



## **Eco-Libris Assessment – Third Year of Operation (July 2009 – July 2010)**

**Sustainable Harvest International (SHI)**

**Prepared by: Justin Trezza, Field Program Director**

### **1. General Information**

- 1.1 Name of organization: [Sustainable Harvest International](http://www.sustainableharvest.org)
- 1.2 Name of President: [Florence Reed](#)
- 1.3 Year of establishment: 1997
- 1.4 Registered in (country): [USA](#)
- 1.5 Countries of operation: [Belize, Honduras, Nicaragua and Panama](#)
- 1.6 No. of trees planted so far: [2,764,471](#)
- 1.7 No. of trees planted in the 12 months ending on July 1<sup>st</sup>, 2010: [242,166](#)
- 1.8 Average survival rate of trees: [90-94%](#)

### **2. Eco-Libris tree planting's operations (these questions refer to the trees planted on our behalf): 19,300 Trees**

2.1 Out of total number of 19,300 trees and as of July 1<sup>st</sup> 2010, how many trees have been planted? How many are still growing as seedlings in nurseries and how many are at prior stage (seedlings haven't been purchased yet)?

[As of July 2010, 14,650 tree saplings had been transplanted to their respective areas, whereas 4650 were still in nurseries and scheduled to be transplanted December / January 2010.](#)

2.2 In what countries/areas the trees were planted? Please fill in the attached excel and be specific as possible

[Trees were planted primarily in Panama, and some in Belize. Of the total number of trees, 15,986 were planted in rural communities in Panama and 3,314 in southern Belize.](#)

2.3 Please provide the planting schedule in these areas (when the seedlings are planted in nurseries, what are the months of planting, etc.)

Planting schedules varied this year due to an unpredictable dry and rainy season, though with close approximation we can state:

- **July to August '09:** Nurseries established with **7,350** trees. Nurseries include, *Tabebuia rosea*, *Swietenia macrophylla*, *Cordia allidora*, *Azardachta indica*, *Morus alba* and other. Most species are native hardwoods, with a few exceptions such as *Azardachta indica* or Neem, a native species to India. **All trees were transplanted from December to January.**
- **October to December '09:** Nurseries established in Belize for **2,195** trees including *Theobroma cacao*, *Swietenia* sp., and *Gliricidium* sp.
- **January to March '10:** Nurseries established with another **3,350** trees. Species and varieties were similar to the aforementioned, but also included coffee, *Dolbergia retusa*, *Tabebuia guayacan*, *Cedrela odorata* and others. During this period farmers would also collect seeds for future plantings. **Trees transplanted in May and June.**
- **April to June '10:** Approximately **6,405** trees were established in nurseries. As of November, 2011 only 4,650 of the 6,405 remain in nurseries.

2.4 What species were planted, what is the genetic source (country of origin) of each species?

Species planted include: *Tabebuia rosea* (Savanna Oak), *Tabebuia guayacan*, *Swietenia macrophylla* & *humilis* (Mahogany), *Dalbergia retusa* (Cocobolo, Nicaraguan Rosewood), *Cordia allidora* (Spanish Elm), *Azardachta indica* (Neem), *Morus alba* (White mulberry), *Cedrela odorata* (Spanish Cedar), *Theobroma cacao* (Cacao), *Gliricidium* sp (Madreado, Mother of Cacao), *Sapodilla* or *Manilkara zapota*, *Citrus* sp., *Copaifera officinalis* (Copaiba), and *Psidium guajava* (Guava).

2.5 How many hectares were planted as mixed forest? Mixed of how many species?

Approximately 5 hectares were planted in mixed forest. Most of the species in mixed forests were hardwoods such as Savanna oak, Mahogany, Spanish Elm and Cocobolo. In some instances, fruit species were intercropped in the mixed forest system.

2.6 How many hectares were planted as monoculture?

None, all were intercropped.

2.7 How many hectares were planted for agroforestry uses? How much of it is inter-planted with crops? What crops?

Approximately 4.5 hectares were planted in agroforestry systems. Core species utilized in agroforestry systems included cacao, coffee, madreado as well as some hardwoods and fruit species. Madreado was typically planted in association with cacao or as a living fence.

2.8 What is the involvement of local communities with these planting activities? What are the social benefits of these specific trees that were planted, in present and in the future?

It is required that local communities participate in the establishment of nurseries and their eventual planting. SHI's role in tree planting is to facilitate the process, provide some materials as well as trainings on reforestation, habitat protection, species care and more. Families and schools would contribute to the building of nurseries, i.e. donate local materials such as palm thatch for roofing, or communal land for the actual nursery.

2.9 Are there any specific environmental benefits for the plantings in these specific areas?

Most species were planted with the intention of protecting local environments, generate income, or provide ecosystem services. Some species, specifically leguminous facilitated in improving soils (madreado), whereas others serve to attract bird species or prevent soil erosion.

2.10 What is the management plan for the next five years for the trees that were already planted during the last year? What is the management plan for the next twenty years?

All families, groups and communities involved in reforestation projects are required to have a work plan for management of agroforestry systems and natural resources. SHI staff will conduct periodic visits and monitoring of trees planted and assess if families and groups are providing adequate care to reforested areas. Though tasks will vary, families are expected to periodically prune and fertilize species with sustainable and organic techniques. In the case of coffee and cacao, pruning or coppicing is necessary manage shade and prevent fungal diseases such as witches' broom. Note that species like madreado will require certain amounts of pruning and coppicing in order to permit the release of additional nitrogen into the soil.

2.11 Do you plant other species, which are not trees, in the same planting area? (Shrubs, Herbaceous, etc.) If you do, which species? What life form?

Yes in some cases when establishing new agroforestry areas, plantains and bananas are utilized for temporary shade.

2.12 Out of the trees that were planted: 1200 trees were in "clean/ new" areas, 5000 trees were planted as fillings in areas with former plantations, 13,100 trees were planted as fillings in areas with natural vegetation.

2.13 Did you plant non native species? Which species? How many trees?

For the most part, all species planted are considered native, with the exception, however, of Neem which is native to South Asia (India, Burma, Sri Lanka, etc). Approximately 494 were planted.

2.14 you are most welcome to add more details that you find important or interesting for us and for our customers.

Sustainable Harvest International and our affiliate programs see the vital importance of reforestation and habitat preservation especially in terms of ecosystem services. In order to address the ecological and socio-economic issues at play in Central America, as well as across most of the developing world, SHI utilizes a holistic methodology that involves local communities and actors. By focusing on the needs of the people – economics, food security, and health – SHI is also able to address the immediate environmental problems and promote a more sustainable future.

### 3. Ensuring the planting quality

With regards to our collaboration in our first year of operation, please choose for each characteristic shown in the table below the most suitable grade between 1-10 (1- cannot guarantee at all 10 – can fully guarantee) and add an X sign in the suitable cell. These grades should indicate your ability to ensure the quality of these characteristics. Please provide further explanations whenever necessary below the table.

	1	2	3	4	5	6	7	8	9	10
Additionality									X	
Planting the trees primarily as a mixed forest and not monoculture species										X
Full collaboration with local communities										X
Usage of native species									X	
Planting within one year from the payment										X
Ensuring trees planted on behalf of Eco-Libris will not be cut down									X	

#### Eco-Libris comments:

We thank SHI for their full cooperation in the preparation of the assessment and their willingness to provide all the requested details. Overall we are satisfied with the performance of SHI and believe that their commitment to high sustainable standards is maintained. We look forward to continuing our work together.