

Guidelines for the Rehabilitation of Captive Elephants as a Possible Restocking Option for Wild Populations

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Context and scope of the guidelines

Asian elephant (*Elephas maximus*) populations have declined across the 13 elephant range countries due to habitat loss and degradation, poaching and human-elephant conflict. Several wildlife management authorities plan to rehabilitate the captive Asian elephants and return them to the wild in order to revive depleted or extirpated populations. This is no simple task. Here we provide an overview of guidelines compiled based on the experience of practitioners and members of the Asian Elephant Specialist Group as a resource for such programs. We first provide a rationale and brief history of elephant reintroduction programs, followed by more specific guidance in sections as summarized below. The full document can be found on the website of the Asian Elephant Specialist Group.

Why (re)introduce Asian elephants?

There are several categorically distinct reasons for wanting to introduce or reintroduce Asian elephants into the wild from captivity, depending on whether one takes the perspective of the elephants, the people, or the landscape. This section considers each of these viewpoints briefly in presenting the rationale for initiating a rehabilitation and reintroduction program.

Which elephants should be considered and who should apply these guidelines?

There are at least two types of source populations that one may consider. One consists of those that have already spent a substantial fraction of their adult lives among people. The other consists of juveniles that may have been injured or orphaned and re-habilitated with the explicit aim of eventual re-introduction. These two types merit separate evaluation. More realistic are animals that are semi-wild, that have experience in foraging, such as those that may have been employed at timber camps. We discuss which types of individuals are appropriate candidates for release. Moreover we highlight the range of expertise that will be required in planning such a program.

Planning stage – primary considerations

The conservation aim of restoring elephant populations needs to be backed by political will and commitment. Important considerations at the outset are broken down as follows, with each discussed in greater detail in the full document:

- Defining the overall objectives of the proposed rehabilitation of captive elephants in the wild - Before the project starts, the overall objectives of this project should be discussed, identified and planned by all stakeholders for the advantages and disadvantages, prospective gains or losses. It requires a long-term commitment with high investment together with understanding that the local villagers will experience long-term impacts from having elephants around.

- General feasibility and assessment - Many issues need to be considered before starting the project. These include justification of the proposed rehabilitation and translocation, overall objectives, impact of moving the elephants, number of elephants, sex and age groups, government agencies, stakeholders and local communities involved, appropriate rehabilitation and rewilding methods, appropriate relocation approach and timing suitable release sites, logistical coordination and planning mechanisms, socio-economic study of the local communities, mitigation and management of Human-Elephant Conflict (HEC), commitment of long-term financial and political support, and the economic values besides conservation.

- Budgeting - Long term support from both governmental and non-governmental organizations, as reintroduction projects require a lot of funding and resources, especially for a species that is as large, long-lived and behaviourally complex as an elephant.

- Identification of recipient area(s) for Asian elephants - Ecological as well as human dimensions to consider in site selection. The recipient areas should have plenty and variety of elephant food and water across the year, particularly the dry season. Ideally natural areas that once contained wild elephants would be preferable as the required food sources can be expected to be available, and should not ever have human-elephant conflict.

- Identifying source animals - Age, sex, and history of potential candidates to be considered for reintroduction programs. The ideal elephants are from the logging or those raised in natural habitat, who have spent time in the forest.

- Logistical coordination and planning - Programs may have at least four types of key personnel: the elephant team, site preparation team, legal team, and community engagement team. The planning of elephant translocation, quarantine, rehabilitation and reintroduction will require input from each team and execution will require good coordination and communication among them.

- Personnel capacity and experience (including building local capacity) - The expertise of individuals with varied backgrounds will be helpful. This includes ecologists, behaviourists (ethologists), veterinarians, educators, researchers, fundraisers, mahouts, rangers, coordinators from both government and non-governmental organizations. The involvement of government law enforcement, police, or in some cases, military may also be required, as well as representatives of the local community engagement.

- Demographic, genetic and behavioural considerations - Differing needs based on age/sex class and the context for which the reintroduction is being designed. Asian elephants exhibit very dynamic fission-fusion social organization with complication to identify clear dominance hierarchies. Thus, this should be concerned with closed monitoring for social behaviour and demography.

- Veterinary considerations - Release of the captive animals into the wild may result in introduction of disease to conspecific or unrelated species. The planning process is very important in order to prevent disease transmission, and let the animal adapt to the climate and environment.

- Security considerations - Aspects concerning both the safety of the elephants and the people within the landscapes that populations will be situated within or adjacent to.

- Legal considerations - There will likely be country-specific legal frameworks, and possibly loopholes within such frameworks, that must be accounted for.

Rehabilitation period

The actual rehabilitation period can range from months to years, and will likely involve the bulk of the expense. There are three main sections that extensively detail the various needs to prepare for and address during this crucial period:

- Socialization - As elephants are highly social animals, it is absolutely critical to provide opportunities for the development of social

relationships in a careful manner that is age- and sex-appropriate and ensures the safety and well-being of individuals both while in rehabilitation, as well as upon release. This section covers the many diverse aspects of social interaction to be addressed.

- Food and foraging - When releasing the captive elephants back to the wild, their ability to find food and water resources will be crucial for their survival. They should be released in a group with other foraging-experienced elephants, or be trained for foraging, before bringing them to the project, and during the rehabilitation period.

- Health progress - One of the most important indicators that elephants can adapt themselves during the rehabilitation process is their health. Body condition score and dung composition are the most convenient health indicators, and should be regularly monitored.

Post-release period

Post-release monitoring is as crucial as the previous two phases, and no program can be considered complete or deemed a success without it. The main goal is to be able to answer the question: which factors have a positive or negative influence on reintroduction success? The monitoring itself is broken down into phases:

- Intensive monitoring period (1-5 years) - This period should ideally include



Group of released elephants with calves born from natural mating in the forest at Sub Lanka Wildlife Sanctuary, Thailand.

medical/physical, behavioural, and movement observations. This section details the types of monitoring that programs should strive for in order to be able to evaluate whether animals are properly assimilating to their new surroundings and any potential problems, risks, hazards etc. that might not have been foreseen. If there are wild elephants in the vicinity, it may be as important to include a component studying them as well, and their responses to released individuals, in order to have some basis for determining whether the latter are faring comparatively well or poorly.

- Long-term basic monitoring (2 or more years) - Depending on the available budget and feasibility, intensive monitoring may need to transition to more basic longer-term monitoring at some point within the first five years. This section covers the types of data that are only obtainable through longer-term observations, such as demographic events.

In both of these components, the need for preparatory and ongoing communication with local communities is emphasized, especially where specialized education programs may be needed.

Lessons learned

Things often do not go as planned. Some of the issues that arise may be wholly unpredictable, but others may benefit from past experience. This final section summarizes experiences collected from various existing initiatives, broken up according to the preceding sections of the guidelines. It is hoped that these aggregated observations will be useful for anticipating what might happen at any stage, to the extent possible.

Community awareness

The absence of good communication and community awareness programs, can foster a lot of misunderstanding, anger and resentment toward reintroduction programs among local people. This is especially true in areas where wild elephants may already be perceived as a risk to life, property, and livelihoods. Released animals may consequently be killed, either intentionally

or unintentionally, constituting not only a tragedy but a tremendous waste of resources. The burden is on the re-introduction program to work with people to ensure transparency from start to finish, even if this involves facing opposition or difficult situations.

Over-habituation

Certain individuals from early cohorts of animals that were over-habituated sought out human company to the extent that they tried to find their way back to the care facility or became a nuisance to visitors of protected areas in which they were released. It is therefore crucial to avoid over-habituation.

Social support

If the calves are released in a mixed sex group, male calves will wander large distances and may be more likely to encounter difficulties. It is suggested to release calves at the same sex cohort. Elephant calves need socialization while undergoing rehabilitation to prevent these problems.

Maternal drive

Captive-reared subadult females that are overzealous alloparents can separate offspring from other mothers while being unable to supply milk themselves, and may cause the calves to starve. Conversely, these captive-born mothers might ignore, attack or kill their own wild born calves for possibly due to lack of role models or practiced maternal experience.

Integration to the habitat and wild elephants

Some released calves may be easily accepted by the adults, and integrated to the wild herd. However, elephant-elephant conflict (male-male, female-female, male-female) can occur, and result in deaths of elephants.

Conclusion

When the elephants are released in that particular area, the goal is to ensure persistence for a long-term by integrating with existing wild populations or possibly seeding new populations. The rehabilitation of captive-born or orphaned wild elephants in human care for release back to the wild is a long and complicated process with many issues to consider. This includes not only thinking about the budget and co-operation from various organizations and stakeholders, but about what the elephants themselves truly need to be successful. All three stages - planning, rehabilitation, and post-release monitoring - are equally important. We hope this summary of guidelines helps to understand the various considerations for such program.

Citation

The full document can be found on the website of the Asian Elephant Specialist Group at <<https://www.asesg.org/resources.php>>.

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