

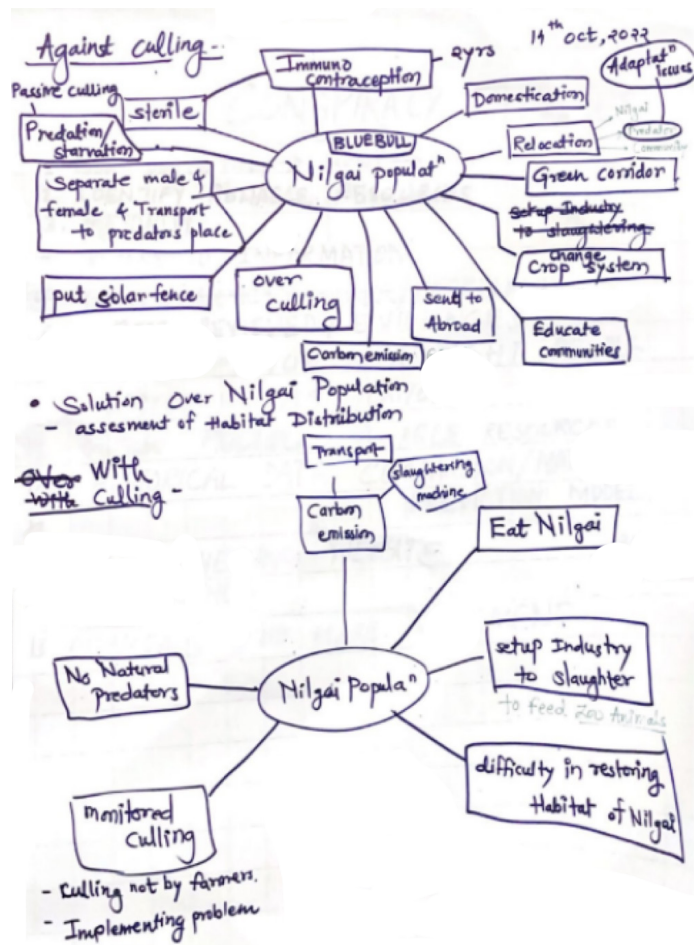
Management of the Nilgai population

The Nilgai, a large bovine animal in the Indian subcontinent has been in the news for a long time as it has destroyed livelihoods by raiding crops across farmlands. It is alleged that in Bihar alone over 3,000 Nilgais were culled during 2017–2019. From the perspective of conservation, this presents a conundrum whether or not culling of Nilgai is viable. Following are the things that need to be considered in order to assess culling as an effective method to control the Nilgai population:

Ecological issues: Nilgais are grassland animals. With the grasslands not available in the region and the absence of major predators of Nilgai such as the wolves and hyenas, the Nilgai population grows out of control. The major issue with reintroducing the predators is that the grassland habitats need to be restored. With the currently high Nilgai population in these areas, such efforts would prove ineffective.

Community issues: Crop losses - wheat, gram, maize, moong and other pulses are among the crops that are most damaged by Nilgai in States such as Bihar and Punjab. This drives farmers to kill the Nilgai. Another thing to consider is people's approach towards carnivores. The fear of getting into conflicts with carnivores such as wolves due to reasons such as attacks on livestock. This in turn makes it tough for the re-introduction of the carnivores back in those habitats.

Economic issues: Intervention measures such as solar fencing, relocation, transportation of the prey or the predator, setting up of slaughter



houses demands financial resources. Even hiring professional shooters to carry out culling demands a large sum of money. Any other scientific method of intervention would need a lot of planning, funding and can be time consuming by which, things would be too late to act upon.

Proposed Conservation Strategies

The RHATC Fellows propose the following methods to manage the overpopulation issue in the States where the Nilgai is overpopulated.

Strategies that don't include culling:

Immuno-contraception: With the help of chemical interventions, the Nilgai's immune system can be controlled to prevent fertilization for around 2 years.

Relocation: Three types of relocation are proposed to contain the Nilgai population.

1. Nilgai relocation—As a prey species, the Nilgais could be transported to areas with natural predators to systematically feed on them.
2. Predator relocation—Depending on the Nilgai population size to be managed, predators could be introduced to their habitats to achieve ideal population size.
3. Community relocation—As a last resort, if the damage and destruction is unmanageable through human interventions, the communities could be relocated to other areas with similar living conditions as their previous habitats.

Building infrastructure: The following spaces could be constructed to evenly distribute the Nilgai population in suitable habitats.

1. Green corridors—Build new or restore vanishing wildlife corridors in and around the existing habitats of the Nilgais.
2. Solar-powered fences—Restraining the movement of Nilgais with the help of solar-powered electric fences by preventing/ limiting intrusions.

Education of communities: Communities are the strongest ally in tackling the menace caused by Nilgais. Through awareness programmes, educational materials and seminars on the use of scientific methods to prevent overpopulation, which may include coexisting with natural predators, cultivating crops to suit predator behavior, can go a long way in containing the problem at the source.

Strategies that include culling:

Monitored culling: Instead of giving a free hand to farmers to cull Nilgai, appointed and qualified personnel such as the forest departments

must be given the responsibility to cull the population.

Nilgai meat: Nilgais could be explored as a possible food source to humans and captive animals.

Pros of using culling methods:

1. Immediate solution to control the population.
2. Introduction of the Nilgai as a food source for people and predator animals held in captivity.
3. Restoration of the ecological health of the grasslands that they were a part of.

Cons of using culling methods:

1. Over-culling can possibly lead to their extinction.
2. Irresponsible disposal of carcasses can lead to a public health issue.
3. Disease outbreak of zoonotics from other animals feeding on carcasses.

Conclusion

Culling of a species that wreaks havoc to croplands has been attempted in the past with no sustainable solution. Therefore, an integrated approach of using culling methods where it is economically and logistically and ecologically viable is recommended by the. For example, this could include monitored culling and construction of green corridors. Other factors to consider can be conducting carbon footprint assessments of the shortlisted conservation strategies, inclusion of stakeholder concerns and conducting regular awareness sessions with communities.

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