

Health and Safety Plan

March 2017

CEPF Grant 100798

Fauna & Flora International

***From Bee-burners to Beekeepers: Supporting Community Beekeeping Organization in
Príncipe***

Príncipe, Sao Tome & Principe

Grant Summary

1. Grantee organization: Fauna & Flora International
2. Grant title: From Bee-burners to Beekeepers: Supporting Community Beekeeping Organization in Príncipe
3. Grant number: 100798
4. Grant amount (US dollars): \$199,962.54
5. Proposed dates of grant: 1st June 2017 to 31st May 2019
6. Countries or territories where project is located: Príncipe, Sao Tome & Principe
7. Full name, title, telephone numbers, and electronic mail address of Grantee personnel responsible for the health and safety plan: Felipe Spina, Terrestrial Conservation Manager, (+239) 9927281, felipe.spina@fauna-flora.org
8. Summary of the project.

Príncipe's forests are among the most biodiverse in Africa, and contain a level of endemism comparable to other oceanic islands such as the Galapagos. This is centered on the island's extensive primary and secondary forests, much of which are contained within the Natural Park, Parque Natural do Príncipe (PNP). All of the island's forests, including those within PNP, are used by the island's citizens for hunting, timber and foraging for non-timber forest products. This can cause substantial damage to wildlife, and threaten species. At the same time, Príncipe has very few civil society organizations or formal businesses with a stake in the island's wildlife. Local communities are poor and have few opportunities to engage with conservation, or to diversify their livelihoods away from potentially damaging activities.

Honey is currently collected from wild colonies of honeybees (*Apis mellifera adansonii*) by a destructive method that includes burning the nest, killing most of the bees and risking uncontrolled fires in important habitat. Honey collectors are known as "queimá vunvú" which literally means "bee-burners" in the local forro dialect. They put themselves at risk scaling trees up to 25m high with minimal safety equipment to reach wild bee colonies, and the extraction method used means that the final honey is usually of poor quality with low levels of hygiene and contaminated by eggs and pupae.

Government officials report that the practice of burning wild bee colonies has had a significant impact on the abundance of bees in Príncipe, and as a result the production of honey has fallen significantly in the last 15 years. As such, honey collectors also engage in other non-sustainable activities inside and around PNOP such as illegal wood harvest, hunting, and charcoal production as a way to increase their earnings. This places significant pressure on this KBA and is responsible for a substantial proportion of damage and degradation within the PNOP. The combined effect is to degrade both primary and secondary forests, through direct activities and very likely through reduced presence of keystone pollinators.

The current honey-collection method on Príncipe is not yet illegal if practiced outside the national park, however the local government is currently in the process of drafting new regional legislation to support beekeeping and prohibit bee burning throughout the island. The activity is already considered illegal if practiced within the national park boundaries, however local resources for enforcement are minimal, and due to the lack of other livelihoods options and weak enforcement, many locals often do not respect the park boundaries.

While this project will support the government's development of legislation, and thereby contribute to the restriction of access to a natural resource (honey), its primary focus is to provide an alternative model of

honey production that is legal, sustainable and non-destructive through the promotion of community based beekeeping.

9. Date of preparation of the health and safety plan: March 2017

10. **Describe the component of your project that has raised health and safety issues:** This section should explain the activities that might cause concern about health and safety.

The project is focused on developing sustainable beekeeping practices on the island of Principe and as such will involve the handling of live bees. The interaction with the bees will include attracting wild swarms to hives with bait, caring for the colonies in the hives, extraction of honey and honey comb and processing of these two products.

The following are some of the aspects of beekeeping that present potential hazards:

1. bee stings (swelling to eyes or throat particularly; anaphylaxis)
2. location of apiaries: e.g. proximity to houses, schools, roads, and polluting sources like landfill or sewage station to avoid contamination of the honey
3. manual handling (lifting heavy hive parts/equipment)
4. working at height or in unusual situations
5. working in public places, e.g. when rescuing swarms from residential housing
6. travel, including transport of live bees,
7. working alone and/or in remote places including in agricultural settings
8. extracting and processing honey ensuring hygiene
9. fire (such as when lighting, using or extinguishing a smoker).

11. **Actions to ensure health and safety:** Describe actions that will be taken to ensure the health and safety of workers as well as the site. Include a description of waste management and/or disposal.

All project participants will have a duty of care to prevent harm to themselves and others, and to comply with this Health and Safety Plan.

We will aim to anticipate, identify and eliminate the hazards, in order to reduce the risk of accidents or incidents of any kind that might affect project members, their families, neighbors or members of the public.

This will be achieved through:

- advisory training aimed at those considering taking up beekeeping
- training and education within the Principe Beekeepers Cooperative
- providing Best Practice guidance documents and drawing attention to them
- provision of risk assessments for management of its apiaries and organized events that engage the public
- safeguarding of children and vulnerable adults

The training to be provided will include sessions on managing risk through the correct use of personal protection equipment, good handling of bees, and appropriate positioning of apiary sites. Regarding the

interaction with live animals (bees), the project will work closely with the beneficiaries to ensure they have the adequate safety materials (such as beekeeping suits) and training to reduce the risk of accidents. The project will also provide to COOPAPIP a comprehensive first aid kit and train its members to respond to bee related emergencies, as well as a fire extinguisher.

Specific Hazards identified	Mitigation actions
1. Bee stings (swelling to eyes or throat particularly; anaphylaxis)	<ul style="list-style-type: none"> • Full body beekeeping suits provided • Training in correct approach and handling of bee colonies • Provision of well-equipped first aid kit • Training in use of first aid kit, to include response to bee stings and possible anaphylactic shock
2. Location of apiaries: e.g. proximity to houses, schools, roads, and polluting sources like landfill or sewage station to avoid contamination of the honey	<ul style="list-style-type: none"> • Training sessions will cover risk factors to consider in selecting apiary location
3. Manual handling (lifting heavy hive parts/equipment)	<ul style="list-style-type: none"> • Manual handling will never be undertaken alone, and all staff and field workers will be advised in best practice for heavy lifting to avoid physical damage
4. Working at height or in unusual situations	<ul style="list-style-type: none"> • Nobody will engage in potentially dangerous activities alone • An observer with access to suitable communications to attend all events where people will be working at height or in unusual situations • When climbing is needed appropriate climbing equipment will be loaned to COOPAPI by FPT
5. Working in public places, e.g. when rescuing swarms from residential housing	<ul style="list-style-type: none"> • Best practice guidelines for interacting with the public will be shared during training workshops • In general, staff and workers will engage the local public and explain their planned activities prior to undertaking any activities to ensure the public are fully briefed
6. Travel, including transport of live bees,	<ul style="list-style-type: none"> • Training workshops will include reference to best practice for the transportation of live bees
7. Working alone and/or in remote places including in agricultural settings	<ul style="list-style-type: none"> • Where at all possible working alone will be discouraged • In the event that lone working cannot be avoided the person should alert at least 1 responsible adult to their expected location and duration of activity • If the individual does not return within the expected time slot a planned emergency

	procedure will be executed, overseen by the Project Coordinator
8. Extracting and processing honey ensuring hygiene	<ul style="list-style-type: none"> • Full training will be given in hygiene practices for food production too all engaged in this activity
9. Fire (such as when lighting, using or extinguishing a smoker).	<ul style="list-style-type: none"> • A fire extinguisher will be on hand whenever fire or smoke is being used as a tool • Proper training in safe usage of smokers will be provided during the course of the project

12. Budget: Please provide an estimate of the cost of implementing the health and safety plan, and clarify the source of funds (including if these are CEPF funds)

- Production or providing Bee keeping suits is included in the project budget (\$2,300, CEPF funds).
- Provision of First Aid kit, a fire extinguisher (\$240, CEPF funds included in honey house beekeeping materials) and first Aid course (\$110, non CEPF funds) is included in the project budget (total \$350).

In addition several training events planned during the course of the two year project will include elements of health and safety related to correct procedures for interacting with the hives, and safe extraction methods for the honey and honey comb. All the funds to deliver the health and safety actions detailed above are planned to come from CEPF funds.

13. Monitoring and Evaluation: This section aims to outline what steps the proponent will take to monitor and evaluate the impact of the proposed intervention.

The adherence to the health and safety plan will be monitored and evaluated by:

- The number of Bee Keeping available (suits made or bought, and existing suits of COOPAPIP at project start)
- The existence of First Aid kit in working order
- The provision of training sessions and advice on: managing risk through the correct use of personal protection equipment, good handling of bees, and appropriate positioning of apiary sites.
- The provision of first aid training
- Creation of s safety check list adequate to Principe reality.
- The use of the safety check list, for apiary installation, bee handling and honey extraction
- Continuous interaction and support to the Principe Beekeepers cooperative
- The creation and use of “accident report sheets”
- The monitoring of accidents and measures taken. Project members will be encouraged to record and report accidents in connection with beekeeping and relevant health issues to the project manager.
- As well as reacting to specific incidents, the project manager will review the accident report sheets each month to identify any trends. We will then take any necessary remedial action, for example, adapting the design or materials of the beekeeping suits, providing additional training, or changing activities to another location.

