

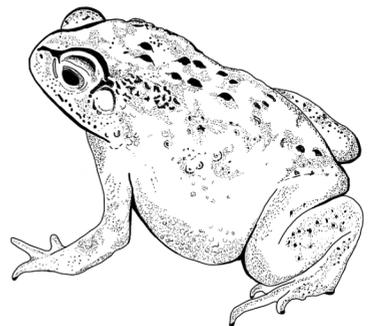
THE HOPPY FROG

LIVING IN A HUMAN DOMINATED WORLD

Welcome to the fascinating world of amphibians!

Amphibians are remarkable creatures that have colonized every imaginable place, except for the permanently frozen regions and the oceans. Amphibians comprise frogs and toads, salamanders and newts, and caecilians. Amphibians are characteristic in their remarkable array of adaptations that enable them to thrive in diverse habitats. From the tropical rainforests to the arid deserts, amphibians play integral roles in ecosystems as both predators and prey and serve as valuable indicators of environmental health.

However, despite their incredible resilience, amphibians face a multitude of threats that endanger their survival. Habitat loss and fragmentation, pollution, climate change, invasive species, and diseases such as chytridiomycosis pose significant challenges to amphibian populations worldwide. As we embark on this immersive journey through the world of amphibians, let us explore the perils they face and the urgent need for conservation action to safeguard these extraordinary creatures for future generations.



THE HOPPY FROG

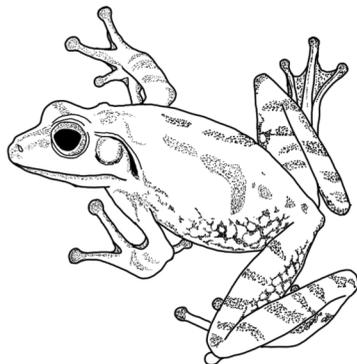
LIVING IN A HUMAN
DOMINATED WORLD

RULES OF THE GAME

1. This game can be played by two people (2 pawns, 1 dice).
2. Players roll the dice and move across the board, moving one box per number on the dice.
3. There are multiple elements to the game and if the player lands in a box with any of the elements, there are specific actions
4. When a player lands on a **Green** or **Red** coloured cell, they pick up a card with the corresponding number.
5. Player reads the brief explanation and performs the action.
6. The game ends when one player reaches the cell marked as “finish”.

Created by Seshadri K S and Vidisha M K with inputs from Kiran Salagame.

Hoppy Frog © 2024 by Seshadri K S and Vidisha M K is licensed under CC BY-SA 4.0.
Contact: seshadri.ks@atree.org for queries



Supported by:



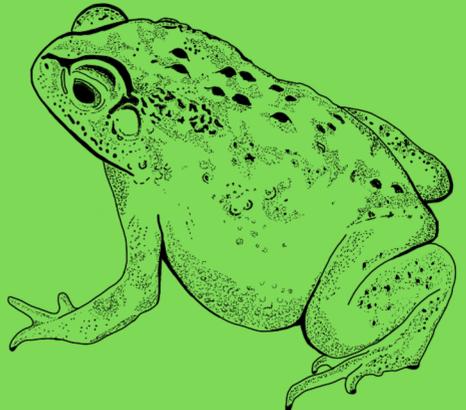
Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)

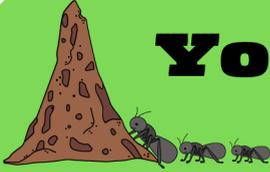


THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

4





You have landed AT A TERMITE MOUND

Amphibians primarily eat insects for resources but also consume other frogs, snakes, and birds.



FROG CONSUMED TERMITES!
**MOVE TWICE THE NUMBER ON DICE IN NEXT
ROUND**



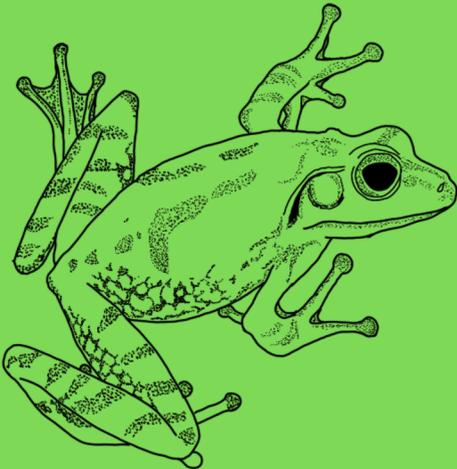
Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

27





You have landed **WHERE IT IS RAINING**

Rainfall increases amphibian activity, creates breeding habitats and facilitates tadpole dispersal.



FROG HAS FOUND A STREAM! **MOVE 12 STEPS**



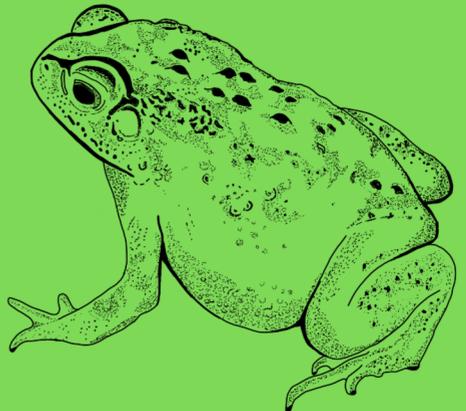
Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

39



You have landed AT AN EPHEMERAL POOL



Ephemeral pools provide temporary shelter, food, and water during dry spells.



FROG FEELS REJUVENATED! MOVE TWO ADDITIONAL STEPS



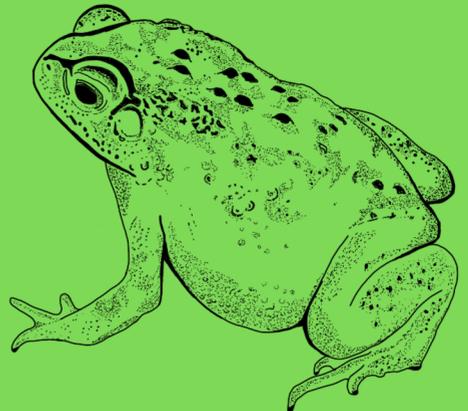
Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

45



GARDEN



You have landed IN AN UNKEPT GARDEN

Wild and native flora attract insects, create moist areas and increase biodiversity.



**THE FROG IS ENERGIZED!
MOVE THREE ADDITIONAL STEPS**



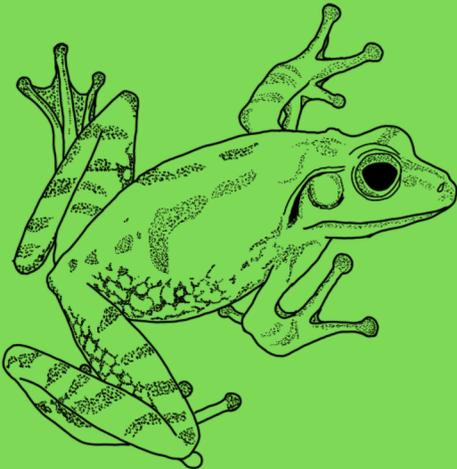
Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

69



GARDEN



You have landed IN AN UNKEPT GARDEN

Wild and native flora attract insects, create moist areas and increase biodiversity.



**THE FROG IS ENERGIZED!
MOVE THREE ADDITIONAL STEPS**



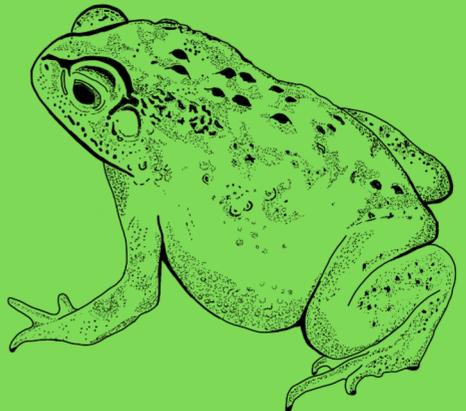
Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

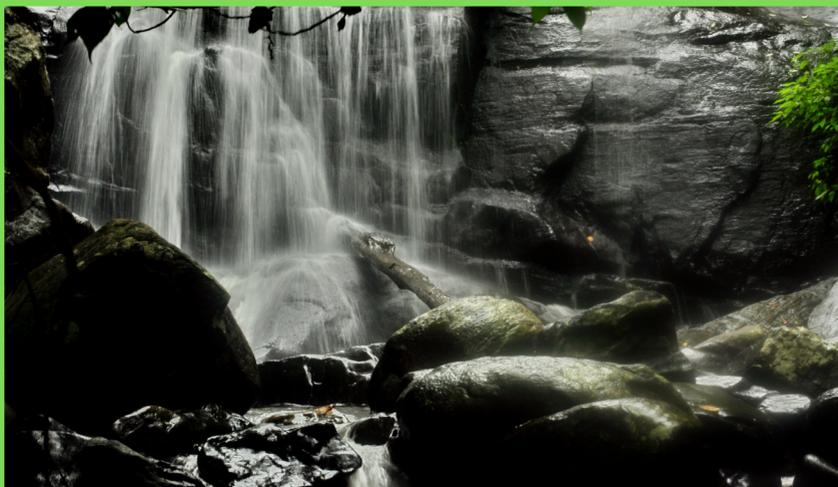
80





You have landed WHERE IT IS RAINING

Rainfall increases amphibian activity, creates breeding habitats and facilitates tadpole dispersal.



FROG HAS FOUND A STREAM! MOVE 12 STEPS



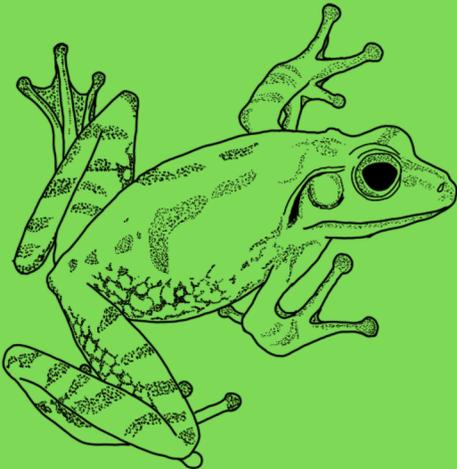
Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

84





You have landed IN A GARDEN WITH CRICKETS

Amphibians primarily eat insects for resources but also consume other frogs, snakes, and birds.



**FROG CONSUMED CRICKETS!
MOVE TWICE THE NUMBER ON DICE IN NEXT
ROUND**



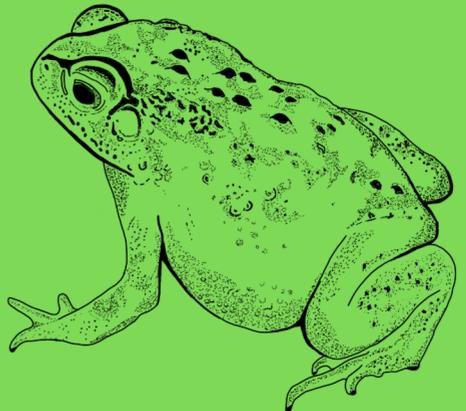
Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

93





You have landed IN A FOREST FULL OF TREES

Trees cool their surroundings, fallen leaves are refuge for insects, and offer shelter to frogs.



FROG FEELS REJUVENATED! MOVE TWO STEPS EXTRA IN NEXT ROUND



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

8





You have landed IN AN AREA WITH FROGS

Species compete for resources when sharing the same space. Some avoid competition by changing activity or shifting to different resources.



**COMPETITION LEFT THE FROG
HUNGRY!
GO BACK TO START**



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

12





You have landed IN AN AREA THAT IS VERY HOT

Amphibians are ectothermic, meaning they adjust their body temperature to their surroundings. High temperatures can dehydrate them and, dry up their habitats.



**FROG HAS HEAT SHOCK!
GO BACK 6 STEPS AND SKIP ONE TURN**



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

19



You have landed ON A ROAD WITH VEHICLES!



Linear obstacles like roads and railways, can hinder animal movement. Females carrying eggs are at higher risk, impacting future generations.



**FROG COULD NOT CROSS THE
ROAD!
GO BACK TO START**



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

26





You have landed IN A POLLUTED HABITAT

Water quality is affected by industrial effluents and garbage dumping, impacting habitat quality. Frogs are sensitive to these pollutants.



**EXPOSURE TO HAZARDOUS
CHEMICALS!
GO BACK 6 STEPS**



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)

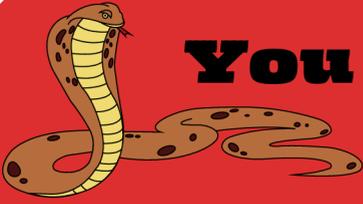


THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

33





You have landed NEAR A PREDATOR!

Amphibians are an important component in the food chain. They are consumed by predators such as snakes.



FROG ENCOUNTERED A SNAKE ! GO BACK 12 STEPS



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

38





You have landed

IN A CITY!

Urbanization alters ecosystems by clearing lakes and forests, impacting amphibians unable to move freely.



**FROG COULD NOT MOVE
THROUGH THE CITY!
GO BACK TO PREVIOUS POSITION**



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

50





You have landed NEAR A PREDATOR!

Bats prey on frogs using echolocation. Male frogs are particularly vulnerable to bat predation.



FROG ENCOUNTERED A BAT! GO BACK TO PREVIOUS POSITION



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

57





You have landed IN A CROP FIELD WITH PESTICIDES

Pesticides in crops can harm frogs by reducing food sources, affecting hormones, and causing physical deformities.



FROG IS DEFORMED! SKIP TWO TURNS



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

60





You have landed IN A DEFORESTED AREA

Deforestation from development negatively affects amphibians in forests. Even after forests grow back following logging, they still suffer harmful consequences.



HABITAT DESTROYED! GO BACK TO PREVIOUS POSITION



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

67





You have landed NEAR A PREDATOR!

Amphibians play a crucial role in the food chain. Various invertebrates like house centipedes prey on frogs.



A CENTIPEDE CAUGHT THE FROG! GO BACK TO START



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

72





You have landed IN AN AREA WITH FROGS

Species compete for resources when sharing the same space. Some avoid competition by changing activity or shifting to different resources.



COMPETITION LEFT THE FROG HUNGRY!

GO TO STEP 45 AND WAIT ONE TURN



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

78





You have landed IN AN AREA WITH CHYTRID FUNGUS

Amphibians are vulnerable to infections due to their moist skin. The *Batrachochytrium dendrobatidis* fungus can be deadly, wiping out entire populations.



**THE FROG WAS INFECTED BY
FUNGUS!
GO BACK TO START**



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

90





You have landed IN A CITY!

Urbanization alters ecosystems by clearing lakes and forests, impacting amphibians unable to move freely.



**FROG COULD NOT MOVE
THROUGH THE CITY!
GO BACK TO PREVIOUS POSITION**



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

96





You have landed SPOTTED BY A PREDATOR!

Frogs are important in the food chain as they are preyed upon by many bird species, both during the day and at night.



FROG WAS SPOTTED BY A BIRD! GO BACK TO PREVIOUS POSITION



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)



THE HOPPY FROG

LIVING IN A HUMAN
DOMINATED WORLD

98





You have landed IN AN AREA WITH CHYTRID FUNGUS

Amphibians are vulnerable to infections due to their moist skin. The *Batrachochytrium dendrobatidis* fungus can be deadly, wiping out entire populations.



**THE FROG WAS INFECTED BY
FUNGUS!
GO BACK TO START**



Government of India
Ministry of Science & Technology
Department of Science & Technology
Innovation in Science Pursuit for Inspired Research (INSPIRE)

