

TIGER CONSERVATION PLAN

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Abstract

The primary goal of this research paper is to analyse the Tiger Conservation Plan in India and its effectiveness, which aims to protect the world's largest population of tigers from habitat loss, poaching, and human-tiger conflict. Through a review of literature and analysis of data, the paper examines the strategies used in the plan, including protected area management, community participation, and scientific research. The results of the plan are evaluated through the latest tiger census conducted in 2018, which shows an increase in the tiger population in the country. The paper also discusses the challenges that remain in tiger conservation, such as habitat fragmentation and climate change, and offers suggestions for future research and policy development.. This paper concludes that the tiger conservation plan in India is a successful example of conservation efforts that involve a combination of protected area management, community participation, and scientific research. The plan has increased the population of tigers, reduced human-tiger conflict, and reduced poaching. The continued monitoring and adaptation of conservation strategies are essential for the long-term survival of tigers and their habitats.

Introduction

Tigers are a species of animal that are crucial to maintaining the ecosystem's health. Tigers are an iconic and endangered species that are a critical part of the ecological balance of the forests. India is home to the largest population of tigers in the world, but their numbers have been dwindling due to habitat loss, poaching, and human-tiger conflict. In response, the Indian government has implemented a comprehensive tiger conservation plan that seeks to protect the remaining tigers and their habitats. The plan includes a range of strategies, including the establishment of protected areas, community involvement in conservation efforts, and scientific research to understand the ecology of tigers and their habitats. The goal of this research paper is to examine the tiger conservation plan in India, its strategies, and its effectiveness in increasing the population of tigers and reducing human-tiger conflict and poaching. The paper also aims to identify the challenges that remain in tiger conservation and suggest future research and policy development to address them. By examining the tiger conservation plan in India, this paper aims to contribute to the knowledge and understanding of effective conservation strategies for endangered species and their habitats.

Objectives of the Tiger Conservation Plan

The main objective of tiger conservation in India is to ensure the long-term survival of tigers in their natural habitats. India is home to more than 70% of the world's wild tigers, and the government has implemented several conservation plans over the years to protect these magnificent creatures from poaching, habitat loss, and other threats. Here are some of the specific objectives of the tiger conservation plan in India:

Increase tiger population: The primary objective of the tiger conservation plan is to increase the population of tigers in India. To achieve this goal, the government has implemented measures such as habitat restoration, anti-poaching patrols, and relocation of tigers to new areas.

Protect tiger habitats: The tiger conservation plan aims to protect the natural habitats of tigers by preventing deforestation, encroachment, and other human activities that can damage or destroy their habitats. This involves working with local communities to promote sustainable land use practices and minimise the impact of human activities on tiger habitats.

Combat poaching: Poaching is one of the biggest threats to tigers in India, and the tiger conservation plan includes measures to combat poaching and the illegal trade in tiger parts. This involves increased patrols and surveillance, stricter penalties for poachers and traffickers, and public awareness campaigns to discourage the consumption of tiger parts.

Monitor tiger populations: To track the success of conservation efforts, the tiger conservation plan includes regular monitoring of tiger populations and their habitats. This involves conducting surveys, tracking individual tigers, and using other scientific methods to gather data on tiger populations.

Promote community involvement: The tiger conservation plan recognizes the importance of involving local communities in conservation efforts. This involves working with local communities to promote sustainable land use practices, providing training and employment opportunities, and encouraging community-led conservation initiatives.

Enhance research and innovation: The tiger conservation plan includes provisions for enhanced research and innovation in tiger conservation. This involves developing new technologies and methodologies for tracking and monitoring tiger populations, as well as researching new strategies for habitat restoration and conservation.

Nature and scope of tiger conservation plan

The tiger conservation plan in India is a comprehensive program aimed at protecting and conserving the country's tiger population. It is a multi-stakeholder effort involving the government, non-governmental organisations (NGOs), local communities, and other stakeholders. The plan encompasses a wide range of activities, including habitat conservation, anti-poaching measures, community involvement, research and monitoring, awareness and education, and policy and funding.

The scope of the tiger conservation plan in India is broad and covers the entire range of the species in the country. India is home to the largest population of wild tigers in the world, with an estimated 2,967 tigers as of 2018. The conservation plan aims to protect and conserve this population by focusing on key tiger

habitats across the country. These habitats are spread across several states, including Madhya Pradesh, Maharashtra, Uttarakhand, and Karnataka.

The nature of the tiger conservation plan in India is collaborative and involves partnerships between different stakeholders. The government plays a key role in implementing the plan, with support from NGOs, local communities, and other stakeholders. The plan is implemented through a range of measures, including protected areas, conservation corridors, and community-based conservation initiatives. The plan also involves research and monitoring to better understand the ecology and behaviour of tigers, as well as the impacts of human activities and climate change on their habitats.

In summary, the nature and scope of the tiger conservation plan in India is comprehensive and collaborative, with a focus on protecting and conserving the country's tiger population across a range of key habitats. The plan aims to address the challenges facing tiger conservation in the country and ensure the long-term survival of the species.

National Tiger Conservation Authority

The National Tiger Conservation Authority (NTCA) is a statutory body established by the Government of India in 2005 to oversee and implement tiger conservation efforts in the country. The authority is responsible for implementing the tiger conservation plan in India and ensuring the long-term survival of the species in the wild.

The establishment of the NTCA was a response to the alarming decline in the country's tiger population in the early 2000s. In 2006, a national tiger estimation survey found that the population had declined to just 1,411 individuals, prompting widespread concern and calls for urgent action to protect the species.

The NTCA was established under the Wildlife (Protection) Amendment Act, 2006, with a mandate to protect and conserve tigers and their habitats across the country. The authority is responsible for the implementation of the tiger conservation plan in India, which is a multi-stakeholder effort involving the government, NGOs, local communities, and other stakeholders.

The primary role of the NTCA is to provide technical and financial support to the states for tiger conservation efforts. The authority works closely with state governments to develop and implement conservation strategies, including habitat conservation, anti-poaching measures, and community involvement. The NTCA also oversees the management of tiger reserves and coordinates tiger conservation efforts across the country.

In conclusion, the National Tiger Conservation Authority is a critical institution in the effort to protect and conserve tigers in India. Through its efforts, the authority has played a vital role in implementing the tiger conservation plan in India and ensuring the long-term survival of the species in the wild.

Analysis

The analysis for this research paper on the tiger conservation plan in India involves evaluating the effectiveness of the conservation strategies employed in the plan and identifying challenges and opportunities for future conservation efforts.

One of the key strategies of the tiger conservation plan in India is the establishment of protected areas. The analysis shows that protected areas have been effective in providing habitat protection for tigers and other endangered species. However, the effectiveness of protected areas in conserving tigers depends on their size, connectivity, and management. Therefore, effective management of protected areas is critical to conserving tigers. This includes reducing human disturbances, enforcing anti-poaching measures, and enhancing prey populations.

Community participation is another important component of the tiger conservation plan in India. The analysis shows that involving local communities in conservation efforts has resulted in reduced human-tiger conflict and increased support for conservation. However, community participation also presents challenges, such as the need for community empowerment and the need for culturally sensitive conservation programs.

Scientific research is a critical aspect of the tiger conservation plan in India. The analysis shows that research has been effective in understanding the ecology of tigers and their habitats, including their distribution, behaviour, and prey preferences. This research has been used to develop conservation strategies, including habitat management, prey augmentation, and translocation of tigers to restore their populations.

The latest tiger census conducted in 2018 showed a 33% increase in the tiger population from the previous census in 2014, indicating the effectiveness of the tiger conservation plan in India. However, challenges remain in tiger conservation, including habitat fragmentation, poaching, and human-tiger conflict.

Overall, the analysis shows that the tiger conservation plan in India has been effective in increasing the tiger population, reducing human-tiger conflict, and providing hope for the long-term survival of tigers in the wild. However, continued research and policy development are needed to address the challenges that remain in tiger conservation and to enhance the effectiveness of the conservation strategies employed in the plan.

Strategies

The tiger conservation plan in India uses a variety of strategies to conserve tigers and their habitats. Some of the key strategies employed in the plan are:

- Establishment of protected areas: The tiger conservation plan in India involves the establishment of protected areas such as national parks, wildlife sanctuaries, and reserves. These areas are critical for providing habitat protection to tigers and other endangered species.
- Anti-poaching measures: Poaching is a major threat to the survival of tigers. The tiger conservation plan in India employs various anti-poaching measures such as strengthening law enforcement, increasing patrols, and using advanced technologies such as camera traps and drones to monitor tiger populations.
- Community participation: The tiger conservation plan in India recognises the importance of involving local communities in conservation efforts. Communities living in and around protected areas are provided with alternative livelihood options and are involved in decision-making processes related to conservation.
- Habitat management: The tiger conservation plan in India involves habitat management measures such as habitat restoration, habitat connectivity, and prey augmentation to improve the quality and quantity of tiger habitats.
- Translocation of tigers: In situations where tiger populations are threatened due to habitat loss or human-tiger conflict, the tiger conservation plan in India involves the translocation of tigers to other areas with suitable habitat.
- Scientific research: The tiger conservation plan in India recognises the importance of scientific research in understanding the ecology of tigers and their habitats. Research on tiger populations, their behaviour, and their prey preferences is used to develop conservation strategies and to monitor the effectiveness of the conservation plan.
- Awareness and education: The tiger conservation plan in India involves awareness and education campaigns to raise awareness among the general public about the importance of conserving tigers and their habitats.

These strategies are designed to work together to achieve the goal of conserving tigers and their habitats in India. The tiger conservation plan in India has been successful in increasing the tiger population and reducing human-tiger conflict, but continued efforts are needed to address the challenges that remain in tiger conservation.

Results

Given that tigers are at the top of the food chain, a healthy tiger population is a sign of a well-balanced environment. As a result of their conservation, other species can also be safeguarded and preserved. The tiger conservation plan in India has shown positive results since its inception in the 1970s. India is home to more than 70% of the world's tigers, and the country has been successful in increasing the tiger population through the implementation of the tiger conservation plan. The latest tiger census conducted in 2018 showed that India's tiger population had increased to 2,967 from 2,226 in 2014. This indicates a 33% increase in the tiger population over the past four years. The increase in the tiger population is attributed to various factors such as habitat protection, anti-poaching measures, community participation, and scientific

research. This has produced a number of benefits that promote life, proving the project's effectiveness. The following examples include:

- **Carbon Sequestration:** The burning of fuel and other activities cause a significant amount of carbon dioxide to be released into the atmosphere, which heightens the greenhouse effect. The woods become essential for the atmosphere because they absorb the carbon, primarily via the forests in tiger reserves.
- Presence of large covers of forests impacts the climate of the nearby areas. This proves to be beneficial for agriculture and humans, as they are well protected from the extreme type of climate.
- The evapotranspiration process from the trees causes a slight increase in rainfall in the area, which benefits people, agriculture, and areas with low groundwater.
- During heavy rains, the forest works as a reservoir, preventing runoff and soil erosion. Water infiltration is made easier by the vegetation's root systems that have been developed there.
- The trees in the tiger reserves' woods serve as catchment regions. The water is absorbed by them, and it is gradually released. This lowers the chance of flooding and erosion of the topsoil, which is necessary for the vegetation to grow.

Challenges

The following are some areas where the strategy has fallen short or lacks initiatives:

- a. **Habitat fragmentation:** Despite the establishment of protected areas, tiger habitats in India continue to be fragmented due to factors such as deforestation, human encroachment, and infrastructure development. Fragmented habitats can result in reduced genetic diversity, reduced prey availability, and increased human-tiger conflict.
- b. **Poaching:** Poaching continues to be a major threat to tigers in India. Although anti-poaching measures have been put in place, poachers continue to target tigers for their body parts, which are in high demand in the illegal wildlife trade.
- c. **Human-tiger conflict:** Human-tiger conflict continues to be a problem in some areas of India, particularly in areas where tigers come into contact with human settlements. This can result in the loss of human life, as well as the killing of tigers in retaliation.
- d. **Lack of coordination:** The tiger conservation plan in India involves multiple agencies and stakeholders, which can result in a lack of coordination and communication. This can lead to duplication of efforts, inefficiencies, and the failure to address key conservation issues.
- e. **Lack of funding:** Despite the success of the tiger conservation plan, funding remains a major challenge. The cost of maintaining protected areas, implementing anti-poaching measures, and supporting community participation can be high, and funding is often inadequate.
- f. **Climate change:** Climate change is expected to have a significant impact on tiger habitats in India, with rising temperatures and changing rainfall patterns affecting the availability of water and prey. This could lead to a decline in tiger populations, as well as increased human-tiger conflict.

To address these challenges, the tiger conservation plan in India needs to focus on increasing funding for conservation efforts, improving law enforcement to combat poaching, and addressing human-tiger conflict by involving local communities in conservation efforts. Additionally, the plan needs to focus on protecting and restoring tiger habitats, promoting sustainable development, and mitigating the impact of climate change.

Suggestions

To address the challenges facing the tiger conservation plan in India, the following suggestions can be considered:

- a. Anti-poaching measures: Strengthening law enforcement efforts to combat poaching, including increasing the number of forest guards and improving surveillance and intelligence gathering.
- b. Community involvement: Involving local communities in tiger conservation efforts by providing alternative livelihood options and promoting sustainable development. This can reduce human-tiger conflict and increase community support for conservation efforts.
- c. Habitat conservation: Focusing on habitat conservation and restoration, including protecting and connecting tiger habitats, and reducing fragmentation by promoting landscape-level planning.
- d. Research and monitoring: Investing in research and monitoring to better understand the ecology and behaviour of tigers, as well as the impacts of human activities and climate change on their habitats.
- e. Policy and funding: Strengthening policy and regulatory frameworks for tiger conservation, and increasing funding for conservation efforts through partnerships with the private sector, international organisations, and government agencies.
- f. Awareness and education: Raising awareness and educating the public about the importance of tiger conservation, as well as the threats facing the species and the actions that can be taken to protect them.

By implementing these suggestions, the tiger conservation plan in India can overcome the challenges it faces and ensure the long-term survival of tigers in the country.

Conclusion

In conclusion, the tiger conservation plan in India is an ambitious and comprehensive effort aimed at protecting and conserving the country's tiger population. The plan is guided by the National Tiger Conservation Authority, which was established in 2005 to oversee and implement tiger conservation efforts in the country. The tiger conservation plan in India is an example of successful conservation efforts that involve a combination of protected area management, community participation, and scientific research. While there are still challenges to be addressed, such as habitat fragmentation and climate change, the success of the plan provides hope for the long-term survival of tigers in the wild. It is essential to continue to monitor and adapt conservation strategies to ensure that tigers and their habitats are protected for future generations. The fact that the tiger population has increased by 33% since the last census, shows that the tiger conservation plan has mostly been a success. Every plan has its drawbacks and the improvement in

those areas is what makes a plan better later on. For further improvement, it has been made mandatory for the state government to establish Tiger Conservation Foundation (as per Section 38X of the Act). This facilitates and supports the government for the conservation of tigers. It helps in the development of the tiger reserves in the ecological, social, cultural and economical aspects.

It helps in promoting eco-tourism and safeguarding the natural environment.

It facilitates the creation of assets which can fulfil the objectives stated above.

It renders support in technological, financial, social, legal activities.

The status of the tigers outside the protected areas is also important. Since the inception of Project Tiger, the government has invested in the protection of the tigers and has taken steps to protect them and India has become one of the biggest habitats for tigers. The project has made it possible to have a more focussed approach and to prioritise actions for the conservation of tigers. In my opinion, the investment made in the project is more than justified. The in-situ conservation strategy has, and will always prove to be beneficial for the success of the plan.

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