1) **Who is currently living on (e.g. communities, worker camps) and/or using (e.g. communities, charcoal producers) the GREL land for their livelihoods?**

There are currently some 10,000 people living on, or in close proximity to the GREL plantation. These 10,000 people are spread across 7 main villages and settlements that are comprised of families with an average of four or five children. Out of the 10,000 people from the community, the majority work for GREL as tappers, farmers and small traders (trading everything from water sachets, candles and batteries, to herbs, spices, and other household goods). About 30-35% of the 10,000 in the community are actually “by-passers” including a large number of illegal gold miners, household goods and consumables traders, truck drivers making stop-overs as well as those seeking opportunistic employment in the region.

The charcoal trade is highly informal so it is very difficult to provide an accurate estimate of charcoal producers operating in the area. Having undertaken discussions with the Chiefs of the seven traditional areas where GREL operates, we have understood that charcoal production in the GREL communities occurs on a very small scale, no larger than at the farming level and during the off-harvest season at the household level. There are unlikely to be any more than 50 individuals partaking in charcoaling at any given time. It is understood that the rubber tree is not ideally suited for charcoal production, given it is relatively lighter than other species of tree that are available in the area, and therefore it is not preferred for charcoal production at the household level, using instead other tree species available in their own farms.

The second types of charcoal producer, according to the Chiefs, are those that operate full-time, though, there are very few of these remaining. The large majority of these types of producers that have operated in the Takoradi area in the past have come from other parts of the country. They move around to areas where biomass may be available, produce charcoal and sell it in Kumasi or Accra. The Takoradi area is not known for being a charcoal intensive area, with relatively small amounts produced and used locally.

Based on discussions with GREL’s HR Manager and Chieftains, up until a few years ago there were four to five producers working in the area, so competition was stern. Ghana’s economic development however, has brought with it access to electricity, for even the most rural areas. GREL plays a part in this process by supplying electricity masts to areas currently unconnected to the grid, thereby extending the electricity network. As energy supply from the grid became more widely available, decreasing demand for charcoal has meant that only one or two charcoal producers are left operating in the area. This decline in demand has been further exacerbated by the fact that there are regular and plentiful supplies of gas, so only a small minority of people in towns still use charcoal to cook.

Furthermore, the Ghanaian government has made active efforts to introduce and promote gas usage in households, and it is now more common to find small gas bottles and firewood available on street markets in the area rather than charcoal. Gas consumption however is not subsidised, and is marketed through oil companies and distributed through private individuals. Although the gas is relatively inexpensive to consume, the empty bottle required to be filled with gas is expensive to buy upfront. At 70GHC, it amounts to an investment for a household, though this will last several years and prove cost effective to maintain. A comparison in cost of household fuels can be found below:

<table>
<thead>
<tr>
<th>Fuel</th>
<th>Price</th>
<th>Expected Lifespan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firewood (50x16cm)</td>
<td>2 GHC per Bundle</td>
<td>7 Days</td>
</tr>
<tr>
<td>Charcoal</td>
<td>2 GHC per 35KG</td>
<td>1-2 Days</td>
</tr>
<tr>
<td>Gas</td>
<td>19.8 GHC for 14.5KG</td>
<td>40 Days</td>
</tr>
</tbody>
</table>
Only a minority of people in the community use gas; most in the rural areas near the GREL plantation use firewood. Although gas is by far the most cost effective source of fuel, high initial outlays deter many. Charcoal is perceived to have several disadvantages in that it is smoky and dirty thus not ideally used indoors. As such, most people in the rural areas – who are able to cook outdoors - will always favour firewood over charcoal and gas use, as the happy medium between price and comfort.

We estimate that 36 m$^3$ of wood will be necessary to supply the needs of the one or two charcoal producers that are currently operating in the area. Having contacted these producers, we have agreed that stumps will be made available to them, such that there is no negative impact on their activity from our operations.

Aside from those collecting firewood, along with the few remaining charcoal producers, we are unaware of any other groups that rely on the GREL land for sustenance.

2) **Their economic activity**

Some 2300 people work both full time, and on a contractual basis on the GREL plantation, many of whom reside in worker camps. Those living in the area of the plantation live alongside those working in the formal sector, in the mining industry (legal and illegal) and some subsistence farmers.

Apart from tapping, trading and some firewood selling, subsistence farming is the main economic activity. Predominantly women and children will come to collect firewood from the GREL plantation. It is pertinent to note that GREL has never granted formal approval to the community to collect firewood, though will allow informal access to gather small branches and scavenge timber from the ground. TREL’s activities have actually enhanced the access of the community to the firewood in the GREL plantation, and for the first time, the community has formal approval to enter the blocks and gather firewood for their own use.

3) **Is TREL activity likely to impact homes or livelihoods**

No complaint has been received with regards to increased traffic or safety – we have taken all the possible measures to warn people about our activity. Furthermore, the TREL scope of activity does not differ greatly from that which is currently being undertaken by GREL with rubber production.

TREL’s activities present no negative externalities to homes or livelihoods in and around the GREL plantation. Our biomass sustainability agenda covers a number of environmental, ethical and social criteria, thereby ensuring we are not impacting the indigenous people. Within this agenda we have promised to not endanger the food supply or communities where the use of biomass is essential for subsistence. Indeed the TREL project offers undeniable advantages for local communities as for example that of an easier and more standardized access to small volumes of biomass that are used directly as firewood. The project will also create for local communities additional income because of the creation of direct jobs related to extraction, transportation and storage.

Safety is a primary concern for TREL, and we have subsequently gone to great lengths to ensure that both our workers and those in the vicinity of out activities are well protected. We have erected several large signs that warn of areas that may present hazards to those passing through, such as increase traffic volumes or heightened felling activities. All our workers are given protective clothing including helmets, luminous jackets, gloves; specially protected trousers and eye wear to ensure their paramount safety. Such measures act not only in protecting those partaking in TRELs activities, but also as a highly visible measure of work in progress. Furthermore, we cease all operations during times of adverse weather, so as not to disrupt the mud tracks by our heavy machinery that are used by the local populous.

TREL in no way obstructs nor accesses land that is not first verified by the GREL management team. By doing so, we ensure that we are not infringing land held privately, and are adhering to a designated and predetermined felling plan that is free from disputes.
4) Mitigation measures planned.

TREL seeks to facilitate the requirements of the charcoal trade through an initiative wherein the stumps of felled trees are collated and piled by the roadside for manufacturers to take at will. However, we have noticed that no stumps have been taken, nor indeed have we received any requests for biomass from charcoal producers. This is likely to be a direct consequence of the low levels of charcoal production in the region, as well as the unsuitability of rubber trees for this purpose. The one or two known charcoal producers in the area have been contacted and offered the stumps.

As mentioned before, we have also introduced another initiative by which we allow free access to people in the community to collect firewood for use in their households. This has undeniable advantages to the community (especially the women, who are normally the ones collecting the wood), since it saves them valuable time to find standardized small pieces of firewood, which they are able to carry.

Furthermore, GREL has agreed to direct to each one of the seven traditional areas that are covered by ACLANGO (Association of Chiefs whose Land GREL operates) a total amount of €5,000 per year, as a direct pass through from the biomass payment GREL receives from TREL. Please see Annexes for minutes of the meeting where the communications were held and the positive reception of the Chairman of ACLANGO on behalf of the Seven Chiefs.

Finally, as a long-term partner to GREL, TREL is committed to sustaining, and indeed furthering the mission statement set out by GREL to benefit the social make up of the region. Key attributes to this policy include:

- The out grower project that benefits over 2,700 farm families, supports employment and improves income levels and standards of living; this is helping to reduce the urban drift and creating a source of livelihood for otherwise unemployed youths;
- GREL also assists the local communities in their development programmes through ACLANGO (Association of Chiefs on whose land GREL operates); some of the development programmes include schools, town halls, public toilets, roads etc;
- GREL is currently contributing positively to Ghana’s educational system and has two first-cycle schools at Tsibu and Nsuaem; it has also constructed several schools and nurseries for some selected communities, organizes free vacation classes for children in its operational area and grants scholarships to brilliant but needy children of the communities to further their education;
- GREL’s clinic at Abura extends medical services to residents of the communities and the general public;
- Through technical assistance programmes from institutions such as CIRAD-CP and Michelin of France the company transfers technology to Ghana;
- Through the development and expansion of the plantations, infrastructure is extended to remote rural communities, which hitherto, were inaccessible – thus complementing the development programme of the Ghanaian Government.

Finally, please refer to Annex 3 for a detailed account of GREL corporate social spending in 2011 as a guide of the activities that TREL will be able to support with the further injection of funds to the community via GREL.
Annex 1

MINUTES OF MEETING HELD BY GREL WITH TREL AND ACLANGO
ON TREL’S RUBBERWOOD BUSINESS WITH GREL
ON THURSDAY, AUGUST 18, 2011, IN TAKORADI

Present
TREL: Athol Smith
Sonia Medina

ASSOCIATION OF CHIEFS ON WHOSE LANDS GREL OPERATES (ACLANGO):
Awulae Agyefi Kwane II (Chairman and Paramount Chief of Nsein Traditional Area)
Nana Ghanteh Panyin III (Secretary, Divisional Chief of Abura)

GREL:
J. C. Garbrah – Human Resource & Administrative Manager

1. Opening and Introduction - Mr. Garbrah opened the meeting at 3pm and put its agenda in context. He said GREL had been looking at improving the value it gets from its old wood for several years. He said the wood taken by local contractors is helping GREL clear the land, but does not bring any income to GREL or to the Chiefs in our operational area. He said GREL has signed an agreement with Takoradi Renewable Energy Limited (TREL) to sell its old trees to them. TREL is the subsidiary of Africa Renewables, a London based biomass Company. The operations of TREL will consist of felling the trees with excavators, pull them to the road with skidders and chip the wood into wood pellets that will be transported by articulator trucks to their storage area, situated close to Takoradi. The biomass will then be sold to local and foreign customers. The operations of TREL will start with the next felling season and will last until all our Old Farms will be cut, in 2019. A portion of the wood will be reserved to feed the local firewood market.

Mr. Garbrah said in order that the new business with TREL shall inure to the benefit of the Chiefs in the company’s operational area, GREL Management had decided that Euro 35,000 (Thirty five thousand euros), denominated in cedis, out of the proceeds from the business with TREL shall be ceded to Stools in the seven traditional areas for the upkeep of the stools within the duration of the contract with TREL. He said this amount will solely be used by the chiefs to buy, for example, stool regalia and other items needed by the chiefs. In addition, he explained the “wood money” is totally different from the annual amount set aside for Corporate Social Responsibility (CSR) projects in GREL’s operational area.

Mr. Garbrah informed the meeting that the operations of TREL will witness movements of equipment and trucks on the plantation – and the surrounding communities – but assured the chiefs that high safety precautions will be taken to avert hazards.

2. Response from Chiefs – The Chairman of ACLANGO, on behalf of his colleague (and all the chiefs) expressed his gratitude to GREL for the gesture and said ‘it’s a dream come true” adding that, “we who own the land can now take part in the rubber business.” He said the issue will be discussed with the executive committee of the association before meeting with the entire membership of ACLANGO in September to share the ‘good news’ with them.

3. Disbursement of the Money by the Association – The following modalities were agreed upon with regard to the disbursement of the money by GREL:
• GREL shall pay Euro 5,000 directly to the accounts of each of the seven traditional areas.
• Each traditional area shall constitute a 3-member Steering Committee to manage the fund. The steering committee shall be made up of the Paramount Chief, a Divisional Chief and an Odikro.

GREL shall exercise oversight responsibility for the general disbursement of the fund.

4. Employment by TREL - The Chiefs entreated TREL to, as much as possible, employ the indigenes of the communities in their operations. TREL Management responded positively to the chiefs’ request and in addition said items such as food shall be purchased within local communities to boost local business.

5. Closing – The meeting closed at about 4pm.
MINUTES OF MEETING BETWEEN ACLANGO, GREL, TREL AND THE WORLD BANK REPRESENTATIVE HELD AT THE ACLANGO SECRETARIAT ON THE 9TH NOVEMBER 2011

All parties seated at 11:00am
Prayers by Nana Ghanteh Panyin III (Secretary)

ACLANGO EXECUTIVE MEMBERS
Awuale Agyefi Kwame II –Chairman
Afulael Angama Tu-agyan II- Vice Chairman
Afulael Attribrakuusu – member
Nana Kvesi Agyemman –Member
Nana Ghanteh Panyin III- Secretary
Nana Asaa Kofi III- Treasurer
Nana Kuranchie III – Vice Secretary
- Nsein
- Bamiankor
- Lower Axim
- Lower Dixcove
- Abura
- Kyekyewere
- Essamang

GREL OFFICIALS
Mr. Lionel Barre – Managing Director GREL
Mr. J. C. Garbrah – Human Res. & Admin. Manager-GREL

TREL OFFICIALS
John W. Parterson – Director of Operations
Mr. Wain Eltol Smith – Field Production Manager

AFRICA RENEWABLES LTD
Sonia – Chief operating Officer

WORLD BANK REP.

The chairman welcomed the visitors to the house and prayed for a successful deliberations. The Vice secretary officially introduced ACLANGO Executive members present, to the visitors whiles Mr. J. C. Garbrah, also introduced officials from GREL, TREL and the World Bank respectively.

Mr. J. C. Garbrah said, GREL had come to officially introduce TREL officials to Nananom and to inform Nananom of a contractual agreement between GREL and TREL. Mr Garbrah enumerated the need for the contractual agreement between Grel and Trel as follows:
- That, employment for our youth is guaranteed.
- That, economic importance of the dead rubber trees is fully realized.
- That, Nananom shall realise 35,000 Euros annually as royalties.
- That scholarship to our wards shall be enhance.
- That Trel shall complement Grel social co-operate responsibilities

Brandon Carter on his part said TREL had applied for world bank loan to finance their operations and particularly mentioned the purchase of a chipper and a biomass plant, to support the energy power generation in overseas.
MINUTES OF MEETING BETWEEN ACLANGO, GREL, TREL AND THE WORLD BANK REPRESENTATIVE HELD AT THE ACLANGO SECRETARIAT ON THE 9TH NOVEMBER 2011

All parties seated at 11:00am
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ACLANGO EXECUTIVE MEMBERS

Awuale Agyefi Kwame II –Chairman
Awualee Angama Tu-agyan II- Vice Chairman
Awualee Attribrukusu – member
Nana Kwesi Agyeman –Member
Nana Ghanteh Panyin III- Secretary
Nana Asaa Kofi III- Treasurer
Nana Kuranchie III – Vice Secretary

GREL OFFICIALS

Mr. Lionel Barre – Managing Director GREL
Mr. J. C. Garbrah – Human Res. & Admin. Manager-GREL

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### Annex 3 – GREL Corporate Social Responsibility Spending (2011)

#### GREL Corporate Social Responsibility 2011

**ACLANGO PROJECTS 2011**

<table>
<thead>
<tr>
<th>No</th>
<th>Community</th>
<th>Project Title</th>
<th>Project Cost GHc</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ankyernyin</td>
<td>Furniture for KG School</td>
<td>1,960.00</td>
</tr>
<tr>
<td>2</td>
<td>Dadwen</td>
<td>Furniture for JHS</td>
<td>4,410.00</td>
</tr>
<tr>
<td>3</td>
<td>Abura - Gyabenkrom</td>
<td>Electricification Project for new School</td>
<td>29,478.50</td>
</tr>
<tr>
<td>4</td>
<td>Essaman-Wassa Fixe</td>
<td>Community Centre</td>
<td>63,779.00</td>
</tr>
<tr>
<td>5</td>
<td>Ankyernyin</td>
<td>KVIP Toilet + 2 Urinal</td>
<td>12,016.80</td>
</tr>
<tr>
<td>6</td>
<td>Tetrem</td>
<td>10 Seater KVIP Toilet</td>
<td>39,404.00</td>
</tr>
<tr>
<td>7</td>
<td>Ahweasu - Nsoan</td>
<td>Toilet + Urinal</td>
<td>54,016.50</td>
</tr>
<tr>
<td>8</td>
<td>Afiameko</td>
<td>Construction of double (3x1.5)m box culvert</td>
<td>158,156.36</td>
</tr>
<tr>
<td>9</td>
<td>Mpatase</td>
<td>Community Centre</td>
<td>55,931.16</td>
</tr>
<tr>
<td>10</td>
<td>Ilanso - Ahanta</td>
<td>Rehabilitation of Hand Pumps</td>
<td>2,734.00</td>
</tr>
<tr>
<td>11</td>
<td>Apimenvm No.1</td>
<td>Construction of Well +Hand Pump, Rehabilitation of Old Well + Pump</td>
<td>8,382.00</td>
</tr>
<tr>
<td>12</td>
<td>Onzaeye</td>
<td>3 Unit Bedroom for Teachers</td>
<td>67,078.32</td>
</tr>
<tr>
<td>13</td>
<td>Abura - Gyabenkrom</td>
<td>Construction of Box Culvert for new School</td>
<td>0,804.52</td>
</tr>
<tr>
<td>14</td>
<td>Abura - Gyabenkrom</td>
<td>Repair of furniture for new School</td>
<td>3,120.00</td>
</tr>
<tr>
<td>15</td>
<td>Abura - Gyabenkrom</td>
<td>Construction of 6 classroom block, office and store – new school</td>
<td>263,516.81</td>
</tr>
<tr>
<td>16</td>
<td>Abura - Gyabenkrom</td>
<td>8 – Seater KVIP + 4 Urinal for new school</td>
<td>90,480.23</td>
</tr>
<tr>
<td>17</td>
<td>Abura-Gyabenkrom</td>
<td>Construction of Canteen + store room for new school</td>
<td>39,111.20</td>
</tr>
<tr>
<td>18</td>
<td>Abura - Gyabenkrom</td>
<td>Drilling of Hand dug well+Pump for new school</td>
<td>4,076.00</td>
</tr>
<tr>
<td>19</td>
<td>Abura - Gyabenkrom</td>
<td>Extension of electricity to new school</td>
<td>31,478.50</td>
</tr>
<tr>
<td>20</td>
<td>Tumentu - Ahanta</td>
<td>10 Seater KVIP Toilet</td>
<td>42,076.10</td>
</tr>
<tr>
<td>21</td>
<td>Essuogya – Mile 5</td>
<td>Assistance: trips of sand +fuel</td>
<td>3,000.00</td>
</tr>
</tbody>
</table>

**TOTAL** 981,971.10 GHc

#### Other Corporate Social Responsibility Projects

<table>
<thead>
<tr>
<th>No</th>
<th>Location</th>
<th>Project Title</th>
<th>Project Cost GHc</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agona Nkwanta Police Station</td>
<td>Extension of offices</td>
<td>16,940.95</td>
</tr>
<tr>
<td>2</td>
<td>Dixcove Hospital</td>
<td>Renovation works at the Maternity Ward</td>
<td>13,772.88</td>
</tr>
<tr>
<td>3</td>
<td>Kwesimintsim Police Station</td>
<td>Filling of roof</td>
<td>6,858.64</td>
</tr>
</tbody>
</table>

**TOTAL** 37,122.43 GHc

GREL SCHOLARSHIP SCHEME FOR COMMUNITIES 2011

1. Students from communities – 14
2. Wards of staff - 12