Highlights:

Overall crop production for the 2011/12 agro-pastoral season is expected to decline by 62% compared to the previous year and by 50% compared to the 5-year average. Compared to 2010, the production of upland rice and groundnuts is expected to decline by 74% and 64% respectively.

A cereal deficit of at least 214,000 metric tons is expected in The Gambia from March onwards. While wholesale stocks of imported rice are generally on the increase, currently they can cover the gap by 35,000 metric tons. On average, farming households will experience an early and protracted lean season with the expectation of finishing own food stocks 3-4 months after the harvest (by February - March), down from usual 6-7 months (by May – June).

Population most affected by the current drop in crop production and in need of assistance amounts to at least 520,583 in most affected rural districts. An additional 192,850 people living in the most impoverished urban areas are considered most vulnerable to food insecurity due to low incomes, declining purchasing power, continuous exposure to disaster (primarily floods) and growing economic pressure from rural areas given the bad harvest (interdependency).

Food prices recorded their highest levels since the 2008 food price crisis. Compared to 2008 peak levels (December 2008), the nominal price of imported rice is only 1% lower, while the prices of local paddy and coarse grains are respectively 34.5% and 28.9% higher. Although the prices of millet and maize have fallen compared to the previous quarter (-8.2% and -10.3% respectively), and prices of imported rice are stabilizing, cereal prices are generally expected to remain high and to continue to increase in step with decreasing household stocks and growing demand, unless substantial amounts of cereals will be imported.

Malnutrition (stunting) has increased in 2011, affecting 11% of the under-5 children in rural areas (up from 10% in 2010) and is at the highest level since 2006. In certain areas of the country (NBR-East, LRR, CRR) stunting currently stand at nearly 20% and might rise further throughout the year, in particular in areas most affected by low crop production and decreasing purchasing power.

Seed insecurity and declining purchasing power at farmer level may adversely affect agricultural production, food security and nutrition in 2012 and 2013

High reliance on agriculture (29% of GDP and 70% of export value in 2009) may put in jeopardy the country’s overall economic growth prospects and balance of payments given the current drop in production levels, while the upcoming cropping season is at risk.
Drought Context

The Gambia

According to findings from the recently conducted Detailed Post Harvest Assessment (20 December 2011 – 2 January 2012) the agricultural production in The Gambia during the 2011/2012 agro-pastoral season is set for a significant decline compared to the previous season (-62%) and the five-year average (-50%). This is primarily due to lower crop yields resulting from late, erratic and unevenly distributed rainfall and recurring dry spells during the last rainy season (Daa Nyeeno, Vol. 1 - Issue 2), compounded by a slight decrease in overall area under cultivation (-8%). Reflecting the uneven distribution of rainfall across the country, the drop in production has affected crops and farmers differently across and within regions.

Map 1: Districts affected by significant drop in agricultural production during the 2011/2012 harvest

Districts most affected by drought conditions have experienced an above average decline in production for the majority of key staple crops. These include 19 out of 39 rural districts with a total estimated population of 520,583 (including 208,233 children under the age of 15): Foni Brefet, Foni Bintang-Karenai, Foni Bondali and Foni Jarrol in West Coast Region; Kiang West, Kiang Central, Kiang East andJarra Central in Lower River Region; Jokadu, Central Baddibu, Sabach Sanjal and Upper Baddibu in North Bank Region; Lower Saloum and Upper Saloum in Central River North Region; Niamina East, Fulladu West (upper) and Janjanbureh in Central River South Region; and Kimara and Tumana districts in Upper River Region. An additional 189,609 people in need of assistance live in six rural districts considered as borderline affected, i.e. they have a near average drop in production for crops they primarily depend on (upland rice, early millet and groundnut). These include Sami and Niamina West in Central River Region North; Jarra West and Jarra East in Lower River Region; Lower Baddibu in North Bank Region; and Kombo South in West Coast Region.

The total length of time that farmers’ own cereal produce will cover household consumption is on average not expected to exceed 3-4 months after the harvest, leading to an early and protracted lean season, which is anticipated to begin before March 2012 (instead of May-June during normal times). While exerting additional pressure on already fragile food security levels (see p.8), the expected drop in production also puts at risk the 2012/2013 harvest due to decreases in household seed stocks and income availability. Overall economic growth and balance of payments may also be jeopardized, given the country’s heavy reliance on agriculture. In 2009, the agricultural sector made up 29% of GDP and 70% in value of export trade (GNAIP).

A focus group discussion with local ward councilors and members of the National Disaster Management Agency revealed that the population living in low-income urban areas and a year-on exposure to natural disasters (i.e. floods) amounts to 192,850 people. These are the households considered to be most at risk to deteriorating food security levels due to the combined effects of high food prices, limited income opportunities, high indebtedness, ongoing recovery from and continued exposure to environmental shocks (i.e. floods) as well as the additional economic pressure exerted from most affected rural areas (interdependency). A detailed urban vulnerability assessment would be required to determine the exact size and population characteristics of most vulnerable urban areas and confirm the type and level of exposure to food insecurity.
The Sahel
The climate induced production shortfalls that are affecting The Gambia are part of a larger drought scenario which has hit farmers and most vulnerable households throughout the Sahel for the third time in a decade, affecting at least 10-12 million people in 2011/12, including an estimated 800,000 in Senegal (OCHA). While the overall drop in cereal production is estimated at 8% below last year’s levels for the entire Sahel, significant regional disparities exist between and within single countries. In Chad and Mauritania cereal production is expected to record significant decreases of 23% and 38% over the 5 year average and 50% and 52% respectively compared to the 2010/2011 harvest (Joint WFP/FAO Food Security Note, December 2011).

Map 2: Drought and vulnerability to food insecurity in The Sahel (Source: OCHA, December 2011)

In addition to drought affecting domestic production, rising prices of key cereals affect households’ opportunities to access food throughout the region. Coarse grain prices in Mali and Burkina Faso are 50 – 60% higher, while in Niger and Chad they are 30 – 40% above the 5-year average (Joint WFP/FAO Food Security Note, January 2012). Grain scarcity and elevated prices in the sub-region may affect regional trade as well as the availability and prices of imported grains in The Gambia.

Responding to Drought in the Sahel
Food security, vulnerability and nutrition assessments have been intensively ongoing throughout the region, first responses have been elaborated while several countries have already declared an emergency and launched appeals for international assistance (Burkina Faso, Chad, Mali, Mauritania and Niger). On February 10th 2012, an updated regional food security strategy termed “Response to the food and nutrition crisis in the Sahel and neighboring countries” was launched by the Inter-Agency Standing Committee (IASC). According to the strategy, the total cost for responding to the looming food and nutrition crisis in the Sahel would amount to US$725 million, including $481 million for food security activities and $243.6 million for nutrition projects. To date, donors have provided $135 million and relief activities have already begun (OCHA). On February 15th 2012 an emergency meeting was held at the headquarters of the UN World Food Programme (WFP) between leaders of UN agencies, affected governments and major donors. A joint statement was issued which calls for an urgent scale-up of humanitarian, rehabilitation and development assistance to address rising levels of hunger and malnutrition in the Sahel region and concrete steps were agreed to pave the way for a successful transition to early recovery and sustainable development.
**Food Availability**

**Agriculture (farm level)**

According to the Detailed Post Harvest Assessment, the biggest drop in agricultural production on the individual farm level is estimated for key crops such as upland rice (-79%), early millet (-53%) and groundnut (-67%). Overall, there is no district which has not experienced a drop in production below 25% for any of these crops. Area planted only slightly increased for upland and swamp rice (+2%) while it decreased for all other crops, especially coarse grains such as late millet (-19%) and sorghum (-28%).

Map 3: Drop in Production for Upland Rice Varieties (% Change in 2011 compared to 2010 harvest)

The production of upland rice is expected to decline from an average 793kg produced per farmer during the 2010/11 season to 167kg produced in 2011/12, while the production of early millet is expected to decline from 1002kg to 467kg respectively (see Table 1). On average, a farming household is expected to have available from their own production a total of 929kg of cereals (down from 2418kg in 2010/11) and 615kg of groundnut (down from 1,859kg) with high discrepancies across regions and districts.

Table 1: Seasonal production of average farmer household, total kilograms harvested per crop

<table>
<thead>
<tr>
<th>Year</th>
<th>Upland Rice</th>
<th>Swamp Rice</th>
<th>Irrigated Rice</th>
<th>Early Millet</th>
<th>Late Millet</th>
<th>Maize</th>
<th>Sorghum</th>
<th>Groundnut</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>793</td>
<td>973</td>
<td>853</td>
<td>1002</td>
<td>528</td>
<td>624</td>
<td>557</td>
<td>1859</td>
</tr>
<tr>
<td>2011</td>
<td>167</td>
<td>375</td>
<td>164</td>
<td>467</td>
<td>241</td>
<td>253</td>
<td>159</td>
<td>615</td>
</tr>
<tr>
<td>% change</td>
<td>-79%</td>
<td>-61%</td>
<td>-81%</td>
<td>-53%</td>
<td>-54%</td>
<td>-59%</td>
<td>-71%</td>
<td>-67%</td>
</tr>
</tbody>
</table>

Map 4: Total Seasonal Cereal Production per Farmer (kg)
Agriculture (national level)
An extrapolation of the estimated drop in production in 2011 to the baseline production levels provided by the previous National Agriculture Sample Surveys (2006 – 2010) reveals a serious drop in the overall cereal balance in the country compared to the last season. Accordingly, gross cereal production would fall from almost 300,000 metric tons in 2010/11 to only 117,000 metric tons in 2011/12 (down by 61%) while total groundnut production would decline from 156,500 to 48,500 metric tons (-64%), with yield declining to less than 300kg per hectare across most crops (down from usual 750kg – 1000kg). If accounting for a minimum of 15% of produce being additionally unavailable due to post harvest losses and seed needs, the net availability of cereals for immediate consumption is estimated at maximum 100,000 metric tons for the current season.

Given that the 2010/2011 agricultural season resulted in a very good harvest, a comparison with the 5-year average (2006) reveals a less dramatic but still very significant drop in production for most of the crops planted. The production of upland and swamp rice would be respectively 57% and 25% below the 5 year level, while groundnut production would contract by 57%. The drop in production for early millet and sorghum seems more pronounced in 2011, but is primarily driven by a generally declining production trend for these two crops in favor of other more drought-resistant cereals, in particular maize and the NERICA upland rice variety.

Table 2: Total cereal production in The Gambia, 2011 against 2010 harvest (data presented in ’000 metric tons)

<table>
<thead>
<tr>
<th></th>
<th>Total Cereals</th>
<th>Upland Rice</th>
<th>Swamp Rice</th>
<th>Irrigated Rice</th>
<th>Early Millet</th>
<th>Late Millet</th>
<th>Maize</th>
<th>Sorghum</th>
<th>Groundnut</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>299.3</td>
<td>96.4</td>
<td>22.5</td>
<td>NA</td>
<td>73.4</td>
<td>19.9</td>
<td>72.1</td>
<td>15</td>
<td>134.6</td>
</tr>
<tr>
<td>2011</td>
<td>117.2</td>
<td>22.9</td>
<td>8.6</td>
<td>NA</td>
<td>35</td>
<td>8</td>
<td>38.2</td>
<td>4.5</td>
<td>48.5</td>
</tr>
<tr>
<td>% change</td>
<td>-61%</td>
<td>-76%</td>
<td>-62%</td>
<td>NA</td>
<td>-52%</td>
<td>-59%</td>
<td>-47%</td>
<td>-70%</td>
<td>-64%</td>
</tr>
</tbody>
</table>

Table 3: Total cereal production in The Gambia, 2011 against 2006-2010 average (data presented in ’000 metric tons)

<table>
<thead>
<tr>
<th></th>
<th>Total Cereals</th>
<th>Upland Rice</th>
<th>Swamp Rice</th>
<th>Irrigated Rice</th>
<th>Early Millet</th>
<th>Late Millet</th>
<th>Maize</th>
<th>Sorghum</th>
<th>Groundnut</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Year Average</td>
<td>222.3</td>
<td>52.8</td>
<td>11.5</td>
<td>NA</td>
<td>89.2</td>
<td>15.8</td>
<td>49.3</td>
<td>18.4</td>
<td>112.1</td>
</tr>
<tr>
<td>2011</td>
<td>117.2</td>
<td>22.9</td>
<td>8.6</td>
<td>NA</td>
<td>35</td>
<td>8</td>
<td>38.2</td>
<td>4.5</td>
<td>48.5</td>
</tr>
<tr>
<td>% change</td>
<td>-47%</td>
<td>-57%</td>
<td>-25%</td>
<td>NA</td>
<td>-61%</td>
<td>-49%</td>
<td>-22%</td>
<td>-76%</td>
<td>-57%</td>
</tr>
</tbody>
</table>

Consumption Requirements
The Permanent Interstate Committee for Drought Control in the Sahel (CILSS) estimates the annual per capita cereal requirement for The Gambia at 175kg. Accordingly, with a population of nearly 1.8 million in 2011 the net cereal requirement for the country as a whole would currently amount to 313,000 metric tons. With a net availability of cereals standing at nearly 100,000 metric tons in 2011/2012 the overall cereal gap resulting from the drop in domestic crop production is estimated at a minimum of 214,000 metric tons (68% of requirement). In 2010, the consumption gap was estimated between 16 - 41%, or 45 – 120,000 metric tons, depending on the level of post-harvest losses, while for the 5-year average the cereal gap has oscillated between 34 and 53% of the requirement, or 100 – 150,000 metric tons.
Consumption requirement vs. net production of cereals in The Gambia, 1991 to 2011 (Source: WFP Analysis, based on DoA data)

**Markets**

Wholesale stocks of imported rice in The Gambia are stable at nearly 35,000 metric tons at the end of December 2011; they have nearly doubled since the end of the last lean season and are well above the previous year’s levels at the same time of the year. In The Gambia, commodity flows have been observed as fluid and food available all year around, with a well integrated market network able to adequately respond to increasing food demand at any given time and throughout the entire country (WFP, Urban Market Assessment).

**Wholesale stocks of imported rice, 2007 to 2011** (Source: DoT)

Given that about 30% of national cereal needs are usually covered by rice imports, food availability in The Gambia is not conditioned by domestic production alone as the population is able to source food from well-supplied markets. However, due to its continuous reliance on markets for regular access to imported food commodities the country is regularly exposed to price fluctuations on the international market; including price transmission and price volatility. Even though international rice prices are currently stabilizing, the expected drop in the overall cereal balance and the need for increased food imports will exacerbate the country’s exposure to possible price volatility in the next 1-2 years. Particularly vulnerable to changes in food prices on the domestic market are low-income urban households as well as farmers most affected by the current drop in domestic production.

**DID YOU KNOW?**

“214,000 metric tons is the expected minimum cereal gap for 2012 in The Gambia, or 68% of the estimated national cereal requirement”

(Source: WFP analysis, based on data from DoA, DoT, CILSS)
Food prices

Nominal food prices in The Gambia continue a growth trend which has resumed since December 2009, following a major price rise during the 2008 food price crisis. In particular, a continued price rise has been observed for domestic paddy and imported rice (100% broken), at all levels of sale. In the fourth quarter of 2011 the retail price of domestic paddy reached 16.8 Dalasi per kilo while for imported rice it stood at 18.6 Dalasi. The nominal price of local paddy is almost 10% higher than in the same period of 2010 and 34.5% higher than in the last quarter of 2008, whereas the price of imported rice is 19% above 2010 levels and only 1% below the peak level of the 2008 food price crisis. While at the wholesale and semi-wholesale level of sale the prices of imported rice seem to have stabilized since November 2011, paralleling a marginal decline of rice prices on the international market (-2.8% for Thai A Super), in December they still remained elevated and above the 2008 levels by 3.6% and 2.1% respectively.

Price transmission

In The Gambia, price transmission to the domestic market has generally occurred in intervals of 3-6 months after price changes on the international markets took effect. However, major rice traders in The Gambia report that due to supply constraints (Thailand, Vietnam and Pakistan), competing demand (PR China), increasing price volatility on the international markets and the gradual depreciation of the Dalasi against the US Dollar the pattern of rice supply to The Gambia has been changing. Generally, traders would now order smaller rice quantities, increase frequency of orders, shift sourcing towards South America as well as minimize borrowing on the domestic market. As a result, the lead time between price changes on the international market and those on the domestic market (wholesale and semi-wholesale) has been gradually decreasing and seems to have followed a real-time trend since the last quarter of 2010. The minimization of business risk on the side of traders means that the poorest and most vulnerable households are becoming increasingly exposed to possible price volatility on international markets and have less time to react should price changes become dramatic.

Coarse grain prices

The prices of major domestic coarse grains have dropped significantly in the fourth quarter of 2011 compared to the previous quarter (Maize: -10.3%, Millet: -8.2%) and are still lower than during the last quarter of 2010 (Maize: -2.2%, Millet: -6.6%). On average, Maize was recorded at 14.8 Dalasi per kilo, Millet at 13.8 Dalasi and Sorghum at 16.4 Dalasi. However, overall coarse grain prices remain elevated and with 28.9% well above the 2008 peak levels of the food price crisis (Maize: 31.7%, Millet: 18.3%, Sorghum: 36.7%). With 16.6 Dalasi per kilo, the retail price of unshelled groundnut is 2.4% higher than in the previous quarter and 15% above the 2010 price levels, while the price for shelled groundnut has decreased (-1.9% and -1.4% respectively).
Food Utilization

In October 2011, the Department of Agriculture (Planning), GBOS, Action Aid The Gambia, FAO and WFP conducted a joint Rapid Food Security Assessment (RFSA) to assess the food security situation in the most vulnerable areas of The Gambia, including predominantly urban districts, by evaluating household food consumption and coping patterns during the peak of the lean season (September). The results of the survey point towards a deteriorating trend where 12% of the previously food secure and vulnerable households in the surveyed areas were pushed into the food insecurity category, compared to a period with high food availability and abundant income opportunities (January 2011). The overall proportion of food insecure and vulnerable households increased from 16.7% to 37% with vulnerable households being at high risk to become food insecure.

In the urban areas, the proportion of households with severe food related coping (e.g. restricting adult consumption in order for children to eat, borrowing food or relying on help from friends and relatives) increased dramatically compared to January 2011 when the Comprehensive Food Security and Vulnerability Analysis (CFSVA) was conducted. Households and communities surveyed unanimously reported that they are able to buy less than the previous year with the same amount of income and attributed this mainly to rising food prices and cost of living.

Malnutrition

Through National Nutrition Surveillance, the National Nutrition Agency (NaNA) together with UNICEF measures on a biannual basis the wasting and stunting levels among Under-5 children in the rural regions of the country as indicators of malnutrition. Compared to 2010, overall wasting (too thin for height, an indication of acute malnutrition) has increased by 1%, affecting a total of 11.4% of under-5 children in 2011 and representing the highest record measured since 2006. The slight increase in the national average masks significant differences that can be observed on the regional levels. In particular, compared to the 2010 rainy season, malnutrition rates for wasting have increased in eastern parts of the North Bank Region (Lower, Central and Upper Baddibu) from 13.5% to 19.5% and in Lower River Region from 12% to 17%. Together with the Central River Region (19.5%) these three regions show evidence of highest rates of malnutrition in the rural areas of the country as of the second half of 2011.

I owe so much money for the purchase of food items at the market that I have to now resort to avoiding certain parts of the market”.

Female respondent from Banjul / Taboco Road (Source: RFSA)
Regional rates of Malnutrition - Local cut Off Point, 2010 - 2011
(Source: NaNA, UNICEF)

Proportion of malnourished Under-five children in urban areas, 2008 vs. 2011 (Source: NaNA)

<table>
<thead>
<tr>
<th>Malnutrition</th>
<th>2008 (VAMU1)</th>
<th>2011 (VAMU2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wasting</td>
<td>5.5%</td>
<td>5-6%</td>
</tr>
<tr>
<td>Stunting</td>
<td>14.7%</td>
<td>16%</td>
</tr>
<tr>
<td>Underweight</td>
<td>8.6%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Regional Food Security Strategy

Recommendations for Government and Partners:

For immediate action (1-3 Months)

- A comprehensive multi-sectoral response to address immediate food security and nutrition needs should be elaborated. Extensive support options should be available to assist preparations for the next planting season, particularly targeting seed security and livestock health.
- Additional vulnerability assessments should be conducted, in particular to determine the size, type and level of exposure of most impoverished urban populations towards food insecurity as well as other sector-specific needs in rural areas.
- Access to microcredit schemes should be enhanced, in particular linked to asset creation, lowering of household debts and increase of household purchasing power.

For mid- to long term action (4-18 Months)

- Employment opportunities should be created, in particular through public works in drought interventions and rehabilitation of infrastructure related to enhancing agricultural production and reducing disaster risks.
- Extension programs should be enhanced throughout relevant sectors with a focus on disaster risk reduction (DRR) and sustainable land and water management practices.
- Monitoring of food prices, vulnerable households’ terms of trade and climate predictions for the upcoming crop season should be expanded and early warning readily available.

According to NaNA’s Food Vulnerability Surveys (VAMU 1 and 2), in the urban areas there has been no improvement (wasting) or even a deterioration (stunting and underweight) in malnutrition rates between 2008 and 2011. In 2011, the estimated under-5 wasting rate in the urban areas is even higher than the rural area with the highest wasting rate (4.5% in CRR).

However, malnutrition being a late indicator of increasing food insecurity there are growing concerns about the expected drop in cereal production (affecting food availability) and declining purchasing power (affecting food access) at the household level in The Gambia. Past experience suggests that there is a high probability of malnutrition levels increasing further, in particular in most affected and vulnerable areas. For example, the sudden increase in malnutrition levels observed from 2007 to 2008 (+2%) correlates with a significant drop in cereal production in the 2006/2007 agro-pastoral season (-18% compared to previous year), during which below average and erratic rainfall significantly affected crop performance. Similarly, for 2012/2013 lower food availability and expected deteriorating of household food access will be key determinants of malnutrition.

Recent Publications:

The Gambia:

- Detailed Post Harvest Assessment (January 2012, DoA)
- Crop Performance Assessment (December 2011, Action Aid The Gambia)
- Rapid Food Security Assessment (November 2011, WFP)

Sahel:

- Regional Food Security Strategy (updated February 2012, IASC)
- Disaster Risk Management Strategy in West Africa and the Sahel (January 2012, FAO)
About the Daa Nyeeno:

The Food Security and Market Information Bulletin is the first of its kind tool for The Gambia which attempts to inform decision makers, policy and research on key issues pertaining to the complex subject of food security in the country. The main objective of the bulletin is to offer a systematic and holistic view of food security by looking at a variety of socio-economic trends that may affect household vulnerability and coping. This includes the timely provision of reliable data and analysis on issues such as but not limited to agricultural production, food trade and price trends, identification of groups most at risk to food insecurity, climate forecast etc. It serves relevant stakeholders for the identification of gaps, needs and proper responses to household vulnerability and food insecurity.

Daa Nyeeno is a joint effort of different government institutions, UN agencies and NGOs and is published on a quarterly basis. The next issue will be due in April 2012 and will cover the period of January - March 2012 (1st Quarter). This issue of the bulletin includes contributions from: Department of Agriculture (Planning), Department of Trade, Gambia Bureau of Statistics, National Environment Agency, National Disaster Management Agency, World Food Programme, Food and Agriculture Organization, UNICEF, IMF, Gambia Red Cross Society (GRCS), Action Aid International The Gambia and GreenTech Ltd.

Daa Nyeeno is made possible by the generous contribution of the European Union.

For more information please contact:
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At a Glance: Gambian Business against poverty, food insecurity and deforestation; wins Prestigious UN Award

The Gambian forest experiences severe overexploitation to meet the growing need for fuel wood, leading to loss of biodiversity, soil erosion and increased greenhouse gas emissions, while undermining the poorest household’s future livelihood base. At the same time, heaps of dumped groundnut shells from the country’s single biggest export product are causing a waste problem where land is scarce.

GreenTech Company Ltd is a Gambian-owned private business response to interconnected poverty, energy and environmental challenges in the country. Since August 2011 the company has been producing high quality fuel briquettes from groundnut shells as an alternative fuel for cooking and heating purposes at household and industrial level and promotes locally welded fuel efficient stoves for households, catering services, school kitchens, restaurants and attaya brewing. Through the combined use of biomass briquettes and fuel efficient stoves the company aims to reduce pressure on deforestation and emissions as well as improve the poorest households’ finances, health and cooking comfort – whilst making sustainable business. Compared to traditional charcoal use on open stoves, about 60% of the cost for cooking fuel can be saved with GreenTech’s innovation. This would translate into savings of up to 10,000 Dalasi (US $ 335) per year for a family of twelve cooking twice per day, or the total annual income of one person living below the extreme poverty line, in a country where 36.7% of people live on less than US $1 per day (IHS, 2010).

For its pro-poor and environmentally oriented business model GreenTech has been recently declared winner of the prestigious 2011 SEED Award together with 34 other aspiring entrepreneurs from developing countries, mainly Sub-Saharan Africa. SEED is a joint initiative of UNEP, UNDP and the International Union for the Conservation of Nature (IUCN) which has the objective to identify, profile and support innovative and locally driven enterprises that improve livelihoods, tackle poverty and marginalization, and manage natural resources sustainably by integrating social, environmental and economic benefits into their business models.

(Source: National Environment Agency, Seed Initiative, GreenTech Ltd.)