AMAZON CONSERVATION PROGRAM OF THE RED-TAILED BOA (Boa constrictor), IN COLOMBIA

SUMMARY

Red-tailed Boa (Boa constrictor) is a species of reptilian to Colombia, in Kamsá indigenous territory, which inhabits the montane forests and moorland of the western mountain range in the Moorland of Amazon basin, between 2500 and 3500 m (Moorland). Currently, according to the International Union for Conservation of Nature (IUCN), this species faces several threats such as a illegal trafficking of species – poaching; restricted, fragmented or discontinuous range of distribution in ecosystems highly susceptible to the loss of natural cover due to the increase in the agricultural and livestock frontier, which have led it to be categorized Endangered in Kamsá indigenous territory. The panorama it presents is more serious, since these practices are being carried out in the natural forest areas that are outside the protected areas, reducing their habitat to fragments without any form of legal protection. It is noteworthy that there are few works that develop research on its biology, being only restricted to what is mentioned in its original description.

This plan becomes the only instrument in Colombia, focused on the management and conservation of this species. In which population issues and habitat requirements are addressed, which together allow us to know the state of conservation for the Moorland of Amazon basin. Thus, in search of its protection and conservation, we present the current status of the populations of the Red-tailed Boa (Boa constrictor), the formulation of a management plan and action plan for the Moorland of Amazon basin, in Kamsá indigenous territory, whose main objective will be the conservation of the only and few viable and ecologically functional populations of this species.
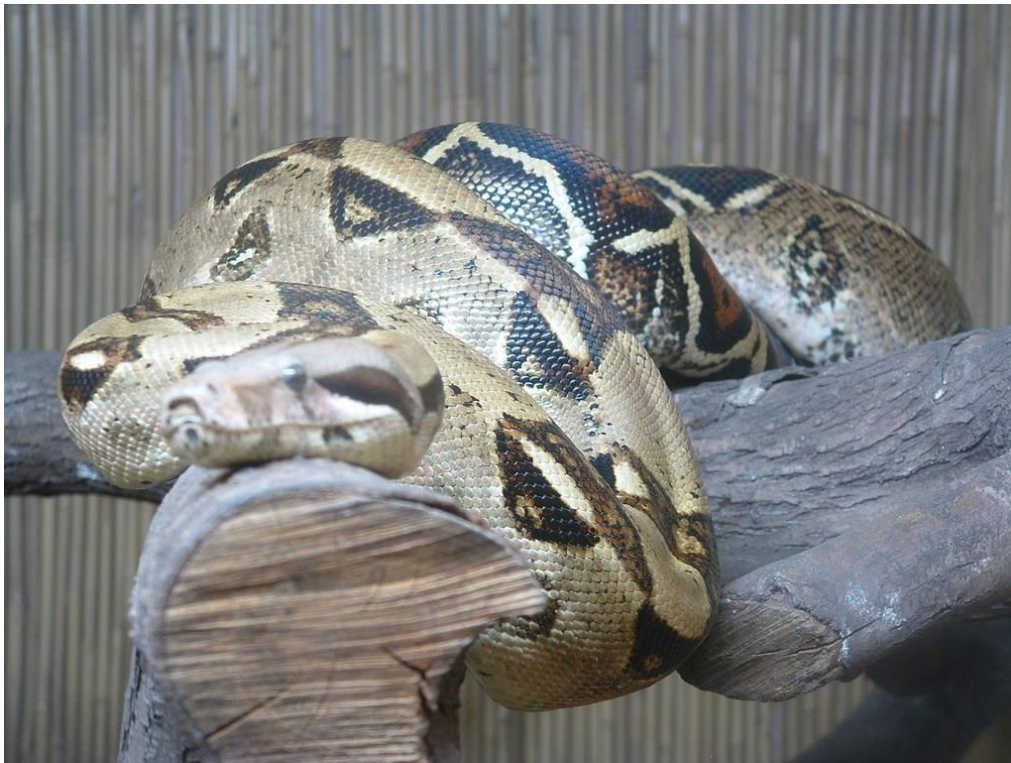
1. ECOLOGY

1.1. Typical locality: Bordoncillo moorland, Kamsá indigenous territory, Moorland of Amazon basin, Colombia. 6º20'N, 75º35 W. 2,500-3,500 meters above sea level.

1.2. Etymology: It is also known as tragavenado in Venezuela, Guio in Colombia, mantona in Peru and mazacuata (Nahuatl: 'mazatl' deer and 'coatl' serpent) in Mexico, tragavena(d)o, jiboia and lampalagua in South America, in Ecuador also as horse slayer. Also, in some parts of Mexico it is known as limacoa, in the state of Nayarit it is known as ilama.

1.3. Description: It is the longest and most robust snake in Colombia, it measures up to 5 m in snout-cloaca length and feeds on rodents and deer, its weight can be around 45 to 70 Kg. Its head is slightly triangular in dorsal aspect and distinctive of the narrow neck. His eyes are small with elliptical pupils. Its tan or gray back has brown spots, usually with light spots inside. The back of the head is bronze or gray with a narrow dark line that originates on the snout and extends over the body. A dark line originating on the lateral part of the head at the scale of the nose, passes posteriorly through the lower half of the eye, towards the angle of the jaw.

It measures between 0.5 and 4 m, depending on the subspecies and the sex of the animal, with females usually being larger than males. The largest captive specimen is a 5.5 m female from Suriname at the San Diego Zoo.

It presents an attractive coloration that consists of reddish dorsal surfaces that remain within a background that can be white, pink, brown or golden, depending on the subspecies or the crosses carried out in captivity. During the next days to the molt they acquire an inconspicuous grayish skin and their eyes turn creamy white.

In the wild it is rare for them to live more than twenty years, although in captivity they can reach thirty relatively easily. In the Philadelphia Zoological Garden, the case of a Boa constrictor that lived 40 years, 3 months and 14 days was recorded.

1.4. Similar species: A. nicefori. However, A. pastuso is larger and its dull green dorsal vermiculations make it unmistakable. Another similar species is A. minutulus, of which it is distinguished by its larger body size.

1.5. Distribution: Endemic species from Colombia, from the Bordoncillo moorland, Kamsá indigenous territory, Moorland of Amazon basin, Colombia, 2500-3500 masl.

1.6. Habitat: humid montane forest with a high degree of intervention.

1.7. Natural history: No particular ecological studies have been conducted. It is assumed that it presents the same ecological characteristics of the other species. Diurnal, terrestrial, of slow movements, occasionally they are at rest on the vegetation. They live both in the forest and in the vicinity of streams. Massive migrations associated with breeding to streams have been reported. Fertilization is external. The positions are rows of eggs in torrential waters, when the larvae hatch, they adhere to rocks of the bed of the creek. They do not present parental care.

1.8. Current situation and threats: The size of their populations and demographic parameters are unknown. Deforestation and transformation of the Bordoncillo moorland, Kamsá indigenous territory, Moorland of Amazon basin, Colombia

may be affecting the species. The widening of the vegetation matrix can cause overexposure to solar radiation in individuals during migrations to streams, without knowing its effect on populations. It is suggested to carry out a search in the typical locality and its surroundings in order to locate the populations and evaluate their status and that of the habitat of the species.

1.9. **Colombian Red List Category And Criteria**: Critically Endangered (D, 2016)

2. STRUCTURE OF THE PLAN

Taking into account that the natural habitat of the target species is moorland (forests between 2,500m and 3,500 meters above sea level), the proposed conservation activities are adapted to these climatic conditions:

2.1. Research and monitoring: it groups together all the activities that can be developed in order to generate knowledge on priority aspects for the conservation of Red-tailed Boa (Boa constrictor) (i.e. biology, ecology, genetics, population dynamics and distribution). It includes actions to develop population monitoring programs that make it possible to collect information on the status of populations and their threats.

2.2. Conservation and management: the purpose of these actions is to promote that the areas of the RFP that were committed in production areas and those that are currently destined for anthropic activities, are included in an efficient management program and based on the conservation of Boa constrictor'(Boa constrictor) and its habitat. This line also includes actions related to the conservation of species outside their natural habitats or kept in captivity near it. This seeks to strengthen or establish ex situ management programs (conservation and captive breeding), for the purposes of education, research, supplementation (release of individuals to benefit the wild population), rescue (keeping individuals of species threatened with extinction for eventual reintroduction) and ark (maintain captive populations of species that are extinct in their natural habitat).

2.3. Policies and management instruments: These are actions aimed at ensuring the research and conservation processes of Red-tailed Boa (Boa constrictor), based on laws, conventions or agreements.

2.4. Education and Communication: Includes any action aimed at achieving favorable attitudes towards the conservation of Red-tailed Boa (Boa constrictor) and its habitats. It includes working with the general public, local communities and officials of institutions with direct or indirect activity that compromise the species or their habitats.

3. CONSERVATION PLAN

GENERAL PURPOSE:

Conserve ecologically viable populations of the Red-tailed Boa (Boa constrictor) in the Moorland of Amazon basin.

SPECIFIC OBJECTIVES:

Specific objective 1: Increase the quality and quantity of Red-tailed Boa (Boa constrictor) habitat in the Moorland of Amazon basin

Specific objective 2: Know the basic biology and ecology of the species in wildlife.

Specific objective 3: Search the populations of Red-tailed Boa (Boa constrictor) in the Moorland of Amazon basin and assess their status.

Specific objective 4: Increase the number of areas protected areas for the conservation of Red-tailed Boa (Boa constrictor) in the Moorland of Amazon basin.

Specific objective 5: Design and implement educational campaigns for the conservation of Red-tailed Boa (Boa constrictor) and its habitat in the Moorland of Amazon basin.

Specific objective 1: Increase the quality and quantity of Red-tailed Boa (Boa constrictor) habitat in the Moorland of Amazon basin.

Impact indicators

The increase in extension and quality of natural habitats allowed the distribution of populations of Red-tailed Boa (Red-tailed constrictor) to increase.

There is connectivity of the habitat fragments with the presence of Boa constrictor 'that allows connectivity between populations.

The natural covers present in the distribution areas are recovered of the species.

Line of Action: Research and Monitoring

Activities

1- Identify areas of interest through niche and occupation models that allow modeling the potential distribution of the species.

Time: Short term (1-3 years).

Expected results: New records of the species in the areas of interest identified in the modeling of its distribution within the department

Indicators: Number of locations and map with presence of Boa constrictor '

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, PNN Los Nevados.

Place: Protected areas of the Moorland of Amazon basin and in the municipalities of Villamaria, Manizalez, Neira, Marulanda, Pennsylvania, Aguadas, Salamina, Aranzazu and Pácora, in general throughout its range of distribution.

2- Prioritization of intervention areas from landscape connectivity models using connectivity graphs

Time: Short (1-3 years)

Expected results: Identified intervention areas

Indicators: Number of natural covers evaluated from connectivity models

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, PNN Los Nevados.

Location: Protected areas of the Moorland of Amazon basin and other areas that are potential habitat for the Boa constrictor'.

3- Identify needs and opportunities to restore habitats to increase the coverage of forest remnants.

Time: Short (1-3 years)

Expected results: areas to restore identified and prioritized.

Indicators: number of areas evaluated and restoration plans established.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, PNN Los Nevados.

Place: RFP Los Bosques de la CHEC, RFP Tower IV, RFP Río Blanco and Quebrada Olivares, municipality of Villamaria, Manizales, Neira, Pennsylvania, Aguadas, Salamina, Aranzazu and Pácora, PNN Los Nevados, Cerro Bravo, RFP Los Bosques de la Fe.

Line of action: Landscape conservation and management

Activities

1-Enrich degraded habitats where populations of 'Boa constrictor' persist.

Time: Short (3-10 years)

Expected results: habitat recovered.

Indicators: areas restored with the habitat requirements of Boa constrictor '.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, PNN Los Nevados.

Place: RFP Los Bosques de la CHEC, RFP Torre IV, RRP Río Blanco and Quebrada Olivares, municipality of Neira, Villamaria, Manizales, Pennsylvania, Aguadas, Salamina, Aranzazu and Pácora, PNN Los Nevados, Cerro Bravo, RFP Los Bosques de la Fe.

2- Develop habitat restoration programs to increase coverage and connection of remaining forests.

Time: Short (3-10 years)

Expected results: new restored areas.

Indicators: amount of forest (cover) recovered.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, PNN Los Nevados.

Place: RFP Los Bosques de la CHEC, RFP Tower 4, RFP Río Blanco and Quebrada Olivares, municipalities of Villamaria, Manizalez, Neira, Marulanda, Manzanares, Pensilvania, Aguadas, Salamina, Aranzazu and Pácora, PNN Los Nevados, Cerro Bravo, RFP Los Bosques de la Fe.

3- Evaluate through an analysis of ecological connectivity the state of the natural covers where the species is found

Time: Short (3-10 years)

Expected results: New areas with the natural covers evaluated.

Indicators: Number or percentage of natural covers analyzed where the species is found.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, PNN Los Nevados.

Place: RFP Los Bosques de la CHEC, RRP of the Río Blanco and Quebrada Olivares watersheds, municipality of Neira, municipality of Pennsylvania, PNN Los Nevados, Cerro Bravo, RFP Los Bosques de la Fe.

4- Carry out monitoring actions to the threats posed by natural covers and their state of conservation

Time: Short (3-10 years)

Expected results: Threats with mitigation activities developed from monitoring.

Indicators: Percentage of natural coverage with shares mitigation of threats.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, PNN Los Nevados.

Place: RFP Los Bosques de la CHEC, RRP Río Blanco and Quebrada Olivares, municipality of Neira, municipality of Pennsylvania, PNN Los Nevados, Cerro

Bravo, RFP Los Bosques de la Fe.

Line of action: Policies and management instruments

Activities

1- Articulate this conservation plan with existing management plans for the protected areas where 'Boa constrictor' lives.

Time: Short (1-3 years)

Expected results: management plans in action.

Indicators: number of articulated plans.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, PNN Los Nevados.

Place: RFP Los Bosques de la CHEC, RRP of the Río Blanco and Quebrada Olivares watersheds, municipality of Neira, municipality of Pennsylvania, PNN Los Nevados, Cerro Bravo, RFP Los Bosques de la Fe.

2- Train communities and entities related to forest conservation on legislation and policies that have to do with sustainable forest use, the conservation of protective forest strips and areas of special ecosystem importance, which are framed in the Decree 2811/74, decree 1791/96, Decree 3600/07 and Resolution of Min. Ambiente 438 of 2001.

Time: Short (1-3 years)

Expected results: Communities and entities interested in forest conservation trained in

sustainable use, protection of water sources and land use planning.

Indicators: Number of people trained and involved in the processes of conservation and land use planning.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, PNN Los Nevados.

Place: RFP Los Bosques de la CHEC, RFP of the watersheds of Río Blanco and Quebrada Olivares, municipality of Neira, municipality of Pensilvania, PNN Los Nevados, Cerro Bravo, RFP Los Bosques de la Fe.

Line of action: Education and communication

1-Develop educational campaigns aimed at landowners, communities, rural schools and visitors to parks and protected areas focused on the conservation of Boa constrictor

Time: Short (1-3 years)

Expected results: Didactic material produced, adopt Boa constrictor as emblem (eg RFP of the Río Blanco and Quebrada Olivares watersheds).

Indicators: Educational campaigns underway.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Place: RFP Los Bosques de la CHEC, RFP de las Río Blanco and Quebrada Olivares watersheds, Neira Township, Pennsylvania Township, PNN Los Nevados, Cerro B ravo, RFP Los Bosques de la Fe.

2- Objective 2: Know basic biology and ecology of 'Boa constrictor' in wildlife.

Impact indicators: the type of food that needs the species and its availability in the habitat. Aspects are characterized and expanded reproductive ecology of the species in the wild.

Knowledge is generated in this species on pathogens such as Batrachochytrium dendrobatidis (Bd) Ecological attributes are identified key to generate programs reproduction in captivity.

Line of Action: Conservation Research and monitoring

1- Carry out studies where availability is characterized of food and diet of the species.

Time: Short (1-3 years)

Expected results: Characterization of the diet of Boa constrictor and its availability in the habitat.

Indicators: Number of protected populations.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential

2- Conduct studies on reproductive ecology of the species.

Time: Short (1-3 years)

Expected results: New insights generated on key reproductive aspects for Boa constrictor

Indicators: Number of studies on reproductive ecology made on the species.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential.

3- Carry out studies where relationships are evaluated evolutionary species and genus.

Time: Short (1-3 years)

Expected results: New knowledge generated on the evolutionary relationships of Boa constrictor

Indicators: Number of phylogenetic hypotheses evaluated on the evolutionary relationships of the species.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential.

4- Conduct studies to identify conditions by pathogens such as Batrachochytrium dendrobatidis (Bd).

Time: Short (1-3 years)

Expected results: New knowledge generated on pathogens in Boa constrictor

Indicators: Number of studies focused on identifying affections by pathogens in the species.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential.

5- Carry out in vitro studies evaluating the presence of active compounds that are acting as the first line of defense for this species.

Time: Short (1-3 years)

Expected results: New knowledge generated on active compounds in Boa constrictor

Indicators: Number of studies focused on identifying active compounds in the species.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential

Line of action: Conservation and management from the landscape

Carry out in vitro studies evaluating the presence of active compounds that are acting as the first line of defense for this species.

Time: Short (1-3 years)

Expected results: New knowledge generated on active compounds in Boa constrictor

Indicators: Number of studies focused on identify active compounds in the species.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential

Line of action: Education and communication

1- Design and implement educational campaigns to the conservation of the species by disseminating the results obtained in research with schools, institutes and universities in the region.

Time: Medium (3-10 years) and Long term (10-20 years).

Expected results: Educational campaigns aimed to strengthen knowledge about the species and strengthen investigative work as a practice of interagency enrichment.

Indicators: Number of campaigns designed.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé,

Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential

Line of action: Policies and management instruments

2- Train control entities and police on the usefulness of red books of threatened species of Colombia, which are framed in resolution 0192/14 of the Ministry of the Environment and sustainable development.

Time: Short (1-3 years)

Expected results: Strengthened control mechanisms with new tools that facilitate the taking of decisions to the control and police entities.

Indicators: Number of trainings carried out between the different institutions in charge of control and the sanction.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, Educational Institutions, PNN Los Nevados, National Police (Environmental Police).

Location: Moorland of Amazon basin, distribution zone current and potential

Specific objective 3: Assess populations of 'Boa constrictor' in Antioquia and its state of conservation

Impact indicators

Dynamics and structure studies are carried out population genetics in the new areas where the species is registered.

Re-introduction programs start. the species in natural habitats of the Moorland of Amazon basin.

Monitoring strategies are implemented according to the basic information of the dynamic's population of the species.

Line of action: Investigation and monitoring

1- Quantify the populations of the species in the department.

Time: Medium term (3-10 years)

Expected results: New population records of Boa constrictor in the department.

Indicators: number of populations identified for the department.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential

2- Evaluate the status of the populations of this species.

Time: Medium term (3-10 years)

Expected results: The state of the populations is known of Boa constrictor in the department.

Indicators: Number of populations evaluated for the Department.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential.

3- Carry out studies on the dynamics of populations of this species.

Time: Medium term (3-10 years)

Expected Results: Identify fluctuations as well as thresholds of increase and decrease of populations; relate and prioritize factors involved in stock fluctuations.

Indicators: Number of populations with studies on the population dynamics of this species in the department.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential

4- Carry out genetic structure studies of populations.

Time: Short (1-3 years)

Expected results: The structure is known genetics of Boa constrictor populations in the Department.

Indicators: Number of populations evaluated for the Department.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential

5- Carry out monitoring of the state of the populations of this species

Time: Short (1-3 years)

Expected results: Number of populations of Boa constrictor with monitoring program.

Indicators: Number of populations with programs monitoring.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential

Line of action: Conservation and management from the landscape

1- Carry out feasibility studies of the species to include it in translocation programs and reintroduction.

Time: Long (10-20 years)

Expected results: Number of populations by Boa constrictor with translocation program and reintroduction.

Indicators: Number of populations with programs designed.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential

2- Specific objective 4: Increase the number of protected areas for the conservation of Boa constrictor' in the Moorland of Amazon basin

Impact indicators

Increase in the number of protected areas in areas with confirmed presence of populations of 'Boa constrictor'.

New areas for protection identified from 'Boa constrictor', in strategic ecosystems.

Communities and entities involved in conservation they develop projects for the creation of areas protected in areas where it is distributed 'Boa constrictor', the Moorland of Amazon basin.

Line of action: Investigation and monitoring

1- Evaluate the state of conservation (Structure, Composition and Function, decree 2372/10) of the zones outside SINAP where there is a

presence of species, using pattern analysis methodology Spatial (example: FragStats).

Time: Short (1-3 years)

Expected results: There is an evaluation of the state of conservation of areas with presence of to seek inclusion in protected areas.

Indicators: Number of areas evaluated and prioritized for your statement.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, Educational Institutions, PNN Los Nevados, Ministry of environment and sustainable development.

Location: Moorland of Amazon basin, distribution zone current and potential.

Line of action: Conservation and management from the landscape

1- Establish protected areas under some category (regional, municipal or private), with the presence of populations in areas without formal protection.

Time: Short (1-3 years)

Expected results: all populations of

protected.

Indicators: number of protected populations.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados, Ministry of the Environment and sustainable development.

Location: Moorland of Amazon basin, distribution zone current and potential

2- Conduct studies on prioritization of areas for conservation in Strategic Areas and Ecosystems (EE).

Time: Medium (3-6 years)

Expected results: New areas where it is distributed Boa constrictor prioritized.

Indicators: Number of areas with strategic ecosystems prioritized for their declaration.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados, Ministry of the Environment and sustainable development.

Location: Moorland of Amazon basin, distribution zone current and potential

Line of Action: Policies and instruments management

Activities

1- Train all stakeholders involved in conservation especially that concerning protected areas established in decree 2372/10 and current regulations.

Time: Short (1-3 years)

Expected results: Actors trained on regulations in force in protected areas.

Indicators: Number of initiatives developed for the declaration of protected areas.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, Educational Institutions, PNN Los Nevados, Ministry of environment and sustainable development.

Location: Moorland of Amazon basin, distribution zone current and potential

Specific objective 5: Design and implement

educational campaigns for the conservation of 'Boa constrictor' and its habitat in Antioquia

Impact indicators

Environmental situations are recognized and mitigated generated by the community that negatively impact.

New conservation initiatives are implemented in areas outside the protected areas.

Line of Action: Conservation and management

1- Design and evaluate environmental education campaigns for communities close to forests where populations of the species are found, for conservation of this and its habitats at the regional level.

Time: Short (1-3 years)

Expected results: Campaigns designed and evaluated that promote the conservation of Boa constrictor and its habitat.

Indicators: number of communities with campaigns of environmental education for the conservation of the species and its habitat.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zon current and potential

2- Carry out a study of social perception about problem of the species in the area.

Time: Short (1-3 years) and medium term (3 - 10 years)

Expected results: Environmental situations identified and mitigated by the community.

Indicators: Number of studies carried out.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential

3- Conduct community workshops in buffer zones of protected areas to identify the environmental status of the species.

Time: Short (1-3 years) and medium term (3 - 10 years)

Results: Community identifies new ways of protect the species in the areas surrounding the areas protected where it is distributed.

Indicators: Number of workshops carried out and material as disclosed documents.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential.

Line of Action: Education and communication

Activities

1- Promote talks, conferences and exhibitions oral statements on topics of interest to conservation of the species.

Time: Short (1-3 years), medium (3 - 10 years) and long term (10 - 20 years)

Expected results: The community is trained in general on the conservation of in the department.

Indicators: Number of talks, conferences and exhibitions made.

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Waters de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential.

2- Consolidate a multidisciplinary team that allows defining the purpose and objectives of education projects aimed at the conservation of the species.

Time: Medium term (3-10 years)

Expected results: At least one multidisciplinary team people involved in conservation by Boa constrictor

Indicators: Number of teams formed

Actors: CORPOAMAZONAS, IAvH, Universities, NGOs, Researchers, Cenicafé, Aguas de Manizales, CHEC, Educational Institutions, PNN Los Nevados.

Location: Moorland of Amazon basin, distribution zone current and potential.

3- Include visual material of the Boa constrictor species in the public outreach media of the UAESPNN and CORPOAMAZONAS.

Time: Short term (1-3 years)

Expected results: The species Boa constrictor is included in outreach materials such as UAESPNN conservation priorities and CORPOAMAZONAS

Indicators: Proportion of media which include Boa constrictor regarding the current state

Actors: UAESPNN

Line of Action: Policies and instruments management

Activities

1- Train all the actors involved with conservation on national education policy environmental - PNEA.

Time: Short term (1-3 years)

Expected results: Actors committed to the conservation of the species, involved in plans of environmental education.

Indicators: The Boa constrictor' has plans of environmental education designed.

Actors: UAESPNN and CORPOAMAZONAS

Place: PNN Los Nevados, RFP of the hydrographic basins Río Blanco and Quebrada Olivares, RFP Los Bosques de la CHEC, RFP Torre 4, among others.

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