World Forum on Urban Forests
Mantova 2018

THE ROLE OF ICT IN ENHANCING FOREST MANAGEMENT: AN INITIATIVE IN THE URBAN FOREST IN MUMBAI (INDIA)

PARUTHUMMOOTIL JACOB PHILIP,
INSTITUTE FOR SUSTAINABLE DEVELOPMENT AND
RESEARCH, MUMBAI (INDIA)
Speaker Id - 054

ISDR

INSTITUTE FOR SUSTAINABLE DEVELOPMENT AND RESEARCH (ISDR), MUMBAI, INDIA

- ISDR is primarily engaged in issues relating to sustainable development.

- ISDR has consultative status with a number of UN agencies like UN-ECOSOC, UN-Habitat, UNCTAD, FAO, UNFCCC etc

- ISDR regularly participates in UN workshops & conferences around the world

- ISDR, recently, participated in 'The World Water Forum' in Brasilia, Brazil and 'The Mountain Forum' at the FAO in Rome

- ISDR undertakes research studies in the area of sustainable development in collaboration with universities with which it has entered into a Memorandum of Understanding (MOU).

ISDR

INDIA

- India is the 7th largest country in the world with one of the oldest civilizations

- India is home to 1.25 billion people, the second highest population in the world

- India is the largest democracy in the world with an electorate of 850 million

- India is blessed with a variety of geographical features: mountains, plains, rivers, forests, plateau, desert, sea shore & islands

- India is one of the fastest growing economies of the world with a GDP growth of around 7%.

INDIA & ICT

- India is in the fore-front of the ICT revolution

- India enjoys the image as an ICT success story

- India is recognized around the world as an exporter of ICT services

- India is in the process of integrating ICT in the socio-technical interventions for development

- ICT is increasingly becoming a great leveller in the Indian society that is economically and socially divided.

ISDR

FOREST MANAGEMENT AND ICT

- A forest is a dynamic resource, continuously affected by a variety of co-existing ecological processes

- Forest Resource Management, therefore, is becoming increasingly complex and demanding

- Realization has set in the world over that effective forest management is not possible without the participation of local communities

- ICT is today recognized as an effective tool in facilitating Participatory Forest Management

- Engaging ICT in Forest Management brings with it a number of challenges

ISDR

MUMBAI

- Mumbai is the second largest city in India (Area: 603 sq km; Population: 20.8 million)

- Mumbai is the commercial, financial and entertainment capital of the country

- Mumbai is home to a very vibrant film industry, producing the largest number of films in the country

- Mumbai attracts large number of migrants, who come in search of better opportunities, from all over the country on a daily basis

SANJAY GANDHI NATIONAL PARK (SGNP)

SGPN is one of the major National Parks in the world existing within a metropolis (covers $1/6^{th}$ of the area of Mumbai and occupies most of the northern suburbs)

ISDR

SANJAY GANDHI NATIONAL PARK (SGNP)

- SGPN is one of the most visited parks in the world (about 20 million visitors every year)

- SGNP serves as the lungs of the sprawling metropolis

- SGPN is rich in flora and fauna, including some rare species

- SGPN is still home to a number tribes

ISDR

FLORA & FAUNA IN SGNP
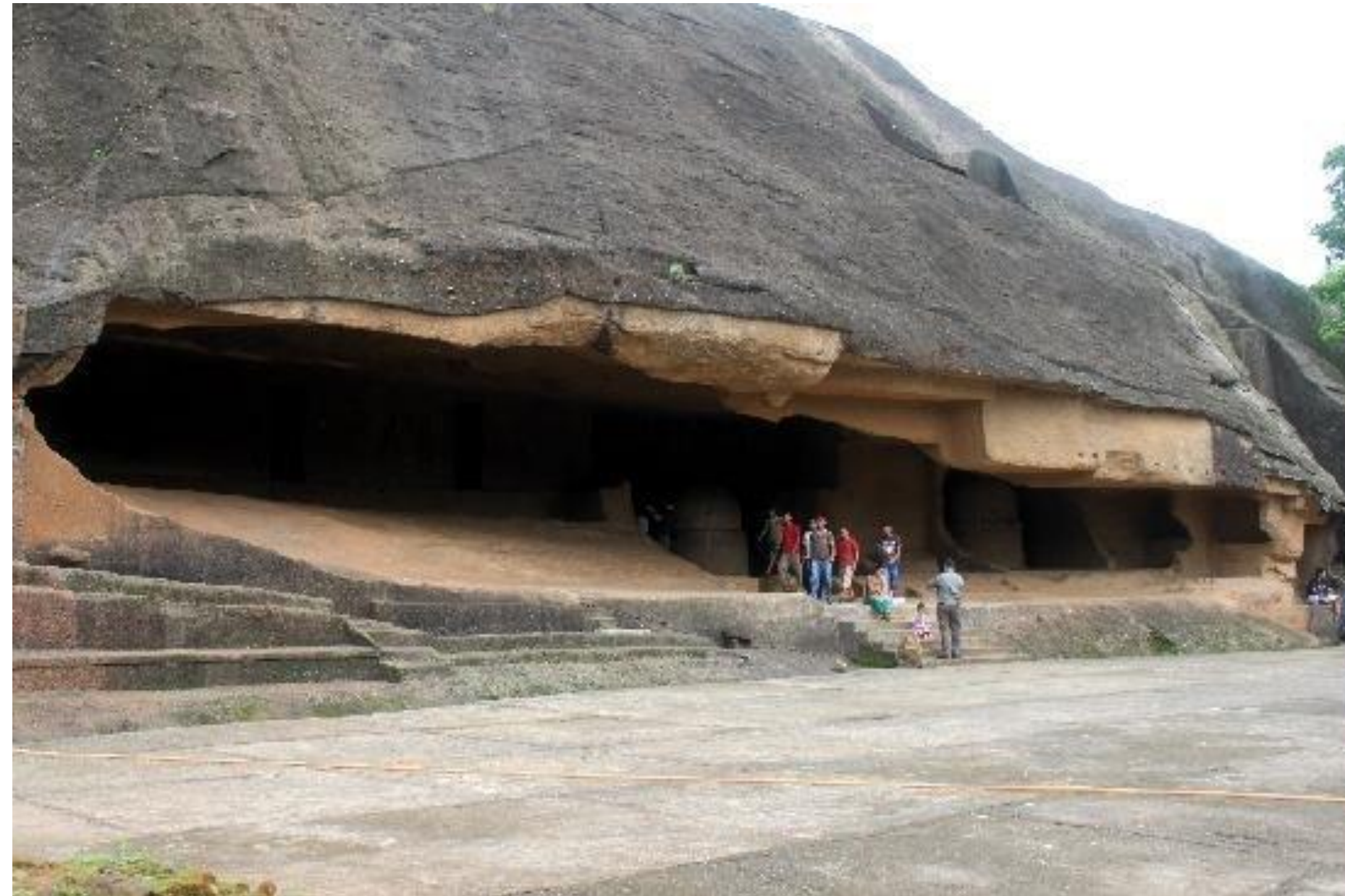
TRIBAL POPULATION IN SGNP

- Total tribal population living

    in the park:

    about 50000 in 43 hamlets

- Warlis: 98%

- Kolis & Katkaris: 2%

ISDR

IMPORTANCE OF SGNP TO MUMBAI

- Reduces pollution

- Provides water

- Regulates local temperature

- Recreation

- Ancient archaeological & religious sites

11

ISDR

STAKEHOLDERS

- Tribal inhabitants

- Park officials

- Government agencies

- Environmentalist

- Visitors

- NGOs

CONFLICTS

- Land use

- Traditional livelihood

- Urbanization

- Constant threat of eviction

ISDR

PARTICIPATORY FOREST MANAGEMENT

- All the stakeholders want to ensure the health of the forest

- They can do this better if they pool their efforts to achieve the objective

- A Core Group with representation from all stakeholder groups is formed

- The members of the group come together as often as possible to discuss issues and ensure implementation of decisions

13

ISDR

CORE FUNCTIONS

- Conservation of ecosystem and species

- Development of economic and human resources

- Information Exchange for monitoring, research and education

ISDR

ICT TECHNOLOGIES BEING ENGAGED IN FOREST MANAGEMENT

- Geographical Information System (GIS) – a very efficient tool for forest planning and decision making

- Global Positioning System(GPS) – a satellite and ground based radio navigation and location system

- Remote Sensing(RS) – a very handy tool for forest resource mapping

- Mobile communication

REQUIREMENTS OF ICT

- Developing appropriate software

- Data capturing

- Centralised storing of data

- Training manpower

- Establishing an internal system of communication and messaging

EXPECTED OUTCOMES

- A more effective and efficient forest management system

- Involvement of all the stakeholders, thereby reducing conflicts

- Quick decision making based on reliable and real time data

ISDR

REFERENCES

- Meetings and discussions with various stakeholders

- Official website of SGNP and other Forest Depts

- 'Role of ICT in Forestry', Sudeep Tiwari,IJEMS, Vol 1, Issue 4, April 2014