Supplementary Material

**Supplementary Table 1.** Actions aimed at human dimensions in the Brazilian Conservation National Action Plans (NAP). Categories (Cat.): 1 – Environmental Education and Awareness 2 – Public administration/wildlife management (e.g., protected areas, compensation) 3 – Law enforcement; 4 – Infrastructure (e.g. visitor center); 5 – Communication and information dissemination; 6 – Sustainable livelihoods (e.g., birdwatching, training); 7 – Community Engagement/ Involvement; 8 – Research involving Human Dimensions.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Species | Document | Objectives | Nº | Actions | Cat. |
| ***Aburria jacutinga*** | Galliformes NAP - 1st cycle: 2007-2011 | Public Policies and Legislation | A1 | To implement environmental awareness in indigenous lands focusing on endangered species | 1 |
|  | **Total Number of NAP Actions: 21** |  | A2 | To consider the presence of endangered species in agrarian reform projects, encouraging low environmental impact practices. | 2 |
|  | **Total Number of Human Dimensions Actions: 7** |  | A3 | To modify the Federal Law of Environmental Crimes classifying the activities of hunting, capture or trade of wild animals as a capital infraction, subject to imprisonment without bail. | 3 |
|  |  |  | A4 | To promote environmental education programs in the communities living around protected areas where endangered species inhabit, focusing on anti-poaching activities. | 1 |
|  |  | Species Protection and protection of its inhabit | A5 | Creation and implementation of Protected Areas. | 2 |
|  |  |  | A6 | To create environmental education programs especially related to anti-poaching activities. | 1 |
|  |  | Management of species captive populations | A7 | Environmental Education. | 1 |
| ***Crax blumenbachii*** | Mutum-do-sudeste NAP 1st cycle: 2004-2014 | To promote the protection of *Crax blumenbachii* and its habitat. | A8 | Rural and indigenous land regularization and settlement (3 ACTIONS: 8.1; 8.2; 8.3) | 2 |
|  | **Total Number of NAP Actions: 26** |  | A9 | Create economic-ecological zoning for the State of Bahia and for the municipalities of southern Bahia. | 2 |
|  | **Total Number of Human Dimensions Actions: 9** |  | A10 | Articulate inspection actions to prevent and fight hunting activities. | 3 |
|  |  |  | A11 | To expand or create Protected Areas in the species occurrence area (2 ACTIONS: 11.1; 11.2) | 2 |
|  |  |  | A12 | To promote environmental education programs in the communities living around protected areas where endangered species inhabit, focusing on anti-poaching activities (2 ACTIONS: 12.1; 12.2) | 1 |
| ***Pauxi mitu*** | Mutum-de-Alagoas NAP 1st cycle: 2007-2013 | To encourage public policies development | A13 | To encourage the maintenance of vegetation areas on rural properties. | 1 |
|  | **Total Number of NAP Actions: 27** | To protect and restore natural habitats | A14 | To encourage and support the creation and expansion of a Private Natural Heritage Reserve (Private Protected Area) | 2 |
|  | **Total Number of Human Dimensions Actions: 6** |  | A15 | To improve infrastructure and human resources to environmental inspection actions. | 3 |
|  |  |  | A16 | To create a curassow visitation center. | 4 |
|  |  |  | A17 | Environmental Education. | 1 |
|  |  | To develop strategies to curassows’ reintroduction (from the year 2015). | A18 | To promote curassow as a "flag species" in environmental education programs, especially in municipalities where fragments for reintroduction are present. | 1 |
| ***A. jacutinga, C. blumenbachii, P. mitu, S. maximilliani*** | Atlantic Forest Birds NAP 1st cycle: 2017-2022 | To reduce habitat loss for target species. | A19 | To create and implement Protected Areas (3 ACTIONS: 19.1; 19.2; 19.3) | 2 |
|  | **Total Number of NAP Actions: 56** |  | A20 | Environmental supervision operations. | 3 |
|  | **Total Number of Human Dimensions Actions: 16** |  | A21 | To present to the agrarian development agencies the map of conservation areas for settlements. | 2 |
|  |  |  | A22 | Environmental Education activities | 1 |
|  |  |  | A23 | To disseminate information on species conservation. | 5 |
|  |  |  | A24 | To develop awareness campaigns on the consumption of certified forest products. | 1 |
|  |  |  | A25 | To elaborate management plans for Protected Areas. | 2 |
|  |  |  | A26 | To encourage the generation of sustainable income alternatives for communities. | 6 |
|  |  | To protect, expand, restore and connect Atlantic Forest habitats for bird species in this biome. | A27 | To promote the practice of birdwatching. | 6 |
|  |  |  | A28 | To promote educational campaigns for fire prevention. | 1 |
|  |  | To reduce poaching, illegal captures and illegal trade of Atlantic Forest bird’s taxon. | A29 | To compile information on poaching, captures and illegal trade of birds. | 7 |
|  |  |  | A30 | To promote environmental education actions and awareness campaigns against poaching, captures, illegal trade and indiscriminate releasing of bird species. | 1 |
|  |  |  | A31 | To intensify environmental supervision actions (2 ACTIONS: 31.1; 31.2) | 3 |
| ***Amazona vinacea*** | Parrots NAP 2nd cycle: 2017-2022 | Reduction and reversal of habitat loss and fragmentation of the PAN’s target species (objective 1) | A32 | To support the elaboration of Management Plans of Protected Areas. | 2 |
|  | **Total Number of NAP Actions: 76** |  | A33 | To implement actions to prevent and repress environmental infractions. | 3 |
|  | **Total Number of Human Dimensions Actions: 23** |  | A34 | Technical Note regarding the consideration of social and environmental rights within the scope of Superagui National Park. | 2 |
|  |  |  | A35 | To create communication networks for disseminating information about illegal practices. | 5 |
|  |  |  | A36 | To promote educational activities using the red-tailed parrot as a flagship species. | 1 |
|  |  |  | A37 | To produce educational material about bird species. | 1 |
|  |  |  | A38 | To contribute to and support the Great Atlantic Forest Reserve initiative. | 2 |
|  |  |  | A39 | To encourage income generation through apiculture. | 6 |
|  |  |  | A40 | To support visitation ordering in Protected Areas of Atlantic Forest domain. | 6 |
|  |  |  | A41 | To highlight the importance of the Brazilian pine (*Araucaria angustifolia*). | 1 |
|  |  |  | A42 | To promote permanent conservation awareness campaign. | 1 |
|  |  |  | A43 | To create Protected Areas and Private Natural Heritage Reserve (7 ACTIONS: (43.1; 43.2; 43.3; 43.4; 43.5; 43.6; 43.7). | 2 |
|  |  |  | A44 | To implement land use planning. | 2 |
|  |  |  | A45 | To test a method that allows monitoring and measuring the success of educational actions in parrot conservation based on conservation projects established in this NAP. | 7 |
|  |  | Implementation of integrated management actions that will benefit the target species of this NAP (objective 3) | A46 | To establish income-generating projects in rural settlements. | 6 |
|  |  |  | A47 | To promote educational activities during field campaigns aiming the bird species conservation. | 1 |
|  |  |  | A48 | To develop and implement training courses in identification, management and destination of target species. | 6 |
| ***Anodorhynchus leari*** | Arara-azul-de-lear NAP 2nd cycle: 2014-2017 | To implement in the area of occurrence of the species, until 2017, a specific Integrated Environmental Education Program for the Lear's at least in seven municipalities, and to promote community involvement in the Lear's Macaw Conservation and Management Program. | A49 | To improve public management in the municipalities in order to increase awareness about the importance of unifying environmental educational programs focused on Lear's Macaw conservation and its natural environment. | 1 |
|  | **Total Number of NAP Actions: 50** |  | A50 | To promote a workshop to formulate an Integrated Environmental Education Program for the occurrence area of Lear's Macaw, contemplating the different groups that compose local communities (managers, educators, community representatives and researchers). | 1 |
|  | **Total Number of Human Dimensions Actions: 24** |  | A51 | To formulate and disseminate in the local media communication channels, material and information about Lear's Macaw and its habitat. | 5 |
|  |  |  | A52 | To start the implementation of the Environmental Education Program in the communities. | 1 |
|  |  |  | A53 | To monitor and evaluate the Environmental Education Program. | 1 |
|  |  | To increase Lear's Macaw habitat by 5% in quality, until 2017. | A54 | To perform a diagnosis about the usage and land occupation of the Lear's Macaw’s occurrence area and define priority areas for recovery, expansion and management. | 2 |
|  |  |  | A55 | To articulate the creation and execution of an Incentive Program for the conservation of natural areas, and the planting and cultivation of “licuri” and other native sources of food in the region. | 2 |
|  |  | To create actions for alternative income generation through sustainable management (‘*licuri*’ palm production chain). | A56 | To qualify the activities of rural extension in good practices of ‘*licuri*’ palm management. | 6 |
|  |  |  | A57 | To promote activities of rural extension. | 6 |
|  |  |  | A58 | To develop and run a program of income generation in the local communities within the occurrence area of Lear's Macaw. | 6 |
|  |  |  | A59 | To promote the creation of a local productive chain, based on sustainable extractivism of products from Caatinga biome, especially the *licuri* palm. | 6 |
|  |  |  | A60 | To promote actions for the creation and implementation of Protected Areas (5 ACTIONS: 60.1; 60.2; 60.3; 60.4; 60.5). | 2 |
|  |  |  | A61 | To elaborate the Economic Ecological Zoning of the Lear's Macaw occurrence region. | 2 |
|  |  | To minimized the damages (conflicts) caused by Lear's Macaws attacks in maize crops in all municipalities within the species' occurrence area. | A62 | To maintain and improve the Monitoring Project of Lear's Macaws attack on the cornfields. | 7 |
|  |  |  | A63 | To create a Compensation Scheme for the losses caused by Lear's Macaws attacks on the agricultural crops. | 2 |
|  |  |  | A64 | To manage the use of resources from compensation for cornfield losses by Lear's Macaws attacks. | 2 |
|  |  | Lear's Macaw illegal trade reduced by at least 75% in five years. | A65 | To map the official organs of repression to illegal trade located in the region of Lear's Macaws occurrence and to do a diagnosis of trafficked Lear's Macaws per year, route of national and international illegal trade through apprehensions and denunciations. | 3 |
|  |  |  | A66 | To promote management, through awareness campaigns and building local teams to investigate environmental crimes related to Lear's Macaws illegal trade. | 3 |
|  |  |  | A67 | To articulate an authorization for rural owners’ access to environmental areas used by guards and researchers, through a term of commitment with the respective rural owners. | 3 |
|  |  |  | A68 | To articulate and implement a program to promote continuous local community surveillance during the period of nesting in breeding areas (“Serra Branca” and “Toca Velha”) and in the feeding areas, evaluating the possibility for guards to use radio communication and to monitor the nests by cameras. | 3 |
| ***Cyanopsitta spixii*** | Ararinha-azul NAP 2nd cycle 2019-2024 | To reduce poaching and illegal wild animal captures and the illegal trade of parrots in the region of Curaçá and Juazeiro by 2024. | A69 | Environmental inspection operations aiming to combat poaching, captures and illegal trade of wild animals. | 3 |
|  | **Total Number of NAP Actions: 32** |  | A70 | To integrate information systems of environmental agencies in order to develop an intelligence system to combat wild life illegal trade. | 3 |
|  | **Total Number of Human Dimensions Actions: 12** |  | A71 | To intensify local community involvement, as well as design and implement environmental education programs in the region of “Curaçá” and “Juazeiro”. | 1 |
|  |  |  | A72 | To characterize the socioeconomic profile of local communities and to map activities of poaching and captures of wild animals, as well as to identify gaps in environmental education actions. | 7 |
|  |  |  | A73 | To promote campaigns to discourage the captures and domestic guarding of wild animals, focusing on the species of Spix's Macaw and other parrots, in the region of “Curaçá” and “Juazeiro”. | 1 |
|  |  |  | A74 | To implement a communication network to protect the Spix's Macaw among residents from the region of “Curaçá” and “Juazeiro”. | 5 |
|  |  | To promote the conservation and recovery of the Spix's Macaw's habitat by 2024. | A75 | To implement Degraded Areas Recovery Units in communities of Spix's Macaw experimental releasing sites. | 2 |
|  |  |  | A76 | Identify private areas with potential for natural habitat conservation and restoration. | 2 |
|  |  |  | A77 | Analysis, licensing and approval of economic projects that address the conservation needs of the Spix's Macaw and that propose mitigation and compensatory measures that generate benefits for the conservation of the species and its natural habitat. | 2 |
|  |  | To promote efficient sustainable management practices, aiming for food, water, energy and economic security for local communities by 2024. | A78 | To implement and monitor a project of environmentally sustainable production practices, especially on goats and sheep farms. | 6 |
|  |  |  | A79 | To promote rural and forest extension actions in the region of “Curaçá” and “Juazeiro”. | 6 |
|  |  |  | A80 | To encourage different forms of tourism, focusing on bird watching, as an economic alternative and as a tool for engaging the local community. | 6 |
| ***Guaruba guarouba*** | Amazonic Birds NAP 1st cycle 2014-2019 | Reduction in: deforestation rates, change of natural habitats and pollution risks in the areas of birds occurrence. | A8 | Creation and implementation of Protected Areas (3 ACTIONS: 81.1; 81.2; 81.3). | 2 |
|  | **Total Number of NAP Actions: 39** |  | A82 | Environmental inspection actions in rural properties to combat illegal logging and fire (3 ACTIONS: 82.1; 82.2; 82.3). | 3 |
|  | **Total Number of Human Dimensions Actions: 12** |  | A83 | Land regularization. | 2 |
|  |  |  | A84 | To encourage bird watching activities. | 6 |
|  |  |  | A85 | To develop and implement an environmental education program focused on combat environmental degradation. | 1 |
|  |  | Reduction of negative impacts caused by the implementation of hydroelectric plants on the birds targeted by this NAP. | A86 | To analyze the feasibility of creating Protected Areas in the region. | 2 |
|  |  | Reduction of illegal captures and removal from nature of birds targeted by this NAP. | A87 | Environmental inspection actions. | 3 |
|  |  |  | A88 | To develop and implement an ongoing environmental education program. | 1 |
| *Sporophila maximiliani* | Atlantic Forest Birds NAP 1st cycle: 2017-2022 |  |  | There are no specific actions for the species. |  |