

| <b>Honey Bee Program</b>    |   |
|-----------------------------|---|
| <b>RainShine Foundation</b> | <p>The RainShine Foundation is a non-for-profit charity that works in community rural development in Democratic Republic of Congo. Its programs / projects are focused on improving the quality of living standards, reducing poverty, and building future opportunities for self-sufficiency in rural communities.</p> <p>We deliver our programs / projects in the following strategic areas:</p> <ul style="list-style-type: none"> <li>• Access to Education – improve access to primary and secondary education for children to improve their future economic potential in their communities.</li> <li>• Access to Health Care – provide medicine and health care to remote communities to improve health outcomes.</li> <li>• School and Community Infrastructure – establish necessary infrastructures such as schools, communications, transport access, and power in remote villages.</li> <li>• Community Environmental Assets – provide communities with access to legal / Government structures and training to self-manage their environmental assets for the future economic growth and protection of those assets.</li> </ul> <p>Our philosophy where possible is to employ and use local resources within the country we are working and, we always operate on the principle in all our programs to “Do No Harm”.</p> |
| <b>Program Overview</b>     | <p>The purpose of this program is to conduct two trial projects in the Epi and Mamili villages to train people on how to establish, raise, care, and to farm honey.</p> <p>Following the training six families and/or individuals in each village, under agreement with the Amadi Augustinian Mission these people will establish, care for, farm honey and transport honey to Amadi for sale to the Amadi Mission.</p> <p>This project has been initiated to provide people in these villages with a source of income from the sale of honey. This project will also provide an income producing activity that is supportive to the Epi forest, reduce destructive harvesting of forest hives, and provide pollination to agricultural plants in the villages.</p>   |
| <b>Program Goals</b>        | <p>→ Six hives in each village will be established and sustain in the long term.</p> <p><i>Measure(s):</i></p> <ul style="list-style-type: none"> <li>• <i>Each hive after six months will produce approximately 15 litres of honey every three months. Note: this is a healthy hive.</i></li> <li>• <i>The health of the hives will flourish. No more than 1% of the total hives are lost annually</i></li> <li>• <i>Financial income is produced for each bee hive keeper by the sale of honey according to current market prices.</i></li> </ul> <p><i>Five litres of honey can be sold for approximately \$45 USD.</i></p>  |
| <b>Scope</b>                | <p>The target recipients of this trial program are six families and / or individuals from the Epi village and six families and / or individuals from the Mamili village.</p>  |



| <b>Honey Bee Program</b>           |  |
|------------------------------------|--|
|                                    | <p>The first trial will be started in Mamili.<br/>         A review will be done six months after the training and the first harvest of honey from the hives is completed in Mamili. If the outcome of the review is favourable then we will commence the second program trial in the Epi village.</p> <p>The program idea was discussed with village leaders this year and it was received favourable. People in these villages know it is very difficult to find activities for people to earn money and so they are interested in participating in this program.</p>  |
| <b>Requirements / deliverables</b> | <p>How will this program work?</p> <p>Currently the Augustinian Priests led by Father Elias have started a honey bee program, which has been operating for approximately 10 months. A number of hives have been established and honey is being farmed from those hives, honey is being processing and bottled, and honey products are being marketed and sold.</p> <p>Father Elias advised that another extension of the current program is to find other locations / partners to establish, care for, and farm honey from new hives. Each individual or family who wants a hive will sign an agreement with the Amadi Augustinian Mission to manage a hive. All honey produced by these hives will be sold to the Amadi Mission and it will be processed by the Augustinian priests for final sale to the public. The price per kilo of honey sold by each beehive keeper will be discounted by a minor cost for processing the honey.</p> <p>Because there is no requirement for people to buy additional equipment to heat treat and bottle honey and to also have technical skills to know how to process honey, this program is viewed as an ideal approach for people in the Epi and Mamili villages to begin working with bees and to earn some income for their efforts.</p> <p>What are the first level deliverables for this program for one village?</p> <p>Responsibility RainShine:</p> <ul style="list-style-type: none"> <li>→ Fund a training session (number of days training to be agreed between RainShine and Augustinian Mission) to be delivered by the Augustinian technical bee expert to all people in Mamili who want to attend.</li> <li>→ Fund bee equipment to support six bee keepers to establish their hives.</li> <li>→ Six families and/or individuals to be selected and required to sign an agreement with the Augustinian Mission to establish hives.</li> <li>→ Fund Cacao and Coffee plants x 10 and deliver to Mamili for planting.</li> </ul> <p>Responsibility Augustinian Mission:</p> <ul style="list-style-type: none"> <li>→ The Augustinian Mission will purchase and transport the equipment to Mamili in time to support the training.</li> <li>→ Deliver a training session (content of training to be agreed between RainShine and Augustinian Mission) on establishing and caring for the bee hives, which will consist of both practical and theory components.</li> <li>→ After the establishment of the hives the technical bee expert will provide advice to bee keepers as required.</li> </ul> |



| <b>Honey Bee Program</b> |   |
|--------------------------|---|
| <b>Timeline</b>          | <p>Our investigation has shown it is important to establish hives in the right annual season and after monsoon rains, as bees do not like heavy rains. There is a window in January 2024 to commence our first bee hive trial in the village of Mamili.</p> <p>The training will be delivered to anyone in the Mamili village who is interested in learning about bee keeping. We aim to start this program in January 2024, which is the start of the dry season for 2 months.</p>   |
| <b>Risks</b>             | <p>The following are real and perceived risks that could impact this program:</p> <ul style="list-style-type: none"> <li>→ Local people and/or Mbororo herders sabotage / steal hives due to Mbororo cows being stung and/or jealousy between people in a village.</li> <li>→ Motivation to care for hives reduces over time</li> <li>→ Disease impacts the hives and/or queen dies</li> <li>→ Impact of monsoon rain on the hives is not managed well</li> <li>→ Drought and heat impacts the hives and bees die</li> <li>→ Not enough suitable food to sustain the bee population.</li> </ul> <p>These are potential risks prior to the start of the program. Mitigations will be proposed and implemented to reduce the impact of these risks.</p>   |
| <b>Costs</b>             | Refer to table in Attachment A  |
| <b>Stakeholders</b>      | <p><u>RainShine Foundation:</u></p> <ul style="list-style-type: none"> <li>→ fund training and the establishment of 6 hives in Mamili, then based on a successful program at Mamili, fund 6 hives at Epi.</li> <li>→ liaise with Amadi Augustinian Mission on the Honey Bee Program</li> <li>→ Agroveterinary Engineer from RainShine will directly liaise with rural communities to provide advice and to support the trial.</li> </ul> <p><u>Augustinian Mission:</u></p> <ul style="list-style-type: none"> <li>→ provide technical training and advice, equipment, and buy honey under agreement from the bee hive keepers.</li> </ul> <p><u>Mamili and Epi bee hive keepers:</u></p> <ul style="list-style-type: none"> <li>→ establish, care for, farm their hives for honey, and transport honey to Amadi for sale.</li> <li>→ Fund the ongoing maintenance of the equipment and hives.</li> </ul> |

## Attachment A –Budget

The scope of the following budget includes materials for beekeeping, and the presentation of a theoretical and practical training session for a week duration to educate people in the Mamili village on beehive keeping.

| Description                          | Unit  | Qté | Unit Cost<br>(\$ USD) | Total Cost<br>(\$ USD) |
|--------------------------------------|-------|-----|-----------------------|------------------------|
| Smoker                               | Piece | 2   | 50                    | 100                    |
| Beekeeping outfits +gloves           | Piece | 4   | 130                   | 520                    |
| Beekeeping gas                       | Pair  | 6   | 25                    | 150                    |
| Wax                                  | Kg    | 8   | 30                    | 240                    |
| Machete                              | Piece | 6   | 5                     | 30                     |
| Hives                                | Piece | 6   | 70                    | 420                    |
| Slasher                              | Piece | 6   | 5                     | 30                     |
| Sprayer                              | Piece | 6   | 15                    | 90                     |
| Bee brush                            | Piece | 2   | 15                    | 30                     |
| Leggings                             | Pair  | 6   | 10                    | 60                     |
| Buckets of 20 liters 3 + 10 liters 3 | Piece | 6   | 10                    | 60                     |
| Valve                                | Piece | 4   | 35                    | 140                    |
| Transport of Materials               | ff    | ff  | ff                    | 100                    |
| Training                             | ff    | 1   | 750                   | 750                    |
| Contingencies                        |       |     |                       | 100                    |
| Trainer's salary                     |       |     |                       | 200                    |
| Young Cacao trees                    |       |     | Allocation            | 50                     |
| Young Coffee trees                   |       |     | Allocation            | 50                     |
| <b>Total</b>                         |       |     |                       | <b>\$ 3120 USD</b>     |