

# **Green and Inclusive Businesses in South Africa: Review and Survey Evaluation**

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# GREEN AND INCLUSIVE BUSINESS MODELS IN SOUTH AFRICA: REVIEW AND SURVEY EVALUATION

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## 1. PURPOSE OF THE STUDY

The Donor Committee for Enterprise Development (DCED) will chair a session on “*Enabling Green and Inclusive Markets – A Case for Public Private Collaboration?*” at the 15<sup>th</sup> International Business Forum on October 22<sup>nd</sup> 2012 in Pretoria, South Africa. The panel debate will give policy makers and the private sector an opportunity to discuss approaches to facilitate the success of green and inclusive business models through an improved enabling environment. In particular, South Africa’s experience with green and inclusive businesses will be reviewed and evaluated.

A similar event, focusing on the Indian context, was already held successfully at the UN Global Compact *Corporate Sustainability Forum* in June 2012 during the Rio+20 conference. Therefore, the session can draw on the insights gained on the Indian case. It will be interesting and insightful to compare both settings, in order to demonstrate both, obstacles and opportunities.

The event itself will focus on how to facilitate a business enabling environment for green and inclusive markets in South Africa. Therefore, it is essential to receive some feedback on the general South African framework conditions in advance. Four South African companies were identified as pursuing green and inclusive business models (see below for a short description

of each of these companies) and asked to take part in a survey. The survey focused on a range of framework conditions, which were split into the following sub-groups:

- i. Investment Climate
- ii. Regulatory Environment
- iii. Non-Regulatory Environment Industry-led initiatives
- iv. Fiscal and other Redistributive Measures
- v. Access to Finance
- vi. Networks and Communications

It needs to be stressed that the outcome of the survey, with its extremely small number of participants, is not representative of the framework conditions in South Africa as a whole. It should, however, provide some quick insights on what are widely seen as supportive measures and conditions, and where there is scope for improvement.

## 2. REVIEW OF GREEN AND INCLUSIVE BUSINESS MODELS

This review of businesses that operate in green and inclusive markets provides an overview on what products these companies specialize in, as well as the way they promote inclusion of vulnerable people and preservation of the environment.

### (1) Restio Energy

[Restio Energy](#) aims to reduce energy poverty and offers options for a sustainable transition to renewable energy. Therefore, the company operates through two separate business components. Within its first component, Restio Energy provides **consultancy services** focusing on both, access to energy for low-income households as well as the productive and efficient use of energy. The service package comprises the development of business plans, feasibility studies for energy access initiatives, and capacity building. Moreover, Restio Energy also assists public and private institutions in their energy planning. The second branch of business Restio Energy operates in, is the import and distribution of small-scale **renewable energy** and **energy efficient products**. These include, amongst other, improved stoves and cooking devices, solar lights, and photovoltaic cellular phone chargers.

#### **Inclusion aspect:**

Restio Energy's consulting services focus almost exclusively on improving access to modern and clean energy services for low-income households or 'bottom of the pyramid' communities. With regard to products sales, a key focus for the local market is low-income households. Using a direct sales model, they also employ a number of people from low-income communities who sell these products into the market.

#### **Green aspect:**

Both components of Restio's business model contain green aspects, especially with regard to climate change mitigation. The consulting services particularly focus on clean, efficient and renewable energy initiatives. Distributed products are also based on renewable energy and/or energy efficient technologies, such as energy efficient stoves, solar lamps or shipping containers, which are converted into workplaces and equipped with appropriate renewable energy infrastructure.

### (2) Nuon RAPS Utility (NuRa)

The primary objective of [NuRa](#) is the electrification of non-grid rural households, and it is therefore focused on the installation and maintenance of solar home systems (SHSs) in remote rural areas in Northern KwaZulu Natal. The SHSs are provided on a fee-for-service basis, which means that NuRa installs and maintains the SHSs for households against a

service fee. NuRa has already over 15,000 SHSs installed. The proliferation of these SHSs is part of the South African Government's non-grid electrification programme in remote rural areas where grid access is planned in the short to medium term. For these areas a partial capital subsidy is provided by the Department of Energy.. NuRa also retails in Liquefied Petroleum Gas (LPG); ethanol gel; wood efficient cook stoves; PV pico-systems, lamp shades and cellphone chargers

**Inclusion aspect:**

NuRa pursues a multi-layer approach to foster inclusion. On the one hand, it provides cost-effective access to energy on a consistent basis for its customers – many of them being part of the “base of the pyramid”. As some consumers are eligible for a Free Basic Electricity (FBE) subsidy, NuRa additionally supports them by negotiating on their behalf with their municipalities, which are responsible for granting the FBE. On the other hand, NuRa also strengthens inclusion with regard to its employees. Besides training and employing local contractors, NuRa's employees are part of an empowerment ownership scheme and therefore own 20% of the company. Moreover, NuRa particularly cooperates with suppliers that are generally highly rated as broad-based black economic empowerment (BBBEE) contributors.

**Green aspect:**

NuRa fosters environmental protection by harnessing solar energy for its products. The SHSs are designed in an energy efficient manner and are complemented by installing energy efficient lamps (CFLs and LEDs). The latter are also retailed separately. In addition, NuRa assures through its suppliers that the disposal of the SHS components (batteries and CFLs) is performed in an environmentally responsible manner.

### **(3) Natural Balance/ The Wonderbag**

Natural Balance is a social enterprise which seeks to preserve the environment while contributing to the alleviation of poverty. The venture initiated several projects, but currently focuses on its [Wonderbag](#).

A Wonderbag is a heat-retention-based cooking device made of fabric and recycled polystyrene. Only initial heating is required, as the insulation properties of the bag sustain the cooking process without a permanent energy supply. Consequently, the bag reduces the energy costs required for cooking as well as carbon dioxide and the impact of unhealthy fumes. As each bag saves about 0.5 tons of carbon each year, the Wonderbag has been recognized by the UN as a project that can earn and trade carbon credits.

Natural Balance specifically targets communities with high poverty rates, a shortage of fuel supplies, a high incidence of health problems associated with air pollution, and/or an injury resulting from fuel fires.

**Inclusion aspect:**

The enterprise aims to provide a contribution to socio-economic development and environmental issues, which both are large problems in South Africa. With regard to its inclusive aspects, the project addresses consumers as well as employees, especially in areas with high poverty incidence. On the one hand, the Wonderbag helps customers to reduce energy costs and to improve quality of lives through better health (reduction of detrimental fumes). On the other hand, the project creates sustainable employment and provides skills development for the unemployed. Natural Balance has established factories in poor communities and trained distribution teams. People earn fair salaries which help to alleviate unemployment in the poorest communities The Wonderbag does not only create

jobs from local manufacture but also from the sales / marketing, project management, training, monitoring, evaluation aspects of the operation.

**Green aspect:**

The Wonderbag significantly reduces energy needed for cooking. Using it just three times a week can reduce a family's fuel usage by up to 50 per cent. Since electricity is commonly coal-fired and alternative methods of cooking depend on burning other fuels (firewood, charcoal), reducing energy requirements improves environmental conditions and lessens the pressure on natural resources. Moreover, this is accompanied by a decisive reduction of GHG-emissions as each bag saves about 0.5 tons of carbon each year

#### **(4) Phambili Energy**

[Phambili Energy](#) is developing technology and expertise to create sustainable sources of energy. It employs innovative technology to convert Invasive Alien Plants (IAP's), through community owned conversion facilities (Biomass Conversion Combination Plant – BCCP), concurrently into carbon neutral, smokeless, odourless, high-calorific value, sustainable charcoal (Jenga Charkettes), organic crude condensate and a large volume of gas which in turn is converted into electricity. Its second unique and patented technology is a domestic co-generation unit, designed for off-grid electrification, called the Jenga Eco-Powastove (JEP) which requires as inputs heat, provided by the Jenga Charkettes produced of the BCCP or any other solid fuel, and 12lt of water and outputs: heat for a 3 plate stove, 2 level oven, geyser, space heater, and absorption type refrigerator; electricity for 4 lights, radio, cell phone charger and TV; and steam for additional geyser, ironing, etc.

The aim of the business is to export value added products from rural areas, and to create a positive cash flow into communities and to fund infrastructure, by eradicating IAP's to be replaced by indigenous biomass. This will create jobs in rural areas to fight poverty and will enable rural economic development.

**Inclusion aspects:**

The BCCP is ultimately owned by the community, where it creates employment is created and additional cash-flows are received. Furthermore, off-grid customers profit from the JEP as it is an energy efficient source of electricity and reduces energy costs.

**Green aspects:**

JEP utilizes waste heat for producing off-grid electricity and therefore increases energy efficiency. As electricity is generated inside households, no line losses occur as with traditional central power station occur. Also BCCP improves energy efficiency, as waste heat from the pyrolysis process is used for drying biomass and gas produced during carbonization process is used for electricity generation.

Moreover, as fighting IAPs via converting them into input for energy production counteracts the loss of indigenous plants/ biodiversity and helps to tackle the depletion of groundwater.

### **3. FRAMEWORK CONDITIONS FOR GREEN AND INCLUSIVE BUSINESSES**

It should be stressed that the presented framework conditions for green and inclusive businesses in South Africa are based on a very small sample. Accordingly, it is not possible to draw comprehensive conclusions about the general conditions, which should be kept in mind when reading through the following results.

### 3.1 Investment Climate

For the surveyed companies, it is generally perceived that the overall investment climate is significantly influenced by the **physical infrastructure**, as it affects both, the efficiency as well as the scope of operations. Major determinants are the costs of infrastructure services and the reliability of their provision. Rural regions frequently lack a sufficient provisioning of these prerequisites which increases production costs. Nevertheless, the obstacles are not seen as insurmountable and their influence varies depending on the types of goods and services that are provided.

With regard to **bureaucratic efficiency**, the views are more consistent. Bureaucracy is regarded as the second most important factor that negatively affects the investment climate for green and inclusive businesses. The detrimental influence primarily arises from the slowness of administrative processes and the consequent lengthy time for decisions to be made and action taken. This also includes long-winded paperwork. Moreover, companies frequently find difficulty in executing all bureaucratic stipulations.

Responses concerning the influence of **economic openness** were mixed. In general, South Africa is a free market economy. However, there also exist some protectionist policy measures such as customs, foreign exchange duties, or work permits. All of the surveyed companies indicated that openness potentially influences the investment climate. However, for NuRa and Phambili the current regulations are neutral with regard to the impact on their businesses. Natural Balance and Restio Energy, on the contrary, seem to be more affected by the prevailing scheme of regulations. Natural Balance, in particular, perceives a strong negative impact of the current regulations on their business.

Access to **qualified labor** is regarded as the major impediment for a conducive investment climate. NuRa, in particular, suffers from a country-wide shortage of engineers. The other responding companies indicated a detrimental influence due to a lack of well-trained labor as well.

The most supportive feature for investing in green and inclusive business models, as inferred from the survey-answers, are the existing **market opportunities**. This is particularly true for energy-related projects. On the one hand, this results from the prevailing lack of access to adequate and reliable sources of energy, especially in rural areas. Moreover, demand for energy-efficient green products is additionally driven by the need for cost-efficient technologies and health considerations. Thus, a large potential exists for green business models that focus on the inclusion of customers.

Access to **technologies**, and especially **green technologies**, is seen as a determining factor of a conducive investment climate. However, availability is not perceived as a major problem in South Africa. The main issue respondents noted was the lack of communication technologies, which tends to hamper doing business in rural areas.

### 3.2. Regulatory Environment

On the whole, the South African regulatory environment could be considered to be hindering rather than supporting green inclusive business models – at least for the four surveyed companies.

A major impediment is imposed by the **quality infrastructure** (e.g. production and product standards, certification etc.). The problem mainly results from the difficulty to enforce quality standards, due to laborious and cumbersome processes.



The **formalization** of a new business provides an additional obstacle. However, experiences differ considerably. Whereas NuRa indicated that the process is rather easy, Natural Balance and Phamili Energy perceived that the regulatory environment for founding a company creates some difficulties. Especially Phambili Energy had had negative experiences with the CIPRO (Companies and Intellectual Property Registration Office; now CIPC).

Regarding the **regulations of GHG-emissions, waste production, etc.**, the responses indicate that there is a great potential for a possible support of green and inclusive business. Stricter regulations are expected to foster the demand for green products. Even though some regulations exist, they fail to yield significant results due to a minimal monitoring and enforcement of compliance.

**Labor market regulation**, in general, are neither perceived as an obstacle nor a supporting factor. The only exception is NuRa, which mentions the broad-based black economic empowerment (BBBEE) as a powerful instrument to foster employment equity and socio-economic development.

**Obligatory and voluntary targets** for providing goods and services might provide proper incentives to invest in green inclusive businesses and therefore should be fostered. In particular, voluntary targets seem to be a powerful, supporting means for green inclusive businesses.

### 3.3 Non-Regulatory environment-industry led initiatives

On the whole, environment-led and industry-based standards seem to support green and inclusive businesses in South Africa. Especially, **industry standards** and **eco-labels/certificates** are regarded as supportive means. Interestingly, Natural Balance states it is negatively affected by these two measures in the present form. The same pattern holds for **environmental accounting**, which, however, is of minor importance.

**Corporate Social Responsibility** is generally perceived as a supportive component. However, for the surveyed companies its influence is negligible. Only Phambili stated a significant influence.

Finally, **environment management systems** are generally deemed to have no influence on the respective businesses.

### 3.4 Fiscal and other Redistributive Measures

By and large, fiscal and redistributive measures might provide auxiliary instruments in order to support green inclusive businesses, since they are able to generate supportive incentive structures. However, currently these possibilities are not exhausted and there is potential for improvements.

As indicated by the answers to the questionnaire, the main possibility for positively influencing the success of green and inclusive businesses is found in furthering a dual strategy. On the one hand, positive incentives should be provided for establishing green inclusive businesses via providing **subsidies** for sustainable products and services. On the other hand, this should be accompanied by setting disincentives for the production of environmental harmful products and services, which might be achieved by internalizing social costs by introducing **tariffs**. Vice versa, subsidizing environmental harmful businesses and industries as well as imposing tariffs for sustainable businesses would hamper green inclusive business models. The Free Basic Electricity (FBE) program and other electrification subsidies granted by the South African government are supportive factors. As the FBE particularly targets consumers, it specifically addresses inclusion concerns. However, it is

perceived that more incentives could be provided and there still exist subsidies that support inefficient and/or environmental harmful behavior.

General **taxes** and **grants** seem to be less important.

### 3.5 Access to Finance

**Restricted access to finance** is one of the main obstacles that the four companies face. It is difficult to gain access to working capital as well as seed funding in order to boost new ventures.

In general, **access to credit** is seen as an important obstacle for the development of green and inclusive businesses. A main hindering factor, particularly for inclusive companies, is the comparatively long period of time required in order to realize returns on investments. However, green inclusive businesses are not merely restricted by the obstacles to receive credit they face themselves, but also the limitations imposed on their customers and vendors. As financial markets are not very **competitive**, opportunities to access funding are limited, which aggravates financial restrictions.

**International financial markets** have not yet been insufficiently explored but bear a potential to support businesses in South Africa. Nevertheless, it seems that international financial institutions hesitate to invest in South African businesses as the associated risk is deemed to be too high.

Relief from tight financial restrictions could be provided by **public grants**, which would increase the companies' ability to compete with established businesses. However, apart from NuRa, current policies are perceived as not supportive.

### 3.6 Network and Communication

In this final section of the questionnaire, companies were asked about their awareness of business networks and communication strategies and how helpful they were, or could potentially be. To varying degrees, all categories included in the survey were considered important, even if not existent.

**Public-private dialogues** exist on various levels (local, provincial, national), especially for energy related businesses. NuRa stated that exchange mainly arises within the context of the state units being custodians of particular services. Also Restio Energy noted the exchange. Even though being very important, the dialogue is at times perceived to be very slow and therefore could be improved. However, public-private dialogue is seen as an important means to support green inclusive businesses.

Besides exchanging with official units, the **consumer-producer dialogue** is also seen as another vital feature of a successful green and inclusive company. Some forums exist, where this dialogue can be fostered. The main issues discussed at these include costs, warranties, quality and demand.

**Platforms for knowledge exchange** exist and are also deemed vital. For the energy sector, those platforms mainly concern the grid and high-technologies, whereas small scale-technologies are commonly left aside. Nevertheless, the exchange includes various parties concerned, like entities, product suppliers and developers as well as sector institutions,

Another crucial factor are **financial networks**, such as Micro-Finance Institutes or Rural Development Banks. Those networks exist, but exhibit strict terms and provided



opportunities are not well publicized. They are deemed very important, as commercial banks hesitate to give support. Rural development banks are of a greater importance, as the micro-finance sector is not dominant yet.

**Incubators for green and inclusive businesses** might provide additional assistance for companies and industries being at infancy stage. Though, this approach currently has no priority.

In addition, NuRa and Restio particularly stressed the importance of creating and communicating an appropriate, clear and predictable policy. This is particularly crucial for rather small green inclusive businesses in order to attract investments.

#### 4. COMPARISON WITH EXPERIENCES MADE IN INDIA

As mentioned earlier, this same survey has already been conducted with green inclusive businesses in India. The Indian entrepreneurs were also working in green and inclusive markets and their fields of work were quite similar, relating to renewable energy and the efficient use of energy. An additional issue was the provision of safe drinking water.

Comparing the situation for green inclusive companies within both contexts, it becomes apparent that there are a lot of similarities. For both countries, the markets for green and inclusive businesses bear large potential and are gradually emerging. However, there exist serious obstacles that need to be surmounted. This particularly concerns the investment climate, the regulatory environment, and access to finance, which are the major factors hampering businesses.

In regard to the **investment climate**, a lack of **physical infrastructure** and **inefficient bureaucracies** impose prior challenges for both countries. Additionally, South African companies seem to be slightly more affected by **inadequately qualified labor** and also stated that challenges to accessing **information technologies** entail further impediments.

The **regulatory environment** imposes similar obstacles on companies in both countries as the **quality infrastructure** is rather low and standards are not sufficiently monitored nor enforced. Also the formalizing process is felt as complicated and as hampering. However, in India as well as in South Africa, companies' experiences were not homogeneous.

**Access to finance** is perceived as another major hindrance within both countries. In India, the examples showed that small start-up companies especially have to surmount prejudices that they are unprofitable. An interesting difference between both settings is the perception about the **international financial markets**. Even though companies in India as well as in South Africa acknowledge that access to foreign financial markets could improve their businesses, Indian companies are significantly more optimistic about realizing this option, as they perceive that international investors are willing to become engaged in the Indian market. The problem in India is evidently more due to domestic restrictions. In contrast, South African companies state that international investors are frequently reluctant to invest in the domestic market, as the associated risk is deemed to be very high.

In contrast to the access to finance, the **non-regulative environment** and **re-distributional measures** are deemed to be more supportive to green inclusive businesses. However, this was more for South African businesses, with Indian companies expressed more reservation. The roles of **industrial standards** and **eco-labeling** are viewed more optimistically in South Africa. Nevertheless, Indian companies also acknowledge their potential but note problems in the current situation. They emphasize that, at the moment, Corporate Social Responsibility is more suitable and powerful. Also with regard to **re-distributional policy means**, South African companies are more optimistic and emphasize the potential to shape (dis-)incentives.

**Networks** and improved **communications** are perceived as supportive for improving the performance of businesses in both countries. Particularly, **public-private dialogues** are deemed to be important as they are a means to improve the framework conditions. However, processes are rather slow and the follow-up needs to be improved. The same is true for **knowledge platforms**. **Incubators for green and Inclusive businesses** as well as **financial supply networks** are still at infancy stages but are seen as having a high potential in the future.

## 5 CONCLUDING REMARKS

It is necessary to emphasize that the presented framework conditions for green inclusive businesses in South Africa are based on a very small sample of entrepreneurs who were included in the survey. Accordingly, results only depict a small sketch and should not be interpreted as a complete and comprehensive description of the general conditions. Nevertheless, it offers some qualitative and sector-specific insights on what framework conditions are supportive to the business enabling environment and which are more obstructive.

By and large, a huge market potential is observed for green and inclusive businesses in South Africa. However, more could be done to take advantage of this. Industrial standards and eco-labels/certificates as well as various networks already exist and support the development of businesses. Though, there is scope for improvements, however at the moment, obstructive factors are more prevalent on the development of green and inclusive business models. Especially the regulating environment, the lack of adequate infrastructure and skilled labor as well as limited access to financial instruments are perceived as major detrimental factors. Removing these barriers and improving the incentives for investments will be crucial in order to foster development of green inclusive businesses.

The panel debate on “Enabling Green and Inclusive Markets – A Case for Public-Private Collaboration” will provide the opportunity to discuss the aforementioned issues in more detail. Furthermore, the debate aims to investigate specific favoring conditions and the possibility to implement them to enable green and inclusive business to flourish in South Africa.