

Proposal for Designating Rocky Plateaux within Conservation Zones in the Regional Plan for Satara District

Bombay Environmental Action Group
Along with
Biome Conservation Foundation



What are Rocky Plateaus?

- “Rock outcrop”

An unrecognized habitat category in India



Naturally formed rocky areas with thin soil layer : appear dry in summer

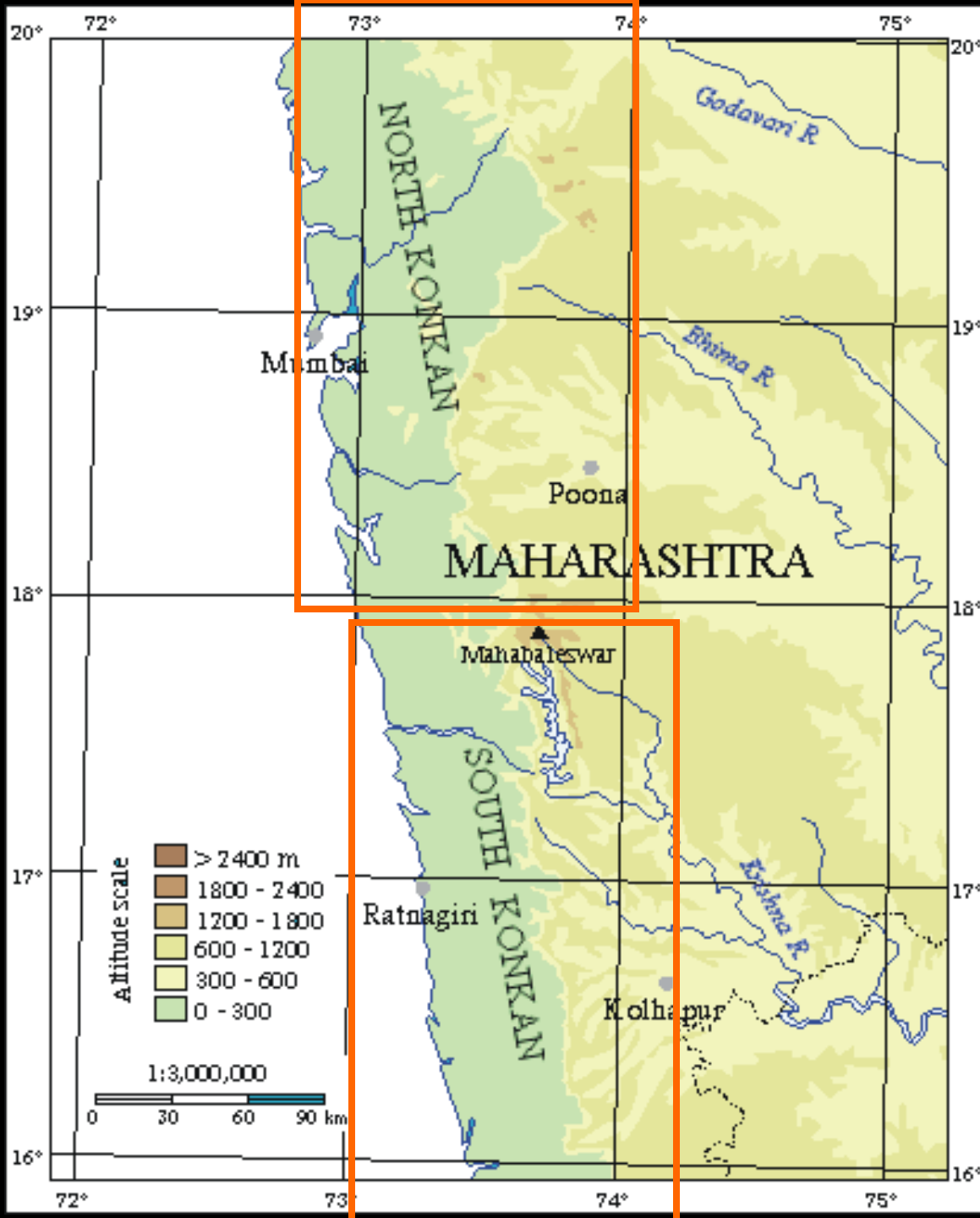


Barren land springs to life in monsoon



Pride of Satara district, Maharashtra- World Natural Heritage Site : Kas Plateau





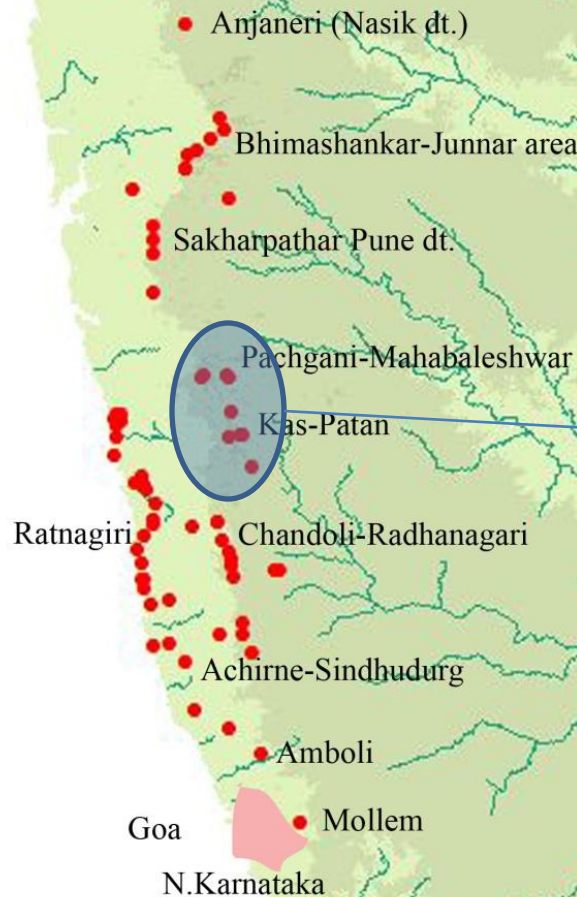
**Ferricrete
/duricrust**

=Lateritic plateaus

Locally called Sada

Seen below 18°20'N

Why Satara Plateaus are unique and special?



Highest amongst all lateritic plateaus (1000-1400m ASL)

Largest in extent than any other groups

Least disturbed

Biologically richest

“land islands”

High altitude terrestrial islands

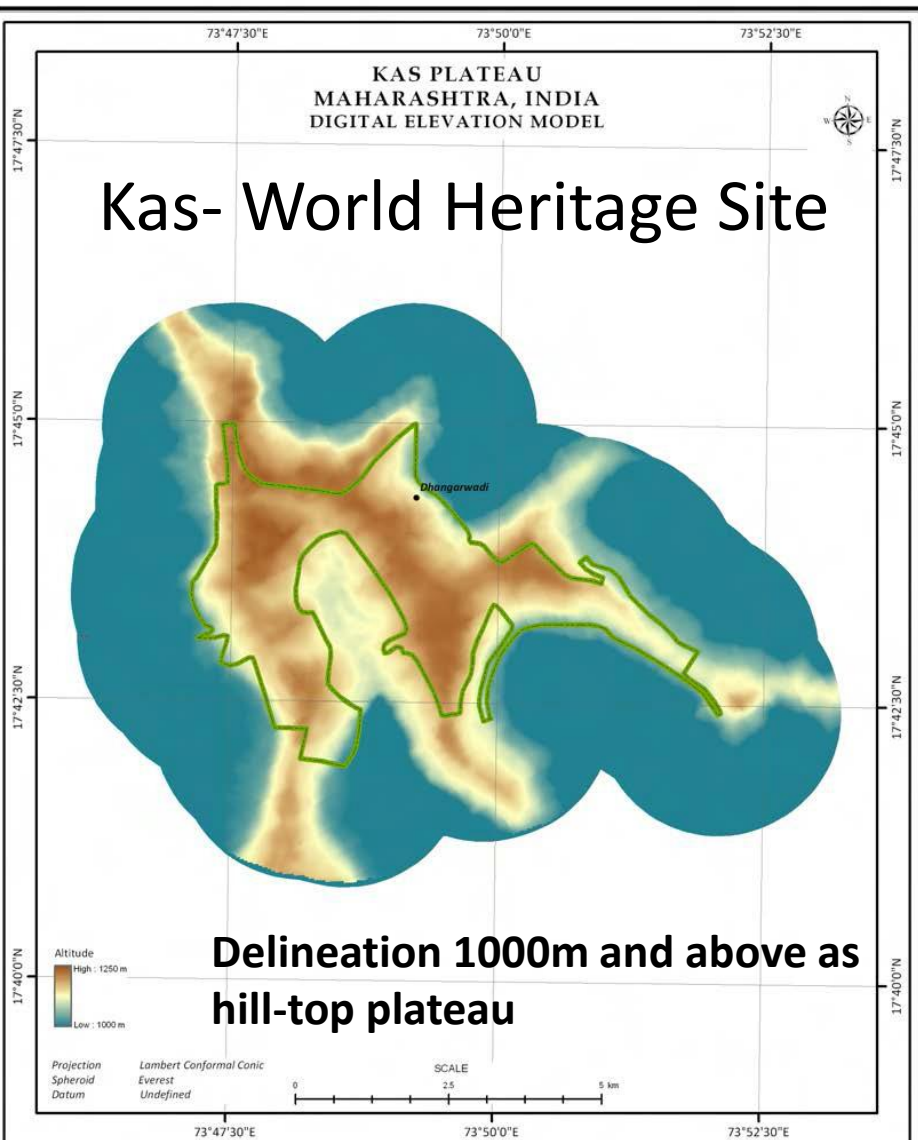


Remaining plateau sites of Satara district proposed to be included into the Conservation Zone

- Kas Plateaux Cluster

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- Mhavashi- Sada Vaghapur Plateaux Cluster

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- Chalkewadi Plateaux Cluster

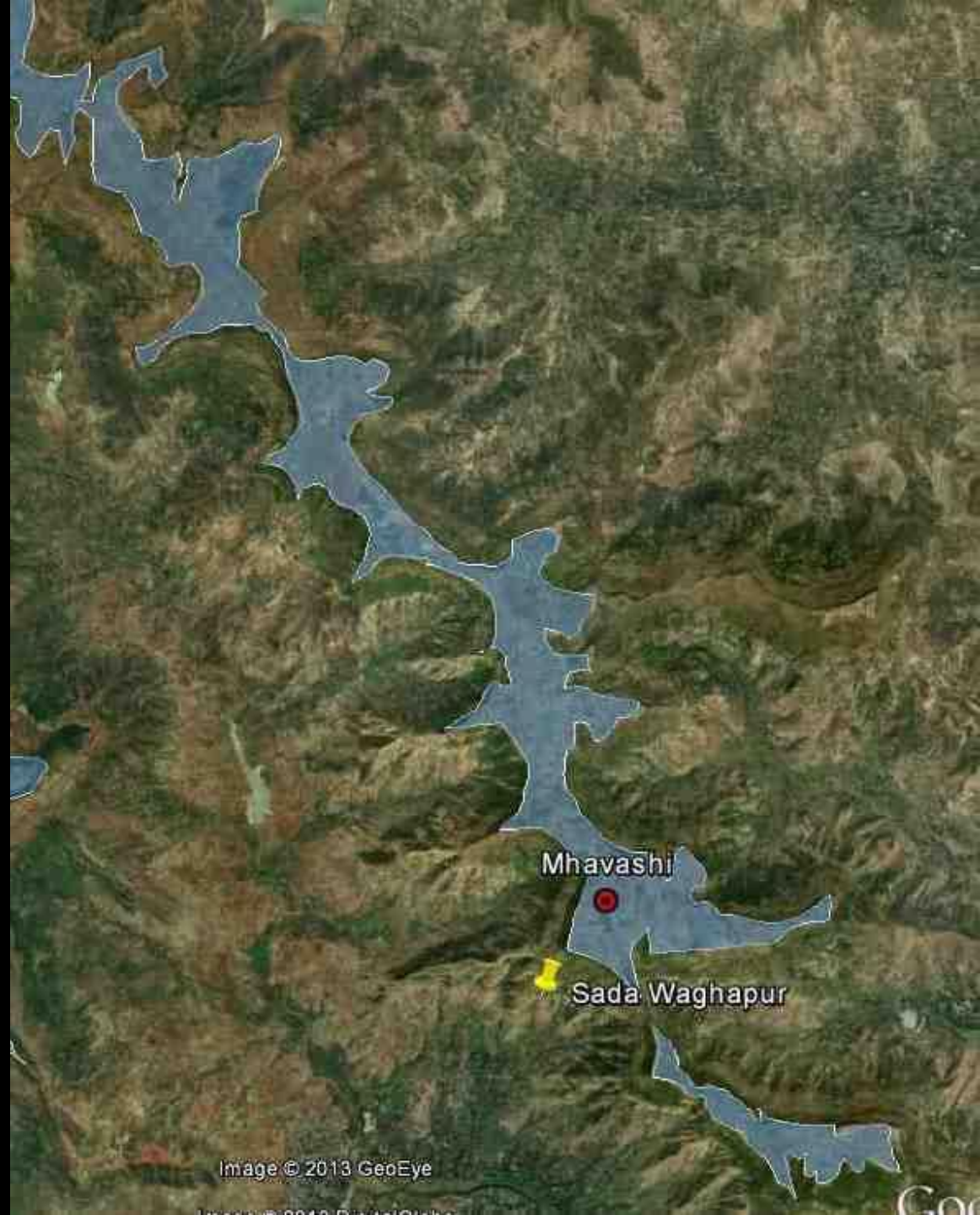


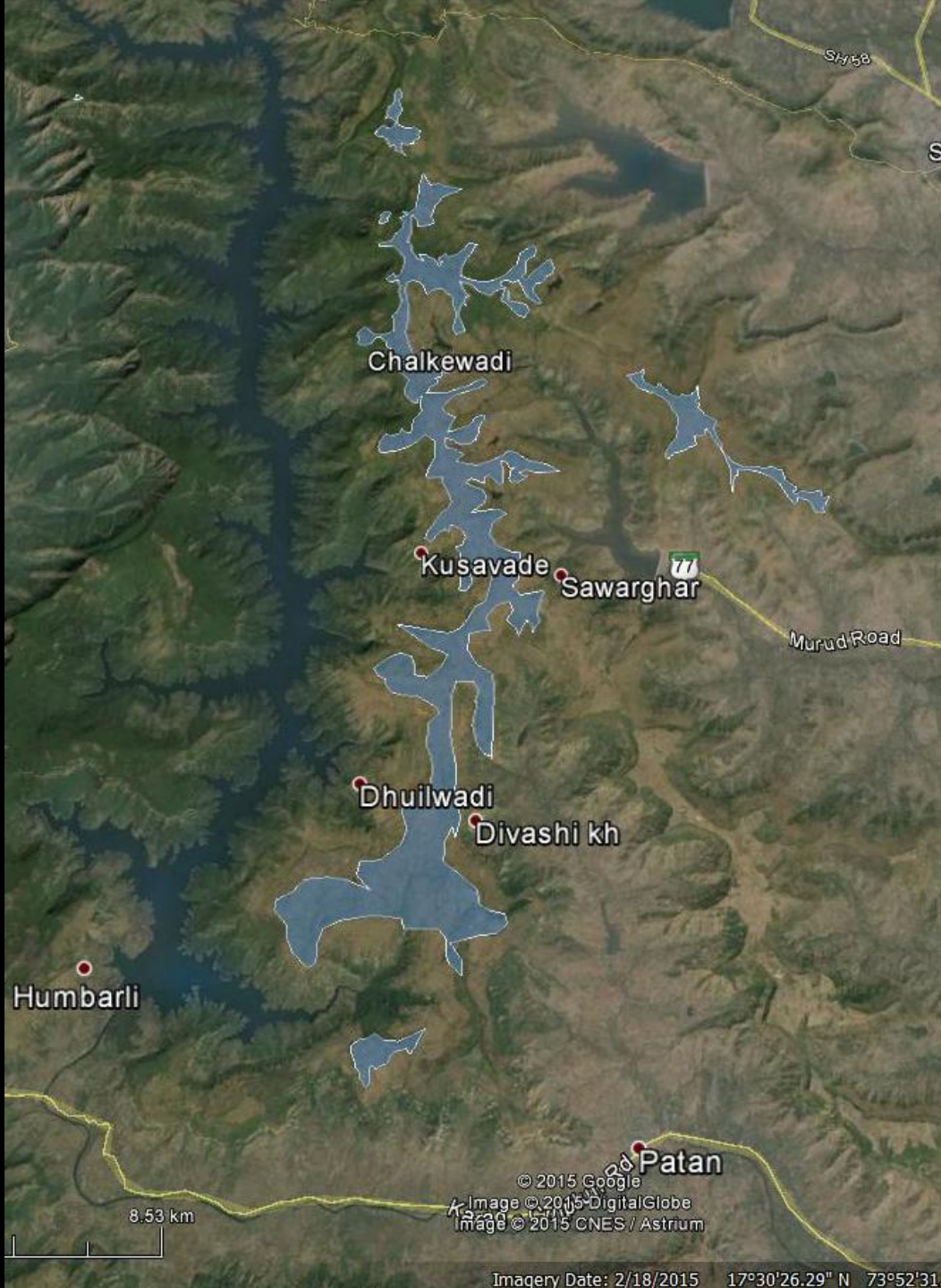
- Designation of Kas as World Heritage Site in 2012
- Only Reserved Forest areas managed by Forest Department through Joint Forest Management (JFM) (11 villages) is currently being conserved.

| Legend | Details | Topoindex | Prepared by |
|---|--|-----------|--|
| Wildlife Sanctuary Boundary Metalled Road Unmetalled Road Drainage / Waterbody | Sub-Cluster (7) Sahyadri Site No. 36 Site Element Name Kas Plateau Area (sq. km) 11.42 State Maharashtra | | भारतीय वन्यजीव संस्थान Wildlife Institute of India August 2009 |

Sada- Vaghapur-Mhavshi Plateau

- Approx. 20 sq. kms area
- 18 villages depend on the Plateau for grazing, agriculture, etc.
- Village Sada Vaghapur on the Plateau top.
- Catchment of 2 medium reservoirs.
- Cultural and Religious sites of Gavli Dhangars.
- Mauli Mandir – an important pilgrimage site.
- Presence of Sacred grove on the Plateau.
- Many scenic waterfalls alongwith caves present .
- also has Windfarms and allied infrastructure .
- Biologically rich with endangered plants and animals, many of which is unique to Satara district.
- Tourism is restricted to religious circuit and is local in nature
- Potential for planned community based Ecotourism
- Local employment through agroforestry and products based on medicinal plants etc.





Chalkewadi-Boposhi cluster

Total area 55 sq.kms.

33 villages situated in the valley, depend on water, grazing, agriculture etc.

Catchment of 5 reservoirs – Shivsagar being main. Many perennial springs & 3 ponds are on the plateau.

Origin of many waterfalls : **Thoseghar waterfall** being most popular.

Religious sites on plateaus and caves.

High density windfarms present.

Three animals unique to the plateau, many Threatened and Endangered plants present and many species of medicinal plants found.

Windfarm tourism very small at present. Spillover of tourists when Kas exceeds carrying capacity.

Can be made into planned tourism circuit along with Kas and local employment opportunities through agroforestry medicinal products based on medicinal plants.

Thoseghar waterfall



Vital resources- 1. Water

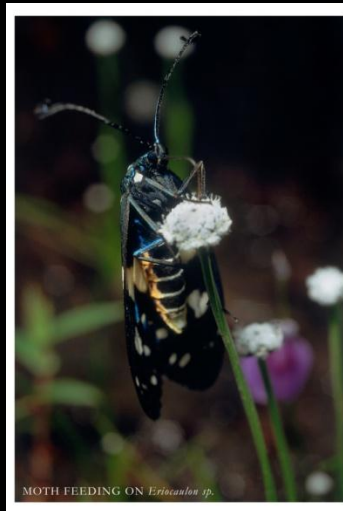
- Primary Water catchments
- Origin of perennial lateritic springs (*estimate that as many as 40,000 people living in immediate surroundings of the lateritic plateaux rely on such springs*).
- More than 10 natural ponds (“*tali*”) on the Plateau for livestock and domestic use
- Origin of several streams which feed 9 small and 1 large reservoir (Shivsagar), supplying drinking and irrigation water to more than 100 villages and townships.
- Shivsagar reservoir supplies hydroelectric power to Maharashtra.

Vital resources- 2. Nutrients

- Seasonal vegetation on plateaus leads to faster conversion and storage of nutrients in the soil.
- Same nutrients are leached out into surrounding slopes, valleys and increase soil fertility that is necessary for crops (rice, wheat, vegetables etc.)

Vital resources- 3. Pollinators

- Mass blooming of plants in monsoon attracts millions of pollinators.
- The same pollinators are required for reproduction in cultivated species (agriculture, orchards).



Vital resources- Biodiversity

List of new species discovered on the plateaus which are found in Satara District only and nowhere else in the world

Flowering plant:

1. *Arisaema ghaticum* Punekar & Kumaran
2. *Chrysopogon castaneus* Veldkamp & Salunkhe
3. *Eriocaulon epedunculatum* Potdar *et al.*
4. *Eriocaulon kasiense* Punekar (*in ed.*)
5. *Eulalia shrirangii* Salunkhe & Potdar
6. *Jansenella neglecta* S.R. Yadav *et al.*
7. *Aponogeton satarensis* Sundarraghavan *et al.*

Fungi:

8. *Lycoperdon satarensis* Randive & Punekar (*ined.*)

Insects (Beetle): A new genus:

9. *Kashmirobia* Konstantinov & Prathapan
10. A new genus & species:
11. *Kashmirobia hugeli* Konstantinov & Prathapan
12. *Chiridopsis nigropunctata* Borowiec & Ghate

Flowering plants:

13. *Crinum brachynema* by M. Bachulkar
14. *Dipcadi maharashtrensis* by Tetali *et al.*

Tortoise beetle:

15. *Cassida flavoguttata* - rediscovered from Kas by Ghate *et al.*, earlier known from the Nilgiris

Spider

16. *Tylorida sataraensis* Kulkarni, 2014

Gecko

17. *Hemidactylus satarensis*

Amphibians

18. *Bufo koynensis*

Shrimps

19. *Streptocephalus sahyadriensis*



Vital resources- 4. Fodder

- Grazing lands for thousands of livestock around the Region.
- Settled farmers with cattle, nomadic shepherds with sheep and goat graze across the area.
- Sources of Meat and milk



Declaring KAS Plateau as World Natural Heritage Site

has led to

- Global attention and funding for Local Conservation management.
- Growth of Ecological Tourism.
- Community management of Tourism.
- Revenue for local communities (over Rs.10 lakhs in 2 months of blooming season).
- Growth of fringe facilities (food, medical tourism, other small local businesses) leading to more sustainable livelihood opportunities.
- Increased State funding for other allied tourist facilities.
- Better infrastructure facilities for local villages- road maintenance, better connectivity in all weather.

Summary of present proposal

- Three plateaux cluster
- Total approximately 81 sq. kms area
- Less than 0.1% of Satara district

BUT

- Supporting thousands of people for water and nutrients
- Globally unique biodiversity,
- Endangered plants and animals
- 300 + medicinal species
- Livelihoods for future

Way ahead

- **Creating management plans**

Separate plans for each cluster of Plateaux for conservation of rock patches and biodiversity

Sustainable water management is a priority for the district

- **Buffer**

Area between 800-1000 m above sea level contouring three times the Plateau area.

Way Ahead....

- Community based management of the area within ecological guidelines- enhancing natural vegetation, protecting water resources with planned water use
- Planning for sustainable livelihoods.....



Concept- Hema Ramani, Bombay
Environmental Action Group, Mumbai.

Photo courtesy-
Siddharth Kulkarni and Aparna Watve, Biome
Conservation Foundation, Pune.

Thoseghar Waterfall- Iora Pro, Bengalooru

THANK YOU