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Life conservation: A study into systemic design for wildlife

Varanasi, Uttishta

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DESIGNING FOR WILDLIFE

Uttishta Varanasi

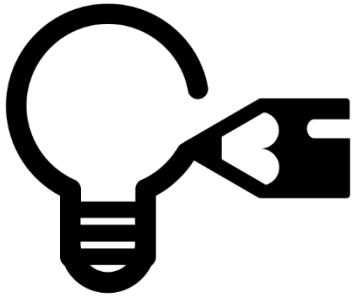
Product Designer

Design Researcher

DESIGN for…

…WILDLIFE?

Why take up something like this?



Potential of design

Wildlife

A	B
Affirmative	Critical
Problem solving	Problem finding
Provides answers	Asks questions
Design for production	Design for debate
Design as solution	Design as medium
In the service of industry	In the service of society
Fictional functions	Functional fictions
For how the world is	For how the world could be
Change the world to suit us	Change us to suit the world
Science fiction	Social fiction
Futures	Parallel worlds
The “real” real	The “unreal” real
Narratives of production	Narratives of consumption
Applications	Implications
Fun	Humor
Innovation	Provocation
Concept design	Conceptual design
Consumer	Citizen
Makes us buy	Makes us think
Ergonomics	Rhetoric
User-friendliness	Ethics
Process	Authorship

A/B, Dunne & Raby.

CONSERVATION IN INDIA

Government controlled

“Development” takes precedence

Beliefs & superstitions

Awareness is quite high

Big leap forward from colonial times

GIR

Singular Habitat to the Asiatic Lion

20
Lions left
in 1913
523
Lions living
as of 2015

Poor Land

Management

Lack of Long Term

Plan

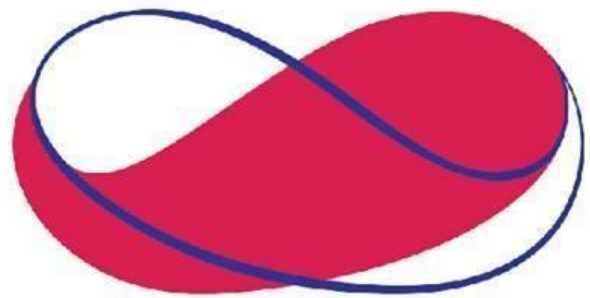
NEXT STEPS (?)

SIKKIM
India's
greenest state

SIKKIM

Access to

Collaborators
Stakeholders
Wildlife


echostream

Usha

Government/Forest Department

Priya

WWF – Sikkim Chapter

Ugen

Social upliftment NGO's/ KNC

Minla

Zoologist/Veterinary

Sohn

Rescue team

Shailendra

Zoologist/ Research

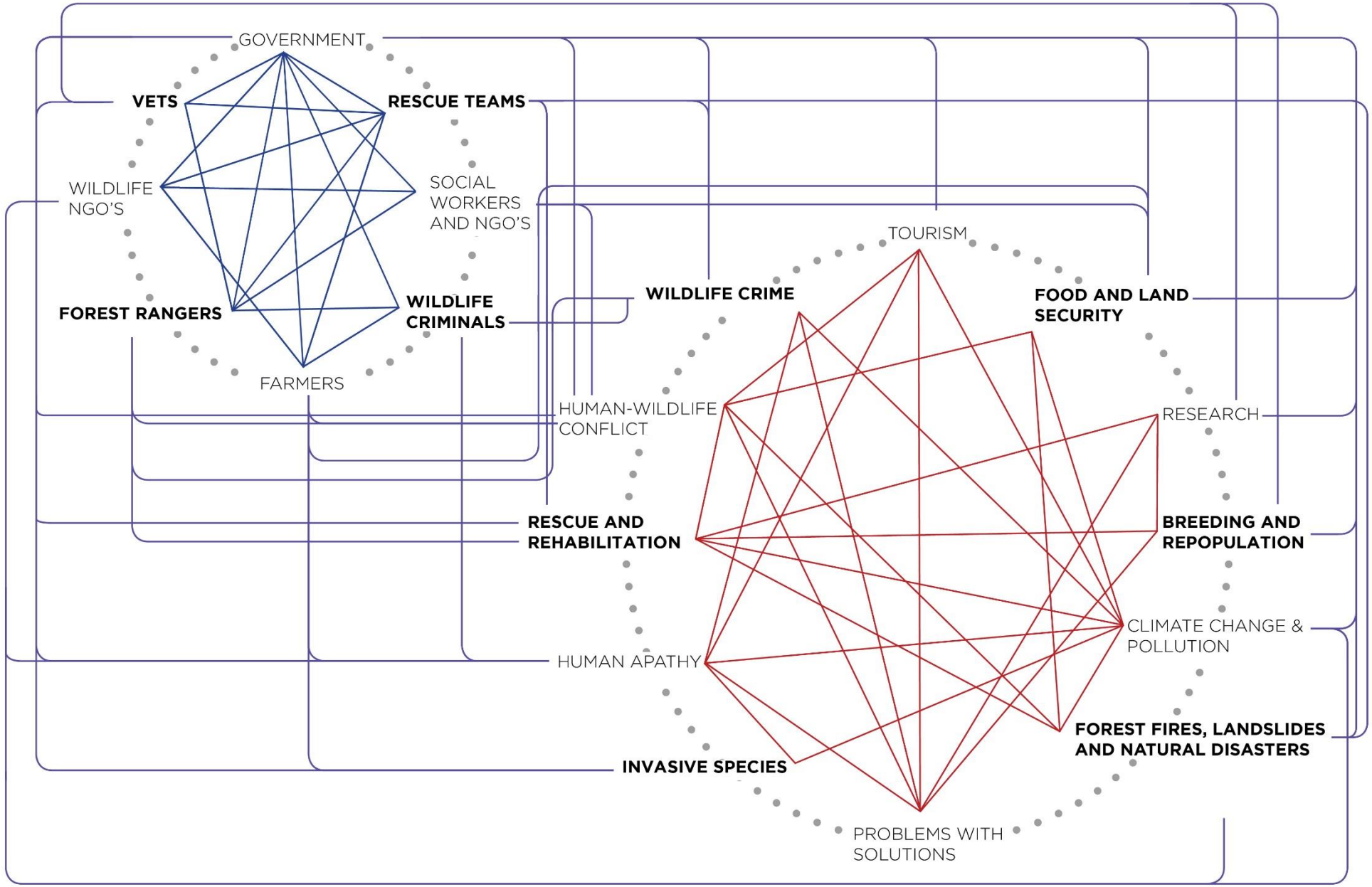
CO CREATION

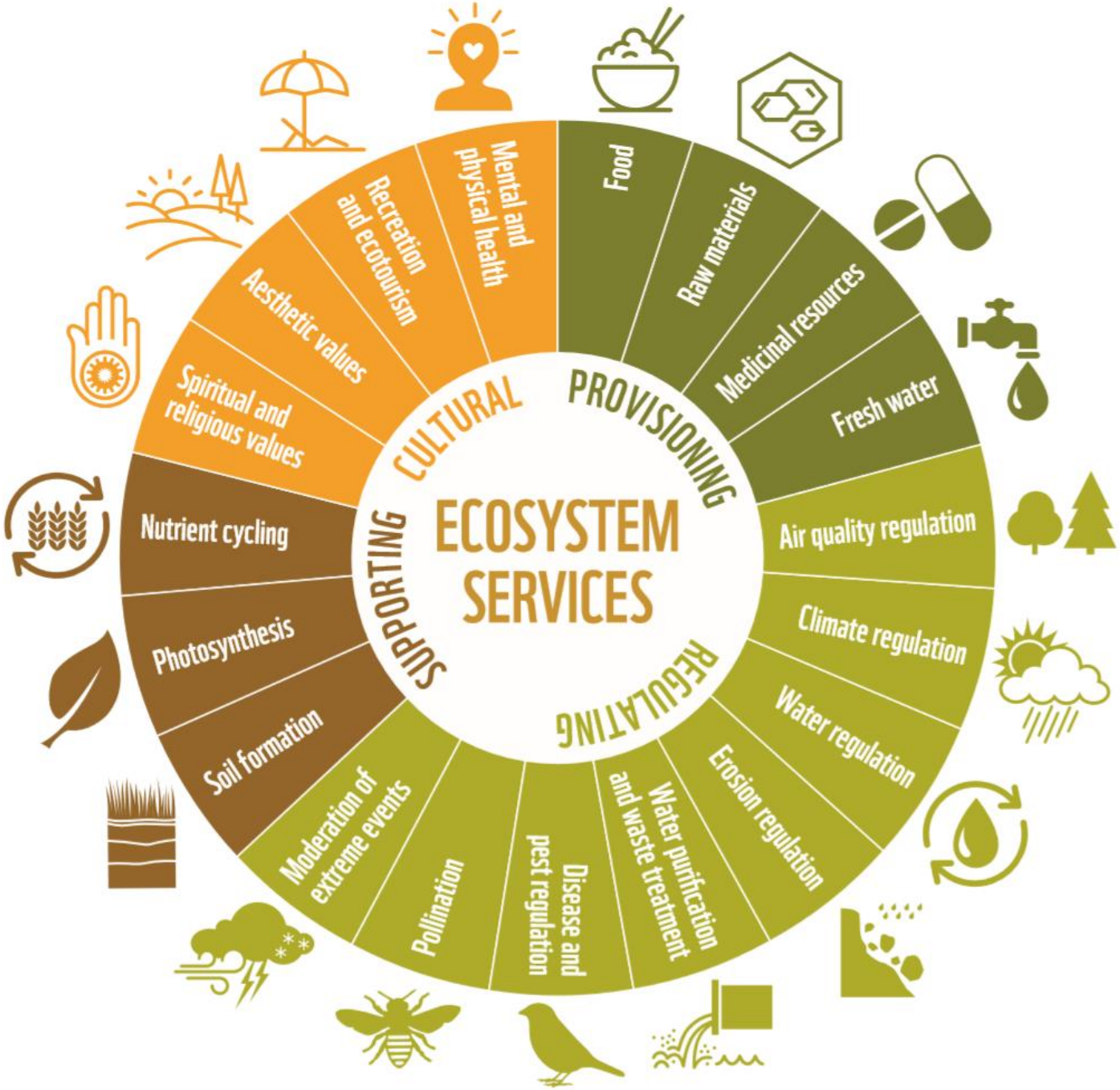
Helped show

Effect of design as an enabler
Collaborative effort
Diverse opinions

OUTCOMES

- **Doubly complex systems; man and nature.**
- **Strict Government control leaves little room for public initiative**
- **No value or incentives for conservation**
- **Need for more varied stakeholders**
- **Short term solutions are causing long term harm**


GOVERNMENT
VETS
RESCUE TEAMS
WILDLIFE NGO'S
SOCIAL WORKERS AND NGO'S
FOREST RANGERS
WILDLIFE CRIMINALS
FARMERS
TOURISM
WILDLIFE CRIME
FOOD AND LAND SECURITY
HUMAN-WILDLIFE CONFLICT
RESEARCH
RESCUE AND REHABILITATION
BREEDING AND REPOPULATION
CLIMATE CHANGE & POLLUTION
HUMAN APATHY
FOREST FIRES, LANDSLIDES AND NATURAL DISASTERS
INVASIVE SPECIES
PROBLEMS WITH SOLUTIONS



WWF Living Planet Report - 2016

The value of Wildlife in India

INR32,00,00,00,00,000

(~38 billion Euros)

Roughly 1/4th of our GDP.

DESIGN BRIEFS

- Wildlife crime reporting app
- Wildlife crime tracking devices
- Toolkit to keep officials updated
- Awareness campaigns for illegal products
- Poacher tracking and prevention of crime.
- Awareness toolkit for proper waste disposal
- Fencing solutions such as bio or electrical fencing
- Training and development of rescue team and equipment. (From squeeze cages to transport to temporary rehabilitation)
- Big data mapping of the areas of conflict, and accordingly devise strategies for mitigation.
- Rescue team equipment development
- Rehabilitation centre development
- Toolkit for facilitating localised rehabilitation on forest fringe areas
- Awareness and connect with Nature
- Realising the value of wildlife
- Systemic policies and agendas on wildlife and nature that permeate other sectors. For eg. policies on plastic waste that affect
- A food security bank for animals
- Mapping and creation of wildlife corridors
- Sustainable wildlife tourism guidelines
- More interactive tourism while maintaining the natural habitat
- Educational toolkits at schools
- Wildlife and ecotourism from home through online platforms.
- Use of invasive species for social innovation.
- Guidelines for growing appropriate and indigenous species of fauna
- Creation of a periodic tracking system to identify a potential problem before it becomes widespread
- Design of products to help remove invasive species from the ecosystem, while ensuring indigenous species remain unharmed.
- Wildlife oriented waste management systems
- Re use of plastic waste in new ways
- Alternatives to disposable waste
- Awareness on climate change
- Systems and policies to reduce harmful emissions
- Design of low cost camera traps, and GPS units
- Creation of platforms to allow the general public to be involved in research efforts
- Breeding centre redesign, for local endangered species
- Creating “insect hotels”, or spaces or products that aid in repopulating insect populations such as bees.
- Incubators for baby mammals who have been abandoned
- Incubators for eggs of rare species of birds.

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WILDLIFE CRIME

About

Wildlife crime is the second largest source of illegal crime in the world.
The value of wildlife crime as of 2016 exceeds $23 billion.
Locals collaborate with poachers, due to a need for money. Poachers are part of organised crime circuits that are able to smuggle items such as rhino horns and ivory across borders, with most of the demand coming from China, and the rest of the Far East.

Current scenario

A good example is the high demand for a rhino horn from China, and Vietnam.
The poachers in Kaziranga national park identify a rhino's travel paths, either through the locals, forest rangers or tracking technology. They either bribe a forest ranger to turn a blind eye, or hunt the rhino undercover.
After killing the rhino, they cut off its horn, and leave the carcass. The horn is then crushed into powder, or disguised as something else.
It is smuggled through mountain passes, through organised crime circuits, along with other high value items such as narcotics.
The rhino horn is sold as medicine in China, costing as much as $100,000/kg.

Urgency

Intensity 5/5
Wildlife crime can cause entire species to go extinct.

Scale 5/5
It has effects all over the world, from the countries being poached in to the countries into which the products are being smuggled into.

Frequency 4/5
While it may not be seen or heard of in everyday life, it is a real issue that is a constant threat.

Resources 3/5
Since there is a massive financial backing to the organisations that carry out wildlife crime, it requires an equal amount of resources to fight back, which, along with a strong motivation, is somewhat lacking.

Final Score: 17/20

Briefs

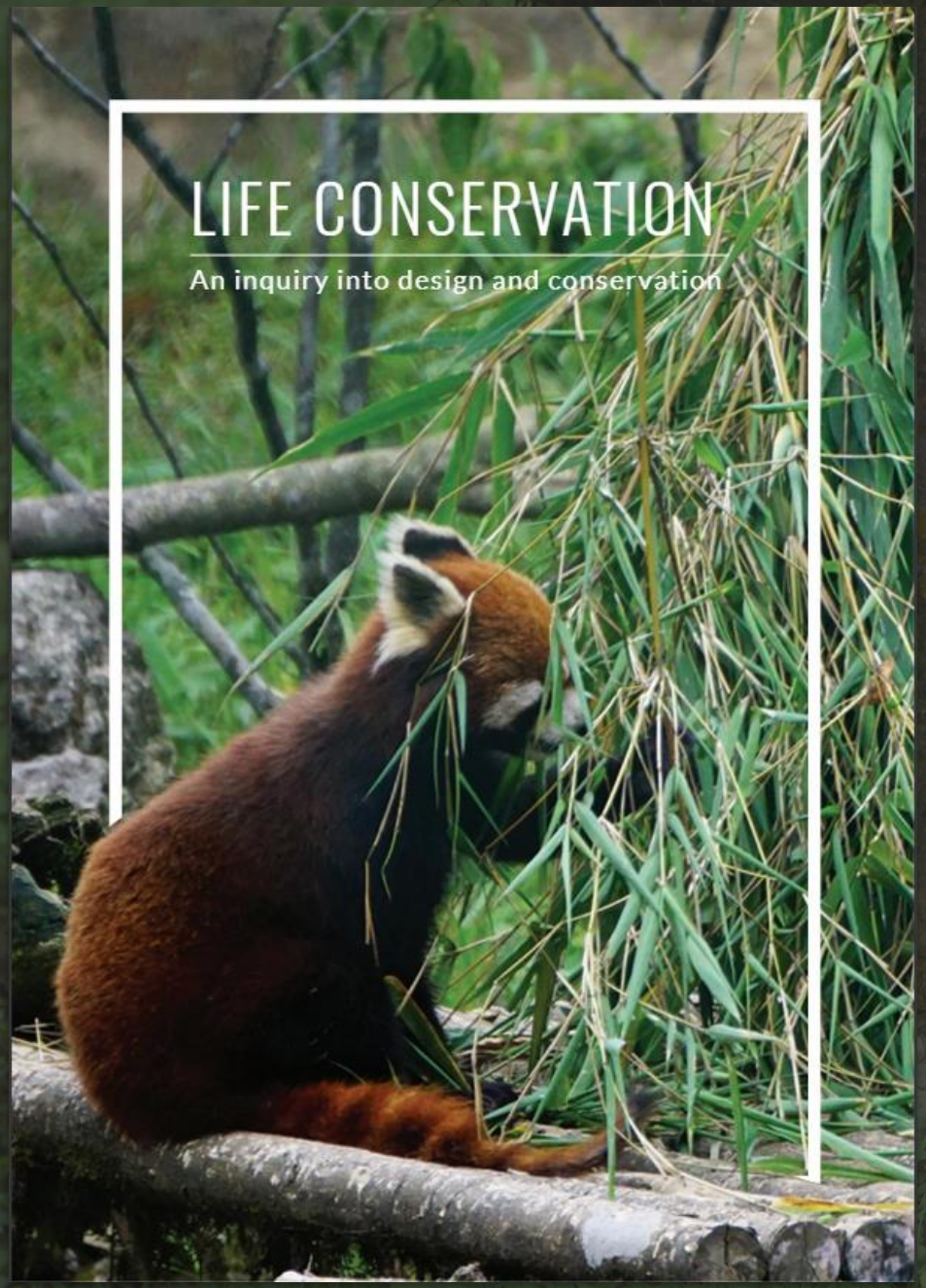
1. Wildlife crime reporting app
2. Wildlife crime tracking devices
3. Toolkit to keep officials updated
4. Awareness campaigns for illegal products
5. Poacher tracking and prevention of crime.

Rhino horns confiscated from poachers.

Ivory and rhino horns are burnt as a symbolical stance against poaching, with the message being that these items have no value unless they are attached to the animal.

It’s amazing how a little tomorrow can make up for a whole lot of yesterday.

- John Guare



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