UNIVERSITY OF GHANA

THE ROLE OF STRATEGIC IMPACT ASSESSMENT IN PROMOTING GHANA'S TRANSITION TO A GREEN ECONOMY

BY

OSMAN FUSEINI

(10636626)

A LONG ESSAY SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF SCIENCE DEGREE IN CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT

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DECLARATION

I declare that this project report is an original work of my research under the supervision of Dr. Theophilus Maloreh-Nyamekye of the University of Ghana Business School, towards the award of the Master of Science degree in Climate Change and Sustainable Development, University of Ghana.

I confirm that the work submitted is my own, except where indicated by referencing and that it has not been submitted for any previous degree or in support of another degree from this or any other university or institute of learning. To the best of my knowledge, due references have been provided on all supporting literatures and resources.

…… ……

Osman Fuseini **Date**

(Student)

CERTIFICATION

I hereby certify that this long essay was supervised in accordance with the procedures laid down by the University.

…… ……..

Dr. Theophilus Maloreh-Nyamekye **Date**

(Supervisor)

DEDICATION

This research work is dedicated to my wife – Najilawu Gariba Osman and my son – Raman Wunti Yong, for your endless support and encouragement.

This study is also dedicated to my parents, Fuseini Ziblim and Fati Tuferu, for your unconditional love.

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LIST OF ABBREVIATIONS

CEA	-	Country Environmental Analysis
CIA	-	Cumulative Impact Assessment
CSIA	-	Combined Strategic Impact Assessment
DMTDP	-	District Medium Term Development Plan
EIA	-	Environmental Impact Assessment
EPA	-	Environmental Protection Agency
EU	-	European Union
GPRS	-	Ghana Poverty Reduction Strategy
GSGDA	-	Ghana Shared Growth and Development Agenda
IAIA	-	International Association for Impact Assessment
LUSPA	-	Land Use and Spatial Planning Authority
MESTI	-	Ministry of Environment, Science, Technology and Innovation
MMDAs	-	Metropolitan, Municipal and District Assemblies
MP	-	Ministry of Planning
NDPC	-	National Development Planning Commission
OECD	-	Organisation for Economic Co-operation and Development
PPPs	-	Policies, Plans and Programmes
SEA	-	Strategic Environmental Assessment
SPC	-	Spatial Planning Committee
TCPD	-	Town and Country Planning Department

ABSTRACT

Ghana recognizes a shift from a conventional economy to a green economy, which includes proactively addressing socio-ecological challenges to ensure sustainable economic growth. The land use and spatial planning sector is already identified by the government of Ghana and its development partners as one with significant potential for greening the Ghanaian economy. The study therefore investigated how the application of Strategic Environmental Assessment (SEA) to land use and spatial planning policies, plans and programmes (PPPs) is influencing greening outcomes in Ghana. The objectives included examining the direct impact of SEA on decision making processes of spatial and land use planning PPPs as well as the indirect impact beyond the PPPs context. This study followed a qualitative research approach. Case study and purposive sampling were employed as the research design and the sampling technique respectively. The target population were the staff of the Environmental Protection Agency, National Development Planning Commission, and the Land Use and Spatial Planning Authority, three key institutions involved in SEA administration in spatial planning in Ghana. As part of the data collection, six officers, two from each of the aforementioned institutions were engaged mainly through in-depth interviews using semi-structured interview guide. The study findings showed that, in terms of direct impact, SEA application was effectively introducing sustainability ideas and also greening the land use and spatial planning PPPs. The results highlighted improvements in institutional arrangement, capacity, as well as management practices with regards to the indirect impact. The findings also revealed limited implementation of the evaluated land use and spatial planning PPPs primarily due to land tenure practices and low support from the political elite. The study concludes that, the application of SEA has not adequately influenced land use and spatial planning in Ghana, as there appear to be insufficient clear case evidence of enhancing natural assets and social equity alongside economic advancement. Nonetheless, there are good grounds for optimism about SEA delivering a sustainable economy for Ghana through its application to land use and spatial planning.

CHAPTER ONE

GENERAL INTRODUCTION

1.1 Introduction

This chapter gives an insight into the study and includes an introduction to the subject being researched, the study background, problem statement, objectives of the study, research questions, the justification and the scope and limitation of the study. The chapter concludes by intimating how the various chapters of this research report is structured.

1.2 Background Information

'Strategic impact assessment' in this research report also known as Strategic Environmental Assessment (SEA), is an approach for incorporating ecological issues into Policies, Plans and Programmes (PPPs) (Sadler & Dalal-Clayton, 2012). The practice of conducting environmental assessment of projects has advanced since the United States of America (USA) introduced the National Environmental Policy Act (NEPA) in 1969 (Pope, et al., 2013). SEA emerged out of Environmental Impact Assessment (EIA) (Sadler & Dalal-Clayton, 2012). For over four decades now, EIA, a tool for project level assessment (Morgan, 2012) has been effective in enhancing the outcomes of development projects (OECD, 2006).

Notwithstanding its reported successes, the practices of EIA in developing countries remain a challenge, as the EIA restricts strategic options, and therefore increases risks to environmental degradation and unsustainable outcomes (OECD, 2006). Undoubtedly, the development path of many developing countries have often overlooked ecological issues (OECD, 2012). As a result, SEA is now recognised and being promoted as an assessment tool that is applied to strategic decision (Islam & Zhang, 2018).

For instance, the Directive for SEA at the European Union (EU), directed EU member states to incorporate SEA into national legislation by 2004. Moreover, many international development organisations have stimulated the practice of SEA around the world (OECD, 2006). Particularly, donors and regional development banks have improved SEA application at the level of planning for sectoral plans and programmes (OECD, 2012).

According to Fundingsland and Hanusch (2012), SEA is formally conducted in more than 60 countries. Increasingly, a number of developing countries are formulating legislation that form the basis for the integration of SEAs within their policy making and planning processes (Ahmed & Sánchez-Triana, 2008; OECD, 2012). More importantly, it is now acknowledged that the over two centuries of conventional mode of development used by various countries across the globe is unsustainable (UNEP, 2011).

In essence, SEA promotes sustainable or green economy by evaluating environmental issues of socio-economic development (OECD, 2012). Fischer (2009) mentions two key roles the SEA can play in promoting green economy. These are; providing for green information and greening outcomes. Basically, green economy involves changes in production and consumption patterns towards efficient use of natural resources, enhancement and preservation of environmental quality, whilst eliminating social inequities (PAGE, 2015). To a large extent, green economy can be measured by the availability of green markets and green jobs as well as investments in green industries (Agyekum et al., 2016).

Doolan and Nelson (2012) indicate that, the sound management of the environment is key, if Ghana for instance, is to attain a sustainable socio-economic growth. Another proposition is that the process of democratic governance in Ghana will be assured if it is grounded on a socio-economic framework that is ecologically viable (MEST, 2012). A similar statement is made in the Inclusive Green Growth in Ghana report by the United Nations Economic

Commission for Africa, that Ghana's efforts towards green economy, means following a sustained policy direction that integrates green growth activities in areas like energy, transport, agriculture, water, forestry, and infrastructure (UNECA, 2016).

This study highlights Ghana's experiences with SEA, and how SEA is influencing land use and spatial planning to create sustainable development outcomes in the country. Data for this research work was collected through a review of secondary literature (an examination of institutional documents). It also included in-depth interviews with staff of the Environmental Protection Agency (EPA) in Ghana and the National Development Planning Commission (NDPC), two bodies jointly playing central roles in terms of SEA applications in Ghana, and who also make up the National SEA Core Team. Also, primary data was collected from the Land Use and Spatial Planning Authority (LUSPA).

1.3 SEA Practices in Ghana

Since the late 1950s, successive governments in Ghana have undertaken various programmes intended to improve the growth and structure of the Ghanaian economy (PAGE, 2015). The country's long-term vision (Vision 2020), as set out in the 1995 National Development Policy Framework, is to achieve a sustainable economy, and also attain a middle-income country status (UNEP, 2013).

Ghana recognizes a shift from a conventional economy to a green economy, which includes proactively addressing environmental challenges to ensure sustainable economic growth (UNECA, 2016). From 1996, the Government has re-oriented all development policies around sustainable development and attention to green economy has also gained momentum in recent years at the highest political level and across various sectors (UNECA, 2016).

In view of this, in 1999, the Environmental Assessment Regulations (LI 1652) were promulgated, and given full legal status to the country's first environmental assessment procedures published by the EPA in 1995 (Doolan & Nelson, 2012). SEA is a mandatory national tool for development planning in Ghana. Eventhough, the EA Regulations (LI 1652) refer to projects/undertakings, it provides legal backing to the SEA (EPA, 2016). In addition, SEA is backed by the EPA Act, 1994 (Act 490). It is also supported by the National Development Planning (System) Regulations, 2016 (L.I 2232), which mandates all planning institutions to incorporate environmental issues into their development plans (EPA, 2016).

At the strategic level, SEA was initially applied to the Tema Export Processing Zone and Agriculture Sector Support Programme based on donor conditions relating to environmental compliance (EPA, 2016). Doolan and Nelson (2012), further indicate that SEA practices and applications in Ghana have increased since its formal introduction in 2002. Notably, in 2002, SEA was conducted on the Ghana Poverty Reduction Strategy (GPRS) I in order to mainstream environmental issues (EPA, 2016). This resulted in the review of the GPRS I, which was later published in 2003 and the subsequent application to the GPRS II (Doolan & Nelson, 2012).

The effective application of SEA to the GPRS and other sectoral policies created an enabling environment for the conduct of SEA at the sub-national levels (EPA, 2016). As a second tier to the GPRS, the District Medium Term Development Plans (DMTDPs) of Ghana were largely influenced by SEA (OECD, 2012). SEA recommendations were also mainstreamed into the Ghana Shared Growth and Development Agenda (GSGDA) I and II (NDPC, 2013).

The practice of SEA in Ghana led by the Environmental Protection Agency, has grown considerably (EPA, 2016). Between the periods of 2004 and 2009, about 20 major sectoral policies and strategies were subjected to the SEA tools (OECD, 2012). They include;

Agriculture Policy, National Energy Policy, Urban Development and Growth Policy, Shelter Policy, Tourism Policy Strategy and Action Plan, National Water Policy and Water Basins, and Transport Sector Development Plan (OECD, 2012). More recently, in 2012, the National Urban Policy was formulated based on SEA, to promote a sustainable, spatially integrated and orderly development of urban settlements (MLGRD, 2012).

As a strategic decision support, SEA operates as ex ante (early in the decision–making processes) and ex post (evaluation tool of the entire process and its outcomes). According to EPA (2016), the methodology for conducting SEA in Ghana are as follows; screening; scoping; assessment; monitoring and evaluation; and reporting, learning and communication (EPA, 2016).

In 2009, the SEA practice in Ghana was appraised and the key features identified were; its focus on sustainability; mainstreaming sustainability issues into PPPs; involvement of stakeholders, awareness raising and capacity building; application at the national and sub-national levels and ownership with national organizations (EPA, 2016).

1.4 Problem Statement

Ghana's rich and diverse natural resources, such as minerals, forest, wildlife, and freshwater form the basis for the country's socio-economic development (Tamakloe, 2000). Commercial utilization of these resources have led to an expansion of the Ghanaian economy as well as improvement in human welfare (World Bank, 2006). At the same time, Doolan and Nelson (2012), highlight in their study that the Government of Ghana has a long held commitment towards sustainable development. According to the study, this has led to the application of environmental assessment tools (EIA and SEA) to policies, plans, programmes as well as projects in an effort to promote green economy.

Based on the review of SEA Practice in Ghana in 2009, EPA (2016) asserts that SEA application in Ghana has been effective in raising awareness to social and environmental priorities regarding development planning. The report argues further that SEA administration in Ghana has made district and sectoral plans more sustainable.

However, FAO (2006), reports that Ghana's growth sustainability is at risk as a result of the mode of its economic development. In addition, UNEP (2013), points out that environmental sustainability and social equity are under threat, with the increasing economic growth of the country. Furthermore, the report indicates that the country is faced with serious green challenges, such as deforestation, land degradation, coastal erosion, biodiversity loss, poor solid and liquid waste management and air and water pollution. Available estimates are that the annual cost of Ghana's environmental degradation is at almost 10 percent of the country's GDP. For instance, the country's forest cover now stands at 4.9 million hectares compared to 7.4 million hectares in 1990 (UNEP, 2013).

The question now is, why is Ghana still faced with numerous green challenges in spite of the wide application of SEA to policies, plans and programmes across various sectors of the national economy?

Some studies (Doolan & Nelson, 2012; Agyekum et al., 2016) have been undertaken in the past on the emergence and application of SEA in Ghana as well as the country's effort towards the adoption of green growth. However, studies exploring the direct and/or indirect links between SEA and green economy, resulting from decisions at the strategic level of policy making have been limited. Therefore, there is the need to investigate how SEA is being used to address socio-ecological issues at the highest level of policy formulation, thus promoting Ghana's transition to a green economy.

1.5 Research Objectives

1.5.1 General Objective

The overall aim of this research is to understand how the application of SEA is promoting green economy by influencing land use and spatial planning in Ghana.

1.5.2 Specific Objectives

The objectives of the study are;

i. To examine how SEA output directly influence decision-making processes of land use and spatial planning PPPs.

ii. To ascertain the long term impact of SEA beyond its application to land use and spatial planning PPPs.

iii. To understand how the indirect impact of SEA as applied to land use and spatial planning PPPs is evaluated.

1.6 Research Questions

The key questions this study seeks to address are;

i. In terms of direct impacts, what role does the SEA output perform in the decision process of land use and spatial planning PPPs?

ii. What are the indirect impact of SEA beyond its applications to land use and spatial planning PPPs?

iii. How is the indirect impact of SEA in the light of its contribution to land use and spatial planning PPPs evaluated?

1.7 Justification of the Study

The Government of Ghana admits that pursuing strategic interventions that limit the destruction of ecosystems can generate green growth. As part of the efforts towards transitioning to a green economy, Ghana recently commissioned a scoping study to assess the areas where it has comparative advantage (UNECA, 2016). The study concluded by emphasizing on the need for regulations and standards in providing the direction.

This research work therefore seeks to improve on available information on the extent of SEA applications to especially spatial and land use plans and programmes in Ghana, and how that is influencing green information and greening outcomes. This study would also serve as a reference source for further research as well as increasing policy makers' awareness to SEA as a promising environmental assessment tool to greening the Ghanaian economy.

1.8 Scope and Limitation of the Study

This study focuses on how the application of SEA to land use and spatial planning is providing for green information and influencing greening outcomes in Ghana.

In view of the fact that Ghana has already identified land use, agriculture, energy and waste as the sectors with significant potential for greening the economy (UNECA, 2016), this present study is limited to only the programmes, plans and policies of one of the above-mentioned sectors, specifically land use, in order to contextualize the study. The rationale for spatial and land use planning is that, in practice, it is one of the sectors with extensive applications of SEA (Fischer, 2002 cited in Dalal-Clayton, 2013; Belčáková, 2016). Besides, the land use and spatial planning sector is multi-sectoral that promotes or regulates different sectoral activities (Belčáková, 2016).

Primary data for this research work was limited to the staff of three (3) public institutions. The institutions are EPA and NDPC, two bodies jointly playing central roles in terms of SEA application in Ghana, and who also make up the National SEA Core Team. Data was also obtained from LUSPA, an institution responsible for performing the spatial, land use and human settlements planning functions of the national development planning system.

1.9 Organisation of the Study

This report consists of five chapters which covers how the application of SEA in Ghana is influencing the policy environment to creating green outcomes, with specific reference to land use planning. Chapter one is the introduction of the research study. It also provides the background, research objectives and justification of the study. Chapter two contains the literature review focusing on the theoretical and methodological information pertaining the concept of SEA, processes involved in SEA applications, whilst also highlighting the role of SEA in promoting green economy with regards to empirical literature.

Chapter three outlines the research approach, research design, sample technique, sample size, data collection, analysis procedures and ethical considerations. Chapter four presents and discusses the findings of the study taking into account relevant literature. Summary, conclusions and recommendations are presented in chapter five.

1.10 Summary and Conclusion

This chapter is the introduction of the research study. It contains the background information, problem statement, research objectives, research questions, justification, scope and limitations and the organisation of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The objective of this chapter is firstly to establish the impact of the subject matter under investigation, then identify areas where a new contribution could be made. The chapter reviews key concepts and evaluate the methods and findings of past studies in the area being researched, so as to identify the appropriate approach for investigating the research questions. A conceptual framework supporting this study is also discussed in this chapter.

2.2 Concept of SEA

Since the early 1990s, the idea of SEA and the role it plays in decision-making has been widely discussed especially in theoretical writings (Fundingsland Tetlow & Hanusch, 2012). According to Glasson et al. (2005), environmental assessment was originally grounded in modernist, rational planning philosophy, but later influenced by some other planning theories, such as post positivist and collaborative planning theory. Linking its development and practice, SEA has evolved from an impact assessment tool, to a proactive process of developing sustainable solutions by enabling strategic thinking in decision making (Bina, 2007 cited in Fundingsland Tetlow & Hanusch, 2012).

Sadler and Verheem (1996, p. 27), define SEA as a ‘‘systematic process for evaluating the environmental consequences of proposed policy, plan or programme initiatives in order to ensure they are fully included and appropriately addressed at the earliest appropriate stage of decision-making on par with economic and social considerations.’’ The main conception is that, SEA focuses on appraising the likely ecological impacts of PPPs, as well as integrates ecological concerns into the development of public policies (Pintér et al., 2004). SEA

expands traditional EIA, which is limited to the physical environmental impacts of projects, to the higher levels of decision making (Kulsum, 2012).

Basically, SEA seeks to support policy learning and adaptation in an initial stage, before policies are formalized, and also avoid or mitigate potential significant and irreversible damage (Pintér et al., 2004). Following from this, Annendale et al. (2001) describes two major viewpoints on SEA: first, SEA as an addition to project EIA, and second, SEA as a means for policy development are related to the tiering concept. Tiering is how the different levels of planning, that is policies, plans and programmes relate and influence each other (EC, 1999 cited in Arts et al., 2005), and this can either be vertical; tiering between a hierarchy of levels, or horizontal; tiering at the same level, or diagonal tiering; a blend of both vertical and horizontal (Arts et al., 2005). This is a common notion of strategic decision making on the basis of rationality in a hierarchical system with an increasing details towards the level of implementation (Emmelin, 2006).

Pintér et al. (2004) discuss some characteristics of SEA. To begin with, SEA is considered as a logical method, owing to the fact that it can be carried out before PPPs are done, and also extending the analysis to options that may be proposed as a result of the assessment process. In addition, the SEA approach is comprehensive for the reason that it expands the policy target from specific decisions to the sequence of related plans and programmes. It also identifies and includes major stakeholders on various scales as well as assesses the potential direct and indirect impacts, short and long-term effects of PPPs. Moreover, SEAs influence decision-making in two ways. One, through stakeholder participation in the process and two, by generating reports and communicating the results to key stakeholders (Pintér et al., 2004).

Generally, SEA is used to describe a whole assessment process, and is also closely linked to other planning and policy appraisal tools, including life cycle analysis, cost-benefit analysis

and land use planning (Kulsum, 2012). The assessment comprises a range of methodical processes including Cumulative Impact Assessment (CIA), Country Environmental Analysis (CEA), and Combined Strategic Impact Assessment (CSIA). Furthermore, SEA adopts the procedures for stakeholder analysis as well as social impact analysis (Kulsum, 2012).

2.3 SEA Methodology

Many important factors determine the SEA methodology to be used. They include the time and resources available; the type and scale of a plan; and the formulation stage of a plan (Hedo & Bina, 1999). Besides, the SEA methodology must aim to be clear, simple, and flexible to the analysis of any policy, plan, or programme in different sectors and planning contexts (Annandale, 2014).

The procedure to perform SEA according to Therivel (2012) are as follows; setting the context for SEA; describing the environmental baseline and identifying problems; identifying alternatives; predicting impacts; evaluation and mitigating impacts; and documentation, implementation and monitoring.

Salheen et al. (2010) have also proposed an SEA steps based on the EU Directive and OECD Process, as follows; Screening; Scoping (defining stakeholder, defining scope of work, baseline information, setting the objectives, setting different alternatives); Impact Assessment and Report (assessment, report, public participation, monitoring and mitigation measures); and Review and Decision Making Approval.

It is significant for SEA to include a plan for monitoring environmental effects so that mitigation measures can be implemented if unforeseen effects occur (Salheen, et al., 2010). Emmelin (2006) argue that, if SEA is to achieve its objective of promoting strategic change towards environmental sustainability, it should shape both the formulation of strategic

initiatives, and their implementation. This is particularly important, because the link between formulation and implementation of strategic initiatives is often much weaker than at the project level. In addition, there is the need for monitoring and evaluation to expand the focus of SEA from simply greening policies, plans and programmes to enforcing environmentally sound patterns of activities (Emmelin, 2006).

Moreover, based on the experiences of SEA for spatial planning in Asia, Annandale (2014) provides guidelines for undertaking SEA of spatial plans. The methodology consists of eight steps, which includes; specify the approach and practical arrangements; define the setting for the land use plan; consider the baseline leanings in land use; plan the imminent development of land use changes; and evaluate the land potentials and ecological enhancements.

Kulsum (2012) proposes that the two typical approaches to a functioning SEA are institution-centered and impact-centered. He added that the setting of a development objective decides which approach is appropriate. With regards to SEA based on impact, the method emphasises on effects such as land use change, and human health of a proposed plan (Kulsum, 2012).

An institution based SEA method emphasises on the body managing a project, such as the roles of stakeholder groups. An effective institution based SEA highlights appropriate management techniques to execute a development project sustainably (Kulsum, 2012). Combined SEA approach, which is a comprehensive SEA will include strategy from both the impact based SEA and the institution based SEA approaches. However, any particular methodology should be adapted to the project conditions (Kulsum, 2012).

2.4 SEA Impact on Policies, Plans and Programmes

The IAIA SEA Performance Criteria prescribes that SEA should make available evidence on the tangible impact of executing a strategic decision (IAIA, 2002). It is generally known that

SEA has indirect and long-term benefits further than the immediate, observable impact on decision-making. However, literature on the impact of SEA on decision-making has commonly assessed only direct impacts (Runhaar & Driessen, 2007).

According to Sadler (2004), the benchmark for determining the effectiveness of SEA is how it is influencing decision-making processes, and also how its application is assisting the development of sustainable PPPs. The measure of the impact of SEA has shifted its impact on decision-making, to its influence on the execution of PPPs (Fundingsland Tetlow & Hanusch, 2012).

This is echoed by the IAIA (2002) report that an effective SEA practice must be integrated, participative, accountable, and focused on sustainability. As a result, the contemporary understanding of SEA impact cover wider scope including learning; governance; and development outcomes; and value changes, as summarised by Cashmore et al. (2008).

In accord, van Buuren and Nooteboom (2009) suggest that the success of an SEA is depended upon its ability to facilitate sustainable policy choices as well as contribute to a collaborative dialogue. Recent debates on effectiveness of SEA have centered on decision-makers' understanding of sustainability issues and the improvement in environmental governance capacity through awareness raising and institutional changes (Stoeglehner, 2010 cited in Fundingsland Tetlow & Hanusch, 2012).

According to Pintér et al. (2004), a Strategic Environmental Assessment generally addresses the following some key questions. They include; What are the potential direct and indirect outcomes of the proposal? How do these outcomes interact with the environment? What is the scope and nature of these environmental interactions? Can the adverse environmental effects be mitigated? Can positive environmental effects be enhanced?

Kulsum (2012) also suggests that the expected benefits of performing a Strategic Environmental Assessment on Government operations, either a policy, plan or a programme are enormous. These include; optimizing positive, and minimizing negative environmental effects; considering potential cumulative environmental effects; implementing sustainable development strategies; saving time and money by drawing attention to potential environmental liabilities and other unforeseen concerns; and promoting accountability and credibility among the general public and stakeholders.

The impact of SEA differ periodically and largely arise from the process that it sets in motion (Kulsum, 2012). In the short period, SEA delivers vital data to help evaluate the ecological risks and opportunities. It also offers space for discussion on the ecological effects of interventions as well as raise green awareness among those involved in the planning process (Owens et al., 2004 cited in Fundingsland Tetlow & Hanusch, 2012).

In the medium-to-long period, as the SEA procedure becomes embedded in planning and policy design, it enhances ecological governance as well as promotes institution building, accountability and transparency (Kulsum, 2012).

SEA can also play the role as an inspection tool to ensure that eco-friendly issues are considered. It can improve the environmental performance of policies by refining them and can help to create consistency between the aims and strategies of a plan. Participatory SEA can apprise stakeholders of the ecological impacts of strategic decisions, whilst also improving communication among stakeholder groups, which in turn can prevent/reduce implementation delays (Jones et al., 2005 cited in Fundingsland Tetlow & Hanusch, 2012).

In spite of the aforementioned, Runhaar and Driessen (2007) argue that there still remains a general lack of unanimity on how SEA impact is defined. They refer to a number of factors found in empirical studies as crucial in providing basis to understand SEA influence on

decision-making. They are; participation of stakeholders; transparency of SEA procedure; mandatory nature of SEA; experts involved in the decision process open to sustainability issues; tiering of SEA with other assessments; effective communication; and evaluation and mitigation of cumulative effects.

Other studies undertaken on the effect of SEA on strategic policy making are Dalal-Clayton (2013) and Acharibasam and Noble (2014). Basically, the efficiency of SEA is linked to its requirements or provisions, the methodology, changes in PPPs (outputs) and the long term change (outcome) (Acharibasam & Noble, 2014). Identifying the requirements and methods of SEA is important, however, understanding the outputs and outcomes are key to determining its effect. Requirements and methods alone do not indicate the effectiveness of SEA. For instance, principles such as public participation and consideration of socio-ecological issues does not necessarily shape PPP decisions (Acharibasam & Noble, 2014).

2.5 SEA Application in Land Use and Spatial Planning

SEA is applied at various levels of strategic actions as well as specific sectors, such as spatial planning, energy, transport, agriculture, forestry, and tourism (Annandale, 2014). Jones et al. (2005) suggest that the most effective sector of SEA application is land use and spatial planning. It is generally noted that SEA and land use planning form the basis for achieving sustainable development, eventhough the exact role of each activity remains debatable (Salheen et al., 2010). SEA application in land use and spatial planning can highlight the socio-ecological issues to be considered in planning interventions (Salheen et al., 2010).

Land use planning is a decision making process that "facilitates the allocation of land to the uses that provide the greatest sustainable benefits" (UNCED, 1993, cited in Salheen et al., 2010, p. 2). Salheen et al. (2010, p. 6) define land use planning as a "systematic process for

the arrangements and allocation of land resources among period of time and space in accordance with the principle of sustainable land-use."

Land use planning is however recognised as being limited in scope (Morphet, 2010). On the other hand, according to PPS 1 (2005) cited in Morphet (2010), spatial planning goes further than traditional land use planning. Spatial planning refers to the approaches that are used to influence the way future development activities will be distributed in space (Amdam, 2004).

As a supporting tool for decision making and public participation, SEA is recognised as the backbone of land use and spatial planning. SEA can also play the role of facilitating the allocation of land uses without causing environmental destructions (Salheen et al., 2010).

Annandale (2014) asserts that SEA can be linked to the formulation of spatial and land use plans in a number of ways. One of such procedures is that SEA can be undertaken separately or as part of a process of an existing plan. SEA can also be wholly incorporated into the design of the land use plan. This option requires active communication among key experts. The benefit here is that final land use plans are fully "integrated" (Annandale, 2014).

With regards to evidence of SEA influence on land use context, Therivel and Minas (2002) established from their study that, about 70% of reviews had led to tangible changes in plans, nearly 50% increase from earlier study. In another study of three cases of SEA and spatial planning from the United Kingdom, Germany and Italy, the SEAs resulted in concrete changes in the plans (Fischer et al., 2009). In the case of a regional spatial plan in Germany, for example, the SEA had resulted in between 5% and 10% of the areas for raw material extraction changing. Furthermore, 13 land use changes occurred, based on comments made during SEA consultation (Dalal-Clayton, 2013).

2.6 Green Economy

Green economy was earlier espoused by Pearce et al. (1989). The green economic model is being promoted as a response to the failure of the conventional economic model to effectively include environmental degradation and the value of natural resources in assessing economic growth (CSIR, 2014). According to Pearce (1992), any economy that has the ability to reproduce its characteristics on a sustainable basis can be described as green. The conception of green economy emphasizes the significance of aligning ecological and economic strategies in order to prevent the destruction of natural assets whiles also ensuring economic advancement (OECD, 2011).

A highly cited definition of green economy authored by the UNEP (2011) is one that "results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. It is low carbon, resource efficient, and socially inclusive." Similarly, the OECD (2011) defines green economy as ''fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies.'' It also denotes separating the use of natural resources and ecological impact from economic progression (SADEF, 2011).

Green economy is a new pathway for development that is grounded on the philosophy of sustainability (UNEP, 2011). This is because several years of economic growth through 'brown economy', that is, polluting and inefficient economic model based on fossil fuels, has done little in addressing social marginalisation, environmental degradation and resource depletion (CSIR, 2014). At the international level, the green economic model has gained attention as a result of the multiple crises that the world has been facing in recent years, including climate change, food insecurity, the worsening poverty levels and social inequality (CSIR, 2014).

Pearce (1992) suggests that green economy is underlined by three basic features. They include constraining human greed, sustainability, and decoupling. He argues further that free markets may impact positively on the ecology only if persons such as investor, employee, consumer, and citizen think and take actions that are green. Otherwise, greed created by unrestrained markets will harm the environment and therefore an enemy to green economy. The other feature of green economy is also worth highlighting. That is the methodical decoupling of the amounts of variation in the output of an economy and the green assets used up in that process (Pearce, 1992). Decoupling refers to decreasing the environmental impact of an economic activity in terms of resource use and wastes generation (CSIR, 2014).

Compared with previous development trajectories, the distinctiveness of a green economy is that as it converts natural capital into economic value, it also conducts full cost accounting as well as sustaining the natural resource base (UNEP, 2011). Transitioning to a green economy encompasses a blend of actions. They include economic instruments for example subsidies, taxes, and trading schemes as well as regulations such as standards and guidelines settings (OECD, 2011; UNEP 2011).

In addition, based on green economy's principle of resource efficiency, the EEA (2011) contends that the shift towards a sustainable economy hinges on first, the efficient utilisation of resources in manufacturing as well as consumption and their impact on the ecosystem and second, the maintenance of ecosystem structure and functions. Indeed, resource efficiency, which is using minimum financial, human or natural inputs to attain a desired improved level of output, is an essential benchmark for a green economy (OECD, 2011).

Allen (2012) identifies common green economy principles as follow; protects biodiversity and ecosystems; a resource and energy efficient; creates green jobs; internalizes externalities;

uses integrated decision making; respects ecological limits; delivers poverty reduction, well- being, and social protection; equitable, fair and just; inclusive, accountable, and transparent; as well as the means for achieving sustainable development.

In essence, green economy can be attained through the commitment and actions of multiple sectors and stakeholders in society and at different levels. Therefore, strategic and integrated spatial planning, improved governance, and regulatory drivers that reinforce the need for the economic system to account for externalities; are some of the effective tools that could facilitate green investment and innovation to transition to a green economy (CSIR, 2014).

2.7 SEA and Green Economy

In terms of promoting green economy, SEA is identified as having the capacity to effect the formulation of strategic initiatives and decision making, and also with prospects to make a constructive contribution to sustainability, both socioeconomic and environmental (Suzaul-Islam & Yanrong, 2016).

Green economy requires certain principles to drive it. Lee and Walsh (1992), suggest the following four ways of using SEA to promote green economy, although the most effective means are still being debated.

i. Setting green objectives
ii. Strengthen institutions
iii. Use economic instruments to spur sustainable development pathways.
iv. Strengthen procedures and assessment methods for the integration of socio-ecological and economic issues into PPP formulation and evaluation.

Additionally, a World Bank report cited in Loayza et al. (2011) on green economic model mentions that SEA can perform some key functions in promoting green economy. They

include organising a process of dialogue between economic and environment/social communities; providing information on the economic value of environmental services and assets; and helping to identify how to improve institutions by analysing gaps and weaknesses.

For SEA to accomplish its potential of supporting green growth and the promotion of green economy, its advocates and experts will need to exhibit clearly how SEA can influence a particular proposal, for example policies, investment, new jobs or generate positive socio-ecological outcomes whilst also producing economic growth (Dalal-Clayton, 2013). At the same time, SEA will need to warn when a particular activity could themselves inadvertently result in negative environmental or social impacts as not all green growth initiatives are likely to be truly sustainable (Dalal-Clayton, 2013).

To promote the case for the application of SEA in backing the transition to a green economy, strong indication is needed to demonstrate how SEA has successfully influenced certain policies, plans or programmes (Dalal-Clayton, 2013). Fischer (2009) summarises some of the empirical evidence from the review of literature on the greening effect of SEA. SEA application had resulted in significant consideration of obvious sustainability objectives and proposed measures in the transport sector of the United Kingdom, the Netherlands and Germany. Furthermore, the Strategic Environmental Assessment was acknowledged to have stimulated changes in institutional routines and values in these counties.

2.8 Role of SEA in advancing Green Economy in Ghana (A Conceptual Framework)

The conceptual framework of the study (Figure 2.1) is modified from World Bank (2011) report on the effect of SEA on policy design. The modified conceptual framework illustrates that the influence of SEA on strategic decision-making or PPP are both direct impacts (outputs) and indirect impacts (outcomes). It is one of the key entry points for SEA

application to PPPs, where SEA is parallel to PPP elaboration and where also SEA experts work either concurrently with the planners, or in some cases the experts are fully integrated into the PP/P design.

The direct impact of the SEA include: conformities of formal decisions with the assessment report; changes in decision-makers' understanding or awareness of environmental and sustainability issues; changes in the extent to which such issues are considered in decision-making; or changes in the material reality as a consequence of the decisions affected by SEAs. The direct role of SEA on greening an economy also include, the identifying and managing impact, ensuring that stakeholder values captured in the PPP (Runhaar & Driessen, 2007).

Another key role of the SEA is to guarantee the accessibility of the outcomes of evaluation at the earliest possible time to influence the decision making process (Dusik & Xie, 2009). Moreover, as suggested by Arts et al. (2005), it is important that environmental assessments at every level are harmonised with preceding assessments. This framework also recommends that land use and spatial planning policies, plans, programmes, projects must be consistent with each other at the various levels. It must also be consistent with other sectors, for instance, spatial planning, housing development and waste management.

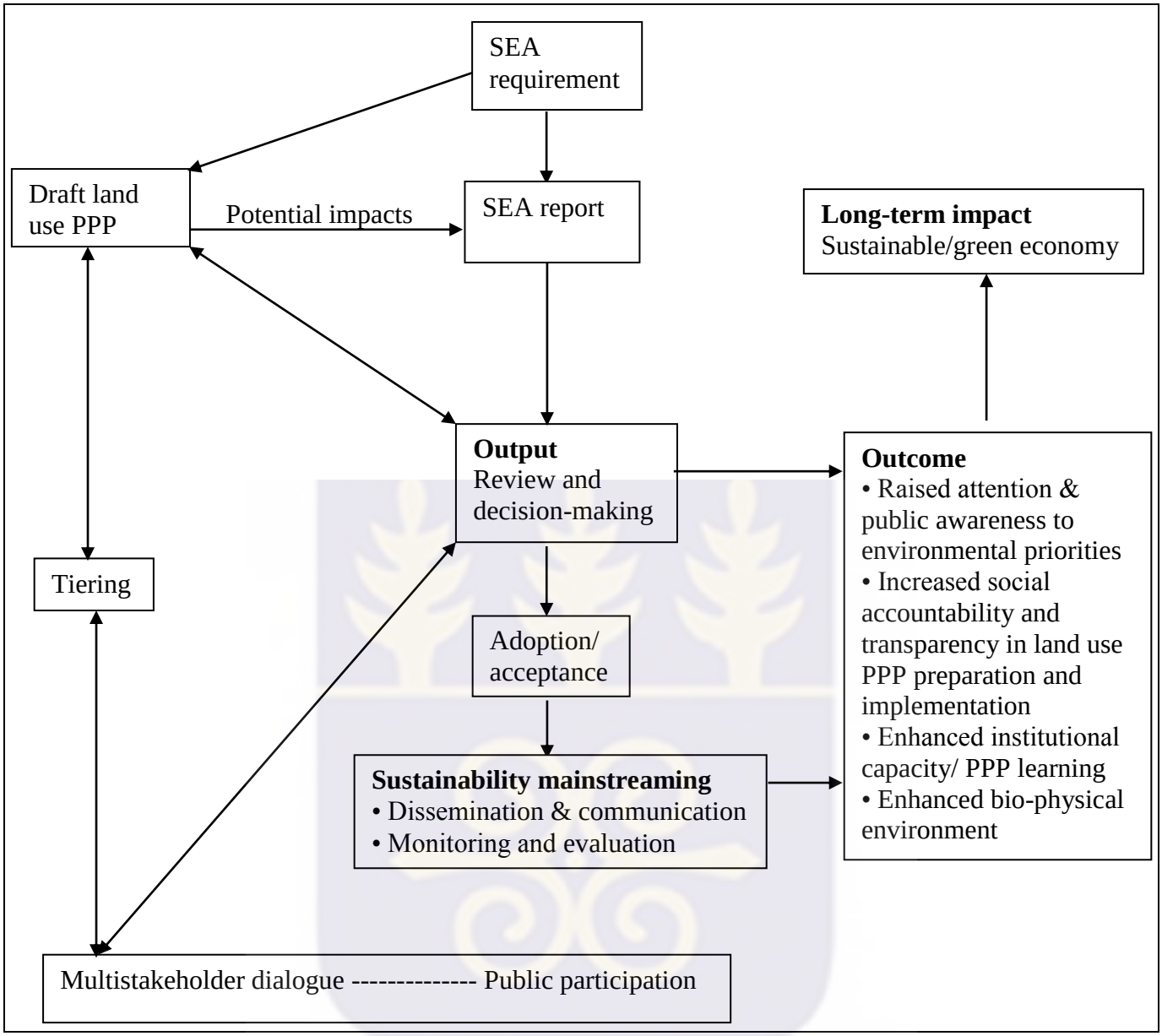

Figure 2. 1: Conceptual framework of SEA influence on land use PPPs (Modified from World Bank, 2011)

The focus of this framework and the study is on the indirect role, which is often subtle, and that may take place further than the scope of the specific SEA application. The SEA outcomes denote its impact further than the PPP (Runhaar & Driessen, 2007). These include the long term impact of SEA on learning, and institutional and management practices, or the improvements in social, ecological or economic conditions as well as standards resulting from raised awareness.

The indirect role may emerge as new ideas or innovations in successive PPPs, impact on practices and situations other than those of which the SEA is part, and improvements in administrative structures. Such impacts are not easily identified due to their implicit nature, as they are often unplanned for and involve learning and longer-term transformations.

More specifically, SEA can enhance policy decision through focusing attention on social and ecological priorities. Also, in order for SEA to contribute to these outcomes, it needs to be assured of "ownership", that is broad and that it can become part of a continuing policy process with repeated and sustained stakeholder interaction (Dalal-Clayton, 2013).

In terms of appraising the role of SEA in promoting green economy, Acharibasam and Noble (2014), provide the measures for assessing the direct impacts of SEA on PPPs as well as the indirect influence of SEA beyond the PPPs. Tables 2.1 and 2.2 below give summaries of the measures for assessing the direct and indirect impacts on SEA on PPPs respectively.

Table 2. 1: Measures for assessing the direct impacts of SEA on PPPs (Modified from Acharibasam & Noble, 2014)

Measures for assessing the direct impacts of SEA on PPPs
i. SEA included sustainability issues, such as human-ecological systems; and adaptation into the PPP formulation.
ii. SEA ensured that interests of stakeholders were represented in the final PPP.
iii. SEA provided adequate information on the impacts of implementing a PPP.
iv. SEA offered strategies for preventing or lessening the possible adverse impacts, or strategies for improving positive impacts.
v. SEA provided evaluation results early enough to inform the development of the PPP.
vi. SEA ensured better openness and accountability in the preparation and/or execution of the PPP.
vii. SEA provided guidelines to facilitate implementation of the PPP, including monitoring and/or evaluation.

Table 2. 2: Measures for assessing the indirect influence of SEA on PPPs (Modified from Acharibasam & Noble, 2014)

Measures for assessing the long term impacts of SEA beyond the PPPs
i. SEA improved environmental and socioeconomic conditions or raised environmental and socioeconomic standards.
ii. SEA provided baseline data for usage in succeeding PPP actions or monitoring
iii. SEA led to improved efficiencies in terms of time and cost savings in the assessments or decisions on subsequent PPPs.
iv. SEA improved management practices and the overall awareness of the institution's actions on PPPs.
v. SEA heightened public consciousness of organizations as a result of the SEA applications.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The methods of study is described in this chapter. It provides an overview of the procedures and techniques that were used in undertaking the research. The chapter discusses the research approach adopted, the study design, and the setting of the study. It also describes the sampling techniques and data collection instruments, as well as data collection and analysis procedures.

3.2 Research Approach

This study follows a qualitative enquiry. This type of approach is employed as a way of trying to understand the study problem from the perspectives of certain people through their experiences (Mack et al., 2005).

The study is developed based upon documentary review and exploration of stakeholders, followed by conducting interviews and a final phase of analysing qualitative data obtained. Each of these phases contributed to the development of an interview guide based on two criteria used in this research and the analysis of the main research questions and sub interview questions.

The two criteria were first, an attempt to understand the direct and indirect impact of SEA on a land use and spatial planning PPPs, including its immediate outputs and long term outcomes, and the second was dedicated to how the long term impact of SEA on land use and spatial planning, which also promotes green economy, is evaluated.

3.3 Research Design

Case study was employed as a research design to investigate the role of SEA in promoting Ghana's transition to a green economy. Case study, which is an in-depth study of a specific situation is particularly useful when testing whether theoretical models actually work in practical situations (Shuttleworth, 2008).

Basically, this type of research design is engaged to reduce an expansive research topic into one that is researchable, which is the case of the present study. Besides, it may not fully answer a research question, it still provides some indications and allow further elaboration on a subject (Shuttleworth, 2008).

3.4 Study Setting

Ghana is currently divided into 10 administrative regions, representing the first level of sub-national government administration (Figure 3.1), with further division for local government purposes into several districts. For administrative purposes, public institutions are decentralised, with representations at the regional level and to some extent the Metropolitan, Municipal and District Assemblies (MMDAs) level.

Data for this study was obtained from three (3) state institutions at their head offices at the national capital, Accra in the Greater Accra Region as well as their respective regional offices in the Brong Ahafo Region in Sunyani. This exercise took place between June and July, 2018. The institutions included the Environmental Protection Agency (EPA), the National Development Planning Commission (NDPC), and the Land Use and Spatial Planning Authority (LUSPA).

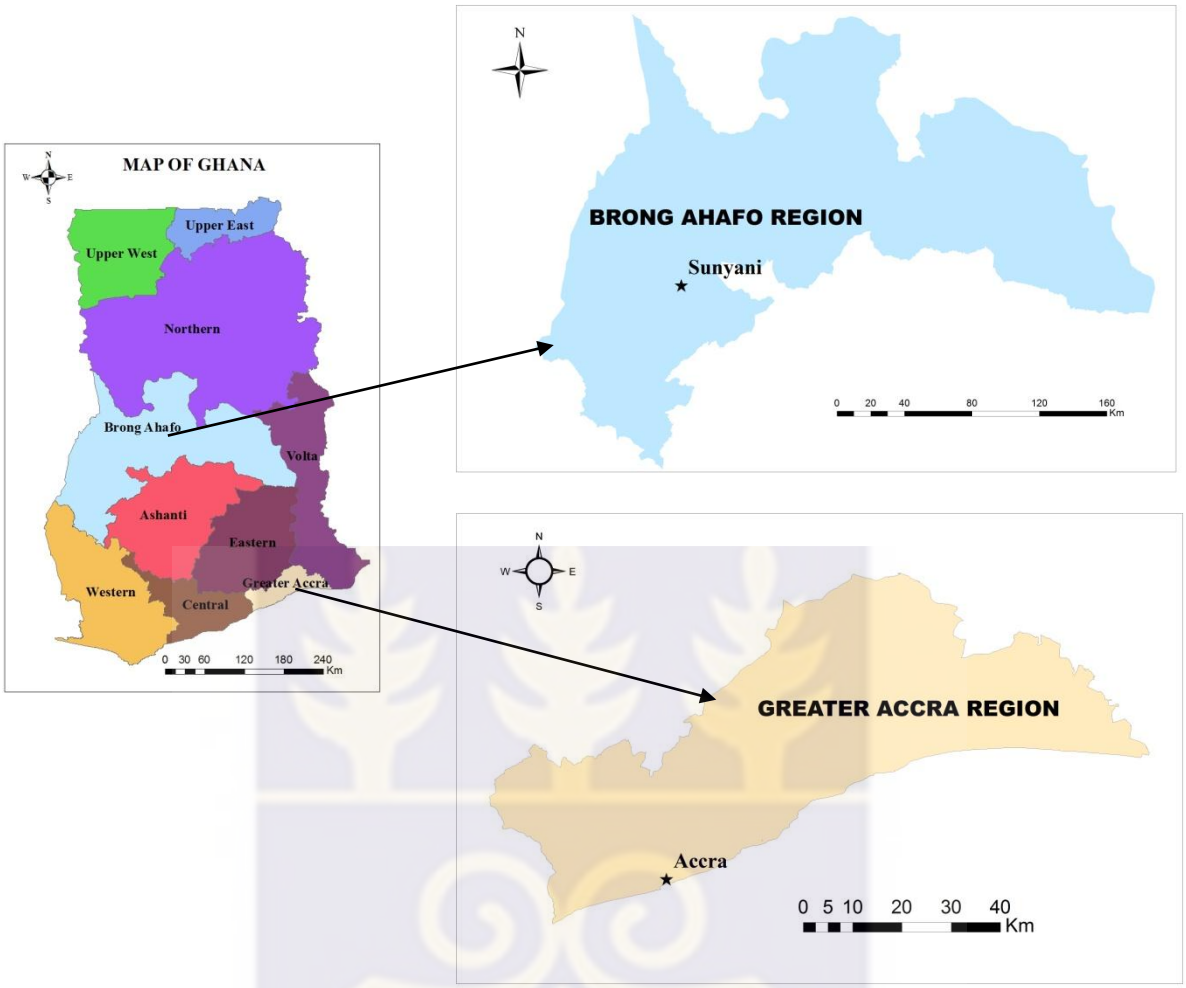

Figure 3. 1: Map of Ghana showing Brong Ahafo and Greater Accra Regions (Source: modified from google maps)

3.4.1 Environmental Protection Agency

The Ghana Environmental Protection Agency was set up in 1994 by Act 490, after the Act transformed it from a Council, which was set up in 1974 (NRCD 239). The Agency has the responsibility of regulating the environment and ensuring the implementation of Government policies on the environment. The EPA is the principal institution in terms of SEA and EIA administration in Ghana, and a member of the National SEA Core Team (EPA, 2018).

3.4.2 National Development Planning Commission

The National Development Planning Commission legally established in 1994, (Act 479) is also a member of the core SEA team in Ghana. The Commission provides technical support on policy formulation and also responsible for development programmes, plans and policies. Its' mandate also includes examining and appraising the implementation of national programmes and projects (NDPC, 2018).

3.4.3 Land Use and Spatial Planning Authority

The Land Use and Spatial Planning Authority established in 2016, (Act 925), is a transformation of the Town and Country Planning Department, established in 1945 (Cap 84). The erstwhile Town and Country Planning Department (TCPD) was charged with the responsibility of planning and management of growth and development of cities and towns (TCPD, 2018). The LUSPA on the other hand, is responsible for performing the spatial, land use and human settlements planning functions of the national development planning system established under the National Development Planning Commission Act, 1994 (Act 479) and the National Development Planning (System) Act, 1994 (Act 480) (LUSPA, 2018)

At the various administrative levels, LUSPA also leads in the preparation of national and sub-national spatial development framework, structure plans, local plans, rezoning plans, and change of use (LUSPA, 2018).

Additionally, the EPA and LUSPA have well established regional or sub-national offices. Therefore, it was important to also study the situation at the sub-national level where actual implementation usually occur. The Brong Ahafo Region was also selected to represent the sub-national level because it is a forest-savannah transition zone, which lies in the middle belt of Ghana, and which also has the characteristics of both the north and south of the county.

3.5 Study Population

The target population of this study was the staff of the public institutions that are involved in the SEA administration in spatial planning and land use PPPs in Ghana. They include the EPA, NDPC and the LUSPA.

3.6 Sampling Technique and Sample

A purposive sampling technique was employed for the study. A purposive sampling technique for primary research has been well described by Patton (2002), who has provided a definition of what purposive sampling means. The reason for this sampling technique lies in selecting information-rich cases for an in depth study. Participants with knowledge and experience with the phenomenon of interest for in-depth study are selected to save time and cost. It also serves as sources of data with expected richness and relevance of the data in relation to the study's questions (Cresswell & Plano Clark, 2011; Patton, 2015).

First of all, a purposive sampling technique was used to select EPA, NDPC and LUSPA. The common denominator for selecting these institutions for the study is that they are all involved in SEA administration to spatial planning and land use PPPs in Ghana. Then, staff of the three (3) identified institutions were selected as respondents to participate in either a face-to-face/in-person interview session in their various offices or phone interview (Table 3.1). A sample of six (6) staff (two from each institution), whose job responsibilities relate to the SEA application to land use and spatial PPPs were selected.

Table 3. 1: Study setting and interview participants

Institutions	Office where interview participants came from	Interview situation
EPA	One participant from the SEA unit, EPA Head Office, Accra	Face-to-face interview
	One participant from the EPA Brong Ahafo Regional Office, Sunyani	Telephone interview
NDPC	One participant from the Plan Coordination Division, NDPC Head Office, Accra	Face-to-face interview
	One participant from the Spatial and Infrastructure Policy and Planning sub division, NDPC Head Office, Accra	Face-to-face interview
LUSPA	One participant from the Research and Policy Division, LUSPA Head Office, Accra	Face-to-face interview
	One participant from the LUSPA Brong Ahafo Regional Office, Sunyani	Telephone interview

3.7 Sources of Data

Both primary and secondary data were obtained for the study. Various sources of secondary data including journal articles, edited books, electronic articles, electronic books, government documents, SEA reports, spatial plans, theses, conference papers, unpublished works, and other web page materials related to the study were used.

Primary data for the study was obtained mainly through in-depth interviews with staff of the EPA and NDPC, two institutions that make up the National SEA Core Team as well as interview with staff of the LUSPA, an institution that undertakes the actual implementation of land use and spatial plans.

3.8 Data Collection Methods

First was the identification and review of relevant institutional documents, which set out the background of this study and also formed the basis for the preparation of the interview guide. This was followed by semi-structured interviews, conducted with officials (who had

participated in the process of applying SEA to land use and spatial planning PPPs) of EPA, NDPC and LUSPA between June and July, 2018.

The aim of this method was to gather in-depth data on the issue under investigation. This type of interview allows to have open-ended questions and can provide details of the interviewees' insights (Leech, 2006) regarding applying SEA to land use and spatial planning PPPs in Ghana and how that can stimulate green economy.

The interviews involved writing down all the responses by the officers on separate sheets of papers per interview. All the interviews were also recorded for transcription and further analysis. The interviews were carried out at the head offices of EPA, NDPC and LUSPA in Accra, as well as phone interviews with staff at the Brong Ahafo Regional Offices of EPA and LUSPA. All the interviewees responded to the same set of questions read to them. They were also offered the opportunity to express their expert opinion on the questions, and the researcher/interviewer too had a chance for follow up questions.

Besides, it could have been meaningful to conduct in-depth interviews with higher levels of decision-making. For instance, conducting interviews with the Minister for Environment, Science, Technology and Innovation; the Minister for Local Government and Rural Development and the Minister for Planning to establish their understanding of how SEA is promoting green growth in Ghana in relation to its application to spatial planning and land use PPPs. Nonetheless, the interviews yielded information covering all the research questions that the current study attempts to drive.

3.9 Data Collection Instrument

The instrument used to collect the data for this study was semi-structured interview guide (Appendix II). Open-ended questions were used in the interview guide. The interview guide entailed 18 questions divided into four sections.

The first section bordered on general questions including the current job title or position of the interviewees and their experiences regarding applying SEA to land use and spatial planning PPPs. The remaining sections sought to answer specific questions related to the main research questions. The second section bordered on the direct impact of SEA on the decision-making processes of spatial planning and land use PPPs. The third section sought elicit responses regarding the indirect or long term impact of SEA beyond its application to land use PPPs, whereas the fourth section centered on the evaluation of the direct or indirect impact of SEA application to land use and spatial planning PPPs.

This type of data collection instrument is perfect for collecting data on participants' knowledge on a particular subject (Mack et al., 2005). As an instrument for collecting data, semi-structured interview also provides the opportunity for the researcher to study selected issues in-depth and to open up new dimensions of a problem. It is especially important if the sample size is relatively smaller (Patton, 2002), as is the case of this study.

3.10 Validity and Reliability of Data

In order to determine the validity of the instrument, the researcher presented it to the Supervisor for examination and critique, before it was administered. The researcher also administered the data collection instrument himself as the interviewer, in order to ensure the reliability of the data obtained.

3.11 Ethical Considerations

Ethical considerations are important in research particularly in qualitative research context, as researchers are in a powerful position when interpreting participant's words (Steffen, 2016). For this study, adequate ethical standards were followed. The researcher sought oral consent from all interview respondents. Prior to the data collection, copies of introductory letter were sent to the EPA, NDPC and LUSPA to seek their approval (Appendix I).

The respondents' chose to participate in the interview exercise on their own free will. Their independence, opinion, and decision-making were given due considerations. The confidentiality and anonymity of the respondents was also guaranteed. During the interview process, the main goal of the study, along with its scope and limitations, were explained to the participants, as well as the academic use of their responses.

3.12 Data Analysis

All interviews (audio recordings) were transcribed verbatim by the researcher and compared to those filled out on sheets of papers. This arrangement gave an opportunity to the researcher to cross-check the data and to ensure it is harmonised. The researcher then coded the data using upward coding, which is, all common responses were assigned to an attribute and then a higher level of specific themes

A codebook was created as an essential tool for analysing the qualitative data. Codes are labels for assigning inferences to the descriptive data compiled during a study (Miles & Huberman, 1994). During this exercise theory-driven codes (codes from existing theory or concepts), data-driven codes (codes from raw data) and structural-driven codes (codes related to the study's goals and questions) were used.

Each response was treated uniquely and included in the analytical process. Similar responses from each interview were grouped together as attributes. Attributes related to a particular theme/category were assigned to it. The data was analysed using descriptive method, thus summarising the categories based on the individual attributes and supported with direct quotes by the respondents. Results of the study are presented in tables, whilst the conceptual framework in Figure 2.1 above, describing the role of SEA in advancing green economy is used to discuss the results.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the research findings and analysis of those findings. Results of the study are presented in tables. The results obtained from the interviews are put into the following four (4) headings;

- Background Information of Interviewees/respondents
- Direct impact of SEA on the decision-making processes of land use and spatial planning PPPs.
- Indirect or long term impact of SEA beyond its application to land use PPPs.
- Evaluation of the direct/indirect impact of SEA application to land use PPPs.

The data was analysed using descriptive method, thus summarising the categories based on the individual attributes and supported with direct quotes by the respondents. A modified conceptual framework, which describes the role of SEA in promoting green economy was used to discuss the results and supported by other existing concepts.

4.2 Background Information of Interviewees/respondents

The first section of the interview guide, covered the personal/professional information related to the background of interviewees/respondents. The results obtained from the in-depth interviews of six (6) participants representing three (3) public institutions are presented in Table 4.1 below. For purposes of eliciting rich and in-depth data whilst maintaining the confidentiality of respondents, the names of the respondents are not given.

Table 4. 1: Background information of interviewees

Current job title or position	No. of years with the institution	Responsibilities or areas in charge	Experience with SEA application to land use and spatial planning
Environmental Protection Agency (EPA)			
Programme Officer, SEA Unit, EPA Head Office, Accra	7	SEA of policies, plans & programmes, policy analysis, monitoring and evaluation, environmental/natural capital accounting	SEA application to national and sector policies and plans. District development plans, land use and spatial planning
Principal Programme Officer, EPA Brong Ahafo Regional Office	18	Environmental assessment in all sectors and environmental quality	Provide technical advice on mainstreaming environmental issues into local plans at the Spatial Planning Committees (SPCs) of the various MMDAs in the region
National Development Planning Commission (NDPC)			
Deputy Director, Plan Coordination Division, NDPC Head Office, Accra	18	Preparing policy guidelines, Supervise the preparation of development plans. SEA focal person at the NDPC, Member of the National SEA Core Team	SEA application to several policies, sector and district plans. Ensuring that sector and district plans reflect environmental principles.
Deputy Director, Spatial and Infrastructure Policy and Planning, NDPC Head Office, Accra	5	Spatial and infrastructure planning and policy making	SEA application to few policies and plans. For example, the West Africa Growth Ring Master Plan
Land Use and Spatial Planning Authority (LUSPA)			
Director, Policy and Research, LUSPA Head Office, Accra	20	Developing policies, standards, and research into spatial planning issues, planning schemes and development controls.	Coordinated the development of the National Urban Policy, where SEA was used as a tool to identity and involve stakeholders as well as mainstream social and environmental issues
Regional Director, LUSPA Brong Ahafo Regional Office	14	Preparation of spatial development framework, sector plans, local plans, development control	Apply the principles of SEA in the preparation of sector and local plans

4.3 Direct impact of SEA on the decision-making of land use and spatial planning PPPs

Table 4.2 below presents the main results from respondents, comprising policy makers, planners and environmentalists on their knowledge and insights of the direct impacts of SEA on land use and spatial planning following in-depth interviews.

Table 4. 2: Direct impact of SEA on the decision-making of spatial planning PPPs

General trends	
1	SEA provide the platform for expert knowledge sharing and technical backstopping in greening land use and spatial policies and plans.
2	SEA predicts and analyses the potential direct socio-ecological and economic impacts of the proposed land use and spatial PPPs.
3	SEA is contributing to the development of more environmentally friendly or sustainable land use and spatial PPPs.
4	SEA provides opportunities for relevant stakeholders to participate in the land use and spatial planning decision making process.
5	SEA contributes to improve vertical and horizontal tiering, example, from land use policies to plans and to project EIA documents

4.3.1 Provision of Platform for Expert Knowledge Sharing

Findings from the interview suggest that SEA has improved the means for interaction and information sharing among key decision makers. According to a LUSPA respondent, there are Spatial Planning as well as Technical Sub-Committees at the various MMDAs, and they comprise of professionals with diverse background, including, environmentalists; development planners; physical planners; engineers; social professionals among others as their members. He said,

> *in accordance with the Land Use and Spatial Planning Act, and the National Spatial Development Framework, the committees ensure the preparation of structural and local plans are largely based on the principles of SEA.*

4.3.2 Prediction and Analyses of Potential Direct Impact

Another general trend observed from the interviews was the fact that, SEA predicts and analyses the potential socio-ecological and economic impacts of a proposed land use and

spatial PPPs. The respondents pointed to fact that SEA helps to reduce the cumulative impacts, critically examine and evaluate possible opportunities and risk associated with spatial planning, with respect to natural resources, economic, and socio-cultural issues. A participant with the NDPC expressed this view,

> *SEA enables us to understand the consequences by analysing both the risk and opportunities associated with the proposed intervention in order to mitigate the negative effects.*

4.3.3 Development of Sustainable Land Use and Spatial Planning PPPs

In addition, all the respondents unanimously agreed that SEA is contributing to the development of more environmentally friendly or sustainable land use and spatial PPPs. A respondent with the EPA mentioned that, the Ghana SEA Process is premised on four (4) pillars of sustainability, that is natural resources, socio-cultural issues, economics, and institutional dimensions, and are usually fully considered in the decision making processes of land use policy and spatial plan formulation. According to him, SEA is integrating all dimensions of sustainability into the planning process in Ghana. He specifically mentioned,

> *SEA incorporates environmental sustainability issues into land use and spatial PPPs, improves them by making them clearer, and more internally consistent*.

A participant with the LUSPA also said,

> *SEA is helping to green the regional and local land use plans.*

The respondents mentioned the following as examples of green spatial plans, having been subjected to the SEA process. They include; the West Africa Growth Ring Master Plan, the National Urban Policy, the Greater Kumasi Master Plan, and the Greater Accra Regional Spatial Development Framework.

Nonetheless, according to the other participant from the LUSPA, eventhough the introduction and application of SEA has enhanced the integration of socio-ecological issues into land use planning, LUSPA (formerly Town and Country Planning Department) have always considered social and environmental issues in the preparation of planning schemes in Ghana. He provided a plan (Figure 4.1), titled the Accra Korley Lagoon Area Recreation Planning Scheme, prepared by the Town and Country Planning Department (TCPD) and gazetted in 1970 to back his claim.

Figure 4. 1: Accra Korley lagoon area recreational planning scheme (Source: LUSPA)

He argued further that the green areas and activities in the scheme constitute about 90-95%. According to him, the scheme was prepared in response to a policy directive by the then government to redesign the Old Fadama community in Accra because it was a flood prone area. He added that, in early 1960, huge floods almost wiped out the Old Fadama community, which was situated along the Korley Lagoon. The government then resettled the community onto a new area called New Fadama. Old Fadama was to be developed into a recreational

area in line with the scheme above, with a sports stadium, cricket oval, athletic oval, open park, green belt and other ancillary activities.

4.3.4 Stakeholder Involvement in Decision Making Process

In addition, as cited in the Table above, experts and key stakeholders are engaged in the land use and spatial planning decision making process. Decision-makers are also apprised about the social and environmental implications of their decisions. One of the interviewees at LUSPA commented,

> *SEA is a participatory tool and invariably we assemble all relevant stakeholders in the preparation of sector and local plans, which makes the plans we prepare more comprehensive.*

4.3.5 Improvement of vertical and horizontal tiering

With regards to understanding the relationship between land use/spatial planning policies to regional land use plans, district/local land use plans and projects, respondents unanimously reported that there was positive correlation. This position by the respondents confirmed the results of the desktop analysis, as discussed in the background of the study. In this respect, the regional LUSPA participant pointed out that,

> *regional and local land use plans are prepared in line with the national policy.*

In addition, an NDPC respondent mentioned that the 2015 National Spatial Development Framework (NSDF) provides the basis for the preparation and implementation of all spatial plans from the national to the sub-national levels in the country.

4.4 Indirect/Long term impact of SEA application to land use and spatial planning PPPs

The indirect or long term impact of SEA application to land use and spatial planning PPPs from the interview with key stakeholders are shown in Table 4.3. The long term outcome of

SEA application in land use and spatial planning, beyond policy formulation and plan preparation to the actual implementation is also underpinned by the modified conceptual framework illustrated above in Figure 2.1.

Table 4. 3: Indirect/Long term impact of SEA application to spatial planning PPPs

General trends	
1	SEA has contributed to improvement of administrative arrangements and institutional collaboration and learning to facilitate effective land use and spatial planning.
2	SEA has enhanced the competences and capacities of staff and institutions involved in land use and spatial planning
3	SEA is gradually promoting public awareness and engagement of the land management sector and sustainable land use planning.
4	SEA has increased social accountability and transparency in the land use and spatial planning process
5	SEA is protecting the natural environment through regional and local land use planning

4.4.1 Improvement of Administrative Arrangements

With regards to administrative arrangements, institutional collaboration and capacity, there was unanimous agreement that SEA has enriched spatial and development planning institutions. In this respect, an officer of NDPC remarked that SEA is supporting institutional and governance strengthening,

> *SEA now has full legal support, especially the National Development Planning System Regulation, LI 2232, requires that all planning institutions should consider social and environmental issues in policy and plan preparations.*

He added that the legal basis for SEA is key, if it is to promote sustainable development. The above quotation effectively summarizes the position of the other interviewees, pointing to the fact that the improvement in the administration and application of SEA to land use PPPs in Ghana has translated into enhancement of institutional capacity.

Commenting further on this issue, a respondent from LUSPA noted,

> *without the mandatory nature of the SEA and its national character, people would have turned deaf ears to sustainability issues and physical planners would have often been challenged.*

Besides, a participant with the NDPC, provided an insight into a case related to the above claim. He pointed to a proposal for Greater Kumasi Master Plan. According to him, the plan in part is meant to widen the road from Asafo roundabout to Tech junction in Kumasi, the second largest city in Ghana. The NDPC Officer indicated,

> *with the application of SEA, we have identified the economic, social and environmental risks associated with the proposed intervention. Issues that came up are socio-cultural, demolitions, loss of properties, impact on livelihoods, impact on health, and potential destruction of natural environmental media.*

He stated that,

> *the SEA method has helped to prescribe mitigation measures including compensation, the use of green technology in the construction and other environmental enhancement measures.*

Following this, he said that, whilst the Japanese Consultant for the proposed intervention has given indications of compliance, it has also raised questions about the legal basis of SEA in Ghana. In the foregoing example, the interviewee stressed that, gradually SEA is assisting efforts in trying to transition to a green economy by influencing spatial planning in Ghana.

4.4.2 Enhancement of Staff and Institutional Capacities

In relation to SEA's role in enhancing the competences and capacities of staff and institutions involved in land use and spatial planning in Ghana, all interviewees agreed that the Development Planning as well as Spatial Planning Officers at the various Metropolitan, Municipal, and District Assemblies (MMDAs) in the country have received several trainings on how to use the SEA tools, including sustainability test, compatibility test, and compound matrix. According to one of the EPA interviewees,

> *these tools enable the planners to focus on the important issues and also highlight options and mitigation measures for a proposed intervention.*

4.4.3 Promotion of Public Awareness

There were however differing views among the interviewees in terms of the role played by SEA in promoting public participation and awareness to land use and spatial planning. Some of the respondents thought that participation and awareness are mostly limited to the key technical stakeholders usually involved in the process of SEA application to land use or spatial PP/P. As it the case at the national level, the EPA and NDPC, are the two permanent institutions on the National SEA Core Team, with others occasionally drafted in depending on the issue under consideration. However, one of the EPA respondents observed that,

> *a key component of the Ghana SEA Process has to do with ensuring broad stakeholder participation and consultation. This step usually provides a wide array of comments and inputs which sometimes lead to the alteration of the PPP design or proposed scenarios/options to be considered.*

4.4.4 Boost Accountability and Transparency

The findings also revealed that SEA has to some extent increased transparency and accountability in land use and spatial planning in Ghana.

4.4.5 Protection of the Natural Environment

In terms of protecting the natural environment, the responses indicated SEA has achieved some successes, albeit on a smaller scale.

In an attempt to estimate the actual impact of SEA on land use PPPs or the socio-ecological considerations captured in regional or local plans on the ground, the researcher tried to compare Figure 4.1 above and Figure 4.2 below. Both Figures 4.1 and 4.2 show pictures of Accra Korley Lagoon Area at Old Fadama, a suburb of Accra. Whereas, Figure 4.1 shows a

proposed planning scheme for the area, designed and gazetted in 1970, Figure 4.2 shows a map of the area, which was retrieved from google satellite map in June, 2018.

Figure 4. 2: Map of Accra Old Fadama showing the Korley lagoon (Source: Google satellite map of Accra Old Fadama, 2018)

One of the interviewees with LUSPA revealed that the plan designed in 1970 has not been implemented up to date. He also had this to say,

> *the old settlement that was relocated to New Fadama to enable the plan to be implemented are back to the old place. If go the area now, you will see a big slum, no plan and the green belt along the lagoon is almost gone and given way to massive brown infrastructure.*

According to him, land ownership and political will/support are two critical factors that can provide the enabling environment for SEA to positively influence spatial planning in Ghana. The LUSPA officer added that,

> *when government owns the land and we prepare a planning scheme for the area, we are able to implement it to the later. But when government doesn't have control over the land, you prepare a beautiful plan and earmark green activities, but the implementation becomes something else, and all the proposed green areas are turned into brown infrastructure.*

He continued,

> *that is why a place like Ridge in Accra, you see a unique spatial character, there is more green over there.*

To further his argument, he mentioned other areas in Ghana, including Akosombo Town, Core Kumasi City, Accra Cantonments, Tema Township and Part of East Legon as test cases. Figure 4.3 shows a map of Accra Ridge, retrieved from google satellite map in June, 2018, as mentioned by the respondent.

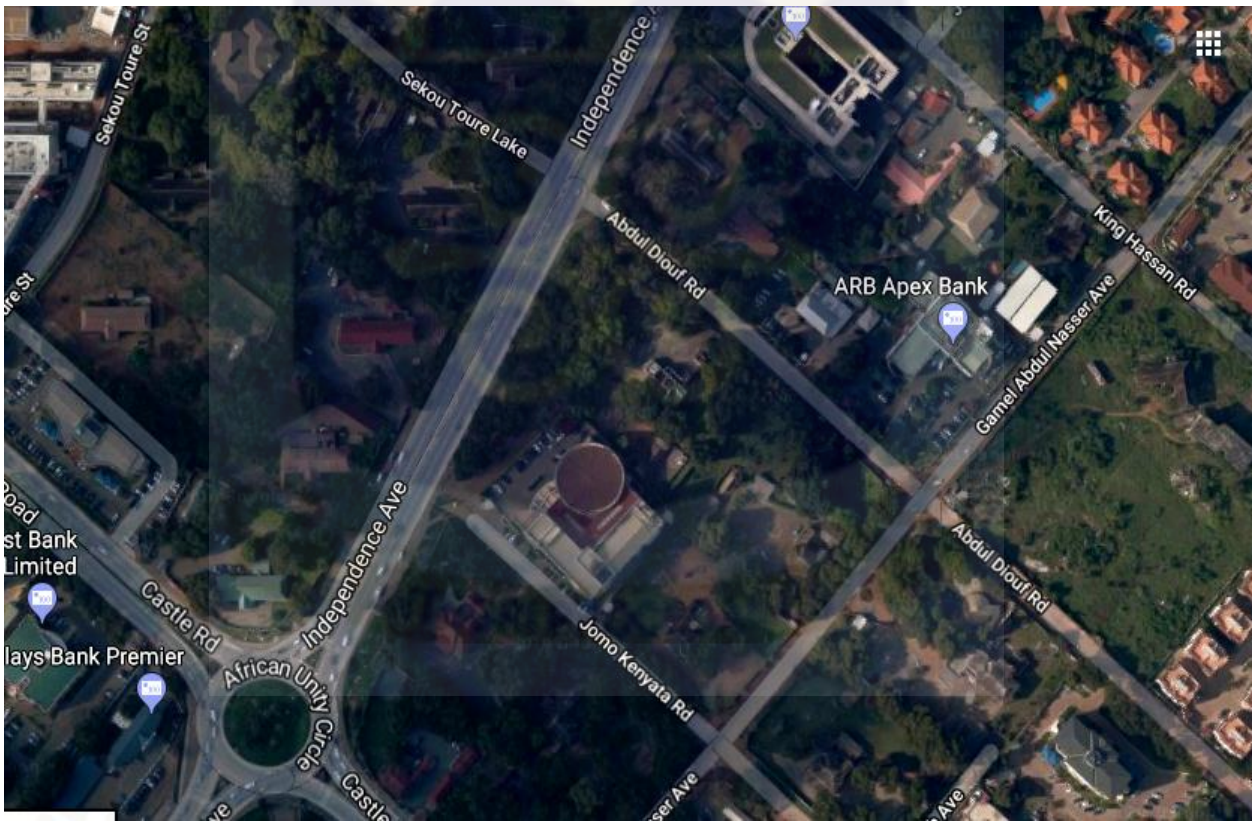

Figure 4. 3: Map of Accra Ridge (Source: Google satellite map of Accra Ridge, 2018)

The foregoing discussion was re-echoed by the other LUSPA respondent. He indicated,

> *with our system of land ownership in Ghana, the chiefs and families are making it difficult for us to fully implement the local land use plans. If the plans are implemented to the later, you will see that the towns and cities will have lanes, open spaces, children playground, green belts and urban forests.*

On this issue, a respondent with NDPC, who has several years of experience of SEA application in Ghana appeared to have espoused a contrary position. He argued that SEA has had massive influence in respect of protecting the natural environment. He advanced a case to back to his claim. According to him, the application of SEA in Ghana in 2002 led to the promotion of lesser known timber species, that is the cane. He explained that cane grows naturally along river banks in Ghana and in the past people harvested them for basket and chairs, leaving the riparian areas destroyed and the rivers drying up. He indicated,

> *we promoted cane plantations across the country, and this is clear sustainability arrangement and evidence resulting from SEA application to land use planning.*

A similar observation was made by one of the EPA respondents. He claimed,

> *SEA has promoted the protection and conservation of natural resources, for instance the Kakum and Mole National Parks for eco-tourism, wetlands, and also biosphere reserves.*

A response from the other NDPC interviewee introduced a new dimension into the whole discussion. He commented that based on his experience, there was little data to make any determination as to whether SEA has had long term impact on spatial planning. His argument was that, until recent, spatial planning has not been the focus for development and settlement planning in Ghana. According to him, Ghana has been doing what is called social and economic planning, and not necessarily situating them in space. In sum, he held that,

> *SEA has a huge role to play in land use and spatial planning, but how much role it has played up until now, the evidence is quite limited.*

That is also not to say that, SEA has not played any indirect role with regards to general developing planning in Ghana. Some of the other interviewees commented that SEA is promoting a new development paradigm in the country. One of them said,

> *you can see that all the newly built basic school prjocts in the past few years have landscaping, water harvesting infrastructure, toilet facilities, drains and aprons. But this used not to be the case. And so when you move around the country, you will see that most of these basic schools that were built several years ago are hanging due to soil erosion.*

He advanced his argument that,

> *because of the application of SEA to particularly structural and local plans, we have identified waste as a major problems from our markets, and so now new markets have in place waste tranfer stations, disposal sites and other important facilities.*

4.5 Evaluation of the direct/indirect impact of SEA application to land use and spatial planning PPPs

With regards to evaluation of the impacts of the SEA in the light of its contributions to land use and spatial planning PPPs, respondents unanimously reported that systems of monitoring and evaluation are usually employed. In addition, they suggested that there is the use of assessment criteria to examine and evaluate the possible opportunities and risks associated with land use and spatial planning PPPs, with respect to natural resource, economic, socio-cultural and institutional issues/dimensions. One of the EPA respondents argued that there is a clear feedback mechanism to review and modify a land use or spatial planning policy or plan based on assessment results.

In terms of the long term results of SEA application to spatial planning, a respondent from the NDPC commented that the system of monitoring has provisions with respect data and indicators used to evaluate the outcome of land use or spatial plans and policies. He particularly said,

> *we can determine that by assessing if SEA has improved management practices or if the recommendation in SEA report has influenced the decision or outcome of a policy or plan and the way that intervention is implemented.*

4.6 Discussion of Results

The results are discussed in line with the objectives of this study, which includes, examining how SEA output directly influence decision-making processes of land use and spatial planning PPPs; as well as ascertaining the long term impact of SEA beyond its application to land use and spatial planning PPPs.

The interview results on the direct impact of SEA on the decision-making processes; the indirect/long term impact of SEA beyond the decision context; and evaluation of the direct/indirect impact of SEA application to land use PPPs are discussed below.

To a large extent, the key findings indicate a trend as illustrated in Figure 4.4 below and that also reflects the proposed conceptual framework of the study.

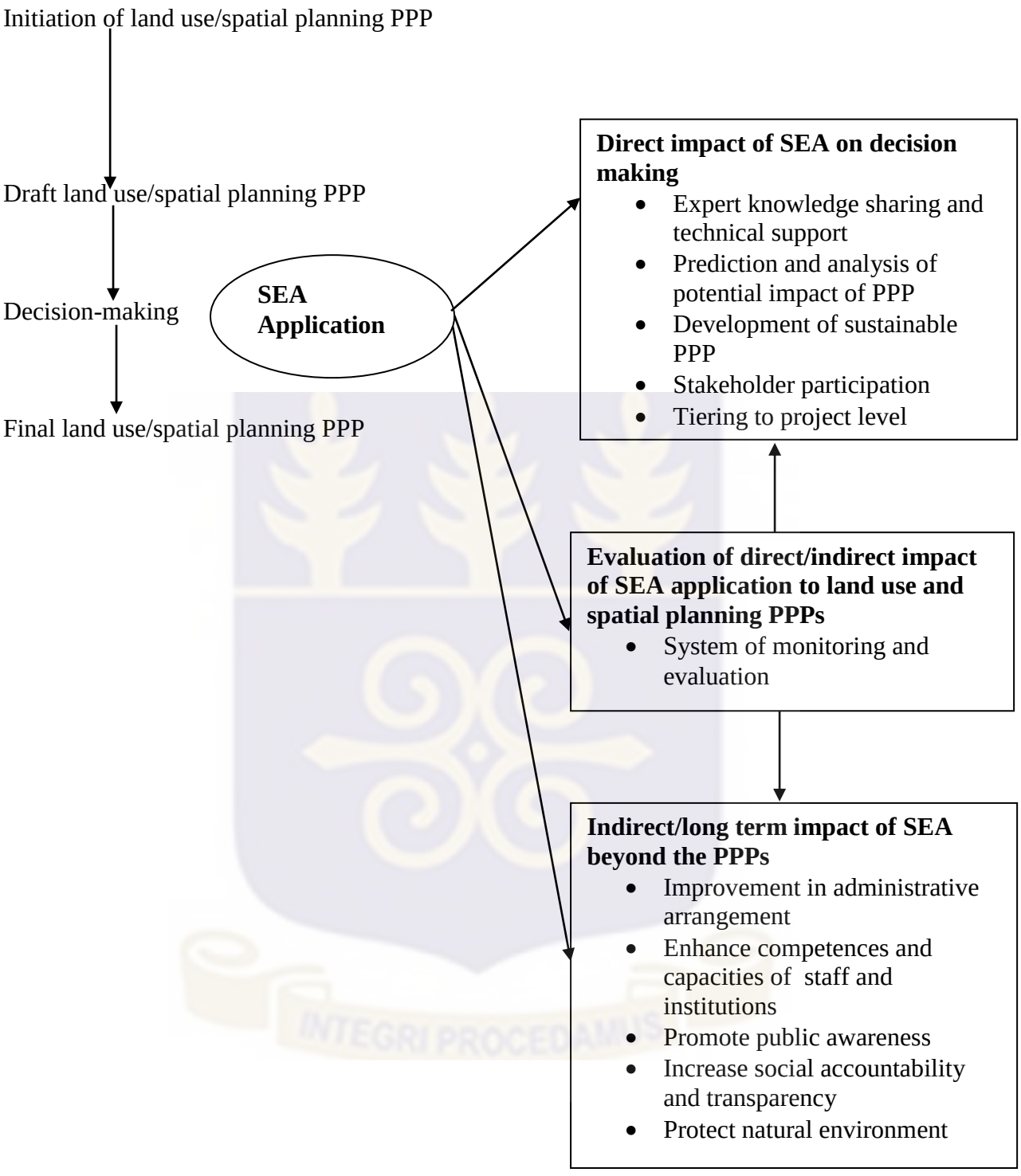

Figure 4. 4: Key findings of SEA influence on land use and spatial planning PPPs

4.6.1 Direct Impact of SEA on Decision-making

Based on the findings of the direct impact of SEA, it is widely recognised that SEA brings together experts from diverse fields. Indeed, at the national, regional and district levels, the various committees, particularly the Spatial Planning Committees have several institutional representations, who bring to bear their expert knowledge in proving technical backstopping to greening the land use policies and plans.

In terms of predicting and analysing the potential impact of land use PPPs, the position unanimously taken by the respondents is also widely declared in past studies, including OECD (2006), Salheen, et al. (2010), Therivel (2012), and Annandale (2014). Respondents actually backed their assertion with documentary evidence, where SEA reports have identified potential impacts of certain land use plans and also provided mitigation measures.

Eventhough, it is imperative to engage widely in the decision making process of applying SEA to spatial plans as well as communicate outcomes to all affected and interested stakeholder, it appears the findings that, stakeholder engagement is limited to only experts or key stakeholders, instead of carrying the public along to enhance transparency of the decision making process of land use planning.

Most of the respondents established a linkage between national land use policies and plans and the regional and local plans. However, in terms of how land use and spatial PPPs relate to other sectoral PPPs, such as housing; waste management; forestry; and water supply, most of the respondents were uncertain of the connection. Indeed, as espoused by the conceptual framework of this study, horizontal and diagonal tiering, are as important as the vertical tiering, if SEA is to make any meaningful impact.

4.6.2 Indirect/long term impact of SEA beyond the PPPs

In addition, the results suggest that SEA is having a positive indirect/long term impact on land use and spatial planning in Ghana. The general trends summarized from the interviews basically reflects the proposed outcome of the conceptual framework of this study, including raised attention and public awareness to environmental priorities; increased social accountability and transparency in land use PPP preparation and implementation; enhanced institutional capacity/ PPP learning; and enhanced bio-physical environment.

Moreover, in respect of enhancement of staff and institutional capacities, the position held by the respondents is also upheld by the OECD (2006) and the study's conceptual framework modified from World Bank (2011), that effective SEA depends on institutional strengthening and decision-making processes rather than just a technical approach focused on impact.

With regards to accountability and transparency, the discovery from the interviewees is in accordance with the proposed long term outcome of the study's conceptual framework. From the conceptual framework, sustainability mainstreaming of SEA including dissemination; communication; monitoring; and evaluation, will promote indirect/long term impact such as increased social accountability and transparency in land use planning and therefore a guaranteed broad national ownership.

It is also interesting to note that, the findings and discussions about the direct impact of SEA in greening the land use policies and plans appeared to be so expressive. However, its indirect impact resulting from implementation of a land use policy or plan at least from the results of the interviews appear to be split one. These findings correspond to the study by Salheen, et al. (2010). According to them, it is widely accepted that SEA and land use planning can deliver sustainable development, but the evidence remains debatable.

A study by Emmelin (2006) on the "effective environmental assessment tools–critical reflections on concepts and practice", advocated that SEA should go beyond the mere formulation of strategic initiatives and greening of policies and plans to the actual implementation of those PPPs if it is to promote strategic change towards environmental sustainability.

Given that land ownership in Ghana poses serious challenges to the Land Use and Spatial Planning Authority in its attempt to fully implement the land use and spatial plans, as mentioned by both respondents from that institution, suggest that the current land tenure system can impede the country's effort in transitioning to a green economy. This observation appear to be consistent with the argument made in a study by Yeboah and Shaw (2013) that spatial, land use and human settlement planning are unlikely to be influenced by planning policy or regulation because of the land tenure practices in Ghana. They maintained that in some cases, chiefs team up with self-proclaimed planners to alter land-use plans which have been prepared by authorised local planning institutions.

4.6.3 Evaluation of direct/indirect impact of SEA application to land use and spatial planning PPPs

Finally, although the study results regarding the evaluation of the impact of SEA appear to coincide with aspects of the criteria for evaluating the direct and indirect impact of SEA on policies, plans or programmes as suggested by Acharibasam and Noble (2014), which is also backed by the conceptual framework of this study. The findings give the impression that, the criteria for evaluating the long-term impact of SEA on land use and spatial planning outcomes in Ghana is insufficient, and weakly linked to scientific data.

4.7 Summary and Conclusion

Overall, the results of the study suggest that the Ghana SEA arrangement has the capacity to influence land use and spatial planning decision making contexts, and thus promote a transition to a green economy. A common indication from the findings is that, SEA is setting quality environmental goals and standards, and also building capacity and strengthening planning institutions in Ghana, which are widely reported (Lee & Walsh, 1992; Fischer, 2009) as basic requirements for green economic development.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter presents a summary of the study, including its findings as discussed in chapter four of this report. It also includes the conclusion and recommendations made based on the aim and objectives of the study.

5.2 Summary of the Study

5.2.1 Research Objectives

This research attempted to understand how the application of Strategic Environmental Assessment (SEA) is promoting Ghana's transition to a green economy by influencing land use and spatial planning policies, plans and programmes (PPPs). Specifically, the study sought to ascertain how SEA administration in the land use and spatial planning sector was influencing greening outcomes through direct and indirect impact.

5.2.2 Methods

This study followed a qualitative research approach based upon documentary review and interviews with key stakeholders. Primary data for the study was obtained mainly through in-depth interviews with staff of the Environmental Protection Agency, the National Development Planning Commission, and the Land Use and Spatial Planning Authority. These three (3) public institutions were selected on the back of their involvement in the application of SEA to land use and spatial planning PPPs in Ghana, with the EPA and NDPC in particular playing lead roles as well as being members of the National SEA Core Team.

Case study and purposive sampling were employed as the research design and the sampling technique respectively for the study. As part of the data collection for the study, six (6) officers, two (2) from each of the aforementioned institutions were engaged. It was evident from the interviews that, the respondents demonstrated tremendous understanding regarding the subject studied.

5.2.3 Key Findings

The results obtained from the interviews were put into the four (4) headings. These included background information of interviewees/respondents; the direct impact of SEA on the decision-making processes of land use and spatial planning PPPs; the indirect or long term impact of SEA beyond its application to land use PPPs; and the evaluation of the direct/indirect impact of SEA application to land use PPPs.

The data was analysed using descriptive method, thus summarising the categories based on the individual attributes and supported with direct quotes by the respondents. A conceptual framework, modified in the literature section of this report by the researcher, and which describes the role of SEA in promoting green economy was used to discuss the results and also supported by other existing concepts.

In relation to the direct impact of SEA on land use and spatial planning PPPs, the findings revealed that, SEA was effective in terms of identifying, analysing and predicting the potential impact associated with proposed interventions, and also determining appropriate mitigation or enhancement measures, resulting in greening the final policies and plans. In addition, the findings gave an indication that the application of SEA results in refining the objectives and strategies of land use and spatial planning PPPs, based on the pillars of sustainability.

With regards to the indirect impact of SEA on land use and spatial planning PPPs, improvements in institutional arrangement and capacity, and influences on administrative structures and management practices were generally acknowledged by the respondents. The results also brought to light, some constraints associated with the implementation or lack thereof, of the evaluated land use and spatial PPPs. The land tenure practices and low support from the political elite were identified as some of the factors constraining the effective implementation of evaluated land use and spatial planning PPPs.

Based on the findings, the evaluation criteria, particularly, for the long term contribution of SEA to land use and spatial planning is insufficient, and appear to be weakly linked to scientific data.

5.2.4 Limitation

The study was limited to the land use and spatial planning sector because, that sector has already been identified by the government and its development partners as one with significant potential for greening the Ghanaian economy. Primary data for this study was also limited to the staff of EPA, NDPC and LUSPA because these institutions are key as far as SEA application to spatial and land use planning is concerned.

5.3 Conclusion of the Study

This study set out to investigate how Strategic Environmental Assessment (SEA), as applied to land use and spatial planning policies, plans and programmes (PPPs) is addressing socio-ecological concerns, and thus promoting Ghana's transition to a green economy.

The study has generally achieved its objectives as well as its purpose of improving available information on the extent of SEA applications to especially land use and spatial PPPs in Ghana, and how that is providing green information and influencing green outcomes.

The conclusion is that, the application of SEA has resulted in the greening of land use and spatial planning PPPs in Ghana. It is also increasingly introducing sustainability ideas into land use and spatial planning policies and plans. However, there appear to be limited implementation of these policies and plans, as revealed in the findings section of this report. This reinforces the verdict that, the evaluation criteria, particularly, for the long term contribution of SEA to land use and spatial planning is insufficient, and appear to be weakly linked to scientific data.

As a result, the researcher is of the view that the application of SEA has not adequately influenced land use and spatial planning in Ghana, and the indication of promoting a transition to a green economy exists largely in documents, as there appear to be limited clear case evidence of enhancing natural assets and social equity alongside economic advancement, resulting from the execution of land use and spatial planning PPPs.

Finally, looking ahead, the researcher believes that, there are good grounds for optimism about the long term impact of SEA on land use and spatial planning, thus delivering a sustainable economy for Ghana. To a greater extent, this stance is premised on the fact that, SEA is now a mandatory national tool for all planning activities in Ghana, including spatial and economic, following the adoption of the National Development Planning (System) Regulation, (2016) LI 2232, and also the 2015 National Spatial Development Framework, which provides the basis for the preparation and implementation of all spatial plans.

5.4 Recommendations

In relation to the findings and the conclusion in this study, the researcher recommends that, the National SEA Core Team should consider building the capacity of the chieftaincy

institution in Ghana. Such considerations could look at practical avenues for improved coordination between the spatial and economic planning authorities on one hand, and the chieftaincy institution on the other regarding the effective implementation of land use and spatial policies and plans that have been subjected to the SEA process.

Secondly, government should take the necessary steps acquire lands earmarked by the spatial planning authority for socio-ecological services, such as green belts, wetlands, valleys, sanitary/dump sites, and open spaces in order to strengthen the foundation for the transition to a green economy based on land use planning.

Thirdly, there must be concerted efforts from key stakeholders, particularly, the political elite, to support the processes of executing land use and spatial planning policies and plans to the later, such that the impact can be fully realised.

Finally, the researcher recommends that further studies should be undertaken on the scientific assessment of the long term impact of SEA on land use and spatial planning in Ghana.

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APPENDIX I: INTRODUCTORY LETTER

UNIVERSITY OF GHANA
CENTRE FOR CLIMATE CHANGE AND SUSTAINABILITY STUDIES (C_3SS)

Ref. No.: CCSD/OF/18.04.25 6 June 2018

TO WHOM IT MAY CONCERN

Subject : Letter of introduction: Osman FUSEINI

I write to introduce Mr. Osman Fuseini, a final year **MSc. Climate Change and Sustainable Development** student of University of Ghana Centre for Climate Change and Sustainability Studies. As part of the requirement for the programme he is conducting a research on the topic" **The Role of Strategic Impact Assessment in Promoting Ghana's Transition to a Green Economy.**

I would therefore be most grateful if you could kindly assist him with relevant data for his study.

Yours Sincerely,

Dr. Albert Ahenkan

(Coordinator, CCSD)

COLLEGE OF BASIC AND APPLIED SCIENCES
P.O. Box LG 25, Legon, Accra, Ghana
Telephone: +233-302905269 Email: C3SS@ug.edu.gh Website: www.ug.edu.gh/c3ss/

APPENDIX II: INTERVIEW GUIDE

Interview Guide

This semi-structured interview guide is a data collection instrument to assist in gathering in-depth data on the issue under investigation. The overall aim of this research is to understand how the application of Strategic Environmental Assessment (SEA) is promoting green economy by influencing land use and spatial planning Policies, Plans and Programmes (PPPs) in Ghana.

Specifically, the study seeks to understand;

i. The long term impact of SEA beyond its application to land use and spatial planning PPPs.
ii. How the indirect impact of SEA as applied to land use and spatial planning PPPs is evaluated.
iii. How SEA output directly influence decision-making processes of land use PPPs.

i. Background Information of Interviewees

1. What is your current job title or position?
2. How long have you been working for EPA/NDPC/LUSPA?
3. What are your responsibilities or areas in charge?
4. What is your experience regarding SEA?
5. How does your job responsibility relate to the application of SEA to land use and spatial planning policies, plans or programmes?

ii. Direct impact of SEA on the decision-making processes of land use and spatial planning PPPs

1. Does SEA improve administrative arrangements for integration of socio-ecological issues into land use and spatial planning (If yes, how)?
2. How does SEA influence the decision making process of land use and spatial planning PPPs?
3. What changes usually occur in the evaluated or final land use and spatial planning PPPs?
4. Are there specific points in the process of developing land use and spatial planning PPPs where SEA can have influence over decisions or design (If yes, how)?
5. In your opinion, what are the direct impacts of SEA to land use and spatial planning?

iii. Indirect or long term impact of SEA beyond its application to land use PPPs

1. What is the most important indirect/long-term contribution of SEA to land use PPPs?
2. What can be considered as example (s) of successful case (s) of SEA applications to land use and spatial planning in Ghana?
3. Has SEA enhanced land use and spatial planning learning in Ghana (If yes, how)?
4. Has SEA supported the alternative ways of dealing with issues, such as promoting business and industrial land supply, business parks, green business (if yes, how)?
5. Has the applications of SEA to land use PPPs helped in conserving the natural environment, for example; landscape, wetlands and green belt (if yes, how, and where)?

iv. Evaluation of the direct/indirect impact of SEA application to land use PPPs

1. How do you evaluate the impacts of the SEA in the light of its contributions to land use PPPs?
2. How do you determine the long term results of SEA application to land use PPPs?
3. How do you perceive the application of SEA to land use and spatial planning in relation to greening the Ghanaian economy?