

Tea Sustainability Awards 2017

Eastern Produce Kenya Limited - Environmental Initiative

The Initiative

Eastern Produce Kenya Limited abides by the principle of “wise-use” through education and hands-on practical management and sees this as key to a healthy environment and the future sustainability of tea operations and natural resources

Targets and key performance indicators of the program include:

1. Incorporate awareness of environmental and ecological issues into the day to day management of the operation including:
 - a. Managing water resources
 - b. Prevention and control of soil erosion
 - c. Re-afforestation and enrichment of indigenous forests
 - d. Conservation & Biodiversity management
 - e. Sustainable forestry management
2. Implement constructed wetlands for treatment of factory effluent and waste water.
3. Develop a partnership with local authorities, the workers, surrounding communities and community organizations to enhance socio-environmental programs
4. Implement Environmental policies, management plans and sustainable utilization of natural resources.

Objectives

The program was conceived to achieve the objective of the environmental policy of the Company which includes the following:

- a. To recognize that economic development may result in both adverse and beneficial environmental change. Sustainable development seeks to maximize the potential of environmental resources, to mitigate any adverse impacts on the environment, and where possible to increase the supply of environmental assets.
- b. As part of our business objectives we therefore:
 - Seek the efficient use of natural resources;
 - Seek investment opportunities where sound economic development is coupled with the protection and improvement of the environment;

- Avoid investments where impacts on communities and the environment have not been properly considered and mitigated in their design.

The above has been integrated into the core strategy of the company as listed below:

1. EPK ensures that the environmental effects of its investments are assessed and monitored in the planning, implementation and operational stages.
2. The business is designed and operated to comply with the national legislation.
3. EPK will not knowingly support businesses which contravene any relevant international environmental agreement to which the country is a signatory.
4. EPK will assess the environmental standards and practices for planned projects and achieved by operational projects with reference to local regulations.

The success of the project has been the involvement of both employees and the surrounding community in conserving the environment. The rehabilitation of riverine areas has improved biodiversity and created sanctuary for indigenous Flora from the deforestation in surrounding areas. The use of forests and natural resources in traditional ceremonies and practices is part of the local community's culture and by sustainably maintaining the diversity it assists in ensuring that indigenous knowledge and practices are maintained. By ensuring that the interests of the employees and the surrounding community are addressed through sound environmental practice it ensures a good clean working relationship.

Impact

The results of the project, is an environment rich in biodiversity and the conservation of natural resources (soil, water, fauna and Flora) through rehabilitation, conservation of resources and using natural resources in a responsible and sustainable manner. The sustainability and the coverage is summarized in the table below but the estates alone are 10612 Ha but the impact of the initiative can be felt over a larger area.

Proportion of land covered by Forests					
Estate	Total Estate Ha's	Natural Vegetation (Riverine strips & conservational areas)		Industrial Plantations (Fuelwood & Timber)	
		Ha's	% of the Total Ha's	Ha's	% of the Total Ha's
Kibabet	1955.37	694.82	35.53%	729.73	37%
Kapsumbeiwa	1230.87	187.32	15.22%	145.53	12%
Kipkoimet	459.32	76.09	16.57%	28.91	6%
Kepchomo	795.77	11.35	1.43%	128.53	16%
Siret	964.73	242.63	25.15%	190.65	20%
Kaboswa	966.89	82.55	8.54%	259.23	27%
Clients Operations	444.53	64.81	14.58%	11.93	3%
Kibwari	495.15	122.49	24.74%	106.58	22%
Savani	1015.96	289.36	28.48%	118.89	12%
Sitoi	1040.71	398.98	38.34%	110.97	11%
Chemomi	1242.77	382.25	30.76%	141.6	11%
Total /Average	10612.07	2552.65	21.76%	1972.55	16%

As a result of our environmental conservation measures, Nandi hills is one of the few regions in Kenya that receives rainfall throughout the year consistently. The consistent rainfall patterns enable the community and the company sustains the economic status and flow of the region. The waterfalls and natural springs attract tourists both local and international. Students from neighboring universities come

for their research in Nandi as it is one of the remaining natural sites that one can come across in the world.

Our communities' rich cultural heritage is maintained, with use of forests for traditional medicines, honey for food and sites for traditional ceremonies and prayers. The peoples' usage of forests that include water collection from the natural springs, fuel wood, medicinal herbs, building poles and food all are attributed to environmental conservation

Food security is realized as the consistent rainfall supports subsistence agriculture by the local communities. Organic waste from factories and homes are used in the small kitchen gardens enabling the communities make use of vegetables throughout the year. Herbs and spices like pepper make part of the kitchen gardens and bring in the concept of Integrated Pest Management where they are used to keep the pests away. Another concept is mixed kitchen gardening which discourages pests like aphids as they get no plants to host them or get repelled by some plant species

Pollution in Nandi hills almost unheard of; the trees provide natural air that makes the region therapeutic for those coming from the cities. Our non-biodegradable waste from the factories like the bins are recycled and used as flower pots, from our villages the containers are used for the tree nurseries.

Awards and certifications; we have received recognition for our environmental conservation program that has encouraged our employees as well as our communities take up more initiative to care for the environment. As communities continue to be aware of the rich environment we have, they continue to take up action to ensure that it is maintained as so for their future generations. This knowledge is very important as parents and local community members are the best teachers/influence for their younger generations.

All projects are developed with a long term view of ensuring that the natural resources are utilized and conserved in a sustainable manner and some initiatives to do this include:

- Enrichment of natural forests. Plant species having been identified as suitable and indigenous to the area and list developed to guide management and employees on what to plant where. These include medicinal, water preserving, bee, birds and other fauna attractants to improve biodiversity. Plant and animal lists for the estates are being compiled and update continuously. Natural regeneration of indigenous trees from nature's seed bank and other techniques on natural forests management including transects have been implemented. Nurseries have been established and seedlings distributed to both the estates and surrounding communities to improve the catchment areas.
- Between 30m and 50m strips of natural vegetation are being left along water catchments. This is in an effort to conserve the water resources of the area.
- Industrial fuelwood plantations are regenerated through replanting and coppicing and managed on a sustainable basis.
- Factories have been fitted with modern boilers that are efficient and consume less energy with more output.

- The conservation of riverine areas and implementation of erosion reduction measure improves the quality and availability of water on the estates and the surrounding communities.
- The constructed wetlands and containment of waste from the factories reduces the possibility of contamination of the water sources.
- The self-sufficiency of the estates in terms of fuelwood requirements reduces the necessity to expand commercial forestry or encroach into indigenous forest areas.
- The use of energy saving Jikos (stoves) in the villages has also reduced the necessity of the employees to obtain fuelwood from the natural forest areas.

The direct beneficiaries of the project are all the employees of EPK in excess of 9000 as well as the outgrowers which is an additional 8500 families registered with EPK. In terms of families one could multiply this by an average of 4 members per family. This does not take into account those that neighbour the estates and have direct involvement with the Company. The total direct impact is on over 200,000 people.

Innovation

It is said that the best way to influence others is to lead by example; being at the forefront of environmental conservation has been our strategy to running a successful program. We lead in terms of forest management, waste management, and employee welfare and biodiversity conservation.

We believe we positively and hugely influenced the tea industry through our initiatives. Most of the current programs being promoted in the tea plantations were our brain child. These include:

- Use of Constructed wetlands as a means of treating factory waste water
- Improvement of Employees houses
- Introduction of Food security programme for employees
- Indigenous forest management and enhancement
- Empowerment of local communities economically and socially
- Use of Energy Saving Stoves in employee house
- Involvement of employees in decision making through environment committees

Our forest enrichment program involves planting trees native to the Nandi hills. This assures us of successful reforestation as well as care for the different species of wild animals found within our indigenous forests.

Encouraging communities to eat sustainable organic foods – Our program has dubbed this the indigenous vegetables and quantified the amount of nutrients found in each of the indigenous vegetables that as a result has encouraged uptake, making each household care for their kitchen gardens

Replication

We believe that in order to replicate an initiative, one needs to understand the structures that support it. The program is well articulated and as a result other Tea factories from within Kenya and abroad have begun similar initiatives after visiting and seeing the successes we have achieved.

EPK has a dedicated Technical department that is responsible for implementing, monitoring and evaluating the impact that the company's operations have on the environment. Personnel within the Department include a Technical Development Manager, Compliance and Environment Manager, Community Liaisons Manager, Forestry officer, Secretary and Laboratory assistant. A total of 6 staff are dedicated to maintaining standards and measuring performance.

The laboratory conducts water quality analysis and co-ordinates the collection of leaf and soil samples as well as black tea for MRL analysis. This is to ensure we monitor the product quality and impact on the environment.

The Technical department co-ordinates the efforts of the group and develops strategies for its implementation in consultation with the Environmental consultant that visits the estates on a quarterly basis.

The divisional managers within each of the divisions on the estates are then responsible for implementing these initiatives.

Village environmental committees are established within the villages in the estates that help drive the programs and to offer feedback to management on what is required to improve the initiatives.

In terms of the surrounding community we have a dedicated General Manager Client Operations who has a dedicated team focused on the Outgrowers and neighbouring communities. They have appointed extension officers to assist the Outgrowers with Environmental and sustainability issues as well as ensuring that the surrounding community and stakeholders have a feedback mechanism into the management of EPK.

Farmers/Educational days are also arranged to facilitate the dissemination of information. Audit sheets have been developed by the Environmental consultant to monitor progress of the initiatives both on the estates and the outgrowers and to ensure continuous improvement of the program. The involvement and hands on approach of senior management as well as all employees accompanied by the Outgrowers from the surrounding community ensures that there is adequate participation from all stakeholders affected by the environment.