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Exploration of the Private Sector Roles Including Small and Medium Enterprises (SME's) in Climate Finance

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ABSTRACT: *Climate change as a topic has gained great interest all over the world and countries and organizations are increasingly in need of such information as will help in mitigating the adverse effects of climate changes. This research aimed to deepen knowledge on the roles played by the private sector including Small and Medium Enterprises on climate finance and environmental sustainability. The research explores the rise of the private sector involvement in climate finance with a focus on SME's. There however are not many studies that gather and systematize the available knowledge about the issue of SMEs' involvement in environmental sustainability and the concern with sustainable development in the face of climatic changes. This paper presents the analysis and main gaps from a systematic review of literature together with empirical studies based on the exploration of private sector roles including SME's in climate finance. The research drew upon both primary and secondary sources including websites, journals, memoirs, published papers, letters and a collection of primary sources within the scope of study. The overall approach of this research was inductive whereby it was concerned with the creation of new body of knowledge from the data that was generated and analyzed whose findings were summarized. Key findings were that most prior research dwelt on generation of awareness about changing climates and increasing research in the area of climate finance, though most SMEs and the private sector have not actively been participating in the area. The research concluded that the private sector needs to play a greater and non-partisan role in sponsoring formulation of policies, generation of finance and sustaining awareness in the area of climate finance. The key recommendations from this study included a shift from generation of finance to sustainability of the financing solutions that will have lasting solutions.*

KEYWORDS: climate change, climate finance, sustainability, environmental sustainability, financial management, private sector

INTRODUCTION

According to the Kenya Climate Change Act 11 of 2016, "climate change" means a change in the climate system which is caused by significant changes in the concentration of greenhouse gases as a consequence of human activities and which is in addition to natural climate change that has been observed during a considerable period.

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The Act defines "climate finance" as a means by which monies are available for or mobilized by government or non-government entities to finance climate change mitigation and adaptation actions and interventions. Generally, climate finance is the type of financing channeled by national, regional and international entities for climate change mitigation and adaptation projects and programs. They include climate specific support mechanisms and financial aid for mitigation and adaptation activities. This helps both organizations and individuals to reduce the impact of climate change on their products and countries at large. Climate finance may also refer to the financial obligations countries have developed to take care of areas concerning climate change variables. Nascimento (2016) in the journal "Exploring Climate Finance for Tourism Adaptation Development" notes that some results, where he quotes his writing, helps to broaden people's understanding that the end purpose of climate finance is to provide adaptation and socio-economic growth enhancement to different sectors and regions (Nascimento, 2016).

"Greenhouse gas" includes but is not limited to— (a) carbon dioxide; (b) methane; (c) nitrous oxide; (d) hydro fluorocarbons; (e) per fluorocarbons; (f) sulphur hexafluoride; and (g) indirect greenhouse gases (NCLR, 2016).

According to Wikipedia, Financial management refers to the efficient and effective management of funds in such a way as to achieve the objectives of an organization. It is the specialized function directly associated with the top management which can be achieved through minimization of costs mostly by reducing non value adding activities from an organization's supply chain. In understanding what environmental sustainability is, let us first define sustainability as a term. According to the Erkskine Solar Spectrum Art, sustainability refers to the ability to continue a specific behavior indefinitely. Environmental sustainability is therefore 'the rates of renewable resource harvest, pollution creation and non-renewable resource depletion that can be continued indefinitely then they are not sustainable. If they cannot be continued indefinitely then they are not sustainable'.

Classification of the Private sector

The private sector can be classified as follows;

Private sector investors: This represent the portion of players in the field of climate finance whose main interest is to individually see to it that there exist funds to meet the topic of climate in whatever region of interest or generally. The investors strictly invest in the private institutions so they take whatever they can to the private players or companies in order to help build the private sector more.

*Individual investors***:** These are investors who decide to personally invest in a given institution that deal with the topic of climate finance. They invest whatever they have for bettering the investment.
*Private equity***:** Typically refers to investment funds organized as limited partnerships that are not publicly traded and whose investors are typically large institutional investors, university endowments, or wealthy individuals.

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Venture capitalists: They are funds or finances provided to firms that are small or at early stage or at emerging stage and are viewed to have high growth potential or have high growth rate.
*Pension funds***:** A pension fund is established by a company, governmental institution or labor union to pay for the (future) pension benefits of retired workers ("Climate finance and markets," n.d.). They are important to stock markets as well as climate change actors or affected areas by climatic changes.

Insurance companies: They are companies that deal with speculative factors that may hamper the smooth use and enjoyment of assets, both visible and invisible, against unforeseen effects or circumstances including those of nature e.g climate changes. These companies fund the climate change affected areas as part of their corporate social responsibility to the people who live around the organization affected or according to the contractual agreement between them and clients in seeking insurance services in unforeseen climatic changes.

Sovereign wealth fund (SWFs): These are special purpose investment funds or arrangements, owned by the general government for macroeconomic purposes. SWFs hold, manage or administer assets to achieve financial objectives, and employ a set of investment strategies which include investing in foreign financial assets. They are commonly established out of balance of payments, surpluses, official foreign currency operations, the proceeds of privatizations, fiscal surpluses, and/or receipts resulting from commodity exports (McVea & Charalambu, 2014).

It is from this understanding that the private sector covers much part of the world than the public sector, hence it is affected more by the effects of climate changes, that there is a general feeling that the private sector should play a greater, diversified and refined/defined role in climate finance areas including pushing the government to formulation of policies, programs and initiatives that will promote environmental sustainability.

Problem Statement
Climate financing can be a very difficult task if only left in the hands of the public and governments. This is because the estimates in dealing with climate changes in the world range in billions of dollars hence the need to have a multi-sectoral and stakeholders approach.I addition to the need for much finances to deal with climate changes, it is understood that the effects of climate changes are felt by all, whether a direct player in the sector or not, hence the need to have a conversation that will involve everyone including the private sector players.The public and the private sector need to work together in order to realize the financing estimates for countries in dealing with climate changes. In discussing climate financing in Kenya, Mutie, (2014) notes that there is no a climate specific budget code which makes the gathering of time series data on climate financing difficult, though he notes that both the private and public enterprises in Kenya and outside Kenya have been able to invest a cumulative amount of 3.2 Billion US Dollars in projects and programmes (Mutie Nzau, 2014). Countries like Kenya have relied on various sources of climate finance including public and private sources both locally and internationally. In conclusion, there is need to synthesize available information so as to reach all the players in the

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field of climate finance and outside the climate change discussion spheres, hence the need for defining roles to be played by various stakeholders in climate finance.

Purpose of the study

This study aims to broaden knowledge on the roles played by the private sector in climate finance. Climate finance is becoming a desperate need by countries all over the world, both in the private sector and the public sector. This paper, to a large extend broadens the understanding and knowledge field in the area of climate finance in filling in some of the gaps from the past studies related to the topic of climate change and climate finance as narrowed down to the cases of small and medium enterprises as the major players in the private sector. This discussion is important since the effects of climate change are felt by everyone hence the need for all to be involved.

Research Objectives

- To identify the different channels of climate finance in dealing with climate change
- To investigate the different limits and obstacles to adaptation to climate change by the private sector
- To identify the various responses to climate change challenges by the private sector
- To analyze the need for sustainable finance and investment in climate change

Research Questions

i. What are the different channels of climate finance in dealing with climate change?
ii. What are the different limits and obstacles to adaptation to climate change by the private sector?
iii. What are the various responses to climate change challenges by the private sector?
iv. What is the need/are the needs for sustainable finance and investment in climate change?

Theoretical Framework

Agency Theory in climate financing

Discussion of the incentives that Donors (Principal) and Recipients (Agents) face in dealing with accounting for climate finances in dealing with climate changes

Bridging the gap between Nature (Principal) and human actions (Agents) in dealing with climate changes

Empirical Review

The biggest challenge during financing low carbon and climate resilient is that they do not benefit from history or previous records of the performance of assets which could have been of help to investors for making decisions. It can be a hindrance mostly for debt capital which is a loan mostly. So they can respond by providing credit enhancement. Investments that are moving first from dedicated green financing can deliver demonstration effect for the rest of the markets (Holt, 2012). Countries like Kenya have adopted a climate resilient green economy pathway to achieve sustainable development by 2013 (Mutie Nzau, 2014). The question we should be asking is, are the actions by the government being felt at the grassroots and especially by the small and medium enterprises in Kenya (as an example to other nations)?

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Bringing together private and public sector engagements involves government agencies, private players/investors, project developers and public financial intermediaries among others. Recognition of the funding gap by the public actors in many regions has led to an increasing interest in using public funds to leverage private capital investment in climate change projects in developing countries. Public actors have increasingly become interested in using funding from the public to help private capital investments in climate change projects in the growing countries. This has been happening in the bid to reduce on or close on the existing gap between funding and the financial need for climate assessments and impacts.

The private sector must take on a bigger, if not the dominant, financing role for climate adaptation in all but the poorest countries if we are to prepare sufficiently for the challenges that lie ahead (Hoffman, 2014).

Many players in the many fields of life need impacts assessments in the topic of climate change and hence the need for greater participation. There are enormous amounts of assets in different managerial capacities represented in trillions of dollars globally. Financial institutions have the capacity to provide as much capital needed as possible to finance privately developed climate change projects.

RESEARCH METHODOLOGY

- This research dealt with secondary data only through published journals, papers, online materials, letters, reports etc.
- Systematic Literature Review; Literature review of the available literature was done analytically noting the gaps that exist in the literature using descriptive design method
- Data used was qualitative in nature through written and observational studies/works

Brief Description of the study site

- The world is increasingly becoming a global village due to advancements in technology, hence information flows easily and affordably. Data is currently readily available both in print and in soft for use. In this study, data used was through review of writings on the topic of climate finance from all over the different parts of the world.

DISCUSSION

The Obstacles to Private Sector Participation

Lack of adequate legislation for private sector - The amount of registration done by the private sector is slightly lower than that of the public institution and most of the public institutions do not have the funds to pay for the business to run so they end up being frustrated and the profits they make end up being used to pay for survival.

Involvement and not enforcing property rights and contracts - Sometimes the private sector are even forced to end up running deals with the black markets in order to keep up the pace of their

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competitors who are the government which is hard so they end up being locked up for one financial reason or the other or they end up with dead stocks in their shelves which is bad for business and might lead to disposals.

Bureaucratic inertia - Most private organizations assume that bureaucracy is for the private sector but in real sense bureaucracy no matter how bad it is with all the protocols at times it saves some of the small but costly errors in an organization.

Lack of confidence in the private sector among key players - Policy makers might just make the law to be paid but do not really trust that the people they are making laws for will really follow the policy.
Unfavorable public opinion - Public opinion and public image are what most organizations value and yet mostly anything that a company does can easily ruin the opinion of the people of what they view the organization for, so the private organizations may have a problem inside but they really are mindful of what the public says of them.

Fear of foreign operation - Foreign operations are expensive and at times they need a lot of documents in order for them to take part in the foreign markets which at times does not really do well with the items they offer for the people in those markets so they end up wasting time and resources.

Reluctance to deal with labor problems - Most labor laws are tough and so most of the private companies tend to shy away from any issue that may cause trouble between them and the labor laws but then what if that is the only way to survive then they end up on the losing ends.
The constraints may also be on the supply side, with the private sector showing too little interest to ensure competitive bidding (Del Cerro Santamaría, 2013).

Sustainable Finance and Investment
Business models should consider the value chains of firms doing better than them in terms of financial models and financial stakeholders. They should also be keen on how costs and benefits are distributed across the whole business model and among the people involved in internalizing the organizations environmental and social externalities and environments.

Equity finance has an influence on the behavior of an organization besides the stock exchange sovereign wealth funds control, the increase in part of the financial assets in the world and the profits of investment which are highly guided by ethical guidelines and have high effects on sustainability both globally and locally. Models of banking in executive remuneration at financial institutions have influenced short term inherent in current banking business models. Capital structures and incentive methods are also a big deal. Global liquidity standards and capital have reformed over years. Concerns are on the stability of banks and the systems used in banking.

Engaging the private sector is essential for multiple reasons.

It can mobilize financial resources and technical capabilities. This is because most people prefer working with private institutions most especially if the institution is known to be doing well in its sector as well as most people also invest in the private sector because of their reputation. Leverage the efforts of governments. The private sector puts the government on its toes to provide better services since the people want things that are more current so if your business whether for the government or not is not meeting the demands they tend to go for better and things that satisfy their needs.

Engage civil society and community efforts. Mostly the important thing that the private organization runs for is the corporate social responsibility or giving back to the society which makes them stand out because they have the interest of the people at heart so the society would be more close to them due to the benefits they gain from them. Development of innovative climate services and adaptation of new technologies - Private organizations have better solving problems mechanisms since they have experts and shorter decision making capability since they are not that bureaucratic so it is easier to deal with them.

Private organizations have a lot of investments that are critical to adaptation for instance buildings design and location as well as investments on infrastructure.Private sector also develops the layout and delivery of many adaptation services like weather observation technology and prediction plus forecast systems.

Limits of Adaptation to Changing Climatic Condition

1. Ultimate goals of adaptation underpinned by diverse values.

Values sometimes interfere with things that happen in an organization and sometimes it even hinders the changes that might have been of help to the organization or a country at large.

2. Adaptation need not to be limited by uncertainty around future foresight of risk.

Some countries fear the risk of adaptation since the moment they adapt a new trouble may arise and cause a bigger trouble which means adaptation was a waste of time and resources.

3. Social and individual factors limit adaptation action.
4. The under valuation of loss of places and culture.

Some cultures in different nations may limit them from adapting. The amount of losses they may have experienced in a past activity may also limit people or countries from accepting that they can adapt the changes. Though these limits are mutable and can be controlled if they can be dealt with properly (Lodhia & Martin, 2012).

Responses to the Climate Change Challenges

1. Changing land use practices.

This is where people change the products they plant on their lands by planting plants that are eco-friendly as well as having different plants that have different functions in the soil so as to reduce the effect of soil erosion which is a bigger challenge to deal with. Cutting trees which is plays a major role to climate change and its effects.

2. Adjusting economic activities.

This is where a country generally changes its economic activities in order to deal with the problem of climate change.
3. Changing the design.
This is changing generally on the design of how they do things in order to keep up with climate change and its effects for their country.
4. Implementation of infrastructure and introducing public health initiatives to combat health hazards. This is where use of friendly items in building as well as having aside methods that can help deal with the hazards of climate changes.
5. Use of resources. This is using the resources they have to help them prepare for calamities that may arise in the nature as well as prevent some from happening if possible. Leichenko and O'Brien say there is no analytical benefit in seeking to isolate the climate change rationale for policy responses: all policies are constrained by global economic structures and by the path dependency of prior decisions.

Challenges Faced By Private Organizations As They Deal With Environmental Sustainability
1. Low quality service and inadequate coverage. The inabilities to cope with the expanding population since the rate at which the population is growing is very high as well as people have different and changing tastes and preferences which are faster that most organizations cannot cope up with
2. Excessive and wasteful use of resources. They do not have a marginal cost while pricing then the power losses are unpredictable depending on the seasons plus other natural occurrences which they do not have control over. They also lack meters for the units consumed by people.
3. Poor cost recovery and financial problems. Mostly they are forced to underprice so that they can be in a position to compete with the public entities which are cheap. They also have irregular meter readings for the expense and the billing is not done on the actual consumption they do probability of consumption plus some people go to the extent of messing with the meter so that they do not pay a lot.
4. High labor costs and low labor productivity. This is due to excess staff who give generous benefits and also having employees with low skills is also dangerous since it might be cheap but at times it is costly specially to train them before they catch up it will be a long period then once they are trained other organization’s easily take them away from your organization.
5. Poor management and inability to attract and manage talent. This is due to inability to give staff competitive wages which mostly lead to demotivation of employees and this cause’s employee turnover which is a challenge for many private organizations.
6. Large and growing state subsidies. The subsidies benefit the middle class as well as the wealthy who consume high power rates as well as water rates.
7. Lack of clear regulations and responsibility guidelines. This is due to conflict of interest between the operator and the regulator since they might not have the same interests at heart which sometimes lead to under performance as well as under compliance which might lead to competition between people who are supposed to be working together.
8. Public service monopolies which have proved to be the largest sources of environmental problems since their water rates do not cover for the amount to be used for sewage deposits and unblocking of the blocked sewages.

The Promise and Challenge of Private Sector Participation

The promises of the private sector are;

To improve management and to improve efficiency

To increase access to private capital to be used in expansion and maintenance

The two are related in such a way that they bring greater efficiency which results in greater funds available for investment which in time yields great investment. Investments is the way to easy access to private capital due to improved management since with bad management the level of investments is normally low so with good management also comes operational efficiency which in the long run turns out to be profits for an organization.

The private finance is the most invested in energy while the public climate is based on fund incremental cost. The private finance has the most important role in the shaping of the future supplies of energy. There is a general lack of information on how disaster can be effectively reduced and the response measures. Continued partnership with the public sector remains essential even though overtime levels may likely fall to allow progress. A good investment climate has dimensions that are clearly linked to quality of the people, the government and institutions so they require stability of the economy. There should be regulations and policies to enhance energy efficient and renewable energy which should be laud and legal. Benefits from investments can be felt or is mostly felt by mostly the medium businesses and the small business in growing and small economies or countries.

Encouragement of and the push for private participation in low-carbon markets can, not only addresses near-term development needs, but also ensures the longer-term viability of these markets. A unique opportunity therefore exists for public and private actors to work together to increase climate change-related private capital flows to developing countries.

There is therefore need for actors in all fields i.e. from the public and the private to act together in coming up with solutions to climate change. It is therefore necessary to define the roles of each player in the course of dealing with climate change, hence the need for this discussion about the roles played by the private sector in climate finance.

Channels of Climate Finance

Development banks: They are channeled through development funds which help people or organizations when they need some kind of help.

Aid agencies: They can also get help from agents who aid them in getting access to what they need as well as advice on where to go and where not to go.

Public-private funds: These are funds that are given to both public and private entities to help solve those needs.

International mechanisms like the Green Climate Fund: These are the funds given in order for people to prepare for the climate change in ways that are they know can help them

The plan would initially focus on private sector participation in low-carbon development through the targeted use of public financing instruments.

Focus should be on;

Development finance institutions. These are institutions that offer finance for development of institutions to individuals and countries.
Public-private partnership funds and initiatives - These are the initiatives or plans that are funded by the private and public sectors of a country.
Bi-lateral climate finance frameworks. This is the finance to aid changes in climate and any effect it might have on the people around at that time.

CONCLUSION AND RECOMMENDATIONS FOR FUTURE RESEARCH (POLICY IMPLICATION)

Policy formulations, implementations, assessments and reporting are necessary in climate finance as in any other field of life affecting people and their well-being. Countries, institutions, organizations, businesses and individuals need to rise to the occasion and come up with mechanisms to adapt to climate change.

Impact assessment which is the estimation of adaptations of events likely to occur and development of policies which advice on what to adapt and what not to adapt depending on the other factors like cost as well as the peoples will to adapt or not to adapt.
There are three major decisions on adaptation differentiation which are based on three main questions;

Adapt what? This is basically what an organization or a country needs to adapt to and if the organization is willing to adapt to it or not.
Who or what adapts? This is based on who meaning it's not everyone that is affected by it just some specific people and what is the conditions under which the who is working under.
How does adaptation occur? This is on how long which is the time factor as well as the effect of adaptation since adaptation always needs an extra mile or a sacrifice.

Mitigation finance offers the private sector opportunities to undertake pilot activities. Some pilot activities have had successful outcomes, with private sector entities acting as co-financiers and self-investors in large-scale infrastructure projects via arrangements such as public-private partnerships. Greater understanding of the history and political context of Indonesia's private sector is expected to improve donor and recipient strategies for leveraging private investment in risky projects, developing bankable business plans as well as providing accountability for the use of public finance in business-related international development activities.

The private sector is and will continue to differ in terms of their sizes, priorities and areas of interests in operations. However, there is the undisputed fact that the adverse effects of climate change affects and will continue to affect more all stakeholders in the business world. This calls for greater involvement of all sectors in the economy in the topics involving climate change where climate finance is a major player in putting in place measures to curb adverse effects of climate changes. SME's cannot be left out of the discussions because they form a greater portion of the private sector from the business world.

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The key findings from this research were that most prior research dwelt on generation of awareness about changing climatic conditions, adverse climatic changes and the increasing research in the area of climate changes and finance, though most SMEs and the private sector have not actively been participating in the discussions.

The research concluded that the private sector needs to play a greater and non-partisan role in formulating policies, generation of finance and sustaining awareness in the area of climate finance. There should be an understanding of the adverse effects of climate changes and the need for more finance to curb the effects. SME's, both at the individual and collective levels, need to understand the greater losses they can suffer if the adverse effects of climate changes are not solved, hence the greater need for their participation in the discussions and funding mechanisms.

The key recommendations from this study include a shift from generation of finance to sustainability of the financing solutions that will have lasting solutions to the environment. In understanding this, there is the need to first understand why climate finance discussions are important at different levels and how they can affect individuals and businesses both individually and collectively.

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APPENDIXES

Appendix I: Renewable Energy Companies in Kenya

Importers, Manufacturers, and larger dealers	
Chloride Exide Kenya Limited P.O. Box 14242 Nairobi, Kenya Tel: 532211/48/49/51 Fax: 532043 E-mail: exide@iconnect.co.ke Attn: Joseph Muthoka Products: Solar PV	Davis & Shirtliff Limited P.O. Box 41762 Nairobi, Kenya Tel: 558335 Fax: 557617 Att: Director Products: Water pumps, wind pumps
Energy Alternatives Africa P.O. Box 76406 Nairobi, Kenya Tel: 714623 Fax: 720909 E-mail: energyaf@iconnect.co.ke Attn. Mark Hankins Product: RE Consultants	Kenital Solar Limited P.O. Box 55517 Nairobi, Kenya Tel/Fax: 572424 E-mail:info@kenital.com Attn: Silvio Borraccino Products: PV sales, Solar water heaters, Wind generators.
Neste Advanced Power Systems (NAPS) P.O. Box 19553, Nairobi, Kenya Tel: 561096/561130 E-mail: napsk@form-net.com Fax: 561098 Att: Jim Fanning Products: Solar PV importers	Sollatek Electronics (K) Ltd. P.O. Box 83831 Mombasa, Kenya Tel: 011-3311715, 312413, Fax: 312689 E-mail: sollatek@swiftmombasa.com Attn: Chris Soper Products: Solar PV and Charge
Solagen Limited P.O. Box 45679 Nairobi, Kenya Tel: 441160/1, 251650/1/251652 Fax: 251652 E-mail: info@solagen.com Attn: Erick Muhanji Products: Solar PV, Water heaters Installation	Austral Ken Limited P.O. Box 51937 Nairobi, Kenya Tel: 222297/224885/339618 Fax: 331016 E-mail: ak@africaonline.co.ke Products: PV Solar and Solar Water Systems
Telesales Ltd. P.O. Box 45525 Nairobi, Kenya Tel: 213143/336027 Fax: 745655 Att: Anil Abdulla Products: Solar Systems	Marathon Marketing Ltd P.O. Box 58391 Nairobi, Kenya Tel: 530654/530655/530703/542841 Fax: 5330656:

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	Att: Simon Pertet Products: Solar PV
Voltammeter Batteries P.O. Box 18646 Nairobi, Kenya Tel: 552251/553383 Fax: 545688 Attn: S.Nagarajen Products: Batteries Manufacturers	Wilken Telecommunications P.O. Box 49428 Nairobi, Kenya Tel: 501506/7/8 Fax: 501754 E-mail: wtkl@africaonline.co.ke Attn: Mrs. Nina Muturi Products: PV and Solar water heaters sales.
A S P Solar Kenya Limited P.O. Box 18654 Nairobi, Kenya Tel: 823411,823901 Fax: 823905 ASP@Net2000Ke.com Attn: Vincent Log Products: Solar PV & Water Heaters and Solar pools	Alpa Nguvu Solar Systems P.O. Box 45155 Nairobi, Kenya Tel: 743113/746466 Fax: 746466 Attn: Dickson Muchiri Products: Solar PV, Water Heaters.
Animatics Limited P.O. Box 72011 Nairobi, Kenya Tel: 210316/210744 Fax: 210315 Products: Solar PV	Associated Battery Manufacturers P.O. Box 48917 Nairobi, Kenya Tel: 532211/558022 Fax: 531218 Attn: Guy Jack Products: Batteries Manufacturers
BP Solar East Africa Ltd. P.O. Box 47796 Nairobi, Kenya Tel: 569780/565812 Fax: 573339 Attn: Francis Hillman Products: Solar PV importers bpsea@africaonline.co.ke	Bobs Harries Engineers P.O. Box 40 Thika Tel: 0154-472345/47250 E-mail: bobs@africaonline.co.ke Contact: Mike Harries Product: Kijito Windmills and generators
Retailers, technician and small scale manufacture	
American Solar Technology PO Box 1614 Meru Tel: 0164-30575 Attn: Steve Wambua Products: Solar PV Sales and Installation	Allas Electronics PO Box 10674 Tel: 229912 Attn: Bakul Shah Product: Solar PV Sales

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Bright Home Solar Energy PO Box 65 Kamkuywa Bungoma C/o Tel/Fax: 02- 763595 Attn: Henry Watitwa	Botto-Solar P.O. Box 2191 Nakuru, Kenya Tel: 037 42192/213327/211913 Fax: 42192 Att: Ephraim Botto Products: Solar Systems, energy efficient Cooking Stoves
Chintu Engineering Works P.O. Box 11467 Nairobi, Kenya Tel: 747401/748317 Fax: 750634 Att: Arvin Raikundalia Products: Solar PV	Creative Innovations Limited P.O. Box 49644 Nairobi, Kenya Tel: 533991 Fax: 540656 Att: Richard D'souza Products: Lamps, Batteries
Electronics and Telecom Lab PO Box 7135 Nairobi Tel: 571143 Attn: John Oloo Products: Solar PV and Charge Controllers assembly	Happy Go Ltd. P.O. Box 3319 Nakuru, Kenya Tel: 037 215415 Att: Ashish S. Shah Products: PV Systems
Hensolex Ltd P.O. Box 158 Gilgil, Kenya Tel: 0367-5025/5099 Fax: 5025 Att: Francis Kamau Products: Solar PV	Industrial Robotics P.O. Box 78878 Nairobi, Kenya Att: Dadhley Shanny
Interlinks Solar Systems Ltd. P.O. Box 25161 Nairobi, Kenya Tel: 541838/9 Fax: 541170 Att: Director Products: Solar Water heaters	Kensolar Services P.O. Box 21611 Nairobi, Kenya Tel: 330898 Fax: 243448 Att: Ishmael Kome Products: Solar Water heaters
Mitha & Company Ltd P.O. Box 98 Kisumu, Kenya Tel: 035 44316/41366/21120 Fax: 40706 Att: Altaz Mitha Products: Solar PV	Ekero Jikos Sales P.O. Box 292 Mumias, Kenya Tel: 0333 41272 Att: Mohamed Olunga Juma Products: Stoves

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Renewable Energy Enterprises P.O. Box 28201 Nairobi, Kenya Tel: 554414/557946 Fax: 540447/217381 E-mail: rteretap@nbnet.co.ke Attn: Charles Gitundu	Hydrosun Limited P.O. Box 66113 Nairobi, Kenya Tel: 443463/443346/442577 Fax: 442551 Att: P. Mburu Douglas
Kalyet Limited P.O. Box 3461 Eldoret, Kenya Tel: 0321 31075/61088 Fax: 0321 63375 Att: Titus Waihenya Mbatiah Products: Solar Panels	New Point Industries P.O. Box 2574 Nakuru, Kenya Tel: 037 213691 Fax: 037 43979 Att: D. Karia Products: Solar Systems
Petro Solar Inc. P.O. Box 52795 Nairobi, Kenya Tel: 720371/714070/714412 Fax: 560776/720371/445387 Att: Chrispus Mongare Osero Products: Solar Systems	Retec Energy Centre P.O. Box 2688 Kakamega, Kenya Tel: 0331 20603 Att: David Osotsi Products: Solar Systems
Solar World (E.A.) Ltd. P.O. Box 61835 Nairobi, Kenya Tel: 556240/543959 Fax: 543959 Att: Charles Rioba Products: Solar PV	Solraye Ltd. P.O. Box 5002 Eldoret, Kenya Tel: 0321 62515 Fax: 0321 62893
Solar Taa Ltd. P.O. Box 75939 Nairobi, Kenya Tel: 223956 / 577315	

Source: http://lightingbop.blogspot.co.ke/2007/02/renewable-energy-companies-in-kenya.html

Appendix II: Questionnaire

TOPIC: PRIVATE SECTOR ROLES IN CLIMATE FINANCE

Kindly fill in the following questionnaire. Information obtained will be used for academic and research purposes only and will therefore be handled with the highest level of confidentiality. Your corporation will be highly appreciated

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SECTION A: BACKGROUND INFORMATION

- Name/Company of the respondent (optional)…………………………………………….
- Please indicate your gender?

Male [ ] Female [ ]

- What is your age?
  20 Years and below [ ] 21 to 30 Years [ ]
- to 40 Years [ ] 41 to 50 Years [ ] More than 50 Years [ ]

SECTION B: INTERNAL FACTORS IN CLIMATE FINANCE

Kindly indicate your level of agreement with the following internal factors in relation to low uptake of climate adaptation
(Where 1= Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly disagree.)

Factors	1	2	3	4	5
Lack of FINANCES is the determinant of the lack of commitment on the part of Renewable energy enterprises in climate finance in Kenya					
Lack of COMMITMENT ON THE PART OF THE RENEWABLE ENTERPRISES is the determinant of the lack of involvement on the part of Renewable energy enterprises in climate finance in Kenya					
I COLLABORATE with other renewable energy enterprises in Kenya in finding out new developments and information in the area of climate adaptation					
I am well trained in the area of renewable energy operations and solutions					

SECTION C: EXTERNAL FACTORS IN CLIMATE FINANCE

External factors through external institutions, government and other players in the renewable energy sector may get involved in a bid to promote climate adaptation in Kenya. The following statements concerns the external actors' interest(s) and involvements in the climate finance. Kindly indicate your level of agreement with the statements in relation to the issue of climate adaptation.
(Where 1= Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly disagree.)

Statements	1	2	3	4	5
Lack of COMMITMENT ON THE PART OF THE GOVERNMENT is the determinant of the lack of involvement on the part of Renewable energy enterprises in climate finance in Kenya					
Lack of AWARENESS from concerned institutions is the determinant of the lack of involvement on the part of Renewable energy enterprises in climate finance in Kenya					
I am made aware of POLICIES touching on climate adaptation in Kenya					
I need to be more involved in the PROCESSES of the formulation of policies touching on climate finance in Kenya					

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SECTION D: FACTORS THAT CAN AID THE CLIMATE FINANCE

The following factors are considered significantly relevant to the advancement of the climate adaptation initiatives by renewable energy enterprises in Kenya. Kindly indicate your level of agreement with the factors in relation to how you view their relevance in climate adaptation. (Where 1= Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly disagree.

Factors	**1**	**2**	**3**	**4**	**5**
TRAININGS to the renewable energy players/enterprises					
AWARENESS of climate adaptation initiatives					
GOVERNMENT involvement be enhanced					
FORUMS that involve renewable energy enterprises					
GRANTS to the renewable energy players/enterprises					
LOANS be allocated to renewable energy players/enterprises					
Government involvement be enhanced					
Forums that involve renewable energy enterprises					

Appendix II: Expert groups Interview Guide

- Kindly indicate your nationality/organization you work for.
- Is your organization involved in any way in climate finance?
- What would you consider major interests that external players would be motivated to be involved in climate financing?
- What leads your organization to get involved in the issues of climate finance?
- What challenges do you consider the private sector face as a result of the involvements in the climate finance?
- In your opinion, do you think that there are some external factors that are frustrating the efforts to build more on climate finance?
- If yes, to the above question, what are the possible factors these frustrations?
- In your opinion, do you think that the challenges above (question. 4) motivate the private sector to and other players to get involved in climate financing?
- Are there private enterprises known to you that have taken responsibility to help in any way in climate finance?
- What are the possible reasons for private sectors and other players to be involved in the climate financing topic? What is their motivation?
- Do you think that mitigating the adverse effects of climate change poses any economic threat to the normal working of your business?
- What are some of the ways external actors contribute towards climate financing? What aid do they offer to the direct people involved?
- What can the private sector do to be more involved in climate financing in their country?
- In your opinion, what can the international community do to aid in the climate financing in the country?
- **Appendix III: State Representative Officials Interview Guide**
- Please indicate your Nationality/Country you represent
- Has your country been involved in the areas concerning climate finance?

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- What are the major ways your state has been involved in the climate finance?
- What motivates your country's involvement/major interests in the topic of climate finance?
- Does the economic and political instability in the country in any way affect decisions made concerning climate finance?
- What other ways does the state suffer from the adverse effects of climate finance?
- Is your country involved in the issues on climate finance?
- How does your country stand to benefit from a productive discussion on climate finance?
- What do you think the community at large can do to mitigate effects of climate change in the society at large?
- In your opinion, what can the international community do to aid in the discussions on climate finance?
- What do you consider as the major hindrances to the discussions and involvements concerning climate finance?
- Any other comment……………………………………………………………………….