

# MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION, MUMBAI

# GOVERNMENT POLYTECHNIC KARAD

# THIRD YEAR DIPLOMA COMPUTER ENGINEERING (I-SCHEME)

# PART [A]

# MICRO-PROJECT PROPOSAL

"STUDY OF THE EXTINCT ANIMALS"

# **UNDER THE SUBJECT**

**ENVIRONMENTAL STUDIES (22447)** 

# **SUBMITTED BY**

Sr.no	Roll No	Enrollment No	Name of Team Member
1.	2251	2100100053	Pratik Pramod Shejwal
2.	2254	2100100056	Shravani Bharat Mahajan
3.	2260	2100100063	Riya Sunil Kharade

# **UNDER THE GUIDANCE**

Smt. K.K.GAIKAWAD

(DEPARTMENT OF COMPUTER ENGINEERING)
2023-24



# MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION, MUMBAI.

# **Certificate of completion**

# Of Micro-project Assessment at the end of Semester

This is to certify that,

Sr.no	Roll No	<b>Enrollment No</b>	Name of Team Member	
1.	2251	2100100053	Pratik Pramod Shejwal	
2.	2254	2100100056	Shravani Bharat Mahajan	
3.	2260	2100100063	Riya Sunil Kharade	

Has successfully completed "Study Of The Extinct Animals" Micro-project of the Fifth semester Diploma in Computer Engineering of subject Environmental Studies (22447) from Government Polytechnic Karad. Institute with Institute code (0010).

Prof. K.K. Gaikwad

(Project Guide)

**Prof. S. B. Patil** (Head of the department.)

**Dr. R. K. Patil** (Head of Institute)

Seal of the institute

# **ACKNOWLEDGEMENT**

We take this opportunity to thank all those who have directly and indirectly inspired, directed and assisted us towards successfully completion of this project report.

We express our sincere thanks to Dr R. K. Patil Principal of Government Polytechnic, Karad and the Head of Department Prof. Patil S.B, for having us allowed to submit this report as a part of our academic learning.

We express our sincere thanks to Prof. K.K. Gaikwad Lecturer in Computer Engineering, Govt. Polytechnic, Karad for encouragement throughout the project report and guideline in designing and working out this project. We are also grateful to team of project

Place: Government polytechnic Karad

Date:

Yours Sincerely,

2251-Pratik Pramod Shejwal2254-Shravani Bharat Mahajan2260-Riya Sunil Kharade

# > RATIONALE:

In this micro-project, we're going to put together a document all about "Study of the extinct Animals". Studying animals that are no longer alive is really important because it helps us learn about how the Earth has changed over time and how animals have evolved. Fossils, which are the remains of these animals, give us hints about what the environment used to be like, how animals changed to survive, and what happened during big events when many animals died out.

What we learn from studying these fossils helps us figure out ways to protect the different kinds of animals we have today. It also makes people interested in science and shows us how the past is connected to what's happening now. Plus, looking at these extinct animals might even help us find new medicines or technologies, showing how curious humans are about the history of our planet.

# > AIM AND BENEFITS:

## **●** <u>AIM:</u>

Investigate extinct animals' history, evolution, and environmental impact to understand Earth's past and underscore the need for biodiversity preservation.

# **● BENEFITS:**

- 1)Historical Insights: Revealing the past state of Earth's ecosystems through extinct animals' study provides a window into the planet's history.
- **2)Evolutionary Understanding:** Analyzing extinct species aids in understanding how life adapts and changes over time.
- **3)Environmental Awareness:** Exploring the causes of extinction underscores the importance of preserving modern species and ecosystems.

## **COURSE OUTCOMES:**

- CO A] Develop public awareness about environment.
- CO C] Conserve Ecosystem And Biodiversity.
- CO E] Manage social issues and Environmental Ethics as lifelong learing.

# > LITERATURE REVIEW:

- 1) We referred book, Bokk Name is Animal Science And Environmental Issue, by-Dr Wahid Khawar Balwan and Dr. Neelam saba.
- 2) We referred following link:
  - i) https://awionline.org/content/list-endangered-species
  - ii) https://blog.finology.in/Legal-news/extinct-endangered-species

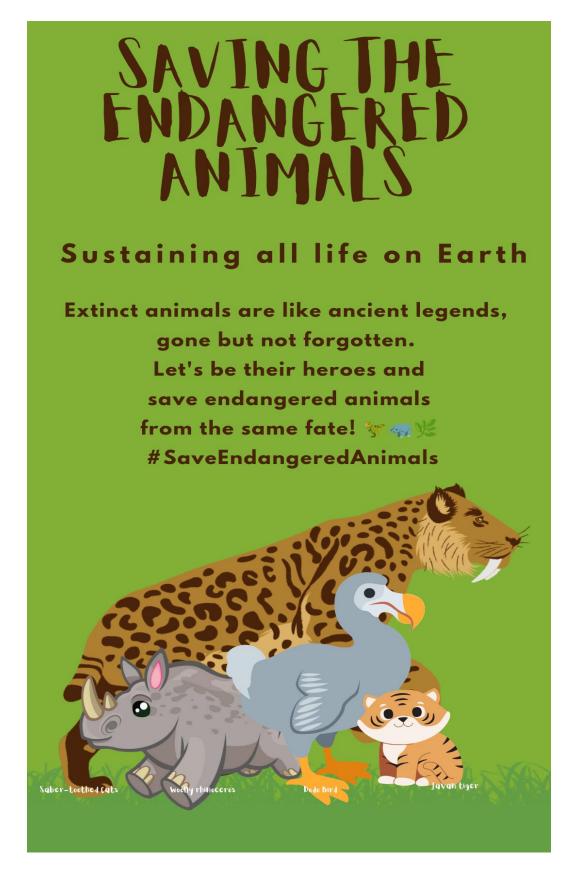
## > ACTUAL PROPOSED METHODOLOGY:

- 1) Engaging in a thorough discussion on the designated topic was the first step in our project journey. This allowed us to establish a strong foundation for our work.
- 2) The next crucial task was the selection of a capable leader who would guide the team and ensure a smooth distribution of responsibilities among the members.
- 3) To gather the necessary information for our project, we diligently utilized various resources, including books, online articles, and interviews with experts in the field.
- 4) Following data collection, we embarked on the vital process of analyzing the acquired information, aiming to extract valuable insights and trends.
- 5) In our efforts to raise awareness about our project, we created both a website and an informative pamphlet, ensuring that our message reached a broader audience.
- 6) Subsequently, we compiled all our findings and efforts into a comprehensive report, which served as a documentation of our project's progress and outcomes.
- 7) Thorough quality checks were carried out to ensure the accuracy and completeness of all the materials created for our microproject.
- 8) With our project well-prepared and documented, we presented our findings and progress to our project guide, seeking valuable feedback and guidance.
- 9) Finally, after incorporating any necessary revisions, we submitted our completed project to our guide.

# > ACTUAL RESOURCES REQUIRED:

Sr.no	Name of Resources	Specification	Quantity
1.	Computer system	Laptop i5 Processor 11 <sup>th</sup> Generation	1
2.	Ms Word	Microsoft Word 2021 MSO 64 bit	-
3.	Internet	4G, Wi-Fi	-
4.	Book	Animal Science & Environmental Issue	1
		By- Dr. Wahid Khawar Balwan	
		Dr. Neelam Saba	

# > OUTPUT OF MICROPROJECT:



**Pamphlet for Project** 

#### • What is Extinction?

When an entire species, or type, of animal dies out, that species is extinct. Once a species becomes extinct, it is gone forever. Extinction happens when a species, which is a group of similar animals, disappears completely.

## • Reason of Extinction animal:

- 1) Habitat Loss: Destruction of natural habitats, often due to human activities like deforestation and urbanization, leaves animals without a place to live and find food.
- 2) Climate Change: Rapid climate change can alter ecosystems, making it challenging for species to adapt or survive
- **3) Pollution**: Pollution of air, water, and land can be toxic to animals and their habitats, leading to population decline and extinction.
- **4) Disease**: Epidemics and diseases can wipe out entire populations or species, particularly when animals have no immunity.
- 5) Genetic Issues: Small populations are more vulnerable to genetic problems due to inbreeding, which can lead to reduced fitness and reproduction rates.
- 6) Natural Disasters: Volcanic eruptions, earthquakes, hurricanes, and other natural disasters can cause immediate harm to populations and habitats.
- 7) Human Disturbance: Human activities like noise pollution, tourism, and development can disrupt breeding and feeding behaviors.
- 8) Commercial Exploitation: Animals are sometimes exploited for commercial purposes, like the use of animal parts in traditional medicine, fashion, or luxury goods.
- 9) Fragmentation of Habitats: Fragmentation occurs when habitats are divided by roads, agriculture, or development, making it difficult for animals to find mates and resources.
- **10) Water Pollution**: Contamination of aquatic ecosystems through pollutants like chemicals and toxins can lead to the decline and extinction of aquatic species.

# • Mass Extinction:

Sometimes many different species become extinct in a short time. This is called a **mass extinction**. Several major mass extinctions have occurred in the past. Each time many animal species were wiped out. Some survived, however, and over millions of years new species developed.

The worst mass extinction happened about 248 million years ago. This extinction included mainly animals without backbones that lived in water. Another mass extinction occurred about 65 million years ago. It wiped out many of the planet's land animals, including the dinosaurs.

# • Historical Extinction:

Historical extinctions refer to the extinctions of species that occurred in the distant past, long before recorded history or human civilization. These extinctions are typically documented through the study of fossil records and geological evidence. Historical extinctions have been happening throughout Earth's history due to a variety of natural factors, including:

Geological Events: Mass extinctions have occurred during geological events like asteroid impacts, volcanic eruptions, and continental drift. One of the most famous examples is the mass extinction that wiped out the dinosaurs around 66 million years ago, likely caused by a large asteroid impact.

#### 1. Climate Change:

Historical extinctions have been influenced by shifts in Earth's climate, with species often struggling to adapt or migrate in response to changing environmental conditions.

## 2. Evolutionary Competition:

Evolutionary Competition: The relentless competition among species for resources and ecological niches has driven many to extinction, as new species evolve and outcompete older ones.

#### 3. Speciation:

The process of speciation, or the emergence of new species, has at times led to the extinction of ancestral species, unable to compete with their more specialized descendants.

#### 4. Changing Sea Levels:

Variations in sea levels, caused by factors like glaciation cycles, have impacted coastal ecosystems and marine species. Rising or falling sea levels can submerge or expose habitats, affecting species' survival.

# 5. Plate Tectonics:

The movement of Earth's tectonic plates has influenced the distribution of continents and oceans, altering habitats and species ranges. These shifts can lead to isolation or competition among species, affecting their survival

# • The role of extinction in evolution:

Extinction helps evolution by making room for new species to develop and adapt to changing environments. It's like nature's way of giving other creatures a chance to thrive. Sometimes, when one species disappears, it can cause a ripple effect, changing how other species live. This process can be slow or happen quickly, shaping the variety of species we see today. But nowadays, humans are causing extinctions faster, so it's crucial to protect and save the diversity of life on Earth.

## • What is Extinction Rate in India?

The extinction rate of animals today is between 1,000 and 10,000 times higher than the natural rate of extinction, which is the rate of extinction without human encroachment and activity.

# • List of extinction animal:

Species	<b>Extinct Date</b>	Former Habitat	Primary Causes
Slippery Handfish	Extinct (year unknown)	Tasmania, Australia	Habitat degradation, pollution, climate change, invasive species
Northern White Rhino	2018 (Subspecies)	Central and East Africa	Poaching for horns, habitat loss
Spix's Macaw	2000 (in the wild)	Brazil (Amazon)	Habitat loss, illegal trapping, lack of suitable habitat
Golden Toad	1989	Monteverde Cloud Forest, Costa Rica	Habitat loss, climate change, chytrid fungus
Indian Auroch	Extinct (c.1947)	Indian subcontinent	Overhunting, habitat loss
Pink-headed Duck	Early 20th century	centuryIndia, Bangladesh, Myanmar	Habitat loss, hunting
Himalayan Quail	Early 20th century	Himalayan region, India, Nepal	Habitat loss, hunting

# 1) Slippery handfish



The red handfish, a close relative of the now extinct catfish, was abundant in the waters around Australia just 200 years ago. Named for its uncanny resemblance to human arms and hands, the catfish - declared extinct in 2020 - also has a mohawk-like spike on its head (much like humans). Its cousins are shown here.) Currently, there is only one known preserved specimen of the extinct catfish worldwide.

**Causes of Extinction**: Although the exact cause of extinction has not been determined, scientists believe that habitat loss and destructive fishing by other marine species, such as scallops and scallops, are unknown. contributed to their demise

## 2) Northern white rhino



The last two surviving northern white rhinos are female, with the last male dying in March 2018. Neither female can produce offspring, making the introduction of a new generation of the species highly unlikely. Scientists are working on using sex cells harvested and fertilized in vitro to create a lab-created northern white rhinoceros.

**Causes of Extinction**: Poaching has decimated this population, and habitat loss has pushed the rhinoceros to extinction.

# 3) Spix's macaw's



Spix's Macaw currently exists in captivity, with numbers ranging from a frighteningly low 60 to 80. This bird is also known as the "Little Blue Macaw" because It is known for its brilliant blue plumage.

**Cause of Extinction**: Spix's Macaw is extinct in the wild due to habitat destruction, trapping, and illegal trade.

# 4) Golden Toad



The golden toad isn't the only species that have gone extinct over the past 40 years. the small toad was last sighted in 1989 in a rainforest in Costa Rica before being declared extinct in 1994. The deadly skin disease chytridiomycosis is thought to have wiped out the already established toad population. This vulnerability is due to what science calls "limited habitats and small populations."

Causes of Extinction: Pollution, global warming, and chytrid skin infections have led to the extinction of this species.

# 5) The Indian Auroch



These magnificent creatures were bigger, stronger variations of regular cattle. They supposedly looked exactly like the existing Gaur, though slightly larger, and were very identical to them. Even though they were finally put to domestic use, auroch hunting continued.

Cause of extinction- Hunting, Habitat Loss, and crossbreeding.

## 6) The Indian Auroch



These magnificent creatures were bigger, stronger variations of regular cattle. They supposedly looked exactly like the existing Gaur, though slightly larger, and were very identical to them. Even though they were finally put to domestic use, auroch hunting continued.

Cause of extinction- Hunting, Habitat Loss, and crossbreeding.

#### 7) Indian Javan Rhinoceros



The Javan Rhino, once one of the most common rhinoceros species, is now one of the world's most endangered species. They are currently extinct in India. They once flourished throughout south-east Asia, including the Assam and Bengal areas, but today the only population is found in Java's Ujong Kulon National Park.

Cause of extinction- Stealing their horns.

# 8) Tasmania Tiger



Native to Australia, Tasmania and New Guinea, the Tasmanian Tiger was a large carnivorous marsupial. Not related to tigers, the creature had the appearance of a medium-to-large-size dog (it weighed 30kg with a nose to tail length of almost 2 metres) but dark stripes gave it a tiger-like appearance. It is believed to have been hunted to extinction – this was encouraged by bounties – but human encroachment into its habitat, the introduction of dogs and disease could also have contributed.

Cause of extinction - habitat loss, hunting, and disease.

# • Human Responsibility:

Humans play a pivotal role in the fate of extinct animals. Our actions, including habitat destruction, overhunting, and climate change, have contributed to the extinction of numerous species. Recognizing this responsibility, humans must actively engage in conservation efforts, such as habitat restoration, captive breeding, and supporting legislation protecting endangered species. We also bear a moral duty to learn from past mistakes and prioritize the preservation of Earth's biodiversity, preventing future extinctions and safeguarding the planet's ecological balance.

**Website for the project: (**Created by project team)

http://excinctanimalbypsr.netlify.app

## > SKILL DEVELOPED/ LEARNING OUT OF THIS MICRO-PROJECT

- After completing this micro-project following skills are developed:
  - 1)Research Skills
  - 2)Critical Thinking
  - 3)Environmental Awareness
  - 5)Interdisciplinary Learning
  - 6) Empathy and Ethics
  - 7)Collaboration
  - 8)Creativity
- After Implementing this micro-project, we have learnt:
  - 1)Exactly meaning of Extinct Animals.
  - 2) The identification of animals that have become extinct.
  - 3) The development of initiatives aimed at present-day animal conservation.
  - 4)Strategies for raising awareness about the importance of saving animals.

## > APLLICATION OF MICROPROJECT:

- 1)Paleontological Research
- 2)Biological and Ecological Studies
- 3)Conservation Planning
- 4) Education and Outreach
- 5)Inspiration for Science Fiction and Art
- 6)Ethical Considerations

# > CONCLUSION OF MICROPROJECT:

In conclusion, the extinct animal micro-project has been a valuable learning experience. It has deepened our understanding of the impact of human actions on the natural world and the irreversible loss of biodiversity. Through research and collaboration, we have uncovered the stories of extinct species, shedding light on the complex factors contributing to their demise. This project has not only enriched our knowledge but also instilled a sense of responsibility to protect endangered species and their habitats. It serves as a reminder that we have the power to make positive changes and prevent further extinctions through conservation, education, and sustainable practices. The lessons learned from extinct animals will continue to inspire us to be better stewards of our planet's precious diversity.

# > References:

- 1) We referred book, Bokk Name is Animal Science And Environmental Issue, by-Dr Wahid Khawar Balwan and Dr. Neelam saba.
- 2) We referred following link:
  - i) https://awionline.org/content/list-endangered-species
  - ii) https://blog.finology.in/Legal-news/extinct-endangered-species