue is crucial if Agbogbloshie is to remain.

4. Such resolution is not only possible, but could actually prove beneficial to the city. It would require payment for the land and consensus between the community, Government (both central and local) and the original land owners. If such an agreement could be reached, however, it could provide a basis for a new form of informal land management which could make a significant contribution to the current land and housing crisis in Accra.

5. The second area of concern relates to the location of Agbogbloshie on the banks of the Odaw River in the upper reaches of the Korle Lagoon. The Government faces legal penalties from KLERP if Agbogbloshie is allowed to stay. This is an unacceptable imposition on the part of those providing the loan for the project, and may in fact constitute a violation of the donor country's obligations under the ICESR. At the same time, the mandate that Agbogbloshie must go, is presumed to be based on the idea that the continued presence of Agbogbloshie is so detrimental to the project that it could lead to its failure. This is simply incorrect.

6. The study found that the ESIA carried out for KLERP seriously misrepresented the impact of Agbogbloshie. There was no attempt to quantify the pollution load from the community. This was rectified by COHRE's investigation, which found that

Agbogbloshie contributed approximately 5 percent of the total pollution load entering the Lagoon. While this is still a significant figure, it does not warrant the removal of the settlement.

7. KLERP is currently constructing a weir across the Odaw River to divert dry weather flow from the Lagoon and pump it out to sea. This is an implicit recognition that the pollution of the Odaw River system will remain a threat to the ecological stabilisation of the Lagoon for a considerable period of time, even with the removal of Agbogbloshie.

8. The study concluded that KLERP would be far better served by upgrading and integrating Agbogbloshie, rather than removing it. It also concluded that environmental projects can be successful without displacing the poorest sector of the population.

9. The third area of concern on the part of the Government related to the degraded physical environment within Agbogbloshie itself. The study found a lack of understanding about Agbogbloshie among Governmental officials. In fact, in a number of cases, there were serious misconceptions. These included the nature of settlement formation, which influenced the Government's understanding of the outcome of evictions, the social and economic dynamic within the settlement, and even the concept of *in-situ* upgrading. This lack of understanding is severely limiting, for it means that the possibility that Agbogbloshie could remain and be improved does not seriously enter the debate.

10. The study concluded that, based upon previous experience of upgrading in other similar situations, Agbogbloshie could be upgraded and developed *in-situ*. The community already manages a sophisticated system of water and sanitation provision, based upon communal shower points and communal latrines. These could be improved. Similarly the storm water drainage system, which currently causes the greatest inconvenience and health risk, could be significantly improved.

11. Finally, the study identified within Agbogbloshie a community with strong social networks, comprised of people from different ethnic and religious backgrounds living harmoniously together. There was a vibrant and dynamic economic base existing within the settlement, which served both the community and areas outside. There were strong economic linkages to the adjacent market. And there was a major investment in housing that the study estimated to be worth 12 billion cedis.

12. In summary the study concluded that Agbogbloshie could be developed *in-situ*, given the political will; that an upgraded Agbogbloshie could co-exist with the KLERP; and that the development of Agbogbloshie could provide the Government with a model for informal land development that could be of major benefit to the future development of Accra. The achievement of these outcomes is, however, hindered by a lack of knowledge and understanding of the in-situ upgrading and developmental process. If the outcome described here is to be successful, it would require support from the international community.

13. The Government has declared that the people of Agbogbloshie will no longer be living there by September 2004. This report has shown that there are, at the very least, some important questions to be asked about this approach. ***Now*** is the time for

all the information to be brought to the table. ***Now*** is the time for the United Nations, NGOs and CBOs to come together in a workshop to explore these concerns, and develop "non-conventional" strategies to address the housing crises in Accra, as well as in the whole of Ghana, and to make workable recommendations to the Government. ***Now*** is the time for the strategies to be articulated, identified and implemented. Agbogbloshie could serve the Government of Ghana as a model community for future action, and is, in truth, an ideal opportunity for those holding responsibility for their people to commit to a new and higher standard of action.

## ANNEX A:

## Note on Forced Evictions and International Human Rights Law

Forced evictions are a violation of international human rights law and, in particular, the right to adequate housing. The United Nations Commission on Human Rights has affirmed that forced evictions are a "gross violation of human rights". States Parties to the United Nations Covenant on Economic, Social and Cultural Rights (ICESCR) are obliged to protect the right to adequate housing enshrined in Article 11(1) of the Covenant. A similar obligation arises under the African Charter of Human and Peoples Rights. The UN Committee on Economic, Social and Cultural Rights (UNCESCR), the body mandated by the international community to implement and enforce the Covenant, has expressly stated in its General Comment No. 4 (1991) that "forced evictions are *prima facie* incompatible with the provisions of the Covenant, and can only be carried out under exceptional circumstances."

In its General Comment No. 7 (1997) the Committee articulated that in those "exceptional circumstances" in which forced evictions could be carried out without violating international law, certain requirements *must* be adhered to.

First, States must ensure, prior to any evictions, and particularly those involving large groups, that *all* feasible alternatives are explored *in consultation with affected persons*, with a view to avoiding, or at least minimizing, the need to use force.

Second, "evictions should not result in rendering individuals homeless or vulnerable to the violation of other human rights." Governments must therefore, "ensure that adequate alternative housing is available . . . to affected persons."

Finally, in those rare cases where eviction is considered justified, it must be carried out in strict compliance with additional relevant provisions of international human rights law and in accordance with general principles of reasonableness and proportionality. The Committee expressly enumerated relevant provisions of international human rights law by which States must abide. These include, *inter alia*:

(1) An opportunity for genuine consultation with those affected;
(2) Adequate and reasonable notice for all affected persons prior to the scheduled date of eviction;
(3) Information on the proposed evictions, and where applicable, on the alternative purpose for which the land or housing is to be used, to be made available in reasonable time to all those affected;
(4) Especially where groups of people are involved, government officials or their representatives to be present during an eviction;
(5) All persons carrying out the eviction to be property identified;
(6) Evictions not to take place in particularly bad weather or at night unless the affected persons consent otherwise;
(7) Provision of legal remedies; and
(8) Provision, where possible, of legal aid to persons who are in need of it to seek redress from the courts.

# ANNEX B:

## Environmental, Physical and Economic Conditions in Agbogbloshie and the Korle Lagoon Catchment

This report addresses the following environmental and physical conditions and impacts: demography; water supply; sanitation; housing; flooding; storm water drainage; solid waste and health. Each section follows the same format wherever possible. The section quotes first from the ESIS analysis of the component in question. It then analyses the validity of the statements made in light of the findings by the author during site visits in October and November 2003. The report then returns to the ESIS document and quotes passages about the specific conditions that apply in the catchment area in general, and then looks at how these actually compare with the situation in Agbogbloshie.

### Demography

Information concerning demography in the ESIS is quoted as being taken from "Field Surveys, 2000". It is based upon a survey of 150 dwellings in the settlement. Unfortunately there is no reference to the survey document in the bibliography, so it is not clear what the conditions of the survey were (e. g. was it a random survey and, if so, what methods were used to determine the choice of dwelling to visit). From some of the statements (which are quoted later) there are indications that the survey was not carried out randomly across the entire settlement, but may have focused only on dwellings that abut onto the Lagoon. If so, this would not be a representative survey of the area. Nonetheless, given the centrality of this survey to the analysis of the settlement by the ESIS, the results will be taken at face value.

The demographic data for Agbogbloshie combines cartographic and survey data. The survey of 150 houses is stated to cover one hectare (IMDC:94) while the cartographic survey calculation yields an area of 31.3 hectares for the settlement, with 20 hectares under residential occupation. As no government or local authority departments were willing to provide maps of the area it was not possible to check the validity of these calculations.

The most important aspect of the demographic profile is its comparison with the demographic profile of the catchment as a whole. In that context, the ESIS has the following to say.

> "About 58 percent of the total population of Accra live in the catchment area of the lagoon and its drainage basin (Odaw and Onyasia Streams). Out of the 55 residential communities in the city, 34 are located in the Korle catchment area (drainage basin) of the Odaw River. The population of these residential quarters is estimated at 865,289 in 1995 (i.e. 58.8 percent of the total population of Accra). Of this figure, 74 percent are in low income areas with depressed conditions (IMDC:84).
>
> The new low-income communities are increasing faster than the middle and high residential income quarters (4.7 percent against 3.3 percent) and there is no indication of net depopulation in old migrant or the majority of old Ga communities where the residential stress is already very high. Consequently, the catchment area is characterised by high densities and great demographic pressures" (IMDC:86).

Thus, it can be seen that the conditions pertaining to Agbogbloshie are replicated throughout the wider catchment area. Furthermore, Agbogbloshie represents less than 5 percent of the total of low-income residents living here. Given the extent of the pollution in the Lagoon catchment area, and the small contribution made by Agbogbloshie, it can be seen that the impact of the

settlement on KLERP is far less important than the impact that KLERP has on the settlement.

**Water supply**

The ESIA states the following with respect to the water supply;

> "There is no formal piped water in the area, However, there are a few water standpipes operated by individuals on a commercial basis. Commercial public bathhouses are attached to these standpipes. These are located mostly on the banks of the lagoon and waste water from the bath houses is discharged directly into the lagoon" (IMDC:97).

This paragraph is highly misleading and, in some places, simply misinformed. There are no standpipes in the settlement. On the contrary, the water reticulation network is extensive, as is the distribution of shower and water distribution points. Furthermore, only a small number are located at the edge of the settlement close to the Lagoon, with the majority being situated inside the settlement and away from the edge. There are no direct connections to the Lagoon, although the lack of adequate drainage does mean that any sullage water that does not percolate into the ground will eventually make its way to the Lagoon. Compare this situation, however, to the state of the water supply in the low-income communities of the Odaw River catchment as a whole. Here the ESIA states the following;

> "The area is connected to the water supply reticulation system. The system experiences frequent damage and leakage due to the old age of the pipes. The area suffers from inadequate water supply and frequent disruptions in service. Many houses are not connected to the network because of the high cost of connection" (IMDC:89).

Overall, the water supply situation is much better than indicated in the ESIS, and the impact on the Lagoon less. Access to water is no different than for a large proportion of those living in the formal low-income areas of the catchment, while the reliability of supply (which is a very important health consideration) actually appears to be better.

**Sanitation**

The ESIA states the following with respect to sanitation;

> "There are no domestic toilets in Sodom and Gomorrah. However there are a number of commercial public toilets located along the banks of the lagoon. These are mostly pan latrines. The contents of these toilets are emptied directly into the lagoon. Due to the inadequacy of toilet facilities, open defecation and "parcels-throwing" into the lagoon is widely practiced (sic)" (IMDC:97).

This paragraph is seriously misleading, and appears to be written primarily to give a negative impression; an impression, moreover, which is completely contrary to the reality. Overall, this settlement operates a well-managed sanitation system, with a significant proportion of the waste being either disposed of off-site or buried. The number of toilet blocks on the edge of the Lagoon (which the ESIS report implies constitutes the majority of the toilet blocks) is actually very low compared to the total number in the settlement as a whole. And while it has to be recognised that there is still some disposal of waste directly to the Lagoon, this is a small proportion of the total. Furthermore there are efforts underway within the community to reduce this practice further. This initiative is having limited impact, unfortunately, due to the belief (deriving from local observation) that nightsoil tankers sometimes dispose of their contents directly to the Lagoon.

Consider now the situation generally in the Odaw catchment area in respect of sanitation, as

described by the ESIS;

> "The housing environment . . . is characterised by . . . poor solid and liquid waste disposal . . . in low-income communities, the proportion of the areas provided with septic tanks is limited to approximately 20 percent of population within the whole catchment area. About 50 percent of the population in the catchment area have only pan or KVIP (Kumasi Ventilated Improved Pit) latrines, all located in low-income communities.
>
> There are generally very high pressures on housing infrastructures in the low-income zones: about 30 persons per toilet . . . All available spaces in houses are converted into living rooms, leaving no places for other functions, particularly toilets. Consequently, people use either public toilets when they can afford, or the open spaces like Korle Lagoon and drainage basins. Korle Lagoon and Odaw River function as . . . a "natural latrine" for this population and a "natural septic tank" for the sullage generated by them" (IMDC:86).

Then again, in examining the liquid waste situation in the Odaw River catchment, the report continues;

> "The Accra Central Sewerage System only serves the southern portions of area (sic) (i. e. south of the Asafoatse Nettey road). The network, which was constructed since 1971 has remained unchanged and under-utilised. It was identified that due to the high cost of connection and the distance to the lateral, most houses have not availed themselves of the system.
>
> There are six public toilets in James Town/Ussher-town and only few houses have access to domestic toilets. Majority (sic) of the people therefore use the few public toilets or depend on other means of liquid waste disposal. These include pan latrines, KVIPs, chamber pots and open defecation. The contents of the containers are emptied into surface holding tanks provided and managed by the Waste Management Department of the AMA. Due to the inadequacy of these services, ***most people*** (COHRE's highlight) are compelled to either throw their liquid waste into drains, the Korle Lagoon and any open space" (IMDC:89).

It is clear that Agbogbloshie, far from being a unique situation, is typical of many areas within the Odaw River catchment, and actually better than the situation in many, particularly Old Ga (Jamestown). Agbogbloshie is, at the worst, likely to contribute the same organic pollution load through its human waste, per capita (and in all probability even less), than many of the other low-income areas in the catchment.

**Housing**

The ESIA states the following with respect to housing;

> "Sodom and Gomorra exhibits possibly the most precarious living conditions in the whole of Accra. Table 3.5 [persons per house and persons per household] shows the high room occupancy ratios in the area. Over 78 houses of the surveyed 150 houses had between 1-5 persons per house (IMDC:96). Similarly 63 percent of households had between 1-5 persons constituting the household. In summary, while average household sizes between 1-5, most of these live in single-house single-rooms" (IMDC:96)

Compare this to what the ESIS says about housing in the so-called immediate zone of the Lagoon catchment. This is close to Agbogbloshie, and the areas described are classified as formal.

> "The housing environment (i.e. 74 percent of the total area in terms of population and 53 percent of the total catchment area) is characterised by haphazard development, under provided housing infrastructure (IMDC:86).
>
> There is a high density of houses in the area and many are clustered and unplanned. Many buildings are compound houses and are owned by families. These are usually congested and overcrowded with extreme distortions in the ration of households to the number of bedrooms or the number of persons per room. Average household size is 8 persons with an average households per house of 6. An average number of 48 persons live in a compound house with a density of 7.0 per room, in some cases three generations of a family live in one room" (ibid).

The situations in the two areas speak for themselves. From reading the two sets of comments, without knowing which area is being talked about, it would be difficult to differentiate the housing conditions in the formal areas from those in the informal settlement. The housing conditions in the formal areas are dire, and the average densities per room are actually higher in the formal areas than they are in Agbogbloshie.

Turning to the housing typology, the ESIS states;

> "Housing conditions in Sodom and Gomorra are extremely poor, comprising mostly of wooden structures. Most of the buildings have not foundations. The floors are made of compacted earth and are always seeping with water. Housing densities are very high, while room sizes are very small (on an average 6m2), Houses comprise mostly of single rooms arranged in irregular rows which criss-cross lanes and sited very close together leading to poor ventilation and access. From the sample survey 80 percent (120 out of 150 units) were found to be single housing units" (IMDC:95).

This is quite misleading and once again calls into question the validity of the survey from which the comments are derived. Certainly this view contrasts strongly with the impression gained from an extended tour of the entire settlement. There is a sense that this survey may have come from the newer (and poorer) part of the community situated closer to the Lagoon. Taking the settlement as a whole, the room sizes are larger than that quoted (with many rooms of 10-12$m^3$) and a much more complex ownership-rental relationship is in place. Further, many shacks have several rooms, a fact that is not given any weight in the ESIS.

And again, in its section on housing structures in Agbogbloshie, the ESIS is incorrect in places, specifically with respect to foundations. Floors take one of two forms, as described previously. Many houses, particularly in the area closer to the Lagoon, have suspended wooden floors constructed 3-400mm above ground level. The remainder is constructed at ground level. Here, though, there is a mix of houses with concrete slab floors and those with floors of packed earth. At the time of the visit there was no sign that the houses with compact earth floors were seeping with water.

Referring to the housing situation generally in the low-income communities within the Odaw River catchment, the report states the following;

> Houses are generally built with mud brick (20 percent) or sandcrete (76 percent), others (4 percent) . . . Maintenance of the houses is extremely poor . . . There are also numerous makeshift structures from wood and asbestos, which are used as accommodation by many people. Dampness due to frequent leakage of rainwater into rooms, poor building materials and poor ventilation have characterised housing conditions in the community" (IMDC:88).

Again it is clear that many of the dwellings in the formal areas are in extremely poor condition. The "numerous makeshift structures" quoted above are just as informal as the dwellings in Agbogbloshie, while the living conditions and the nature of the housing is, on the whole, considerably worse.

**Flooding and storm water drainage**

Flooding in the Odaw catchment comes from two sources. The first is where the river system itself backs up and flood waters move from the river into built up areas. The second is where the rainwater cannot be moved through to the river system quickly enough, with the result that that the level rises and the area floods. The second of these is a function of the state and adequacy of the storm water drainage system.

The only specific comment in the ESIS about flooding in Agbogbloshie states "The areas still experiences frequent and severe flooding throughout the year (acute in the rainy season)" (IMDC:94). The report does not differentiate river flooding from storm water, although the point is made that the previous residents of the area were relocated partly because of the problems caused by flooding of the river. It would appear that the primary cause of flooding is from storm water. With respect to river flooding, the area will also benefit from KORLE, thereby making it a more feasible location for housing.

As regards storm water drainage, the ESIS makes the following statement;

> "The area does not have a drainage system and all the wastewater from bathrooms and homes are drained directly into the Lagoon. The ground and surrounding area is totally unsuitable for mass construction of toilets and other septic facilities" (IMDC:8;107)

This statement, also quoted earlier, is linked definitively to the case for the removal of the settlement. While true that storm water drainage is a severe problem in Agbogbloshie, the extent to which this can be managed has not been evaluated as part of the ESIS. The ESIS therefore is simply making a qualitative statement at this stage, which lacks a technical basis.

At the same time, it is useful to note the general comment about flooding and storm water drainage in the wider catchment area, which is described in the ESIS;

> "the Odaw basin is relatively flat and therefore liable to flooding. Heavy widespread rains, the characteristic of the May-July wet season, cause extensive floods. This situation is largely attributed to the absence of well-engineered drains. Most primary drains are silted and choked with rubbish and overgrown with weeds . . . In the 1999 floods for example, large areas of the Odaw catchment including Ghana Telecom, Industrial properties such as Mitsui, Mechanical Llyod (sic) Guiness Ghana Depot etc ere inundated with an estimated property loss of US $30 million. Such season floods also lead to disruption in commerce, transportation and other infrastructure facilities and loss of life" (IMDC:86).

Here again the situation in Agbogbloshie, particularly with regard to river flooding, is not all that different to the condition experienced in many other areas of the Odaw catchment. However, the absence of a formal drainage system in Agbogbloshie does make the frequency of the flooding from storm water more severe in the settlement than elsewhere.

**Solid waste**

The ESIS report makes the following statements with regard to solid waste;

> "There are no arrangements for solid waste collection and disposal, All solid waste

> generated from the community is either used to fill depressions in the area to get more land or are disposed of indiscriminately around or into the lagoon (IMDC:97).
>
> Using an estimated refuse generation capacity of 0.45kg per capita per day for Accra (WMD, AMA) it is estimated that the people of Sodom and Gomorra generate about 10.1 tonnes of solid waste per day. Due to the lack of waste collection services, all of this garbage is dumped in the community and into the Korle Lagoon" (IMDC:107).

This figure is again misleading. One of the best sources of information on solid waste generation in developing cities stems from the work of Cotton, Taylor and others at the WEDC in the United Kingdom (see Cotton and Tayler, 2000; Tayler and Cotton, 1993; Cotton and Franceys, 1991). Their research indicates that the solid waste generation figure for developing cities lies in the range of 0.25 to 1.0kg per capita per day, with an average of 0.5kg/ca/d. This is in line with the figure for Accra quoted above. However, this average figure includes waste from commercial activities and is an average of all income groups within the city. Their figure for low-income groups is in the range of 0.2 to 0. 25kg/ca/d, half the figure quoted by the ESIS. And not all of this ends up in the Lagoon.

Compare this situation to that in the catchment as a whole. Here the ESIA states;

> "Large scale commercial and marketing activities such as the Alajo market, Railway station and Kantamanto market, the Nkrumah Circle terminals (sic) are located along the banks of the stream and the Lagoon. These generate large amounts of garbage that are emptied into the Lagoon" (IMDC:87).

While in low-income residential areas the report states;

> "According to EMA (1989), in these overcrowded slum areas, both the door to door and central collection methods of refuse of refuse [collection] by the Waste Management Department of the Accra Metropolitan Assembly (AMA) are hampered by lack of accessibility and space to serve as container points. The implication is that, domestic waste is generally disposed off (sic) into drains leading to siltation of the lagoon" (IMDC:82).

The general feeling among officials at both the national and the local level is that Agbogbloshie is the major polluter of the Lagoon. The ESIS does nothing to try and correct this misunderstanding, even though it has full details of the catchment population at its disposal and quotes extensively concerning catchment conditions in its report. It is important to place Agbogbloshie into perspective with regard to this gross misunderstanding. That is done here with respect to solid waste generation. But in fact the same comparative approach can be applied to all forms of pollution.

The population of residential quarters of the Korle Lagoon catchment was estimated at 865,289 persons in 1995. Given population trends, this would be equivalent to approximately 1.1 million people in 2003. This area contains a substantial amount of industry, though it also contains a large percentage of low-income areas. Nonetheless, overall, it would not be unrealistic to use a solid waste generation figure of 0.4kg/ca/da, particularly given the large daily floating population in the area. This gives a waste generation load of 440 tonnes per day. This is in line with the quantities calculated by Benneh in 1994 for Greater Accra (1200 tonnes per day).

This same source, quoted in Boadi and Kuitunen (2002), suggest that 89 percent of the population dispose of their solid waste in public containers, open spaces, streams, canals and drainage systems. Even if only 10 percent of this load was lost to the formal collection system this would still amount to 45 tonnes per day finding its way eventually into the Korle Lagoon

system. So while Agbogbloshie, with its 4-5 tonnes per day, is not insignificant, it can hardly be called the major polluter. The reality is that Greater Accra, and particularly the area lying within the Korle Lagoon catchment, has a serious problem with regard to pollution of its river system. And far from solving this problem, the removal of Agbogbloshie settlement would not make that significant an improvement in the overall quality of the river system feeding the Lagoon. After all, the same people and their rubbish are still there, they simply generate that rubbish via a different route. On the other hand, the social and economic cost to the city (and the country) of destroying Agbogbloshie would be significant. The cost of eviction is likely to far exceed the benefit gained in terms of quality improvement in the river system feeding the Lagoon. This simply confirms similar findings from similar experiences elsewhere in the developing world.

**Health**

The comments concerning health in Agbogbloshie, which were taken from the ESIS, were quoted earlier. As regards health in the poorer community of the catchment as a whole, the ESIS makes the following comment;

> "Water and excreta related diseases accounted for 20 percent of cases reported at Ussher Town Clinic in 1994. Other cases reported were respiratory diseases (63 percent) and malaria (21percent). These figures have remained largely the same in 1999" (IMDC:91).

Again, the point is made that the problems raised in Agbogbloshie are not significantly different from those in the remainder of the catchment's low-income areas.

**The relative impact of Agbogbloshie in the context of the urbanisation of the Odaw River catchment**

The previous sections of this annex focused on specific sectors. In addition, there is also the issue of relative impact; what exactly is the pollution impact of Agbogbloshie on the Lagoon in comparison to the overall pollution input? This is simply not considered by the ESIS, and is a major failing which should call into question its validity as an independent ESIA. For, as this report will now show, such an analysis is crucial to any decision on the future of Agbogbloshie. Some of the comparative material is actually provided by the ESIS. In addition, the description that follows also comprises extracts from an internationally published paper by Boadi and Kuitenan (2002). This provides the situational analysis that places Agbogbloshie in context. The paper provides the following review of conditions in the catchment.

> "The increasing pollution of Korle Lagoon is a result of the rapid urbanisation of Accra. This has been unaccompanied by a significant increase in sanitation facilities.
>
> Residents in Accra in total generate an estimated 1200t of waste per day . . with little equipment to manage the refuse, garbage is collected only in high-income areas. In Accra in 1992, only 11percent out of a possible 1.4 million residents, had access to door-to-door collection of waste (Songsore, 1992). The remaining 89 percent disposed of their garbage in public containers, in open spaces, streams, canals and drainage systems.
>
> Exacerbated by rapid urbanisation, poverty remains the primary cause of pollution in the Korle Lagoon.
>
> A major environmental problem occurred in the early 1990s when the Metropolitan Authority, [the body now accusing Agbogbloshie of pollution] for lack of landfills, decided to turn the shores of the lagoon into a refuse dump. This decision had disastrous effects. Within a matter of days, tonnes of rubbish were

> dumped and a huge mountain of garbage was formed . . . [complaints] halted further dumping but the harm had already been done. This action on the part of the authority has further encouraged most residents, lacking access to waste collection, to dump their waste along the lagoon.
>
> About 80 percent of the pollution in the lagoon comes from waste water. Water use is virtually unregulated so there is little incentive to preserve this resource (Laing, 1994). The expansion of the municipal sewerage system has failed to keep pace with population growth. Storm drains are frequently misused for wastewater disposal. The sanitation system in the metropolis consists of a network of open ditches which convey wastewater into the lagoon . . . More than 95 percent of wastewater, including raw sewage in the city, is discharged into open gutters and drains which flow into the Korle Lagoon, making it grossly polluted. None of the approximately 20, small-scale sewerage systems and sewage treatment plants in the city are operated or maintained in accordance with engineering designs.
>
> Another source of water pollution is from the Korle Bu Teaching Hospital and Polyclinic, the biggest of its kind in Ghana. . . . Since the hospital does not have any waste treatment systems, its central drainage system has been constructed to empty its contents (containing dirt, detergents and other cleaners) into the lagoon.
>
> Industrial activity constitutes a major factor of pollution in the lagoon. . . Effluent from factories containing various kinds of chemicals and compounds from asbestos sludge to harmful dyes are emptied into surface drains flowing into the lagoon" (pp304-6)

When this analysis is coupled with the previous sector-based analyses, two important issues emerge. The first is that it is possible to place the impact that Agbogbloshie has on the Lagoon and River system into perspective. Its overall contribution to pollution in the Lagoon, while significant, is relatively small, at less than 5 percent of the total pollution load (expressed in kg BOD per day)[9]. In the other areas of the catchment the environmental plans for reducing pollution are extremely ambitious, and must amount to tens of millions of dollars if they are to be implemented in full. The ability of the AMA to achieve these ambitious goals is seriously questioned. The construction of a weir to bypass dry weather flow direct to the sea instead of through the Lagoon is a clear indication of this, demonstrating that it will be many years before there is a significant improvement in water quality. In this context it is extremely difficult to show why Agbogbloshie should be singled out as a primary source of pollution, blamed for a disproportionate contribution to the pollution load, and targeted for immediate eviction.

Secondly, there has been absolutely no attempt by the ESIS to carry out a cost-benefit study on the relocation of either residents or the market. Yet this should be an integral part of an ESIS. Both of these moves will have a significant social and economic cost. For, as Gilbert and Gugler note: "removal programmes have come under considerable attack in recent years as it has become . . . that the reasons for the removal are often motivated less by interest in the conditions of the poor than in clearing land for prestige buildings or for speculative profit. Frequently, indeed, demolishing housing is the worst of all possible strategies [while] demolition without replacement intensifies overcrowding and excessive shelter cost" (p136).

To take just one example in support of this, it is difficult to see how the AMA can justify the destruction of 12 billion cedis worth of housing investment, particularly in a city where there is a housing crisis and where housing the poor is considered to be one of the Government's main priorities.

[9] A BOD load of 30g/ca/day (including sullage) has been used, giving 900kg/d for a population of 30,000. This allows for the use of toilets to remove some of the load. Total residential pollution in the catchment is calculated at 10,500 kg, while run-off from industry, hospitals, landfill leachate etc contribute a further 16,100-20,000kg/day (Boate and Kuinenan, 2002:306)

Similar arguments, of course, apply to the market scenario. The full cost of market relocation, including pollution management in the new area, housing of the associated workers, and impact on access and transportation networks does not appear to have been taken into account at all in this impact assessment.

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