

# COLLABORATION AND SUSTAINABILITY: A MULTI-SECTORAL PATH FOR GROWTH

Accra, Ghana, Thursday 13 June 2013  
9:00 am to 5:00 pm Alisa Hotel, 21 Dr. Isert Road, North Ridge



# TABLE OF CONTENTS

Table of Contents	2
Foreword	3
Background	4
The Workstudio	7
Key Note Speeches	8
Ghanaian Lifestyles - A Journey into the Future	10
Roundtable Discussions: Scaling Up Innovations	14
Opportunities and Challenges	19
Offers and Needs	21
The Way Forward	23
References by Topic	26
<hr/>	
Annex 1: Supporting Projects	28
Annex 2: Workstudio Program	30
Annex 3: CSCP Work on Visioning and Methodologies	31
Annex 4: Detailing the Pathways towards Change	32
Annex 5: Sustainable Innovation Success Stories in Ghana	37

# FOREWORD

The workstudio “Collaboration and Sustainability: A Multi-Sectoral Path for Growth” was delivered within the Collaborating Centre on Sustainable Consumption and Production (CSCP) “Budding Ideas Glocally for 2050 (BIG2050)” and “Business Innovation for Sustainable Scale-up (BISS)”<sup>1</sup> projects.

This workstudio, the fourth such event, was organized with the support of the Ghana Chamber of Commerce and Industry was held on June 13, 2013 at the Alisa Hotel in Accra, Ghana. The workstudio series was made possible through the funding provided by the German Ministry of Economic Cooperation and Development (BMZ).

The workstudio series enabled the BIG2050 and BISS projects to:

- Explore the current state of sustainable lifestyles in Ghana (environmental, social, and economic), including individual lifestyle footprints and impacts, aspirations for lifestyles and livelihoods of local people in the future and examples of existing initiatives and promising practices in Ghana;
- Identify key opportunity areas for innovation and entrepreneurship to achieve more sustainable living in Ghana and explore opportunities to scale up existing efforts and identify new collaborative opportunities;
- Co-create action plans for multi-stakeholder engagement to catalyse existing examples of sustainable innovation and support new sustainable living innovation.

The workstudio also presented an opportunity to launch the Global Network on Sustainable Lifestyles ([www.vision2050.net](http://www.vision2050.net)) and the Global Network on Sustainable Innovation and Entrepreneurship ([www.scaling-up.net](http://www.scaling-up.net)) in Accra. These Global Networks are online platforms hosted by the CSCP that aim to facilitate stakeholder dialogue and serve as a knowledge bank with resources, tools and promising sustainable living practices and examples of entrepreneurial innovation. The workstudio follow-up discussions and further action in Ghana will be facilitated through the Global Networks.



---

<sup>1</sup> Both projects are described in Annex 1

# BACKGROUND

## Political

In 1957, Ghana became the first sub-Saharan African country to gain independence (Ikoh, 2004). Since then Ghana has faced many political, social and economic challenges. Despite many turbulent years, marked by continuous political struggle and economic instability, the country began to stabilize by the beginning of 2000, functioning now as regional conflict resolution mediator.

## Economical

Ghana is a country with almost 25 million inhabitants. Between the year 2000 and 2010 the country experienced a 30.4% growth in its population (Ghana Statistical Service, 2012). About 41.6% of the economically active population over the age of 15 years is employed in agriculture (Ghana Statistical Service, 2012). Ghana's main agricultural products include the production of crops, mainly yams, grains, cocoa and oil palm, as well as forestry, livestock and fishing, which together account for 22.7% of GDP (Ghana Statistical Service, 2013). Current economic development depends largely on exports of commodities such as cocoa, timber, bauxite manganese, electricity and gold. Oil was discovered in 2007 (Ghanaweb, 2012).

The German foreign aid, focuses its efforts towards the strengthening of democratic processes, political decentralization and promotion of sustainable agricultural and economic practices. (BMZ, 2013)

## Social

Notwithstanding demonstrated improvements in the economic conditions of the country, issues like child labour and a rather low level of education remain cited as current challenges. Poverty also remains a significant challenge with 28.5% of the population living below minimum standards (CIA Factbook, 2012). The World Bank indicates that poverty was as high as 51.7% of the population in 2002 (World Bank, 2012) which indicates that Ghana has made significant progress in poverty alleviation. International aid, the right mix of local policies and the will of the population have all contributed to this success.

Although primarily an agrarian society, Ghana is rapidly urbanising and today 51.1% of the population live in urban areas. This change is bringing with it new patterns of consumption and ways of living. In 2010, Ghana became one of Africa's middle-income nations after three decades of increasing incomes through lowering poverty and positive economic growth. By 2011, the economy expanded 14.4% with the oil sector responsible for 40% of this expansion. Ghana is also part of the growth trend in Sub-Saharan Africa, which collectively expanded by 5% in 2011, bringing more people into the middle-class. However, this growth also increased wealth inequalities and social tensions (Ghana Money, 2012).

As noted above agriculture is the main economic sector. Of Ghanaian households, 45.8% of are considered as being engaged in agriculture, meaning that at least one member of the household is engaged in an agricultural activity (Ghana Statistical Service, 2012). This agricultural activity is predominantly smallholder farming, as about 90% of farm holdings are less than 2 hectares in size (Ghana's Ministry of Food and Agriculture, 2011).

## Environmental

During the past 75 years, Ghana's natural resources have been under significant pressure as a result of economic activities, including mining and logging, which not only cause significant environmental impacts but also social and economic impacts (The World Bank, 2013b). It is estimated that the degradation of the country's main natural assets are responsible for a loss of productivity worth US\$ 516 million (The World Bank, 2013b). Sustainable use of natural resources is necessary within the country to guarantee at least both internal resource and food security and the future export of goods and Ghanaians seek to learn from the experience of Nigeria.

To address environmental and agricultural challenges, the Ghanaian government released a revised version of its Food and Agriculture Sector Development Policy (FASDEP II) in 2007. The policy emphasizes the need for sustainable use of all national resources (Ghana's Ministry of Food and Agriculture, 2007).



*"The national private sector policy (phase 2) aims to enhance the business sector, transportation infrastructure, livelihoods and sustainability. Industrial policy aims to strengthen the competitive advantage of each region in Ghana. As part of this policy and to ensure investments are made most effectively, each region is identifying its own priority industrial sectors for further development based on the competitive advantages of the region."*

Mr. John Hawkins Assechy, Senior Trade Officer and Ms. Doris Asetena-Mensah, Trade Officer, Ghana Ministry of Trade & Industry

Ghana's Medium Term Agriculture Sector Investment Plan (METASIP) was designed to implement the Food and Agriculture Sector Development Policy for the 2011-2015 period. The plan identifies the sustainable management of land and environment a top priority (Ghana's Ministry of Food and Agriculture, 2011).

Both reports cite the need to overcome resource use challenges by means of dramatically increasing activities in the agricultural sector, without providing detail on how to address the gap between expectations of permanent growth and sustainable resource use.

The discovery of oil in 2007 is a new factor to consider because the presence of national and international oil companies is changing the land use and traditions (Ghana Oil Info, 2012).

### Sustainable Consumption and Production

In this context, the recently released Ghana National Program on Sustainable Consumption and Production (2011-2016), also termed as the Sustainable Development Action Plan, emerges as a tool to support an understanding of current negative trends related to production and consumption. The plan also outlines a crosscutting strategy to integrate sustainable practices and innovation for SCP. The plan was developed by the Environment Protection Agency of Ghana in partnership with the United Nations Environment Program (UNEP). Focusing on four priority areas (energy, water and sanitation, habitat and sustainable urban development, and industrial development), the plan aims to maximise efficiency and effectiveness of products, services and investments along product life cycles to meet the needs of society without jeopardizing the ability of future generations to meet their needs.

### Overall in context

The BMZ funded BIG2050 and BISS projects aim to explore sustainable lifestyles and promising practices in five countries. As a result of field research conducted in the other regions, most particularly Europe, it is possible to share mechanisms employed by different societies to encourage sustainable living. At the same time, some promising practices are being developed by businesses, entrepreneurial start-ups and innovators with key knowledge of success factors to scale-up sustainable business models.

Analysing these differences in terms of trends, aspirations and practices presents an opportunity to identify opportunities on solutions for sustainable lifestyles. Towards the close of the BIG2050 project, it will be possible to produce a comparative analysis of the five countries using European experiences as a benchmark.

All stakeholders identified that the shift of Ghanaian lifestyles (particularly urban lifestyles) is related to the adoption of consumption patterns similar to that of Europeans. The table below presents an overview of lifestyle trends and consumer aspirations in Ghana relative to their European counterparts.<sup>2</sup>

## TOP 10 THINGS GHANAIS CAN'T LIVE WITHOUT

- |   |   |  |
|---|---|--|
| <p>1. <b>Matches:</b> For lighting fires (a majority of people use charcoal for cooking in Ghana)</p> <p>2. <b>Plantain Chips:</b> Food</p> <p>3. <b>Sachet Water:</b> As tap water is not potable, this is a convenient product that allows transportation and consumption of clean water.</p> | <p>4. <b>Gari:</b> Food. Made out of Cassava.</p> <p>5. <b>Trotro:</b> Public transportation used by the majority of urban Ghanaians.</p> <p>6. <b>Broom:</b> For sweeping. Palm branch brooms are considered as almost a necessity. Almost every Ghanaian household has at least 2 such brooms in their homes.</p> <p>7. <b>Chalewote:</b> Flip-flops. Ghanaians commonly buy and use this type of footwear.</p> | <p>8. <b>Mobile Phones:</b> Mobile telephones have reached a market penetration of about 90% in Ghana.</p> <p>9. <b>Mosquito Coil:</b> A lot of people use mosquito coils in Ghana to prevent malaria by driving away or killing mosquitoes.</p> <p>10. <b>Tomatoes:</b> Tomatoes are an ingredient in most Ghanaian dishes.</p> |
|---|---|--|

Table 1. Top 10 things Ghanaians can't live without – input from Miss Esther Koomson, a student of the Ghana School of Law, Accra and an Environmental law Research Analyst



*"Illegal deforestation and mining, as well as support for local communities are key challenges in Ghana. We need alternative approaches to create sustainable livelihoods that are economically viable, practical, and aligned with local cultural values."*

Mr. Joseph Yaw Appiah-  
Gyapong, Programme Specialist  
– Sustainable Development, UNDP  
Accra Office

<sup>2</sup> Information provided by the SPREAD Sustainable Lifestyles project. (<http://www.sustainable-lifestyles.eu/>)

	Similarities	Differences	
		Ghana	Europe
<b>Current trends</b>	<ul style="list-style-type: none"> <li>Increasing number of (motor) vehicles</li> <li>Increasing energy consumption</li> <li>Strong urbanization trend</li> </ul>	<ul style="list-style-type: none"> <li>Need to strengthen governance mechanisms and eradicate corruption</li> <li>Careful planning and management of newly-found oil resources</li> <li>Decreasing but still high poverty rate (28.5%)</li> <li>Traditional diet lacks protein and has little diversity but due to rapid urbanization the demand for imported food is growing. Malnutrition remains a problem</li> <li>Access to TV, radio and print media is not equally distributed (most people have no internet connection at all).</li> <li>60% of the workforce works in the agricultural sector.</li> <li>Education issues (e.g.: school attendance) need to be addressed to increase the literacy rate (67.3% in 2008)</li> </ul>	<ul style="list-style-type: none"> <li>Growing middle class</li> <li>Ownership of living space on a per capita basis is increasing.</li> <li>Increasing labour cost.</li> <li>Generally unhealthy and unsustainable food consumption trends (especially meat).</li> <li>Industrial economies with high literacy rates (lowest 92.4%).</li> <li>High reliance in imported natural resources.</li> </ul>
<b>Visions / Aspiration</b>	<ul style="list-style-type: none"> <li>Increasing number of (motor) vehicles</li> <li>Increasing energy consumption</li> <li>Strong urbanization trend</li> <li>Balancing urban/rural development is an important factor (space, transport/mobility, jobs).</li> <li>Good use of resources and sustainable energy generation.</li> <li>Local (food) production and consumption.</li> </ul>	<ul style="list-style-type: none"> <li>Eradication of corruption and improved governance.</li> <li>Properly planned exploitation of oil resources.</li> <li>Technology and infrastructure development are a key factor for development.</li> <li>An advanced educational system helps to decrease child labour and to improve livelihoods.</li> <li>Strong sense of community.</li> </ul>	<ul style="list-style-type: none"> <li>Lifestyles and different areas depend on economic system reforms/changes.</li> <li>Social shift: Individualism shifting toward community building.</li> </ul>
<b>Promising Practices</b>	<ul style="list-style-type: none"> <li>Promising practices aim to serve as role models that offer solutions to current challenges.</li> </ul>	<ul style="list-style-type: none"> <li>Promising practices are focused on the most pressing issues such as government stability, resource use and education and skills development.</li> </ul>	<ul style="list-style-type: none"> <li>Promising practices cover a wide range of lifestyle areas (consumption, urban-rural development, numerous others)</li> </ul>

Table 2. Similarities and differences between lifestyles in Ghana and Europe

# THE WORKSTUDIO

With the support of the German Ministry for Economic Cooperation and Development (BMZ) and in collaboration with the Ghana Chamber of Commerce and Industry, the "Collaboration and Sustainability: A Multi-Sectoral Path for Growth through Business, Sustainable Entrepreneurship and Social Innovation" workstudio was held in Accra, Ghana on June 13th, 2013. The complete agenda is available in Annex 2.

The workstudio hosted 50 participants representing a range of stakeholder groups from academia, environmental protection agencies, and the business community, among others. Participants explored lifestyles, aspirations and practices in Ghana as well as the ways that innovation and entrepreneurship can support sustainable living solutions in Ghana.

Interactive working groups and collaborative methodologies<sup>3</sup> enabled participants to engage in a rich dialogue discussing current trends, perceptions and aspirations. These conversations were crucial to the analysis of different ways of living more sustainably by exploring opportunities to shift consumer behaviours, either through entrepreneurial solutions, government mechanisms, or social innovation.

Through insightful keynote speeches, an interactive visioning session and facilitated discussion tables, participants questioned their individual preconceptions, shared their experiences and suggested innovative ways to support sustainable lifestyles from several different points of view.

Participants shed light on the role that various sectors play in scaling up business innovation and enabling sustainable lifestyles. These discussion tables, hosted by sector experts, focused on the roles of:

- Business and entrepreneurs
- The financial sector
- Research and development departments, institutions and organizations
- Mining and energy sectors
- Agriculture and fishing sectors
- The media industry

This report focuses mainly on the outcomes of workshop activities. The annexes to this report present additional information on methodologies applied during the workshop and the program details.<sup>4</sup>

Prior to the workstudio, the BIG2050 and BISS project team held a number of strategic level meetings with local and international organizations based in Ghana. The aim of these meetings was to share and learn about sustainable innovation and sustainable lifestyles in Ghana as well local initiatives that are currently underway. The Global Network on Sustainable Lifestyles Internet community ([www.vision2050.net](http://www.vision2050.net)) and the Global Network on Sustainable Innovation and Entrepreneurship ([www.scaling-up.net](http://www.scaling-up.net)) supported follow-up discussions on outcomes of the workstudio. All practices that were documented as "big ideas" are presented within both of these networks.



*"Ghanaians value the peace within their country and spending time with their family, friends and local community. Ghana is undergoing rapid development and this will continue in the next decade. Ghanaians have now more access to food, energy and international linkages. There is a new wave of positive change in Ghana with more and more people being trained and starting their own business."*

Mr. Stephen Oteng (top), Ag CEO and Mr. Robert Konadu (bottom) Research Officer. Ghana Chamber of Commerce and Industry

<sup>3</sup> More information on the CSCP visioning sessions and methodologies are available in Annex 3.

<sup>4</sup> The detailed program of the Workstudio is presented in Annex 2

## KEY NOTE SPEECHES

### *Developing tools for sustainable living: the importance of the Global Networks*



After welcoming the participants and presenting the main objectives of the workstudio, Ms. Cheryl Hicks, team leader of the sustainable lifestyles team at the CSCP provided an overview of the role of the workstudio in Ghana as part of the global work program. Mr. Dick van Beers, Senior SCP Expert at the CSCP, introduced the vision2050.net and scaling-up.net networks that were launched in 2012 by the CSCP in partnership with the German Federal Ministry for Economic Cooperation and Development (BMZ).



Both networks were presented to participants as tools to connect stakeholders and promote sustainable living through business and social innovation. The networks showcase promising practices and partnerships with innovators, present a range of collaboration initiatives underway across the world, and support networking and experience sharing among members. Other network features include webinars and multi-stakeholder gatherings that facilitate dialogue, visualization, matchmaking and action planning. For Ghanaians, the Global Networks were also highlighted as relevant tools to enable post-workstudio follow-up discussions and further action in the country.

### *Keynote speech: Ghana today, some questions ...*



Mr. Prosper Adabla, President of the Ghana National Chamber of Commerce and Industry (GNCCI), provided an opening speech with which he noted that there are serious issues connected to sustainable living that the country needs to address. He presented the view that Ghanaians have what it takes to produce most products they consume in the country but a major challenge they face is land use. He remarked that "if you need a large track of land for tomato farming for instance, you will have to deal with numerous chiefs due to the fragmented nature of the lands." Mr. Prosper Adabla shared a story that Ghana is importing large quantities of food and vegetables while the country is exporting the same sort of products. This is clearly not sustainable and not efficient. Furthermore, Mr. Adabla also noted that very high interest rates are important issues to be addressed in Ghana.

### *Keynote speech: Overview of country's current reality and issues affecting sustainable living in Ghana*

Mr. Richard Adu Darko, the Executive Secretary of the SHEQ Foundation, indicated that the key factors affecting Ghanaian lifestyles included second-hand products, rural-urban drift, the influence of non-African cultures, waste, excessive spending above ones disposable income, funding for political parties and educational challenges, among others.

Mr. Darko indicated that Ghana's education system is "classroom based" and does not yet incorporate sustainability knowledge. He called for education for the consumer class in Ghana to encourage sustainable lifestyles. This education has to be built through networks of private- public partnerships where communication goes beyond informing to engage consumers and the producers alike. He also indicated that Ghanaians are seemingly busy people with little room for leisure and holiday. Even on public holidays most people prefer to be actively engaged in other activities rather than spend leisure time. Only a small number of people in Ghana plan to take a holiday in the course of their life. Though the trend is gradually changing a change toward greater leisure time raises issues of sustainability.



The emerging Ghanaian consumer class represents about 46% of the population. This group is in the process of learning and gradually building their living and consumption habits and it is, therefore, possible to influence these consumers in favour of sustainable lifestyles. The mind-set of these new consumers is one of seeking out an innovative and exciting lifestyle. There is interest in lifestyles that do not necessarily result in wasteful habits provided the right products and services are available locally and the required political regulations and incentives are in place.



*„Ghana has many different cultures and associated values which affect consumer behaviour. It is therefore of key importance for businesses to understand these cultural values prior to developing and producing goods for the Ghanaian consumer markets. The urban-rural divide is an example: About 3.4 million households in Ghana own or operate a farm or keep livestock, a majority of these households are mostly rural dwellers and what they produce are mainly consumed within the family circles. 46% of all households in Ghana operate non-farm enterprises and these households are mostly found in urban communities. Within the urban population there is an increasing trend toward consumption of processed foods as a result of busy schedules of the urban working class. These foods are mostly canned and obviously waste is generated after its use“*

Mr. Richard Adu Darko, Executive Secretary, SHEQ Foundation

#### *Keynote speech: Multi-sectoral paths for growth*

Mr. Lambert Faabuleon, Director, Manufacturing and Industry Development at the Ghana Environmental Protection Agency, observed that Ghana is endowed with renewable and non-renewable resources. Natural resources (soils, forests, water, coastal and marine) are under serious threat while non-renewable resources (minerals and recently oil and gas) would not last forever. Ghana therefore needs to lay a foundation for a sustainable future. Noting that “Mining contributes so much to the economy’s GDP but we are not informed about the real cost to extract the mineral resources” he offered his opinion that considerable emphasis is placed on the amount of money that is made without consideration of the cost of getting that revenue.



*“The Ghana Sustainable Development Action Plan (SADP) has been developed by Ghana’s EPA and UNEP through a multi-stakeholder process. The plan provides an overarching framework for the development and implementation of sustainable consumption and production projects in Ghana. The SADP triggered the establishment of the Ghana National Cleaner Production Centre. The implementation of the SADP is overseen and facilitated through a committee reporting to the Environmental and Natural Resources Advisory Council (ENRAC). Priority areas included in the SADP include waste management, human settlements, mining, manufacturing, tourism, energy efficiency, forestry, agriculture, economic instruments and water management“*

Mr. Lambert Faabuleon, Director Manufacturing and Industry Development, Ghana EPA



# GHANAIAN LIFESTYLES - A JOURNEY INTO THE FUTURE

“Backcasting” from a desired vision or objective to be reached in the future is one of the many techniques that support holistic and strategic planning for sustainable lifestyles. Through the interactive visioning session, participants can think in a long-term perspective to create a better understanding of today’s problems and solutions and take smarter action that will lead to achieving new imagined possibilities.



Fig 1. Ghanaian consumers in 2050

The CSCP’s visioning session helped participants immerse themselves in the future by walking in the shoes of six different Ghanaian consumers in the year 2050. These consumers, known as personas, helped participants detach themselves from their personal experiences and think from the perspective of somebody in the future to create a common scenario. These characters were carefully crafted to represent the projections for consumption in Ghanaian society in 2050.

The discussions were carried out as a role-play activity where participants analysed the needs, aspirations and habits of different consumers to create scenarios reflecting the country in which they would like to live in 2050. These scenarios were translated to the current reality and participants were asked to decide which lifestyle impact was the most important to address today. Participants were further asked to decide on implementation mechanisms (political, economic, social or technological) that have potential to integrate and motivate all social stakeholders to take action. The backcasting process that takes place during the visioning session is illustrated in figure 2.

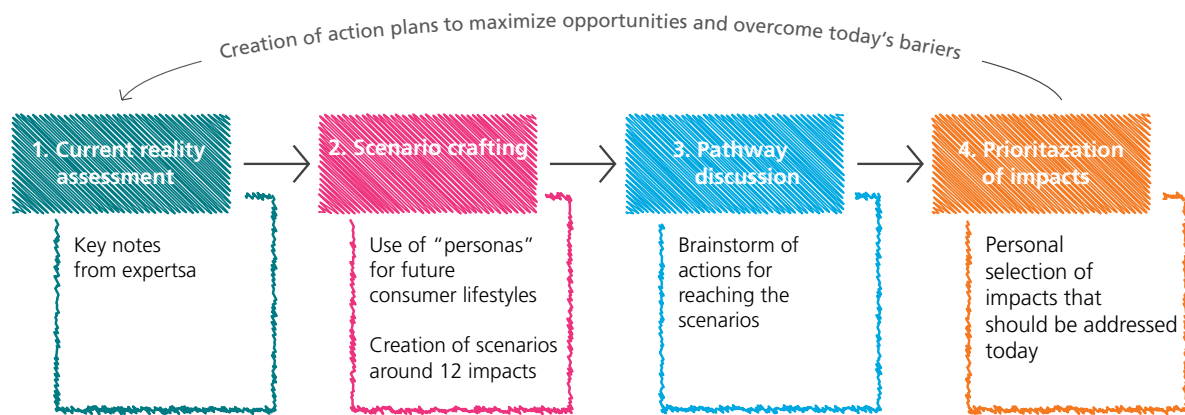


Figure 2: The backcasting process within the workstudio

## VISIONING FUTURE SCENARIOS IN 2050

The Ghanaian “good life” in 2050 is a balance between employment conditions, proper use of natural resources and high quality governance, with communication and mobility seen as the areas with the least relevance. Through the visioning workshop, participants crafted scenarios and assessed the current reality and challenges ahead.

## SCENARIOS: IN GHANA IN 2050

### Urban-rural development



Rural communities offer good living infrastructure and suitable jobs. Decentralized farming systems provide people with the necessary resources. Reliable road networks enable easy transportation and movement. Urban centres have become complexes of small communities. Recovering nutrients and resources from waste is an important aspect of urban-rural development.

### Energy generation



Bikes, buses and cars are solar-powered. In general, renewable energy resources such as wind, hydro, biodiesel and biogas eliminate Ghana’s reliance on fossil fuels and oil as energy sources.



### *Use of resources*

A key aspect of the use of resources is waste recycling to decrease the amount of disposed materials. Private-Public-Partnerships promote waste management. Awareness and separating waste contribute to a successful and effective waste management system. Clean water is provided and irrigation is possible.



### *Housing*

The space in vertical buildings is maximized. Shared apartments and community housing facilitate the effective use of available space. Technological development is applied to minimize harmful effects of housing-related activities on the environment. Adequate and climate appropriate materials are used for construction.



### *Mobility*

Efficient and reliable public transport enables proper time management. The existing infrastructure supports sustainable forms of mobility such as cycling and efficient cars, which are powered with renewable resources. Community housing helps to decrease the use of transportation.



### *Nutrition (Food and drink)*

Fewer processed food and drinks are consumed. Organic farms provide locally produced organic food. Vegetables are commonly grown in home gardens. A proper diet serves the individual's health needs.



### *Employment and work conditions*

Self-employment and environmental friendliness are important factors in the Ghanaian labour market. More competition for sustainable and flexible jobs is evident and people work longer hours. Additionally, productivity has risen.



### *Education & skills development*

The education and skills development system is more diverse. More practical training and is available and virtual classrooms can be found. Improved adult education is available. The education system is development and sustainability orientated. Education and skills development match the needs of the labour market.



### *Governance*

There are heavy penalties for excessive resource consumption. Policies that encourage local production, the use of public transport and renewable resources exist. Legislation that ensures cleanliness has been introduced. Compulsory schooling for children has been introduced and more seats at public universities are available.



### *Leisure & culture*

The leisure and culture focus rests on traditional musical instruments and there is a great interest in arts and theatres. Theme parks for recreation are available. Activity on online social sites is growing.



### *Communication*

Communication is dominated by enhanced ICT technologies. Costs for communication are affordable and communication networks reach large numbers of people. Communications technologies reduce the need for work and leisure related travel.



### *Health*

Preventive measures such as regular medical check-ups, early diagnosis and daily exercise play a key role in the health care system. Health care is accessible and affordable to everybody in both urban and rural areas. Traditional medicine and modern western medical technologies are combined.

## TODAY'S CHALLENGES

Analysing the different lifestyle impact areas and the relationships between the current reality and the desired lifestyle in 2050, participants envisioned a scenario that highlighted areas where more emphasis was needed today to live more sustainably in the future.

Currently, governance plays one of the most important roles for the economic development of the country. Participants voiced concern about high taxes, credit/interest rates and the overall banking system as a barrier to economic development and in need of serious reform (Amediku, 2012). Starting up a business could be an extremely slow and expensive process that requires 7 procedures, takes an average of 12 days, costs 18.5% of per-capita income and requires a minimum paid-in capital of 4.3% of income per capita. This is if there is no need to deal with construction permits, as this process itself requires 16 procedures, takes 218 days and costs 481.2% of income per capita (World Bank, 2013).<sup>5</sup>

Despite this situation, housing scored as a medium priority concern despite the fact that most international studies find housing as a sector in Ghana that requires particular attention. The Building and Road Research Institute of the Council for Scientific and Industrial Research (CSIR) in Ghana indicates that out of a total housing supply of 40,000 units in 2004, supply from private individuals amounted to 38,200 or 95.5 per cent. Furthermore, only 8% of Ghanaians can afford to buy a property without mortgage and only 15% of the population can access mortgages, thus poor housing remains (Ghanaweb, 2013).

The other area that scored as being of high relevance relates to employment and working conditions. The unemployment rate, taking into consideration formal employment only, among youth aged 15 to 24 in Ghana is 25.6%; twice that of the 25-44 age group and three times that of the 45-64 age group. In general, youth account for 60% of the unemployed in Africa, estimated at 40 million people, of which 22 million have already given up on finding work (Ghana Money, 2012). This reflects the migration to cities from rural Ghana and the fact that 41.6% of the population over 15 years old is engaged in the agricultural sector. With 70% of Ghanaian migrants moving from the rural areas to the cities between 2005-2006, Ackah and Medvedev indicate that most of these migrants move to urban areas with other members of their family, expecting to find better job opportunities and increase their income (Ackah et al, 2010).

Communications infrastructure in Ghana is still at a very early stage of development and reliable internet connections are out of reach for most people. This is mainly because computers were heavily taxed for many years and it was not until 2011 that they became duty free (Modern Ghana, 2011). Meanwhile, the radio remains the most important communication device in the country with 86% Ghanaians using radio services, followed by mobile phones, with 72% Ghanaians (National Survey of Ghana) which by August 2012 had already reached a total of 24.4 million users (National Communications Authority). The recent implementation of a new fibre optic system to reach villages and a new determination of government to boost e-government services (IT News Africa, 2012) suggest a new emphasis in communications.

The chart below represents the impact areas considered by workstudio participants as being of greatest importance today to enhance sustainable living in 2050.

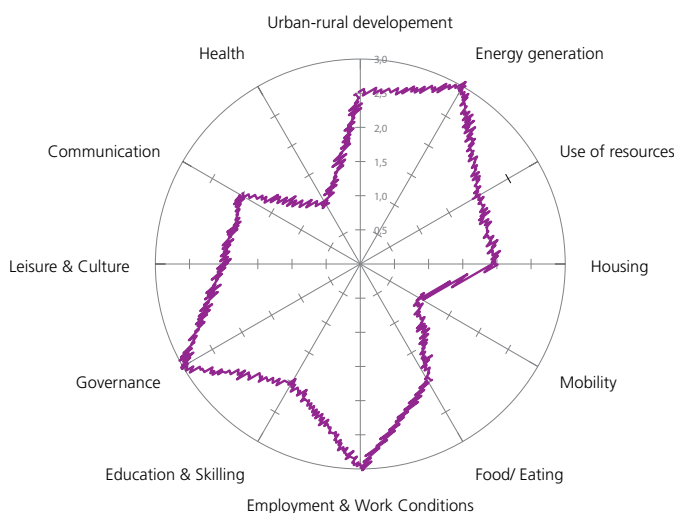


Figure 3. „Bridging“ by identifying areas of high relevance to start working on today.

<sup>5</sup> According to the methodology applied by the World Bank in the report *Doing business 2013*, costs and paid-in minimum capital required for starting a business are recorded as a percentage of the national economy's income per capita.



*“My dream is to alleviate poverty through sustainable business development. Success factors for scaling up sustainable living business in Ghana are business training for entrepreneurs (in particular in rural areas), working capital, and proper marketing strategies to facilitate exports of Ghanaian products. Support to entrepreneurs (e.g. monitoring, evaluating, mentoring) over a long period is very important.”*  
Ms. Lucia Quachy, President, Ghana Association of Women Entrepreneurs.

## DRIVERS FOR SUSTAINABLE LIFESTYLES

Bridging the gap between the current reality and the desired future scenario helps participants analyse ways in which their current actions can help them reach their desired future. Political, economic, technological and social drivers facilitate these actions.

The figure number 4 presents the drivers that participants considered as being most relevant to meeting the challenge of building the desired future state. The numbers reflect the votes each category received. The key findings regarding the drivers for the different impact areas are summarized as follows:

- Social drivers, such as social innovation and behavioural change, are considered relevant enablers of change for nearly all lifestyle impact areas. This highlights the importance of social innovation in bridging the gap between today and 2050 in Ghana;
- Political drivers, such as legal and policy tools, were rated as extremely relevant to enable the transition towards good governance. The measures noted were characterized by robust measures aimed at developing entrepreneurship and that support sustainable living;
- Technological development was seen as highly important to drive Ghanaian society toward sustainable energy generation and resource use, in addition to being noted as important to support fair work conditions;
- Economic drivers, such as sustainable business models and efficient and fair value chains, were seen as essential tools to guarantee food security and healthy eating habits in Ghana. These tools were seen as being best aimed toward promoting sustainable agriculture and fishing practices that produce sufficient and nutritious food for all.

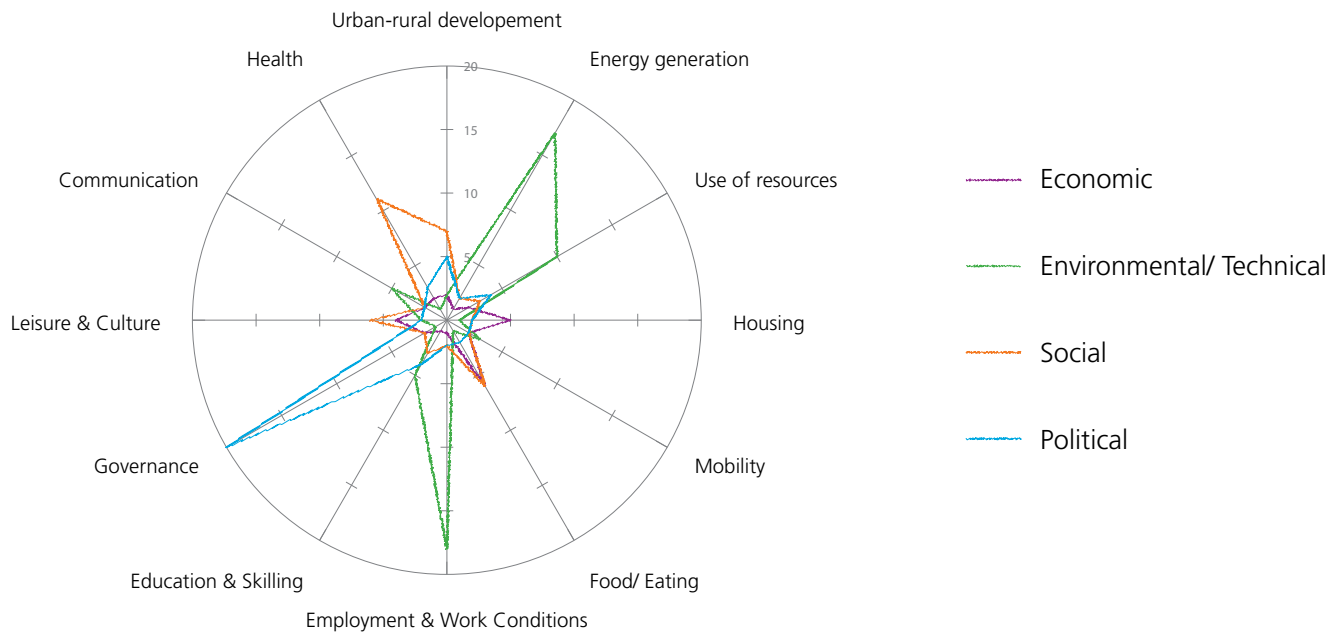


Fig 4. Individual reflection about what type of drivers need to be in place today towards living more sustainably in 2050.

# ROUNDTABLE DISCUSSIONS: SCALING UP INNOVATIONS

## INTRODUCTION

Multi-sectorial engagement and collaboration are key elements that are necessary to successfully address the negative impacts of current lifestyles in Ghana. The drivers of change, previously discussed as part of the visioning session, are dynamic instruments that require collective action among a range of stakeholders to define and implement a common agenda for sustainable living.

To support such a need for networking and cooperation, the workstudio organized roundtable discussions to facilitate dialogue and shed light on potential synergies between different stakeholder groups and identify collaboration opportunities that promote sustainable ways of living. The discussion teams were guided by the following questions:

1. What sustainable innovation and sustainable living success stories/ examples are you aware of that are taking place in the country?
2. Which of these examples have been or have potential to be successfully scaled up or replicated?
3. What kind of partnerships are needed to scale-up the impacts on sustainable living and what are the factors that will support success?

Based on these questions, workstudio participants were provided an opportunity to assess the current state of sustainable innovation in relevant sectors and identify those that have been or could be successfully scaled up. Opportunities and strategies were explored to support future collaboration and to scale-up innovation for sustainable living in Ghana.

The table below presents the different discussion tables and their corresponding hosts. Detailed information on the outputs of this session follow below. A more thorough description of the identified success stories in Ghana is presented in Annex 5.



*"To secure the long-term sustainable development of businesses in Ghana, there is a strong need to develop Ghanaian entrepreneurs and ensure local empowerment / employment in large infrastructure projects. This development should entail technical support, capacity building, and private equity investments. The issue of high interest rates in Ghana also needs to be resolved through a holistic multi-stakeholder approach."*

Mr. Frederick Ofori-Mensah, Chief Executive Office, Weston Capital, Accra Office

Roundtable	Table hosts
Mining and energy sector	Mr. Samuel De Souza, Chamber of Mines
Research and development	Mr. Robert Yakohene, UT Bank Ltd
Agriculture and fishing	Mr. Stephen Mecca, Ph.D.
Media	Ms. Fati Shaibu Ali, E-TV
Business and entrepreneurs	Mr. Stephen Oteng, Ghana Chamber of Commerce

## MINING AND ENERGY SECTOR

Instead of focusing solely on innovation among large businesses, this roundtable also discussed measures taken by small enterprises and individuals. In the mining sector, both small and large-scale mining initiatives were explored. A similar approach was used in relation to the energy sector with both large-scale innovations and community/individual initiatives being a topic of discussion. A set of potential partnerships and related success factors was also a discussion topic. A summary of the main outcomes are presented below:



### Sustainable innovation success stories

- Mining sector:
  - *Artisan/small-scale mining enterprises are progressively meeting certification standards in order to formalize and improve their extraction processes. Solidaridad is a network that is supporting the implementation and scale-up of such innovation. This is accomplished by partnering with mining companies and supporting the setting of targets for improved social and environmental performance;*
  - *Large-scale mining enterprises are offering learning opportunities to local people from mining communities to improve their individual skills. Newmont Mining Cooperation is one of these enterprises that has successfully scaled up this innovation example;*
  - *Use of renewable energy such as biodiesel in mining operations.*
- Energy sector:
  - *Lifestyle changes by promoting clean cooking stoves in Ghanaian homes;*
  - *Use of solar units to generate energy for street lighting and homes. The Ghana Cocoa Board, for example, is one of the supporters of this type of innovation and has launched a project to provide solar energy lamps in cocoa, coffee and shea nut growing communities across the country;*
  - *Use of organic waste to generate biogas. Safi Sana is an organization that produces and sells energy using this type of innovation and has successfully scaled up the operation across different developing countries;*
  - *Produce energy from renewable resources, such as sustainable palm oil and timber. Benso Oil Palm Plantation and Specialized Timber Products Ltd. are among the companies that are increasing their production of renewable energy in Ghana.*

### Necessary success factors to scale-up impacts

- Interest and support of related stakeholders (e.g. mining/energy companies, value chain partners, public authorities, consumers) to promote sustainable innovation and a commitment to programs aimed at transforming the mining/energy activities into sustainable practices;
- Investment of financial resources to enable programs that focus on innovation;
- Building awareness among related stakeholders regarding negative impacts of mining/energy activities and the wide spectrum of changes and innovation that can be developed and implemented.

### Necessary partnerships to scale-up impacts

- Partnerships between financial institutions and entrepreneurs/companies, especially small and local companies that need to grow and promote innovation;
- Cooperation from the government to implement subsidies and tax relief for sustainable mining/energy initiatives;
- Engagement of the government in creating the enabling an environment that supports innovation;
- Research initiatives to investigate and develop innovation across the mining and energy sectors;
- Innovation initiatives led by large companies either through their CSR department, such as the initiatives supported by Newmont and Shell, or through Public-Private Partnerships with government.

## FINANCIAL SECTOR

This roundtable discussed the sustainable innovation developed to date in the Ghanaian financial sector. These include innovation that resulted from collaboration between financial institutions and other stakeholders such as deregulation policies and new technologies that improve financial services. Although several of these initiatives have already been scaled up the set of potential partnerships and necessary success factors discussed by the group illustrates that much more can be done in Ghana to both expand innovation in the financial sector and to enable innovation in other sectors by providing financing.

### Sustainable innovation success stories

- Continuous technological upgrades to improve and expand services offered by the sector including:
  - *The National Switch and Smart card payment system, or simply e-zwich, is an innovative method for improving accessibility to banking and retail services in Ghana;*
  - *Mobile money transfer services provided, for example, by Tigo Cash;*
  - *Introduction of plastic banking cards.*
- Government deregulation policies that support the development of financial institutions;
- Rural banks, such as ARB Apex Bank, that offer financial support to rural entrepreneurs;
- Development of microfinance and credit facilities that facilitate the development of the financial market and also offer business development services to Ghana's micro, small and medium enterprises which in turn contributes to their competitiveness. The Support Programme for Enterprise Empowerment and Development (SPEED), is an example of an initiative that helps to advance such goals in Ghana;
- Public agencies that support the improvement of banking services and networks, such as the Ghana Interbank Payment and Settlement Systems Limited (GhIPSS);
- New financial services and products, such as insurance for mobile users, life insurance, mortgages, stock exchange, venture capital and plastic banking cards;



### Necessary success factors to scale-up impacts

- Implementation of public policies to normalise and support microfinance operations;
- Education and information about savings and investment options and opportunities.

### Necessary partnerships to scale-up impacts

- Cooperation between telecommunications companies and financial institutions to improve financial services and increase the availability to the public;
- Collaboration between government and micro-finance initiatives to normalise and foster this financial sector;
- Efforts from the education sector to raise awareness about the culture of savings with finance firms;
- Partnerships between the state and international financial institutions to keep financial services up to date and connected to the global financial system.

## RESEARCH AND DEVELOPMENT

This roundtable identified and analysed several interesting sustainable innovations that originated from research and social development efforts in Ghana. The examples of innovation were considered as good candidates for scaling up. Although the process of finding the right partners to develop research was considered challenging by the participants a number of stakeholder groups were noted as being good candidates for successful partnerships.

### Sustainable innovation success stories

- Development of non-chemical filters (clay filters) for water purification. Susan Murcott, a professor from MIT, coordinates one of the first research teams working on studies to explore the potential of such filters. Ms. Murcott founded the Pure Home Water non-profit organization to promote ceramic filters in Ghana;
- Development and production of biochar in Ghana. Biochar improves soil properties, crop productivity and increases carbon sequestration in soil. Potential feedstocks for biochar include agricultural residues, forestry residues, wood processing waste, the organic portion of municipal solid waste and livestock manure. The CSIR-Soil Research Institute is one of the institutions involved with this project;
- Conversion of waste plastic sachet water plastic bags into useful products, such as recycled eco-friendly bags and gifts. This initiative has been led by the Trashy Bags social enterprise;
- Research to convert fish waste into animal feed;
- Development of sanitary innovations, such as microflush toilets and recycled tippy-taps (make-shift hand-washing stations), by the Global Sustainable Aid Project (GSAP) in Ghana;
- Development and production of recycled soaps for schools.
- to develop sustainable products, services, production processes and business models.





### Necessary success factors to scale-up impacts

- Financial support for researcher and development through, for instance, tax waivers;
- Development of networks and databases to support research and development institutions to help the right partnerships to make connections.

### Necessary partnerships to scale-up impacts

- Cooperation agreements between educational institutions and community-based organizations to plan and implement creative solutions for local problems;
- Partnerships among educational institutions, NGOs and social entrepreneurs.

## AGRICULTURE AND FISHING

Despite numerous innovations identified in the agricultural and fishing sectors the discussion table emphasized the need to further decentralize the rights and competencies regarding the management and administration of natural resources. Access to financial resources was also highlighted as being necessary to initiate and continue with resource management projects. The main outcomes of this discussion table are presented below:

### Sustainable innovation success stories

- Agriculture:
  - Education programs to promote sustainable land use;
  - Certified palm oil and cocoa production with the support of organizations such as Solidaridad;
  - Use of biodegradable plastic mulch in pineapple production;
  - Value chain concepts to share sustainable practices;
  - Geographical mapping of companies by the Ghana Export Promotion Authority (GEPA) to create a database for a national product traceability system;
  - Community-based land administration across the country. There are programs in place to support local land administration, such as a project developed by the International Institute for Environment and Development (IIED) with the funding from the Bill and Melinda Gates Foundation. This project aimed to develop and scaling up tools to secure land rights in West Africa.
- Fisheries:
  - The Integrated Coastal and Fisheries Governance Initiative project (ICFG), locally called Hen Mpoano (Our Coast), addresses coastal and fisheries governance issues in Western Ghana;
    - The Community Resource Management Area (CREMA) approach addresses the challenges of wildlife management across the country. The NGO A Rocha Ghana has been instrumental in implementing this concept;
    - An improved fish smoking oven that was developed by the United Nations Food and Agriculture Organization (FAO) and Ghana's Food Research Institute of the Council of Scientific and Industrial Research;
    - Re-establishment of the Marine Police Unit of the Ghana Police Service.

### Necessary success factors to scale-up impacts

- Expanded educational initiatives to support sustainable resource management;
- Adoption of voluntary sustainability standards by NGOs and agriculture/fishing companies, to expand sustainable codes of production and processing with emphasis on environmental, social and economic impacts;
- Post-harvest management of agricultural produce;
- Enforcement by the marine police;
- Conservation of wetlands and mangrove areas for fish nursery protection.

### Necessary partnerships to scale-up impacts

- Engagement of the Government of Ghana to provide financial resources to the Ministry of Food and Agriculture to support partnerships with regional/local authorities and farmers;
- Legitimate decentralization of power and decision making to regional/local authorities and relevant stakeholders;
- Networking among producers and processing companies, such as the Ghana Organic Agriculture Network;
- Cooperation and transparency between the Government of Ghana, regional/local public authorities and traditional authorities.



## MEDIA

This discussion table offered a broad overview of the issues related to sustainable innovation that has been covered in the Ghanaian media. Important success factors and potential partnerships that were highlighted by the group include:

### *Sustainable innovation success stories*

- Awareness raising through high-quality media coverage of sustainability-related topics including the coverage of the Melcom disaster (a five-story Shopping Mall at Achimota near Accra that collapsed, killing and injuring many people), illegal mining, slums, second-hand clothing (partial ban on the “hand-me-down” trade), alternative energy production and oil, promotion of local industries, clean water issues, and the Accra Metropolitan Assembly issues, among others.

### *Necessary success factors to scale-up impacts*

- More education and training opportunities for media professionals;
- Pressure and persistence in publishing and broadcasting sustainability-related information to society;
- Active use of social media networks;
- Constant interaction and follow-up with the public;
- Expansion of journalistic programs on TV and radio.

### *Necessary partnerships to scale-up impacts*

- Partnerships between media companies and international organizations to develop global information networks.



## BUSINESS AND ENTREPRENEURS

Considering that energy production and consumption is a hotspot for negative environmental impacts, mostly due to its considerable contribution to CO<sub>2</sub> emissions, this roundtable focused its discussion on assessing the innovations that support the business sector to reduce its energy-related impacts. Reliable information sharing is considered a relevant factor to connect and motivate business innovation.

### *Sustainable innovation success stories*

- Use of biogas and solar power generation;
- Livestock and crop farming in individual homes;
- Introduction of energy saving bulbs in the Ghanaian market, a measure that has been replicated across Africa. As part of an effort to conserve and improve energy efficiency Ghana's Environment Protection Agency (EPA) is distributing six million pieces of compact fluorescent lamps to replace incandescent bulbs throughout Ghana, starting with the Burma Camp;
- Substitution of old refrigerators with modern energy-saving devices under the EPA program “Promoting of Appliance Energy Efficiency and Transformation of the Refrigerating Appliances Market in Ghana”. The group sees this project as having potential to be scaled up in other regions and countries;
- Introduction of the Western Union Money Transfer service to Ghana, a service facilitated by Dr. Kofi Amoah.

### *Necessary success factors to scale-up impacts*

- Dissemination of transparent and reliable information among various stakeholders about the impacts and opportunities along the value chain.

### *Necessary partnerships to scale-up impacts*

- Partnerships between the business sector, the media and civil society organizations to enhance communication and information sharing;
- Support for stakeholders that have performed research and want to enter the market to promote their innovation.



# OPPORTUNITIES AND CHALLENGES

Following the roundtable discussions the workstudio participants highlighted the opportunities and challenges to develop and scale-up sustainable innovation in Ghana. Participants also evaluated their own range of products and what would be required to promote change. The results are presented below – blank spaces are areas for which no input was received.

Opportunities and challenges across sectors		
Sector	Opportunities	Challenges
<b>Entrepreneurship &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>• Large variety of business start-up ideas.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of commitment among participating industries/companies;</li> <li>• Difficulty to identify the best practice initiatives of small enterprises and to bring the initiatives into view;</li> <li>• Determination to implement projects and reach the desired result;</li> <li>• “Boxing” up issues of sustainability into a single universal solution to all sustainability issues.</li> </ul>
<b>Finance</b>	<ul style="list-style-type: none"> <li>• Microfinance</li> <li>• Mobile money</li> </ul>	<ul style="list-style-type: none"> <li>• A lack of financial resources;</li> <li>• High cost of doing business in Ghana;</li> <li>• Taxes and levies.</li> </ul>
<b>Communication and networking</b>	<p><i>Global Networks as an opportunity to:</i></p> <ul style="list-style-type: none"> <li>• Gain access to first-hand information and development ideas;</li> <li>• Identify appropriate networks for specific needs;</li> <li>• Get in touch with experts from a wide range of disciplines;</li> <li>• Provide initiative to some small entrepreneurs to scale-up their ideas and bring them to the global market.</li> </ul>	<ul style="list-style-type: none"> <li>• It is impossible for a network to be effective for all sectors at the same time - “Either focus or broker to other networks”;</li> <li>• Deal with excessive rules and demands from networking partners on how Ghanaians, as a nation, should proceed;</li> <li>• Linking diverse needs of members with the right solutions;</li> <li>• Potential local resistance to some networks.</li> </ul>
<b>Education, research &amp; awareness</b>	<ul style="list-style-type: none"> <li>• Research among the rural population to identify the best ways to implement sustainable lifestyles in rural areas;</li> <li>• Availability of a pool of knowledge and accessible experts;</li> <li>• High level of interest in sustainability issues;</li> <li>• National awareness of environmental degradation issues that arise from destruction of water bodies, forests and fertile lands (the result of uncontrolled illegal and small scale mining).</li> </ul>	<ul style="list-style-type: none"> <li>• Skills development</li> <li>• Learning facilities at schools</li> </ul>

Opportunities and challenges across sectors		
Sector	Opportunities	Challenges
<b>Culture &amp; Habits</b>		<ul style="list-style-type: none"> <li>• Language and culture as barriers that hinder progress toward attaining goals;</li> <li>• Traditional perspectives of the average Ghanaian, attitudes and behaviour related to sustainability issues;</li> <li>• Refusal to accept and difficulties to adapt to change</li> </ul>
<b>Civil society</b>	<ul style="list-style-type: none"> <li>• Capacity to unite people to promote success and move forward with positive change.</li> </ul>	
<b>Partnerships</b>	<ul style="list-style-type: none"> <li>• Collaboration among different organizations;</li> <li>• Avenues for collaboration on new and existing sustainable living initiatives.</li> </ul>	
<b>Policy &amp; Law</b>	<ul style="list-style-type: none"> <li>• Opportunity for stakeholders (businesses, civil society, academia, media, among others) to act as a serious advocacy body to encourage the government to support change.</li> </ul>	<ul style="list-style-type: none"> <li>• Challenges in getting involved with decision making processes to be able to influence policy;</li> <li>• Unfavourable laws within the nation.</li> </ul>
<b>Natural resources and infrastructure</b>	<ul style="list-style-type: none"> <li>• Abundant raw materials;</li> <li>• Long hours of sunlight.</li> </ul>	<ul style="list-style-type: none"> <li>• Bad road network.</li> </ul>
<b>Governance</b>	<ul style="list-style-type: none"> <li>• Favourable political environment for business to thrive.</li> </ul>	<ul style="list-style-type: none"> <li>• Possible political interference in project implementation;</li> <li>• Lack of participation from individuals and organisations that have potential to enforce improvements (politicians and regional leaders)</li> <li>• Widespread fraud and corruption;</li> <li>• Political intolerance;</li> <li>• Lack of political will to implement policies.</li> </ul>
<b>Technology</b>	<ul style="list-style-type: none"> <li>• Rapid technological development and advancement in the country.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of specific technical know-how.</li> </ul>

Table 4: Overview of challenges and opportunities

## OFFERS AND NEEDS

Who	Offers	Needs
<b>Safi Sana and Environmental Protection Agency</b>	<ul style="list-style-type: none"> <li>• Project ideas with a focus on waste and energy topics</li> </ul>	<ul style="list-style-type: none"> <li>• Funding;</li> <li>• Technical skills</li> </ul>
<b>Atlas Business and Energy Systems</b>	<ul style="list-style-type: none"> <li>• Labour;</li> <li>• Training services</li> </ul>	<ul style="list-style-type: none"> <li>• Financial partnership</li> </ul>
<b>Ghana Export Promotion Authority and Ghana Wildlife Society</b>	<ul style="list-style-type: none"> <li>• Research-based knowledge</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge sharing and support with capacity building</li> </ul>
<b>Gawe</b>	<ul style="list-style-type: none"> <li>• Partnerships</li> </ul>	<ul style="list-style-type: none"> <li>• Funding/grants;</li> <li>• Entrepreneurial training;</li> </ul>
<b>Chartered Institute of Marketing Ghana</b>	<ul style="list-style-type: none"> <li>• Provision of local expertise;</li> <li>• Willingness to help</li> </ul>	<ul style="list-style-type: none"> <li>• Training/Education;</li> <li>• Global networking</li> </ul>
<b>KNUST Technology Consultancy Centre</b> <b>Centre for Energy, Environment and Sustainable Development (CEESD)</b>	<ul style="list-style-type: none"> <li>• Knowledge/expertise with a focus on future oriented ideas;</li> <li>• Awareness creation;</li> <li>• Technical knowledge;</li> <li>• Research and development</li> </ul>	<ul style="list-style-type: none"> <li>• Funding;</li> <li>• Partnerships to develop entrepreneurship</li> </ul>
<b>SHEQ Foundation Ghana</b>	<ul style="list-style-type: none"> <li>• Technical assistance on entrepreneurship in Ghana, knowledge-sharing about the impact on the country's economy and the global community</li> </ul>	<ul style="list-style-type: none"> <li>• Effective and sustainable funding opportunities for start-ups;</li> <li>• Sharing of knowledge on best practices in waste reduction, recycling, cleaner production and lifecycle analysis</li> </ul>
<b>SHEQ Foundation Ghana and CDC Development Solution</b>	<ul style="list-style-type: none"> <li>• Local partnerships;</li> <li>• Expertise in environmental research;</li> <li>• Training/Education</li> </ul>	
<b>Ghana Statistical Service</b>	<ul style="list-style-type: none"> <li>• Skills in data collection and analysis</li> </ul>	
<b>Solidaridad</b>	<ul style="list-style-type: none"> <li>• Expertise in artisanal and small scale mining</li> </ul>	<ul style="list-style-type: none"> <li>• Funding for scaling up of sustainable artisanal and small scale mining</li> </ul>
<b>Esoko</b>		<ul style="list-style-type: none"> <li>• Knowledge of best practice in integration of technology into agriculture</li> </ul>
<b>Conservation Foundation</b>		<ul style="list-style-type: none"> <li>• Practical solutions;</li> <li>• Funding opportunities for community based natural resource management and environmental education initiatives</li> </ul>
<b>E-TV</b>		<ul style="list-style-type: none"> <li>• Research to support media (e.g. articles, documentaries)</li> </ul>

Who	Offers	Needs
<b>GBC Radio</b>		<ul style="list-style-type: none"> <li>Capacity building / training in media and journalism</li> </ul>
<b>UT Bank Ghana Ltd</b>		<ul style="list-style-type: none"> <li>Research partnerships and data to support development and delivery of financial products and services</li> </ul>
<b>CDC Development Solution</b>		<ul style="list-style-type: none"> <li>Networking and research grants to support sustainable economic growth in Ghana</li> </ul>
<b>The Ghana Bamboo Bikes</b>	<ul style="list-style-type: none"> <li>Expertise in construction of bicycles using bamboo plants</li> </ul>	
<b>The Global Sustainable Aid Project (GSAP)</b>	<ul style="list-style-type: none"> <li>Research data on sanitation technologies that are affordable to the poorest;</li> <li>Training programs for local entrepreneurs on construction and maintenance of GSAP Microflush toilets</li> </ul>	<ul style="list-style-type: none"> <li>Taking research on affordable sanitation systems to the next level;</li> <li>Local NGOs dealing with sanitation issues, agencies and micro-finance organizations to collaborate in the identification and training of local entrepreneurs to produce, market and maintain GSAP Microflush toilets</li> </ul>
<b>General (actors not specified)</b>	<ul style="list-style-type: none"> <li>Awareness building on sustainability issues;</li> <li>Encouraging consumption of locally produced food crops and farming among Ghanaians;</li> <li>Spreading the word;</li> <li>Leveraging expertise and experience among members;</li> <li>Sharing business information with foreign investors interested in Ghana;</li> <li>Research on sustainable lifestyles patterns;</li> <li>Ideas and concepts for self-sustaining development projects;</li> <li>Research on opportunities for financial inclusion for rural people;</li> <li>Expertise in rural sanitation issues;</li> <li>Labour force.</li> </ul>	<ul style="list-style-type: none"> <li>Training for small and medium-sized enterprises;</li> <li>Market information;</li> <li>Capacity building /entrepreneurial training;</li> <li>Technical education on sustainable consumption and production and the ways it can be integrated into a daily life;</li> <li>Networking;</li> <li>Collaboration in research;</li> <li>Jobs;</li> <li>Technical support;</li> <li>Building awareness of the importance of sustainable lifestyles;</li> <li>Exposure of ideas.</li> </ul>

Table 5. Participant product offerings and needs

# THE WAY FORWARD

## KEY STRATEGIC ACTIONS

As a final stage of the workstudio, participants discussed the necessary actions to address negative impacts that arise from lifestyles and the necessary business and social innovations that would enable sustainable living. The results are summarized below:

### *Educate society*

- Develop and enhance education on sustainable lifestyles and sustainable consumption;
- Create awareness of the importance of society's role in sustainability assurance;
- Foster behavioural change in favour of sustainable lifestyles in relation to natural resources;
- Promote a "change starts with me" approach;
- Construct and populate eco-villages to function as prototypes of the desired 2050 scenario, where people could receive first hand practical training and education about ways to live sustainably.

### *Improve policy*

- Ensure better government enforcement of policies and regulations across all sectors;
- Develop sustainable government policies on production and entrepreneurship;
- There are already a lot of policies addressing the issues discussed. What is needed is more action, implementation, willpower and perseverance to make policies effective and to assess results;
- Put in place policies sustainable for proper waste management.

### *Boost entrepreneurship*

- Encourage small local social entrepreneurship and funding for local business to support economic growth, which will consequently foster education and awareness of the need for a sustainable future;
- Develop entrepreneurship as a tool to generate and increase the income of Ghanaians;
- Expand tax incentives, such as tax deductions, tax credits, tax exemptions and other incentives to enhance entrepreneurial activities and investments, and to help reduce the prevalence of the informal economy.

### *Optimise the financial sector*

- Introduce and scale up "Bank on wheels", networks of bank platforms, biometric banking, plastic banking cards;
- Improve mobile money services, such as money transfers, deposits and withdrawals, payments and purchases, all of which can be facilitated by the telecommunications industry;
- Scale-up micro-finance practices;
- Boost interest in institutionalised savings programs;
- Spread the e-zwich electronic clearing and payment system.

### *Improve communication, connectivity and information exchange processes*

- Increase awareness of existing initiatives, harmonize efforts, and share achievements;
- Enhance internet technology to effectively and efficiently communicate and share information;
- Improve the road infrastructure and transport systems of the country.

### *Nurture sustainable practices*

- Maintain the quality of the soil with organic matter and reduce the use of chemical fertilizers;
- Develop waste recycling practices.



## ASSISTANCE FROM GLOBAL NETWORKS AND FURTHER ACTION

The Global Network on Sustainable Lifestyles ([www.vision2050.net](http://www.vision2050.net)) and Global Network on Sustainable Innovation and Entrepreneurship ([www.scaling-up.net](http://www.scaling-up.net)) can assist with driving the above actions forward in the followings ways:

- *Facilitate discussions:* Create and facilitate online discussion groups that focus on workstudio findings and the identified actions.
- *International connections:* Connect stakeholders in Ghana with professionals from around the world to share experience and learning.
- *Support on an as needed basis:* Respond to specific queries and interests from stakeholders in Ghana.
- *Capacity building:* Assist with capacity building by providing insights into tools, international practice and experience, decision-making frameworks and other networks (online knowledge centres).



It is noted that there is a need for local ownership to drive these key recommendations and actions forward. The global networks ([www.vision2050.net](http://www.vision2050.net) and [www.scaling-up.net](http://www.scaling-up.net)) can act as platforms for additional discussions and to facilitate collaboration among Ghanaian and global stakeholders.

The figure 5 synthetizes the key issues in Ghana related to the promotion of sustainable lifestyles and the potential contribution of the Global Networks toward addressing these issues.

The outcomes of this workstudio and subsequent actions through the online platforms of the Global Networks will make significant contributions toward on-going research on sustainable lifestyles worldwide. Along with the background research, this publication will serve as an input for recommendations to international donors as well as for the final BIG2050 and BISS project reports.

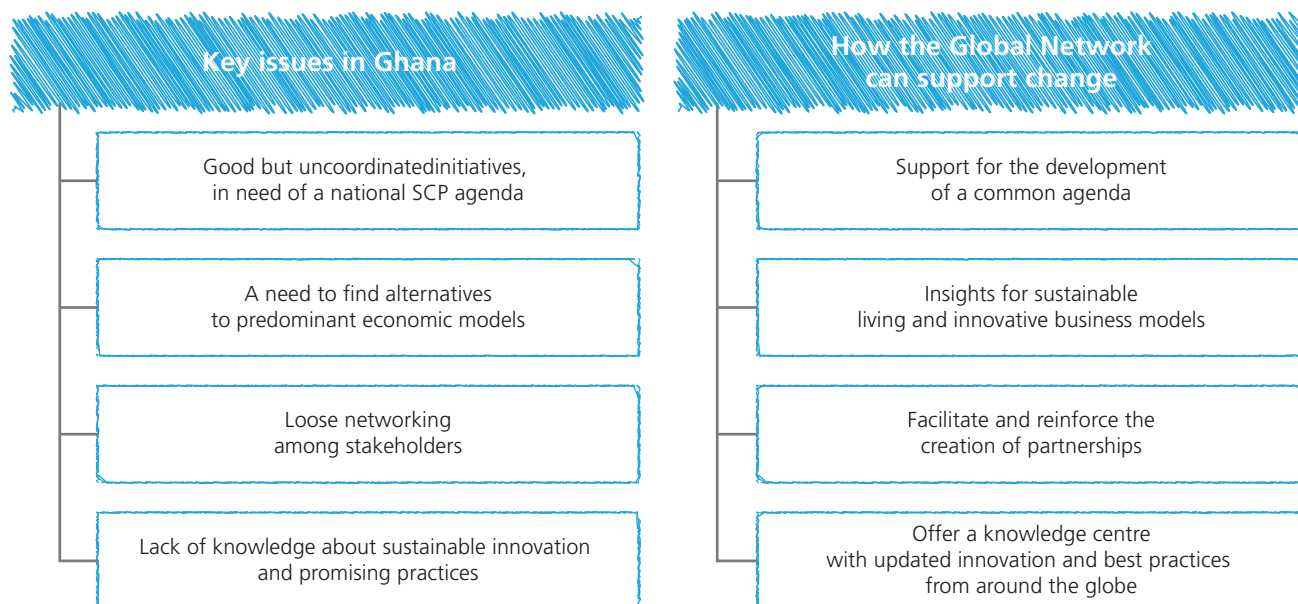


Fig 5. Potential contribution of the Global Networks to address key issues in Ghana



## ACTION ROADMAP

The following Action Roadmap presents a pathway toward sustainable lifestyles in Ghana with a focus on multi-sectorial engagement and collaboration. The figure is based on a synthesis of the workstudio outputs and the Ghana background study that was undertaken in preparation for the workstudio.



## REFERENCES BY TOPIC

- Migration in Ghana* Ackah C., Medvedev D. (2010) Internal Migration in Ghana: Determinants and Welfare Impacts.  
<http://www.csae.ox.ac.uk/conferences/2010-EdiA/papers/072-AckahMedvedev.pdf>
- Biochar production* Duku, Moses Hensley; et al. Biochar production potential in Ghana – a review. In: Renewable and sustainable energy reviews, v. 15, issue 18, 2011.
- Entrepreneurship* African Renewal Online. Tapping Women's Entrepreneurship in Ghana. Available online on May 8<sup>th</sup>, 2013 at: <<http://www.un.org/africarenewal/magazine/special-edition-women-2012/tapping-women%E2%80%99s-entrepreneurship-ghana>>.
- CHAM, Isatou. Challenges faced by female entrepreneurs within small and medium-scale enterprises (SMEs): a study of the saloon business in Ghana. Thesis, 2011.
- The World Bank. Ghana: financial services for women entrepreneurs in the informal sector. In: Findings African Region, n. 136, June 1999.
- Doing Business in Ghana. 2013. The World Bank. Available at: <http://www.doingbusiness.org/~media/giawb/doing%20business/documents/profiles/country/GHA.pdf>
- Trading Economics.* Ghana Exports. 2013. Available online on May 7<sup>th</sup>, 2013 at: <<http://www.tradingeconomics.com/ghana/exports>>.
- Credit rates*  
[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2234505](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2234505)
- Import/export:[http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/International\\_trade\\_in\\_goods#Analysis\\_of\\_main\\_product\\_groups](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/International_trade_in_goods#Analysis_of_main_product_groups)
- <http://www.modernghana.com/news/326639/1/25m-ghanaians-use-internet.html>
- <http://www.itnewsafrika.com/2012/10/over-24-million-mobile-phone-subscribers-in-ghana/>
- Demographic* Ghana Statistical Service. Population data analysis reports. Volume 1: Socio-economic and demographic trends analysis. August, 2005.
- Ghana Statistical Service. 2010 Population and Housing Census. Summary Report of Final Results. May, 2012.
- Ghana Statistical Service. Revised Gross Domestic Product 2012. April, 2013.
- Literacy rate: <http://www.mapsofworld.com/europe/thematic/countries-with-literacy-rate.html> - info of the map from the UNDP report 2009
- Unemployment in Ghana*  
<http://news.moneygh.com/pages/economy/201206/31.php>
- Housing*  
<http://ghanaweb.net/GhanaHomePage/NewsArchive/photo.day.php?ID=49956>

*Food and natural resources*

Ministry of Food and Agriculture. Agriculture in Ghana: facts and figures (2010). May, 2010.

Ministry of Food and Agriculture. Food and Agriculture Sector Development Policy (FASDEP II). 2007.

Ministry of Food and Agriculture. Medium Term Agriculture Sector Investment Plan 2011-2015 (METASIP). 2011.

The World Bank. Ghana Natural Resources and Environmental Governance (NREG) Program. 2013b. Available online on May 7<sup>th</sup>, 2013 at: <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/0,,contentMDK:22701705~pagePK:146736~piPK:226340theSitePK:258644,00.html>



# ANNEX 1: SUPPORTING PROJECTS

About the two collaboration projects with the German Ministry for Economic Cooperation and Development



## BUDDING IDEAS GLOCALLY FOR 2050 - BIG2050

BIG2050 was launched at Rio +20 in June of 2012 and has begun to collect promising practices and examples of sustainable ways of living from around the world. Through multi-stakeholder workstudios, this project explores the environmental and social impacts, consumer trends and aspirations, and future visions of more sustainable lifestyles across five countries: China, Colombia, Ghana, the Philippines and Germany. This project also launched the Global Network on Sustainable Lifestyles, available at [www.vision2050.net](http://www.vision2050.net).



### Project objectives:

- Identify critical environmental and social impacts associated with current consumer trends, consumption patterns and lifestyles – across different global contexts;
- Encourage the transition to a resource efficient future by communicating and fostering innovation for more sustainable ways of living.

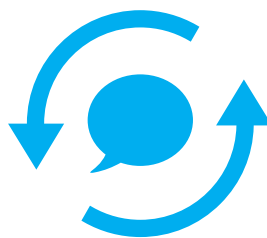
## BUSSINESS INNOVATION FOR SUSTAINABLE SCALE-UP - BISS

BISS was launched at Rio+20 in June of 2012 and has developed a Sustainable Innovations Framework, which will be used to identify the six key success factors to scale up sustainable business innovations. The project runs workstudios in parallel with BIG2050, hosts online interactions and provides research and building blocks for the Global Network for Sustainable Innovation and Entrepreneurship, available at [www.scaling-up.net](http://www.scaling-up.net).



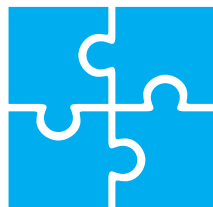
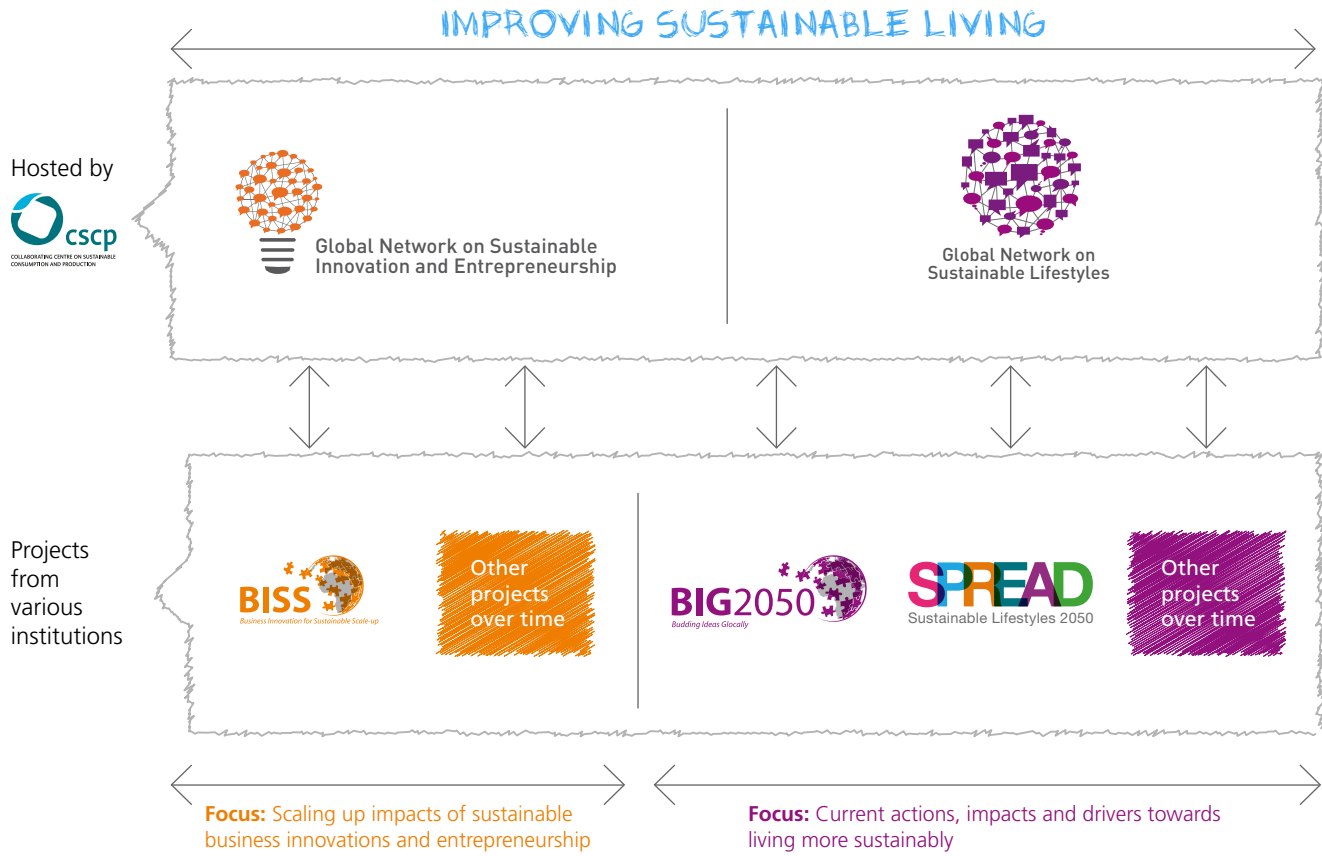
### Project objectives:

- Identify and assess innovative sustainable business models and success factors to scale up sustainable living impacts.
- Link knowledge and practice on innovation, entrepreneurship, and sustainable living and strategies and tools for implementation and scale up.



## BIG2050, BISS AND THE GLOBAL NETWORKS

The unique features and synergies between the BIG2050 and BISS projects and the global networks are shown in the illustration below. Both networks (and their underpinning projects) aim to address a different aspect of sustainable living.



## ANNEX 2: WORKSTUDIO PROGRAM

Time	Session
8:30 – 9:00	Registration
9:00 – 9:15	Welcome from the CSCP and introduction to the Global Networks
9:15 – 9:30	Welcome from the Ghana Chamber of Commerce and Industry
9:30 – 9:45	Key note speech: Overview of the country's current reality and issues affecting sustainable living in Ghana
10:00 – 10:15	Break
10:15 – 13:00	Ghanaian lifestyles – a journey to the future
13:00 – 14:00	Lunch
14:00 – 16:00	Roundtable discussions*
16:00 – 16:15	Break
16:15 – 17:00	The way forward – Action planning
17:00 – 18:00	Networking

Table 6. Workstudio program

\* Round Table discussions

- *Role of businesses and entrepreneurs*
- *Role of the mining and energy sector*
- *Role of the financial sector*
- *Role of agriculture and fishing*
- *Role of research and development*
- *Role of the media*



## ANNEX 3: CSCP WORK ON VISIONING AND METHODOLOGIES

### *Objectives of visioning workshops:*

- Perform social research on impacts and drivers that lead to sustainable lifestyles;
- Support participants to envision responsible new ways to engage different stakeholders in the co-creation of visions and scenarios of a common future;
- Appeal to the participants' emotional side as well as their rational understanding to enable creative problem solving.

### *Use immersive tools to:*

- Engage participants in future thinking;
- Challenge assumptions about the future that participants want to be part of;
- Introduce the scientific-planning methodology of backcasting;
- Invite other stakeholders to the dialogue and action;
- Deepen the participants' understanding of the evolving dynamics that will drive consumer behaviour over the coming several decades;
- Tap into potential social innovations.

Among these tools, the most used are a wide array of "personas from the future", which are used to help understand the needs and lifestyles of people living in the future and support participants to "get into the shoes" of other consumers.

These methodologies are normally applied within group settings that support dialogue and agreement, as well as introspection and challenge participants to reconsider their assumptions.

Sessions are facilitated to ensure the collection of outcomes, which are to be presented both in graphical and text formats. Outputs from the visioning sessions serve as findings to create recommendations, enable targeted discussions and conduct detailed planning-backcasting processes.

The CSCP has developed and adopted these tools and methodologies to apply in different industries and for different purposes. Some of these methodologies were developed in collaboration with partners such as the European Environment Agency, Nokia, Deutsche Telekom, and the Global e-Sustainability Initiative (GeSI). Output documents can be downloaded from the Global Network on Sustainable Lifestyles' knowledge centre.



## ANNEX 4: DETAILING THE PATHWAYS TOWARDS CHANGE

After mapping out the role of the different driver categories to bridge the gap between the current reality and the desired future scenario, the workstudio participants took a qualitative step forward toward the definition of concrete pathways to enable change.

Such pathways consist of six different strategies for reaching the vision of sustainable lifestyles in Ghana in 2050, as follows:

- i. Sustainable business models;
- ii. Policy tools;
- iii. Behavioural change;
- iv. Efficient value chains;
- v. Social and technological innovations; and
- vi. Infrastructure.

In separate groups, the participants thoroughly analysed the main concepts of the strategies and instruments as well as any related barriers and opportunities, with the aim to clarify the content of strategies content and the current level of development in Ghana, the measures yet to be taken, and the factors to be overcome or leveraged. Two main questions guided the discussion:

1. What concepts, instruments and frameworks are needed today and what role does each stakeholder play to make them work?
2. What barriers and opportunities exist that can be overcome or leveraged to reach the vision of sustainable lifestyles in Ghana in 2050?

From the outcomes of the discussions presented below it is important to note that most strategies combine different drivers to address several impact areas simultaneously and also rely upon the coordinated interaction of several stakeholders.





## SUSTAINABLE BUSINESS MODELS

According to this discussion table, the development of sustainable business models depends on a multi-stakeholder commitment to changing the current way of doing business. Such commitment is mostly relevant in relation to the government as it possesses the capacity implement and enforce policy measures, which are considered as crucial to enable sustainable business models. The table below presents the discussion outcomes:

How to enable sustainable business models?	
Keys actions	Relevant factors to be considered
<ul style="list-style-type: none"> <li>• Change in consumer mind-set to support sustainable businesses;</li> <li>• Create business innovations to foster new models of doing business;</li> <li>• Develop sustainable business policies;</li> <li>• Adopt the life cycle thinking approach for products and services to minimize environmental impacts and reduce the use of materials across all life cycle stages;</li> <li>• Use of local raw material for production;</li> <li>• Adopt renewable energy and use energy efficiently across all life cycle stages of products and services.</li> </ul>	<p><i>Barriers</i></p> <ul style="list-style-type: none"> <li>• Lack of consistent policies to reach this goal;</li> <li>• Lack of enforcement of policies and laws;</li> <li>• Crowding out of private investments.</li> </ul>

## BEHAVIOURAL CHANGE

The brainstorming session on how to enable behavioural change in favour of sustainable lifestyles motivated the participants to reflect upon the complexity of the theme. As a result, the group designed a set of very promising and multifaceted actions to address issues and touched upon areas such as education, public infrastructure, law and policy, and the importance of opinion leaders. The main outcomes are presented below:

How to enable behavioural change?	
Keys actions	Relevant factors to be considered
<ul style="list-style-type: none"> <li>• Monitor compliance with environmental limits and prohibitions;</li> <li>• Start teaching and motivating behavioural change from basic school (education);</li> <li>• Reinforce the polluter pays principle to enhance the responsibility of producers and other entities for damage caused to the environment;</li> <li>• Enforcement of current policies;</li> <li>• Develop vibrant transportation systems;</li> <li>• Engage Ministries, Departments and Agencies (such as EPA and NCCE) to advocate for the protection of human rights;</li> <li>• Raise awareness of the relevance of the role played by chiefs and opinion leaders in influencing people's preferences and behaviour.</li> </ul>	<p><i>Barriers</i></p> <ul style="list-style-type: none"> <li>• Political interference opposing such changes;</li> <li>• Bureaucracy inhibits new actions;</li> <li>• Poor education system and high level of illiteracy;</li> <li>• Inadequate logistics and poor performance of Ministries, Departments and Agencies.</li> </ul> <p><i>Opportunities</i></p> <ul style="list-style-type: none"> <li>• The large population in Ghana and the increasing number of people advocating for sustainability in Africa bring hope for change;</li> <li>• Ghana counts on vast natural resources and significant biodiversity.</li> </ul>

## POLICY TOOLS

The brainstorming session on how to enable behavioural change in favour of sustainable lifestyles motivated the participants to reflect upon the complexity of the theme. As a result, the group designed a set of very promising and multifaceted actions to address issues and touched upon areas such as education, public infrastructure, law and policy, and the importance of opinion leaders. The main outcomes are presented below:

How to enable sustainable business models?	
Keys actions	Relevant factors to be considered
<ul style="list-style-type: none"> <li>• Broaden the tax base by means of adopting tax incentives for sustainability initiatives in business and reinforcing tax laws and regulations to support sustainable living;</li> <li>• Operationalize trust through the development of legislation, information databases and increased citizen participation;</li> <li>• Improve administration of the tax system.</li> </ul>	<p><i>Barriers</i></p> <ul style="list-style-type: none"> <li>• Lack of capacity and willingness of the government to implement laws that support sustainable living;</li> <li>• Lack of transparency on the part of the government and its Ministries, Departments and Agencies;</li> <li>• Low level of trust among many people;</li> <li>• High cost of doing business.</li> </ul> <p><i>Opportunities</i></p> <ul style="list-style-type: none"> <li>• Public-Private Partnerships (PPP) as tools to improve public performance;</li> <li>• Improved education and health;</li> <li>• Rich resource endowment;</li> <li>• Enabling business environment.</li> </ul>

## INFRASTRUCTURE

The discussion about infrastructure had education as its main focus. The group interestingly pointed out the relevance of technological innovation and dissemination to build the needed infrastructure for education in Ghana:

How to enable infrastructure?	
Keys actions	Relevant factors to be considered
<ul style="list-style-type: none"> <li>• Improve the basic infrastructure needed for education development: school buildings, stationery resources, books, and properly-trained human resources, among others;</li> <li>• Develop and provide technological infrastructure for further improvement: access to bandwidth internet connection, e-books, z pads, video streaming, and e-assessment.</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural factors need to be analysed and balanced, such as the need to work to improve the livelihood of the family and, at the same time, the importance of education;</li> <li>• Financial/economic factors are of utmost importance to enable infrastructure and encourage students to make good use of it. Thus, it is relevant to discuss and adopt measures such as proper education budgets and free senior high school;</li> <li>• Other infrastructure factors should also be considered, such as the importance of offering and maintaining basic infrastructure for any human activity: clean water and sanitation, among others.</li> </ul>

## EFFICIENT VALUE CHAINS

Different from the other discussion tables, the group in charge of discussing efficient value chains focused on identifying key stakeholder groups to enable efficient value chains. Key actions, barriers and opportunities were also discussed, as follows:

How to enable value chains?	
Keys actions	Relevant factors to be considered
<ul style="list-style-type: none"> <li>• Develop a national agenda for efficient value chains;</li> <li>• Identify the priorities: evaluate all natural resources available in the country, break down the priority areas and needs, and address them one by one;</li> <li>• Orient plans and actions towards sustainable lifestyles, by means of environmental education and a greater focus on the national welfare;</li> <li>• Hold producers responsible for the environmental damages they cause, by means of EPR: extended producer responsibility.</li> </ul>	<p><i>Key stakeholders</i></p> <ul style="list-style-type: none"> <li>• The government: mainly relevant to develop a national agenda and to formulate enforceable and achievable policies to put that agenda into practice;</li> <li>• Development partners: develop sufficient flexibility to work on different agendas;</li> <li>• Citizens: adhere to and support government policies for sustainable lifestyles;</li> <li>• Business and industry: should be held environmentally responsible and accountable; focus on the development of more sustainable products;</li> <li>• Opinion leaders and traditional rulers: these are relevant to influence people's support for sustainability and to advocate for sustainable lifestyle actions and plans.</li> </ul> <p><i>Barriers</i></p> <ul style="list-style-type: none"> <li>• Lack of appreciation of environmental issues;</li> <li>• Lack of sustainable thinking focus among people who are busy earning their living;</li> <li>• Unplanned urbanization</li> </ul> <p><i>Opportunities</i></p> <ul style="list-style-type: none"> <li>• Existence of natural resources;</li> <li>• Youth as the promising future of the nation;</li> <li>• Discussion and documenting the best future practices that can be implemented;</li> <li>• Large resources that are yet to be explored and developed to improve people's lives</li> </ul>



## SOCIAL AND TECHNOLOGICAL INNOVATION

This group focused its activities on two main areas connected to social and technological innovation: health and education. The discussion outcomes comprise key actions to enable innovation that is considered of greatest importance.

How to enable social and technological innovation?	
Keys actions	Relevant factors to be considered
<p><i>Social innovation</i></p> <p>i. To improve health:</p> <ul style="list-style-type: none"> <li>• Establish more institutions responsible for promoting social innovation with a special focus on health;</li> <li>• Raise awareness about the importance of changes and new ways of thinking and solving problems;</li> <li>• Financial motivation and support;</li> <li>• Develop innovative policies to enhance health care, such as the requirement for calorie content display in products;</li> </ul> <p>ii. For education improvement:</p> <ul style="list-style-type: none"> <li>• Offer free education to all;</li> <li>• Adopt and maintain up-to-date educational materials;</li> <li>• Develop diverse and interdisciplinary classes;</li> <li>• Offer practical courses;</li> <li>• Develop tools to offer more flexible education opportunities;</li> <li>• Create and offer better working conditions for workers.</li> </ul> <p><i>Technological innovation</i></p> <p>i. For health improvement:</p> <ul style="list-style-type: none"> <li>• Adopt computerized systems for health-related organizations to better connect and integrate their work;</li> <li>• Develop online health databases to facilitate information access, information flow and sharing;</li> </ul> <p>ii. For education improvement:</p> <ul style="list-style-type: none"> <li>• Use globalization and smart technology to enhance and enlarge education opportunities, such as distance education courses;</li> <li>• Develop paperless classrooms;</li> <li>• Adopt computerized education tools, such as e-books, virtual courses, etc.</li> </ul>	



## ANNEX 5: SUSTAINABLE INNOVATION SUCCESS STORIES IN GHANA

### ARB APEX BANK



*Field of impact:* Finance, communications

*Short description:* Rural banks were first established in Ghana in 1976 to provide banking services to the rural population. Other goals were to provide credit to small-scale farmers and businesses and support development projects, the first being in Agona Nyakrom in Central Region. The banks are locally owned and managed. By 2002, 115 rural banks had been established. They are supervised by the clearing bank ARB Apex Bank under the regulation of the Bank of Ghana, which owns shares in the banks.

*Website:* <http://www.arbapexbank.com>

---

### A ROCHA



*Field of impact:* Community development, resource use

*Short description:* Established in 1999, as the Eden Conservation Society, A Rocha Ghana (ARG) has emerged as a committed environmental NGO providing practical conservation interventions that are aimed at contributing to the sustainable management of important ecological habitats and at initiating programmes that target a community's ability to adapt to climate change and other environmental hazards. A Rocha has been instrumental in implementing the idea of the Community Resource Management Areas (CREMA) around Ghana.

*Website:* <http://www.arocha.org>

---

### ATLAS BUSINESS AND ENERGY SYSTEMS (ABES)



*Field of impact:* Energy generation

*Short description:* ABES is a solution provider for renewable energy. By using local capacity, ABES intends to operate and maintain technologies in renewable energy that must be developed in relation to technology transfers.

*Website:* <http://www.abesafrica.com>

## CDC DEVELOPMENT SOLUTIONS



*Field of impact:* Education & skilling, entrepreneurship

*Short description:* The work of CDC Development Solutions in Ghana spans a variety of sectors, including agribusiness supply chains, ICT incubation, and handicraft market development. Through the MBA Enterprise Corps division and its work with the African Development Foundation, CDC Development Solutions provides business and organizational development consulting services to Ghanaian small and medium sized firms as well as to the ADF Ghana staff.

*Website:* <http://www.cdcdevelopmentsolutions.org>

---

## ESOKO



*Field of impact:* Entrepreneurship, finance

*Short description:* e-zwich is the brand name for the National Switch and Smart card payment system. The e-zwich payment system is an innovative method for improving accessibility to banking and retail services in Ghana. The e-zwich system offers Deposit Taking Financial Institutions (i.e. Universal Banks, Savings and Loans and Rural banks) a platform that enables them to interoperate, and therefore enable e-zwich cardholders of any of these banks to perform both banking and retail transactions at the outlets of any other e-zwich financial institutions.

*Website:* <http://www.esoko.com>

---

## E-ZWICH PAYMENT SYSTEM



*Field of impact:* Entrepreneurship, finance

*Short description:* e-zwich is the brand name for the National Switch and Smart card payment system. The e-zwich payment system is an innovative method for improving accessibility to banking and retail services in Ghana. The e-zwich system offers Deposit Taking Financial Institutions (i.e. Universal Banks, Savings and Loans and Rural banks) a platform that enables them to interoperate, and therefore enable e-zwich cardholders of any of these banks to perform both banking and retail transactions at the outlets of any other e-zwich financial institutions.

*Website:* <http://www.ghipss.net/e-zwich/e-zwich-payment-system.html>

## GHANA ASSOCIATION OF WOMAN ENTREPRENEURS



*Field of impact:* Employment & work conditions, education & skills development, poverty, entrepreneurship

*Short description:* The aim of GAWE is to facilitate the development of dynamic women entrepreneurs in Ghana by strengthening their entrepreneurial capacities, and by supporting government policies which focus on the growth of MSMEs in the formal and informal sectors through the provision of services which include training, dissemination of market information, economic networking, credit, technology transfer, promotion of non-traditional exports, advocacy and lobbying for policies that will enhance the active participation of Ghanaian women entrepreneurs in the national and global economies.

*Website:* <http://www.ghanawomenentrepreneurs.org>

## GHANA FEDERATION OF THE URBAN POOR



*Field of impact:* Education & skills development, poverty, community development

*Short description:* The Ghana Federation of the Urban Poor (GHAFUP) is a network of community savings groups in informal settlements and poor communities in Ghana and includes four of Ghana's five largest urban areas: Accra, Kumasi, Ashaiman, and Takoradi. The alliance was borne out of an eviction crisis that threatened over 30,000 residents of Old Fadama, the largest squatter settlement in Accra. GHAFUP helps communities make improvements through daily savings, local and international exchanges, community settlement profiles, and negotiating and building partnerships with local governments.

*Website:* <http://www.pdfghana.org>

HEN MPOANO

# Hen Mpoano

*Field of impact:* Community development, entrepreneurship, poverty

*Short description:* The Integrated Coastal and Fisheries Governance Initiative project (ICFG) is locally called Hen MPOANO (Our Coast). The organisation focuses on coastal and fisheries governance issues in Western Ghana. The goal of the initiative is to support the government to achieve its development objectives of poverty reduction, food security, sustainable fisheries management and biodiversity conservation. The initiative uses integrated coastal management as the organising framework and encompasses several themes that are hallmarks of CRC's integrated approach, including fisheries, coastal governance, community planning, natural hazards and climate change, to support improvements in the livelihoods of vulnerable coastal populations.

*Website:* <http://henmpoano.blogspot.de>

---

KITE



*Field of impact:* Poverty, energy generation, education & skills development

*Short description:* KITE is an energy and environment development organization committed to a poverty-free Ghana and Africa. Its activities include conducting research to inform and influence policy formulation and implementation for poverty reduction and economic growth. Further aims are to promote enterprise-centred approaches and models through technical support and finance as an option for the delivery of energy services and to build and harness local capacity and international partnerships for effective resource utilisation and governance.

*Website:* <http://www.kiteonline.net>

---

MTN MOBILE INSURANCE  
(MILIFE)



*Field of impact:* Finance, health

*Short description:* Mi-Life insurance provides money in the event of death of the subscriber or the next of kin. The premium payment for insurance is deducted from MTN Mobile Money wallet once per month. Once the premium is deducted, the insurance coverage lasts for one month until the next monthly premium is deducted.

*Website:* <http://www.mtn.com.gh>



## PURE HOME WATER



*Field of impact:* Health, entrepreneurship

*Short description:* Pure Home Water is a manufacturer of ceramic pot water filters located in Tamale, Ghana. Pure Home Water provides training and monitoring of correct, consistent and continuous (3Cs) use of the AfriClay filter. The AfriClay Filter is a ceramic pot water filter made with local materials and produced by local workers.

*Website:* <http://purehomewater.org>

---

## SAFI SANA



*Field of impact:* Resource use, sanitation, health, waste management

*Short description:* In the explosively expanding slums of Ghana there is an enormous lack of proper sanitary facilities. The result: residents use their surroundings as toilets. Not only does this cause health problems, but it also leads to excess waste. By upgrading the current public toilet blocks and potentially building new public toilets (Communal Service Blocks) in the slums, Safi Sana offers safe and hygienic sanitation facilities. Local entrepreneurs manage Communal Service Blocks in the form of franchise businesses. The waste generated by the toilet blocks is collected and converted into usable end products for the local market: biogas and organic fertilisers.

*Website:* <http://safisana.gebr.nl/en>

---

## SHEQ FOUNDATION



*Field of impact:* Employment & work conditions, health

*Short description:* The SHEQ Foundation is an NGO working on developing HSE programs to increase knowledge, awareness and skills among all industries in Ghana. The foundation works closely with public authorities and unions to promote leadership in HSE and to help companies develop customized health, safety and environmental management system solutions for companies who are challenged with international regulatory compliance.

*Website:* <http://www.sheqfoundation.org>

## SOLIDARIDAD

# Solidaridad

*Field of impact:* Resource use, employment & work conditions, community development

*Short description:* Solidaridad started its work on Gold in 2006 in the artisanal and small-scale mining sector. While this sector employs the greatest number of people, industrial mining still supplies over 80 percent of newly-mined gold each year and can cause serious impacts on communities and the environment. Recognizing this, Solidaridad's Gold Programme launched an innovative pilot project in 2011 to encourage gold mining companies to meet international standards and support broader development goals in their communities. As part of the project, Solidaridad partnered with mining companies to set targets for better social and environmental practices.

*Website:* <http://www.solidaridadnetwork.org/innovative-project-responsible-industrial-gold-mining-step-forward-workers-and-mining-communities>

---

## THE CENTRE FOR ENERGY, ENVIRONMENT, AND SUSTAINABLE DEVELOPMENT (CEESD)



*Field of impact:* Energy generation, resource use, poverty

*Short description:* The Centre for Energy, Environment, and Sustainable Development (CEESD) is a non-for-profit organisation that promotes technologies that offer engineering solutions to local communities in Ghana and Africa to meet global challenges such as climate change, energy, poverty, environmental degradation, and pollution.

*Website:* <http://www.ceesdghana.org>

---

## THE ENVIRONMENTAL PROTECTION AGENCY OF GHANA



*Field of impact:* Environment, resource use, energy efficiency, health

*Short description:* The Ghana Environmental Protection Agency is the leading public body responsible for protecting and improving the environment in Ghana. It works in the following fields: Climate Change, SEA, Chemicals Management, Built Environment, Environmental Quality, Mining, Manufacturing & Industries, Environmental Assessment, Environmental Education, Natural Resource, Oil and Gas and Public Affairs. The Ghana Sustainable Development Action Plan (SADP) was jointly developed by the Ghana EPA and UNEP.

*Website:* <http://www.epa.gov.gh>

---

## THE GHANA BAMBOO BIKES



*Field of impact:* Resource use, employment & work conditions, poverty, urban-rural development

*Short description:* The Ghana Bamboo Bikes is a socio ecological green initiative that addresses the problems of climate change, poverty, rural-urban migration and high unemployment among youth in rural Ghana by creating employment opportunities, job skills and sustainable livelihoods. Ghana Bamboo Bikes produces high quality handcrafted second generation bamboo bikes for international export markets.

*Website:* <http://ghanabamboobikes.org>

## THE GHANA COCOA BOARD (COCOBOD)



*Field of impact:* Resource use, community development, urban-rural development, energy generation

*Short description:* The Ghana Cocoa Board (COCOBOD) launched a project to provide solar energy lamps in cocoa, coffee and shea nut growing communities across the country. The project is responsible for installation of 11,000 solar street lamps in more than 2,000 rural communities alongside the distribution of 1.2 million pieces of solar powered torchlights to farmers. The goal is to improve socio-economic conditions, curb rural-urban migration, enhance security and reduce crime.

*Website:* <http://www.cocobod.gh>

## THE GHANA INTERBANK PAYMENT AND SETTLEMENT SYSTEMS (GHIPSS)



Ghana Interbank Payment and  
Settlement Systems Limited

*Field of impact:* Finance

*Short description:* The Ghana Interbank Payment and Settlement Systems (GHIPSS) is the Government of Ghana agency responsible for interconnecting banks that operate in Ghana. It is a subsidiary of the Bank of Ghana which was set up in 2007 with a mandate to set up and operate the National Switch with smartcard payment System, provide smartcard services, the Cheque Truncation system, Automated Clearing House (GACH) for direct debit and direct credit, and operate a help desk to assist the payment system.

*Website:* <http://www.ghipss.net>

THE GHANA  
REFRIGERATING APPLIANCE  
REBATE PROGRAM



*Field of impact:*

Energy efficiency, resource use

*Short description:*

UNDP-GEF is providing assistance to the Government of Ghana to implement a project titled "Promoting of Appliance Energy Efficiency and Transformation of the Refrigerating Appliances Market in Ghana". The primary objective of the project is to improve the energy efficiency of appliances marketed and used in Ghana through the introduction of a combination of regulatory tools such as Minimum Energy Performance Standards and Information Labels (S&L), and innovative economic tools. A Rebate Programme has been implemented to encourage households to surrender old and functioning refrigerators and to purchase new and efficient refrigerators as replacements.

*Website:*

<http://www.energyguide.org.gh>

THE GLOBAL SUSTAINABLE  
AID PROJECT (GSAP)



*Field of impact:*

Entrepreneurship, sanitation, health

*Short description:*

The Global Sustainable Aid Project runs a number of education, technology, and economic development programs in Ghana. The project has created an affordable microflush toilet and has helped train local entrepreneurs as GSAP Toilet Makers which enabled them to start their own small businesses.

*Website:*

<http://www.globalsustainableaid.org>

THE MARINE POLICE UNIT OF  
THE GHANA POLICE SERVICE



*Field of impact:*

Security, resource use

*Short description:*

Illegal activities such as the transfer and traffic in arms and illicit drugs, testing of hydrocarbons in marine areas, and the emergence of the Ghanaian seas as a major trade route, in addition to potential threats to the nation's vegetation resources warrant a constant eye on the nation's waters. The journey toward the rebirth of the Marine Police Unit began in the second quarter of 2011 as a component of the Security Master Plan for the Oil and Gas in Ghana. The Unit currently has some 100 personnel who have been taken through courses such as Integrated Fisheries and Governance, Maritime illicit Counter Trafficking and Site Exploitation and Gulf of Guinea Maritime Security. The Ghana Police Service can today boast of skilful boat skippers, operators/drivers, boat mechanics, intelligence officers, swimmers and rescue swimmers.

*Website:*

<http://www.ghanapolice.info>

**THE SUPPORT PROGRAMME  
FOR ENTERPRISE  
EMPOWERMENT AND  
DEVELOPMENT (SPEED)**



*Field of impact:* Entrepreneurship, finance, poverty

*Short description:* The Support Programme for Enterprise Empowerment and Development (SPEED) started in 2004. SPEED Ghana facilitates the development of the financial market and also business development services for Ghana's micro, small and medium sized enterprises. SPEED Ghana supports intermediaries such as business development service providers and micro finance institutions to deliver market oriented and sustainable technical and financial services.

*Website:* <http://www.speedghana.org>

---

**TRASHY BAGS**



*Field of impact:* Entrepreneurship, waste recycling

*Short description:* Trashy Bags is a social enterprise based in Accra, Ghana that makes recycled eco-friendly bags and gifts from plastic trash. It employs over sixty local people to collect, clean and stitch plastic trash in the form of sachets that have been previously used to contain drinking water and other drinks, into fashionable useful bags and other products. Trashy Bags has collected and recycled approximately 20 million plastic sachets since it started in 2007. Every month nearly 200,000 plastic sachets are being collected and brought to Trashy Bags by a network of people who are obtaining an income from their efforts.

*Website:* <http://www.trashybags.org/>

---

**TIGO CASH**



*Field of impact:* Finance, communications

*Short description:* Tigo Cash is a mobile financial service provider that allows people to use mobile phones as a mobile bank account. Tigo Cash can also be used to buy airtime and pay for goods and services across the country. Customers can deposit and withdraw cash from their mobile phone via Tigo Cash Agents or Customer Service Centres. Customers are not required to hold a bank account to use the service.

*Website:* <http://www.tigo.com.gh>

---

WESTERN UNION MONEY  
TRANSFER



*Field of impact:* Finances

*Short description:* Western Union global remittance service provider started its African operations from Ghana in 1995.

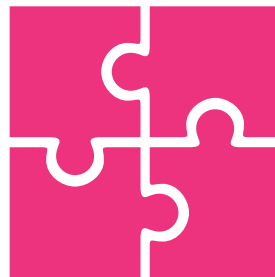
*Website:* <http://www.westernunion.com/ghana>

---

### PERSONAL INITIATIVES

*Professor Kwabena Frimpong Boateng:* Promotion of biofuels in particular and renewable energy in particular as the ways out from power crisis.

*Dr. Kofi Amoah:* facilitating the entry of global remittance service provider, Western Union, into Africa.





BIG2050 and BISS are projects developed by the Collaborating Centre on Sustainable Consumption and Production (CSCP) with the support of the German Ministry for Economic Cooperation and Development (BMZ). The content of this report, including images, is solely owned by the CSCP and cannot be reproduced or distributed without the permission of the CSCP and BMZ.

The content and views expressed in this report are those of the CSCP and the participants of the workstudio and do not necessarily reflect the position of the BMZ.

#### *Contact*

BIG2050 Project Director – Cheryl Hicks  
BIG2050 Project Manager – Georgina Guillen

BISS Project Director – Nadine Pratt  
BISS Project Manager – Dick van Beers

#### *More information*

Global Network on Sustainable Lifestyles  
[www.vision2050.net](http://www.vision2050.net)  
Email: [info@vision2050.net](mailto:info@vision2050.net)

Global Network on Sustainable Innovation and Entrepreneurship  
[www.scaling-up.net](http://www.scaling-up.net)  
Email: [contact@scaling-up.net](mailto:contact@scaling-up.net)

#### *Authors of the report*

BIG2050 Project – Georgina Guillen, Mariana Nicolau and Nathalie Spittler  
BISS Project – Dick van Beers and Inga Petrova

Editor – Cheryl Hicks

Ghana Chamber of Commerce and Industry – Robert Konadu and Bright Awuye

#### *Graphic recordings*

Peter Obeng

#### *Photographs*

Dick van Beers  
Robert Konadu

© CSCP 2013

Collaborating Centre on Sustainable Consumption and Production (CSCP) gGmbH  
Hagenauer Str. 30  
42107 Wuppertal, Germany  
Tel +49.202.45958.10  
Fax +49.202.45958.31

#### *Disclaimer*

This publication has been produced within the frameworks of the BISS and BISS projects supported by the German Federal Ministry for Economic Cooperation and Development (BMZ). The contents of this publication are the sole responsibility of the Collaborating Centre on Sustainable Consumption and Production (CSCP) and can in no way be taken to reflect the views of the BMZ.