

BUILDING A CULTURE OF ECOLOGICAL LANDSCAPES

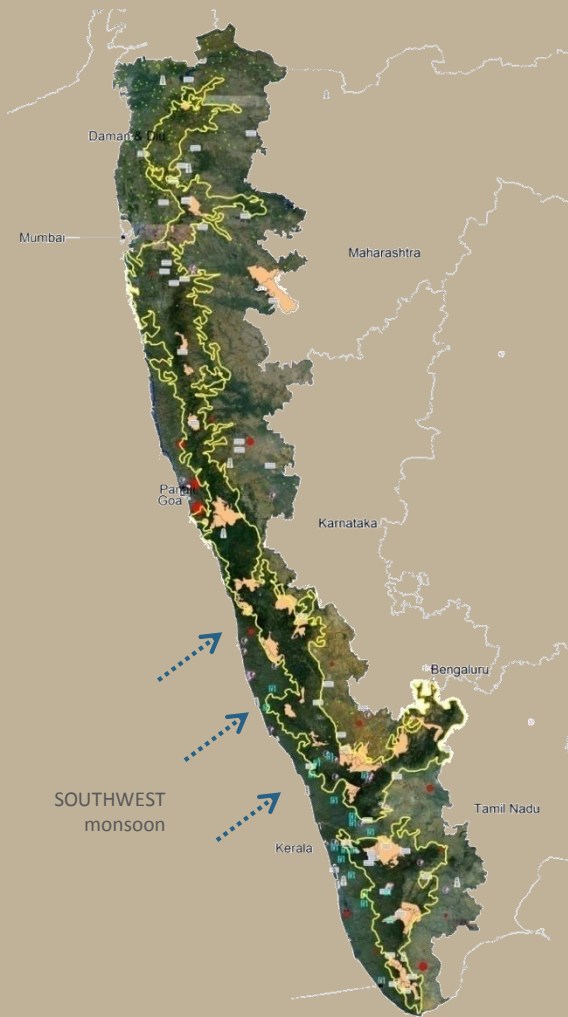
Case: Northern Western Ghats

Paper authors: Sonali Dahotre, Jitendra Pawgi

ReIMAGINING LANDSCAPES

Identity, APPROACH, Stewardship

ISOLA, 13th Annual Conference, Kochi, February 2019



Area covered approx - **129037** sq km

Length - **1490** km through 6 states

FUNCTIONS

- barrier for the south west monsoon winds, responsible for **80% rainfall** in India
- important role in the biophysical and ecological processes
- catchment area for rivers draining **40%** of India
- irrigation and drinking water for **28 crores+** people from 6 states
- conservation of threatened habitats, flora, fauna



UNESCO World Heritage site since 2010

YET region does not have

Comprehensive landscape development plan

or

biodiversity conservation plan

or

comprehensive development plan

or

policy of any kind

or

development control rules / building code



Building a Culture of Ecological Landscapes

Case: Northern Western Ghats

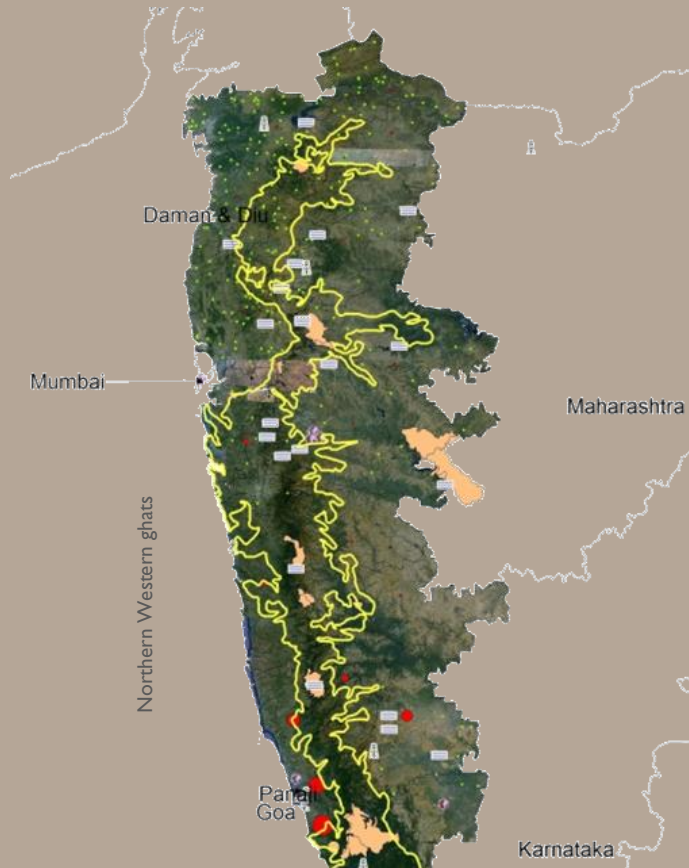
Paper authors: Sonali Dahotre, Jitendra Pawgi

ReIMAGINING LANDSCAPES

Identity, APPROACH, Stewardship

ISOLA, 13th Annual Conference, Kochi,

February 2019



THREATS LISTED BY IUCN

Livestock Farming / Grazing

Crops

Forestry/ Wood production

TOURISM/ VISITORS/ RECREATION

Renewable Energy

Fire/ Fire Suppression

Hunting

Water Pollution

Avalanches/ Landslides,

Storms/Flooding

INVASIVE NON-NATIVE/ ALIEN SPECIES

Commercial/ Industrial Areas

TOURISM/ RECREATION AREAS

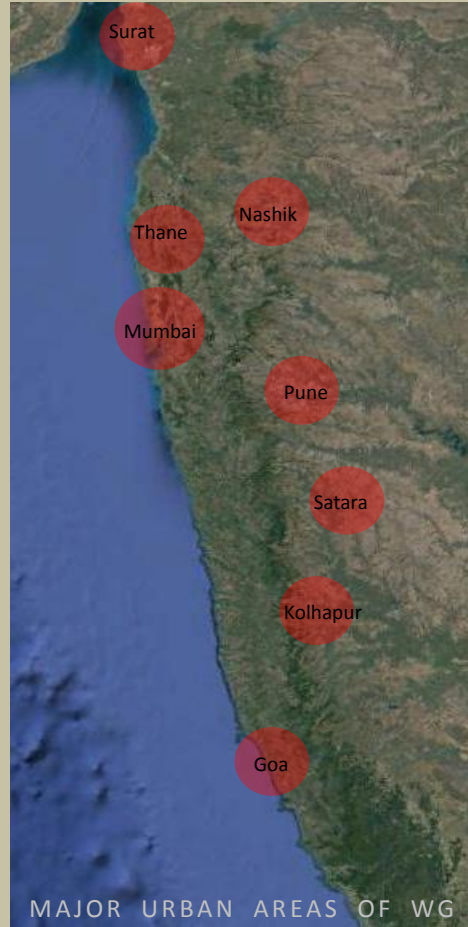
Mining/ Quarrying

Building a Culture of Ecological Landscapes

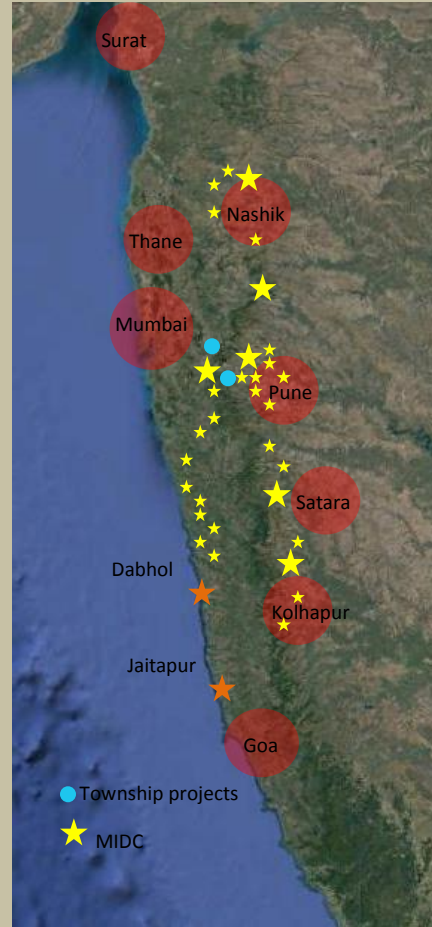
Case: Northern Western Ghats



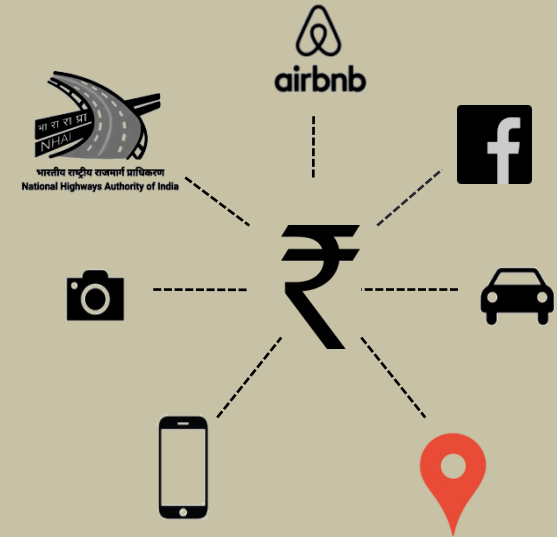
Scenic Sahyadris



U
R
B
A
N
P
R
E
S
S
U
R
E
S



“TRAVEL = QUALITY FAMILY TIME”



Ease of travel

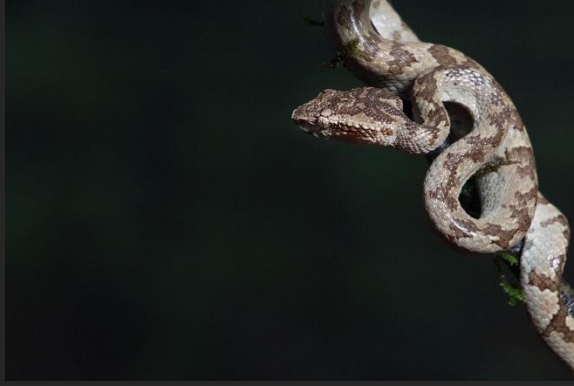
According to scientists 80% fauna from WG is **YET** to be discovered



103 new species have been discovered from the WG from 2006-2015

Building a Culture of Ecological Landscapes

Case: Northern Western Ghats

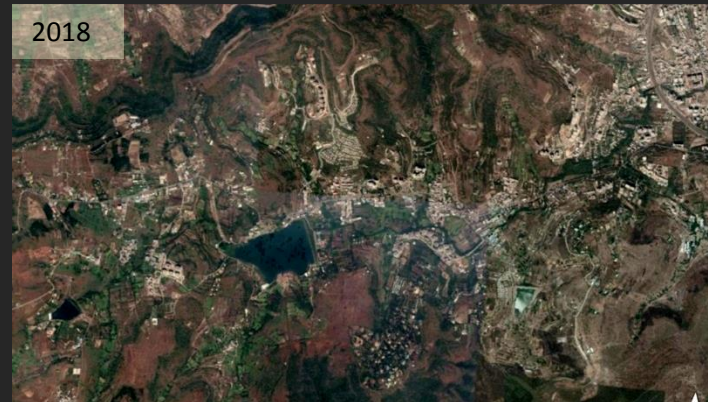


32 out of 38 species from Amboli and 11 out of 12 species from Raigad are endemic and threatened

GRAM PANCHAYAT

TEHSIL
ZILLA PARISHAD
COLLECTOR
MINISTRY OF ENVIRONMENT
MINISTRY OF FOREST
NATIONAL GREEN TRIBUNAL

TECHNOLOGY CAN BE USED
EFFECTIVELY FOR MONITORING



Land use changing rapidly

Building a Culture of Ecological Landscapes

Case: Northern Western Ghats



WHAT IS OUR ROLE?

APPROACH

- Understanding that the entire region is ecologically sensitive
- Macro level planning : protection of catchment areas, animal movement corridors
- Study and documentation of natural landscape layers of geology, hydrology, flora & fauna of site region



POLICIES FOR LAND

- Sensitive areas like grass lands, plateau, rocky outcrop, biodiversity rich areas to be responsibly integrated during site planning
- Valleys and slopes in the WG, including its vegetation should not be modified
- Excavated soil to be treated and reused, as disturbing any soil causes irreparable damages



POLICIES FOR WATER

- Identifying and protecting valleys and streams however small or big needs to be the primary task on any site
- No development to be planned in the valleys and adjoining streams
- Runoff speed to be controlled on all slopes using sustainable methods



POLICIES FOR VEGETATION

- Any existing cluster of vegetation and all existing trees must be protected and responsibly integrated in the design
- Only native plants to be planted, reference for this to be taken from nearby forests/ *devrai* (sacred groves)
- As a design policy each site should dedicate 10% land to '*devrai*' / sacred grove on site itself (similar to 10% open space)



POLICIES FOR ARCHITECTURE

- Architecture should become integral with context of the site.
- Time tested traditional spatial elements, wisdom can be incorporated.
- On sloping sites, possibility of structures raised on stilts to be explored, such that existing ground remains unaltered.
- Local materials and construction techniques like sloping roof structures in bamboo or traditional timber construction, walls in mud + dried grass, construction in stone excavated from site need to be explored



CONCLUSIONS

- Unique ecosystems are a matter of pride for a nation and conserving them should be our priority
- A part to whole approach creates a base for a whole to part approach, for further policy planning. Conservation measures, simultaneously, on both levels are required.
- By enhancing the ecological integrity of the region, visual beauty of the region can get further enhanced.
- Responsible development can convince people towards responsible tourism and hence responsibility towards environment.
- By building a culture of ecological landscapes, monetary sustenance is ensured at grass root level as local traditional knowledge and resources are utilized and conserved, which in turn ensures cultural sustenance



REFERENCES

1. Gadgil, M. (2011) [PDF] *Report of the Western Ghats Ecology Expert Panel, Part I*. New Delhi: Ministry of Environment and Forest, Government of India
2. Vijayan, V.S. (2013 p.4) [PDF] *Gadgil Committee Report – facts and concerns*, Trichur: Sâlim Ali Foundation [pdf]
3. IUCN. (2017) [PDF] *Western Ghats - 2017 Conservation Outlook Assessment*. The IUCN World Heritage Outlook [website] <http://www.worldheritageoutlook.iucn.org>
4. Pethe, J., Tillu, A., & Watve, A. (2015). *Threat status assessment of Ceropegia anjanerica Malpure et al. (Magnoliopsida: Gentianales: Apocynaceae) from Anjaneri Hills, Nashik District, Maharashtra, India. Journal of Threatened Taxa*, 7(3), 6965-6971. <https://doi.org/10.11609/JOTT.o3772.6965-71>
5. Bharucha, E. (2010 p.19 p.21) [PDF] *Current ecological status and identification of potential ecologically sensitive areas in the Northern Western Ghats*, Pune: Institute of Environment Education and Research Bharti Vidyapeeth Deemed University
6. S.D. Biju (2004) *Pseudophilautus amboli*. *The IUCN Red List of Threatened Species 2004*: .T58910A11854647 <http://dx.doi.org/10.2305/IUCN.UK.2004.RLTS.T58910A11854647.en>.
7. Mirza, Zeeshan & Sanap, Rajesh. (2010). *Description of a new species of scorpion of the genus Lychas C.L. Koch, 1845 (Scorpiones: Buthidae) from Maharashtra, India. Journal of Threatened Taxa*. 2. 10.11609/JOTT.o2363.789-96
8. Garg et al. (2017), *Seven new species of Night Frogs (Anura, Nyctibatrachidae) from the Western Ghats Biodiversity Hotspot of India, with remarkably high diversity of diminutive forms*. PeerJ 5:e3007; DOI 10.7717/peerj.3007
9. S D, Biju. (2017). *Description of four new species of Burrowing Frogs in the Fejervarya rufescens complex (Dicroglossidae) with notes on morphological affinities of Fejervarya species in the Western Ghats*. Zootaxa. 4277. 451–490. 10.11646/zootaxa.4277.4.1.

ALL PICTURES COURTESY AR. VIREN PAWAR (unless otherwise stated)

5 REASONS TO PRESERVE THE WESTERN GHATS

HOME TO COUNTLESS
SPECIES OF ENDEMIC
FLORA & FAUNA FOUND
NOWHERE ELSE IN
THE WORLD...



THE EXCLUSIVE ABODE
FOR RARE LANDSCAPES,
SUCH AS THE SHOLAS...



A UNESCO WORLD
HERITAGE SITE...



THE ORIGIN OF MOST
RIVER SYSTEMS OF
SOUTH INDIA...



INDIA WOULDN'T LOOK
HALF AS SEXY WITHOUT
HER GREEN LEGGINGS.



www.greenhumour.com

T H A N K Y O U