

# RBO Driven Campaign to Preserve Downstream Ecological Flows of a Western Ghats River

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# Dams And Disappearing rivers

- ▶ Major world rivers – Nile, Ganges, Indus, Yellow River... fail to reach oceans
- ▶ Rivers physically transformed
- ▶ Flow controlled and regulated
- ▶ Dying rivers upset ocean ecosystems and livelihoods
- ▶ Evolutionary purpose of a river denied

# Dams Dominate India's WRD

- ▶ 45,000 large dams on globe
- ▶ India 3<sup>rd</sup> dam builder after China and USA
- ▶ 346 large dams in 1950 – 4600 + now
- ▶ 80% budget for WRD for big projects
- ▶ Silent Valley, Narmada, Tehri issues forerunners of rethinking 'river basin development'

# Dams in Kerala

- ▶ Rivers dammed at 60+ places
- ▶ Athirappilly HEP- 7<sup>th</sup> dam - planned across Chalakudy river raises debate
- ▶ River basin approach to water mgmt
- ▶ Human alone Vs Ecological needs of river
- ▶ Need for consultations with primary river dependents
- ▶ People led RBO takes initiative to start dialogues

# Western Ghats

- ▶ 'Biodiversity Hot spot'
- ▶ Spread : 5 southern states  
1.6 million sq.km
- ▶ 1600 km North-South from  
Gujarat to Kanyakumari
- ▶ Scheduled tribe and caste  
population supported  
5 million

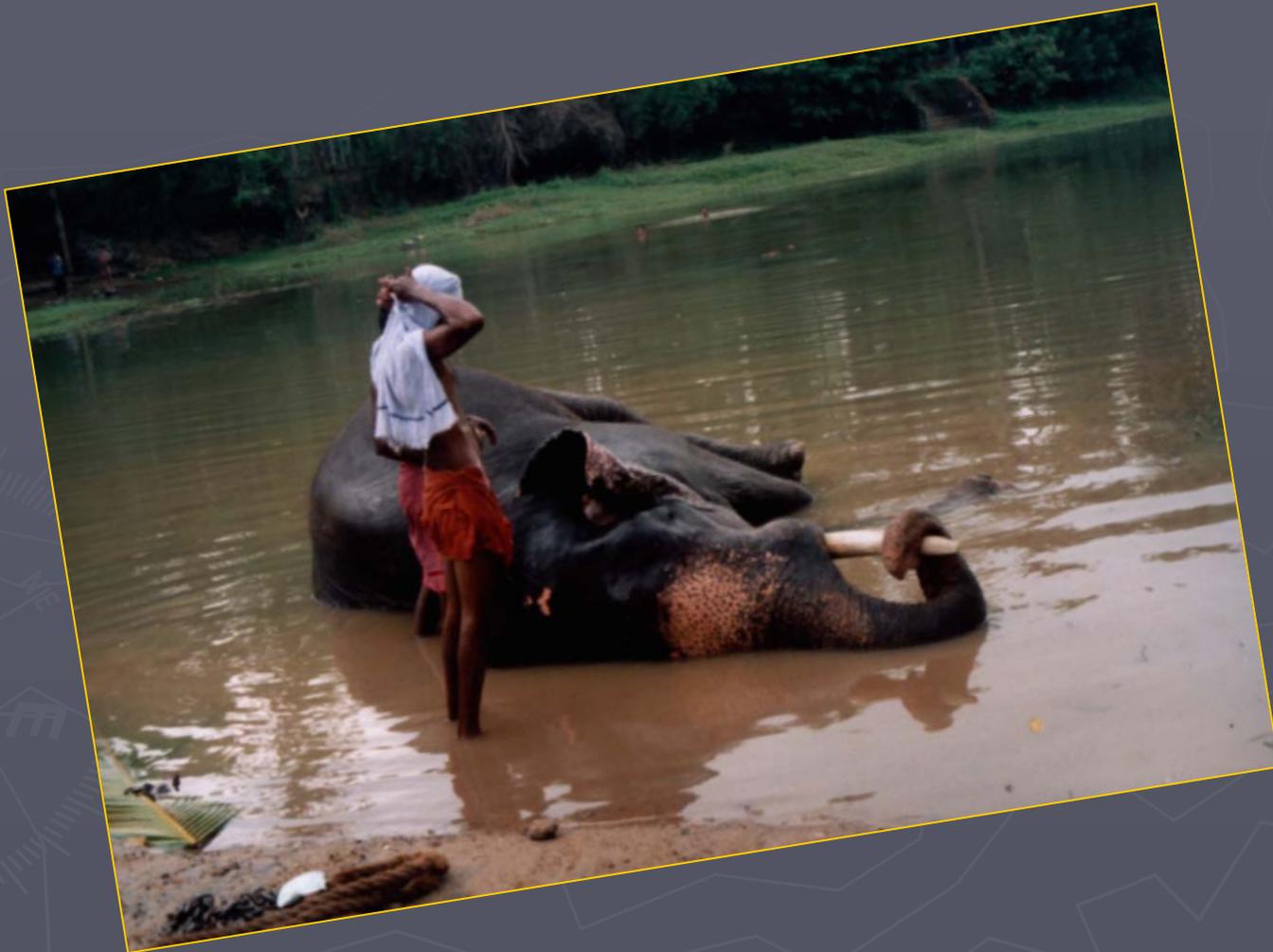


- ▶ Modulates climate, river water flow, ground water recharge
- ▶ Adds fertility to river valley and delta soils
- ▶ Provides natural produce for impoverished population
- ▶ Raw materials for wood, rayon and newsprint industries
- ▶ Entire cash crops in peninsular India grown in this mountain range

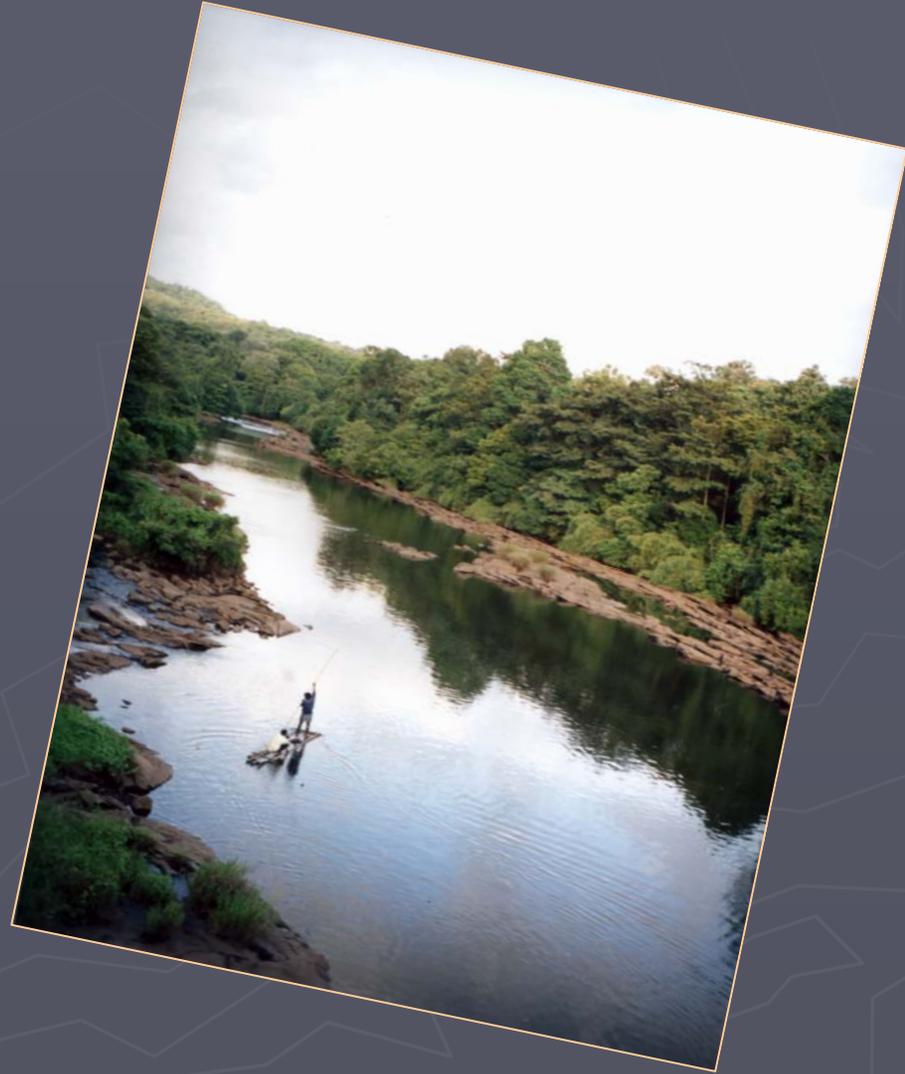
# Rivers in WGhats

- ▶ Major rivers – *Godavari, Krishna and Kaveri* flow east to Bay of Bengal
- ▶ Short, perennial, torrential monsoon fed  
41 Kerala rivers flow west to Arabian sea
  - Total catchment – just 43,000 sq.km
  - Catchment less than half of *Kaveri*
  - Mainstay of 30 million people and habitats in Kerala

# People and habitats inseparable



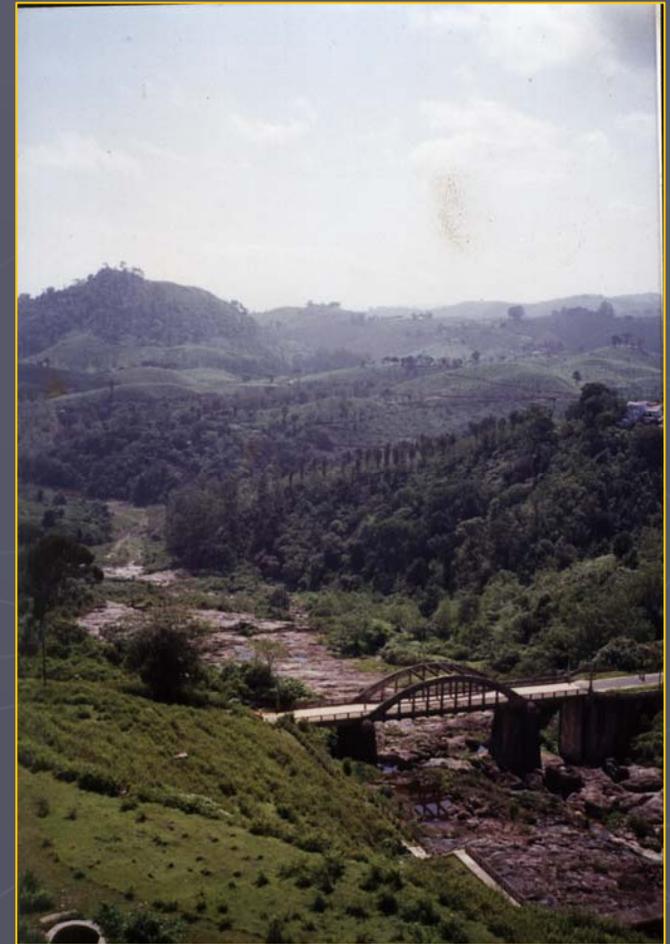
# Chalakydy River in two seasons



# Origin of river

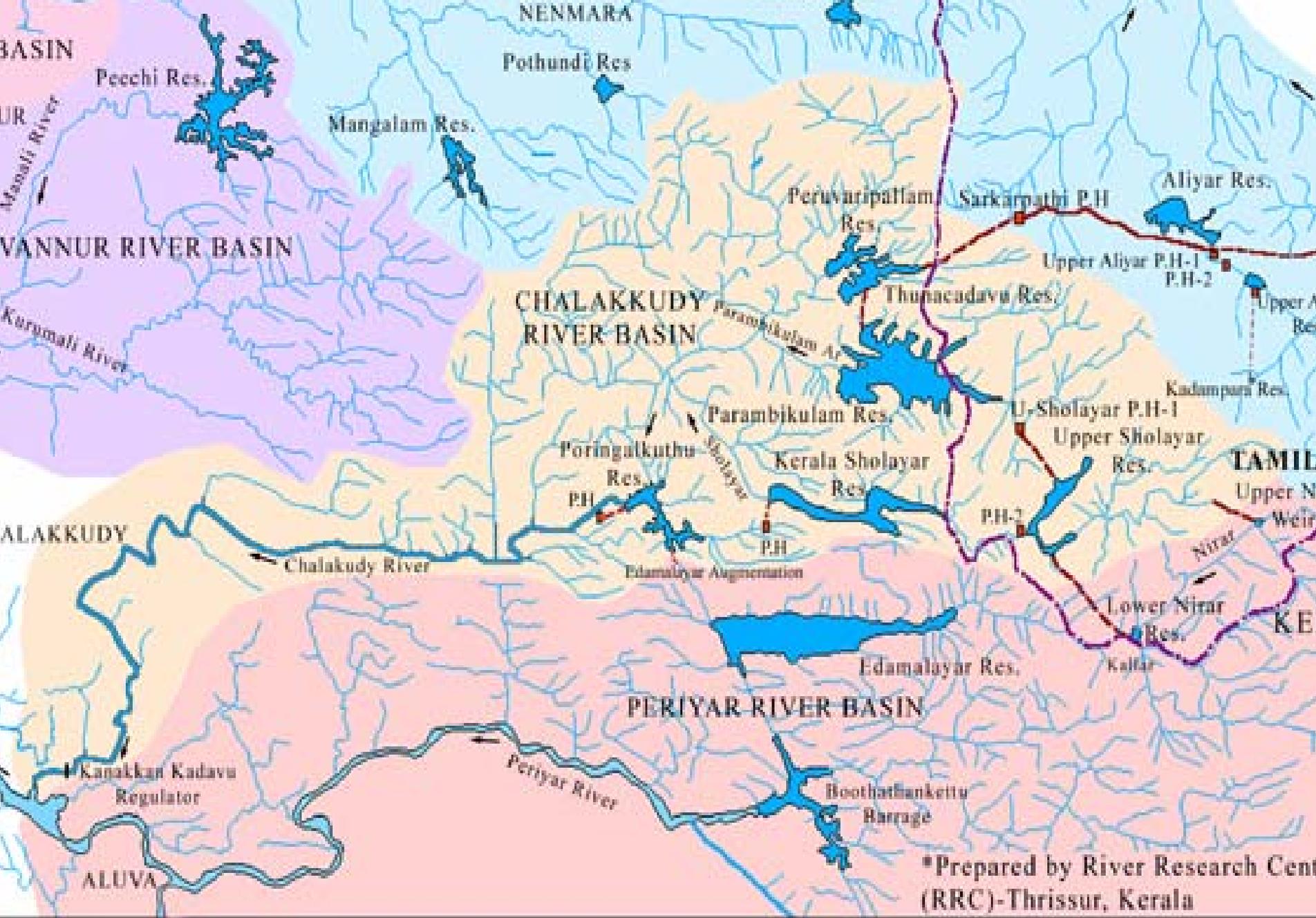
## *Anamalais & Nelliyanpathies*

- ▶ High altitude shola grass land- evergreen forests
- ▶ Long term conservation value
- ▶ > 150 yrs history of deforestation for coffee, tea, cardamom plantations



# Chalakydy River - Profile

- ▶ 5th Largest River in Kerala – 144 km
- ▶ Basin Area: 1704 sq.km (1404 sq.km in Kerala & 300 sq.km. in Tamil Nadu)
- ▶ Four Major tributaries
- ▶ Annual Rainfall: 3600 mm
- ▶ *Valparai* and *Nelliyampathy* highest rainfall areas
- ▶ Total Utilizable yield: 2033 Mcum out of which 494 Mcum from TN



\*Prepared by River Research Cent (RRC)-Thrissur, Kerala

# Unique features

- ▶ 1200 sq.km catchment with Forest Dept
- ▶ Wild Life Sanctuary – Tiger Reserve
- ▶ Highest fish diversity -104 sp ( 5 new to science) proposed Fish Sanctuary
- ▶ Project Elephant area
- ▶ High avian diversity – 3 IBAs
- ▶ Only home of Primitive 'Kada' tribes
- ▶ High Conservation Value of 75%

# Wild and Scenic places



- ▶ Athirappilly waterfalls and Vazhachal rapids in World Tourism map
- ▶ 0.7 million tourists in 2006
- ▶ Parambikulam WLS
- ▶ Good wild life habitat

# Dams and Inter State Diversions

Dam	Period	ht (m)	Capacity
Poringalkuthu	1949-57	26.21	48 MW
Parambikulam	1959-67	73.15	PAP *
Thunacadavu	1963-65	25.91	PAP *
Peruvarippallam	1965-71	27.74	PAP *
Kerala Sholayar	1961-66	57.60	54 MW
TN Sholayar	1961-71	105.16	95 MW PAP *

# Other Structures

Structures	Period	Capacity
CRDS	1949-57	14,000 ha.
Edamalayar Augmentation Scheme	1993	Inter Basin Diversion
Downstream Barrage	1999	Control Saline Ingress

# Downstream Impacts

- ▶ River transformed into chain of reservoirs
- ▶ 40% water diverted by 4 Inter State Inter basin diversions
- ▶ 3 tributaries stopped flowing downstream of diversions
- ▶ Riparian rights of downstream state denied
- ▶ River flow controlled by Power Board
- ▶ Operation and efficiency of CRDS affected
- ▶ Salinity ingress increased

# River - Use and Misuse

Use/ Misuse	Number
Local Self Govts	30
Drinking water schemes	More than 30
Lift Irrigation Schemes	More than 700
Tourism	Waterfalls Two Water theme parks
Pollution	Urban, industrial agricultural, tourism
Sand Mining	10 local self govts

# People driven RBO - CPSS

## Initial activities since 1986

- Field visits to study river basin
- Nature camps in forests
- Campaigns against devpt projects that impair the ecology and river flow

## Since 2001

- *Campaign against 7<sup>th</sup> dam project : starting point for RB dialogues*

# Stakeholders Involved

- ▶ River Basin local self governments
- ▶ *Kada* Tribes
- ▶ Forest Protection Committees
- ▶ Fishing Communities
- ▶ Women groups
- ▶ Students – schools and colleges
- ▶ Youth groups

# How people were sensitised

- ▶ Workshops for LSGs
- ▶ Small group meetings for tribes, Forest Protection groups ( VSS), women
- ▶ Nature Camps, lectures and exhibitions for students
- ▶ *‘River for Life’* River Walk and *‘Water Rights’* Convention
- ▶ *‘Kids for Rivers’* formed

# Sensitisation...

- ▶ Debates and discussions through media
- ▶ Indefinite **Satyagraha** against the project becomes learning process for women
- ▶ EIA reports discussed and interpreted among people
- ▶ Interactions and sharing with groups outside the state / country

# Sensitisation..



# Issue taken to RB level

## People Start Responding.....

- Two High Court ordered Public Hearings held in 2002 and 2006 for proposed 163 MW Athirappilly HEP based on EIAs for the project
- Stakeholders use platforms to strongly express opposition to dam proposal
- downstream social and ecological impacts the project would create highlighted

# River Basin Issues Raised

View the 7<sup>th</sup> dam proposal against;

- Overall water use in River Basin
- Impact on existing projects – RB EIA !
- Basin level planning for future needs
- Consider River as ecological entity
- Right of the river to flow to sea

# River Basin Issues...

- ▶ Lack of hydrological data base for RBs
- ▶ Manipulation of data base to create viability
- ▶ A single agency ( KSEB) controlling river flow and downstream uses
- ▶ Depts & LSGs utilizing same river system without coordination and responsibility
- ▶ Consultation and participatory planning with river dependents lacking

# Before taking up new projects..

- ▶ KSEB has to initiate Catchment restoration
- ▶ Participatory comprehensive Post Facto dam impact on river ecology needed
- ▶ Settle Inter State Water Disputes ( PAP)
- ▶ Preserve remaining ecology and biodiversity of the river
- ▶ Evolve consultative process

# CPSS evolves to CPF

- Campaign to save the river spreads
- 30 local regional state level groups along with CPSS form **Chalakudy River Protection Forum ( CPF)**
- CPF starts intervening in Sand Mining, Waste Management issues
- **RRC** provides research support to CPF campaigns

*Our constant inspiration : Chalakudy River*

*&*

*Sincere thanks to*

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*SANDRP*

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*AID India*

*And all our colleagues*

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