

Here To Stay.

Building Lives

Sustainability Report

CASE STUDY: Sustainable Development



Patron of the Community

The communities and Aitken Spence Plantations interact very closely, with the company addressing critical needs of the community by enhancing education, awareness and promoting good practices.

Some of the initiatives taken during the year include the following:

- The Company has in place several committees that focus on developing plantation communities, including the Crèche Development Committee, Mid Day Meal Project committee, Road Rehabilitation Project committee, Welfare Societies and Cooperative Groups as well as holding membership in the Plantations Human Development Trust (PHDT).
- Annual staff networking functions which coincide with Staff Performance Awards at the estates. The plantations management also gets closely involved with the staff and villagers to mark festive occasions.
- The company provides crèche facilities to about 45 units, which can accommodate 1,485 children. These crèches are developed to the level of pre schools and are managed by qualified and trained Child Development Officers. A mid day meal is provided at all child development centres. The efforts of our plantations were recognised at the PHDT annual awards when the trust awarded the Gulugahakanda estate crèche facility the rank of Best Child Development Centre out of 420 estates in the country, citing high standards of quality in the health and welfare of the children and the standards of activities carried out towards improving the literacy of estate workers' children. Total spending to maintain the creche facilities in all estates in 2010/11 was Rs. 23.9 million.
- Plantations provide health facilities including prenatal and antenatal clinics at all estates with free vaccination and medical checkups. Each estate has a medical officer who looks into these programmes. The company has also made available four ambulances, three for the up-country clusters and one for the low-country clusters, to minimise the time taken to transport serious patients to base hospitals.
- During pregnancy, female workers are given 'light work' at a location close to their homes and a 'Nursing Interval' of 12 months is extended to all new mothers. A qualified midwife looks after the wellbeing of expectant mothers at each estate.
- Aitken Spence Plantations in association with the the Merrill J. Fernando Charitable Foundation provides educational scholarships to children of estate workers. This includes scholarships to students who have been accepted to university and students who have performed well at their GCE Ordinary Level Examinations. Currently, there are 20 scholarship recipients and the total number of student to receive these scholarships to date is 130.
- The plantation sector recognises that its success is intrinsically linked to its workers. Therefore, the health of workers is of paramount importance. During the year, Elpitiya Estate organised free medical camps and eye camps for workers and also conducted a 'Well Woman' clinic and a workshop to create awareness of Sexually Transmitted Diseases (STD). Sheen estate conducted antenatal clinics, expanded immunization and contraception clinics for orkers which were also extended to villagers. Similar programmes were also

held at Guluahakanda, Ketandola, Talgaswella, and Dunsinane estates.

- The plantations also encouraged community spirit by organizing and supporting events such as annual trips, get togethers and pilgrimages while the community was also brought together to conduct shramadana campaigns at several instances.
- With the aim of improving the quality of life of plantation staff, many awareness programmes have been conducted, specifically addressing issues such as Dengue prevention (at Lelwala, New Peacock, Sheen and Tangaswella estates) and prenatal and antenatal care (at Talgaswella, New Peacock and Dunsinane).
- The company has also partnered the Ministry of Livestock & Rural Community Development in a special project to concrete roads in the Nuwar Eliya region. Full length of the road developed by Dunsinane, Fernlands and Sheen estates was 1.84 km at a cost of Rs. 6.7 million in 2011 in addition to which another 35 km was developed under the Plantation Development Project (PDP) at Rs. 43.4 million.
- Total spending on developing field rest rooms, water schemes, play grounds, places of worship, social development centres, re-roofing and rehabilitating internal roads was Rs. 55.3 million.
- The estates also pay special attention to the education of the children of its workers. Total spending on various activities carried out in 2010/11 at the estates is approximately Rs. 1 million with over 1600 students benefiting from these activities.
- Directing the funds granted by the PDP, skills development programmes were conducted for members of the Quality Circles at a total cost of Rs. 942,182. Funds directed towards programmes to prevent alcoholism is Rs. 233,885.

Environmental conservation

In the context of the plantations sector, environmental conservation is two pronged – controlling soil erosion, soil pollution, water pollution and land loss caused by the

process of cultivation and managing the energy consumed by estates and tea/ rubber/ palm oil factories.

Rubber cultivation may cause considerable damage to water streams and soil quality if not managed properly. Our estates consumed 35,752 m³ of water in the production of rubber during the year. Many of the rubber estates use sand pits to filter the contaminating solids from the water before it is directed to central drainage systems. At our low country estate cluster II, approximately 4.5 m³ of water is taken from ground water wells and streams daily, for domestic use as well as for rubber manufacturing. The cluster of estates span across 952.44 ha and the cluster also manages a forest area of 29.22 ha where the forest cover is not disturbed.

At the Deviturai estate of this cluster, a new secondary level wastewater treatment unit, including anaerobic and aerobic tanks and a clarifier tank, was constructed. This followed tests carried out on a collection of water samples for contaminant levels. Henceforth, water samples will be tested randomly for Biochemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) levels from Deviturai as well as other estates to identify and mitigate significant impacts to the environment gradually. Deviturai Estate tea factory recently received ISO 22000:2005 certification for food safety management.

The tea estates of the Aitken Spence Plantations do not produce any effluents or waste water that can be considered significant enough to require immediate attention. The estate management has undertaken to minimise, and eventually eliminate, the spraying of pesticides to control tea tortrix by pursuing biological methods such as the collection of egg masses and moth traps.

To address soil pollution caused by chemical fertilisers, estates use compost as the preferred choice of fertiliser wherever possible. The Plantations team is in the process of replacing artificial fertiliser with organic fertiliser to minimise the impact to the soil, by moving into site specific fertilising, which provide only the required nutrients without excess chemicals. Compost pits are also maintained in the estates for this purpose with the long term goal of

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replacing one round of artificial fertiliser with compost/ organic fertiliser in all the estates.

There were no reported incidents of significant release of hazardous substances which have adversely affected human health, land, vegetation, water bodies or ground water during the year. No incidents of violations of stipulated environmental laws and regulations have been reported.

The plantations also grow leguminous cover crops in order to improve soil properties, reduce soil erosion and to control the growth of weeds which would otherwise require chemical fertilisers/ weedicide. Aitken Spence Plantations work with their communities to reduce their solid waste generation and also harvests rain water to improve moisture content in the micro environment.

Our plantations span over 4410.57 ha of mature land and 1201.98 ha of immature land and none of our estates are within a 20 km radius to any nature reserves or protected areas. Aitken Spence Plantations have a continuous Forestry Management Programme which has helped to preserve and improve the biodiversity in the plantations and enhance their environmental value at large. Currently over 700 ha of forest has been planted by the Company. The forestry management programme includes the plantation of Eucalyptus Grandis to fuel the withering process, instead of using electricity or nonrenewable fuels.



Energy Efficiency

The Plantation sector is passionate about energy efficiency and has been investing in environmentally friendly projects such as mini hydropower plants, fuel switching and process improvements in order to reduce energy costs while also reducing emissions. Among the micro level efficiency improvements carried out by the sector's engineering team are fuel switching and power factor correction systems and Fibre Reinforced Plastic (FRP) fan installation.

A comparison of consumption levels during the years between 2008 and 2011 showed that energy saving in the estates amounted to approximately 1000 kVA units per month, a saving achieved with no production cutbacks or outsourcing of production. The energy savings were also enabled through process redesigns and efficiency improvements.

Efforts taken to achieve this include;

- Workshops in collaboration with Sri Lanka Sustainable Energy Authority (SLSEA) on "Possible Energy Efficiency Improvements in Tea Factories" to educate up country estates about day-to-day best practices to reduce energy consumption.
- A tariff structure change (except rubber factories) necessitated greater control over energy usage in order to control consumption costs.



- Separate utility connection lines for estate buildings and the factory enabled closer monitoring of usage patterns of each building.
- Installed energy efficient FRP trough fans – replacing inefficient aluminum fans.
- Installed power factor correction systems at all factories, which reduces the reactive power taken from the utility and thereby helps the stability of the national grid system.

A more long term project undertaken by the Aitken Spence Plantations is the commission of Mini Hydro Power Plants (MHPP) within estates which sell generated power to the national grid. Mini-hydro is a preferred method of power generation since the damage caused to the topography of an area is eliminated from the equation and the produced energy is cleaner than that of larger scale energy projects.

The commission of a 560 kW MHPP at Sheen estate in October 2008 brought about an estimated annual income of Rs. 33 million for the first year, vis-à-vis a total project cost of Rs. 130 million. In fact, the annual generation at Sheen in 2009/10 and 2010/11 has enabled Elpitiya Plantations PLC to edge close to Energy Neutrality. In the year 2009/10, the consumption was at 3.319 GWh and generation of energy was at 2.592 GWh. This gap was closed further in 2010/11 when the consumption was 3.529 GWh and the generated power was 3.174 GWh.

Similar MHPPs are being planned for other up country plantations and four new sites have been identified for MHPPs ranging in capacities from 200 to 900 kW. Feasibility studies are presently being carried out for three of these projects totalling a capacity 1.9 MW, at an estimated investment of Rs. 360 - 400 million and projected revenue of approximately Rs. 100 million in the first year. The Group has also commenced a 2.5 MW hydro power project in Matale.