

Ensuring food security and effective climate Change mitigation through intensive community LED NRM interventions in the tribal regions of Western India

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ENSURING FOOD SECURITY AND EFFECTIVE CLIMATE CHANGE MITIGATION THROUGH INTENSIVE COMMUNITY LED NRM INTERVENTIONS IN THE TRIBAL REGIONS OF WESTERN INDIA



**PRESENTATION AT CLIMATE CHANGE WORKSHOP
ORGANISED BY NCCSD
AT ANAND AGRICULTURE UNIVERSITY ON 2nd JUNE, 2015**

Presentation By:

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21st Century Climate Challenge

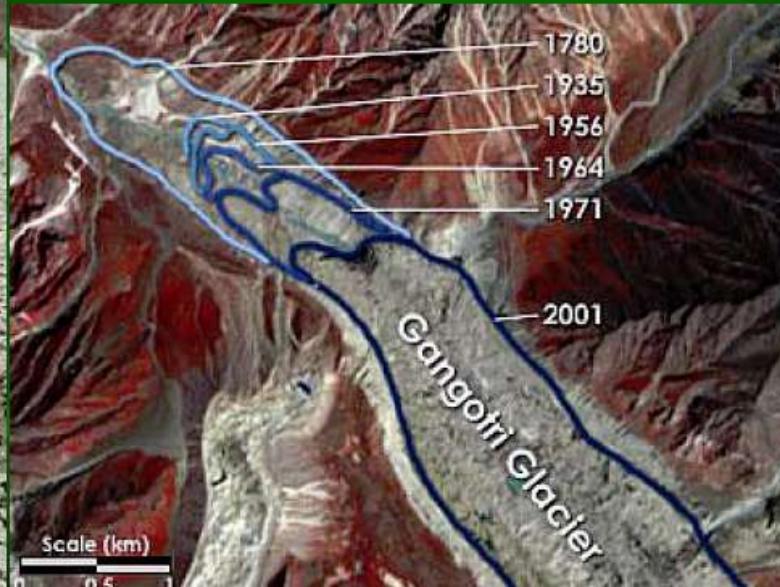
- It's global problem
- Effects are irreversible if not addressed well in time
- Today's emissions are tomorrow's problems
- Needs collective actions for mitigation



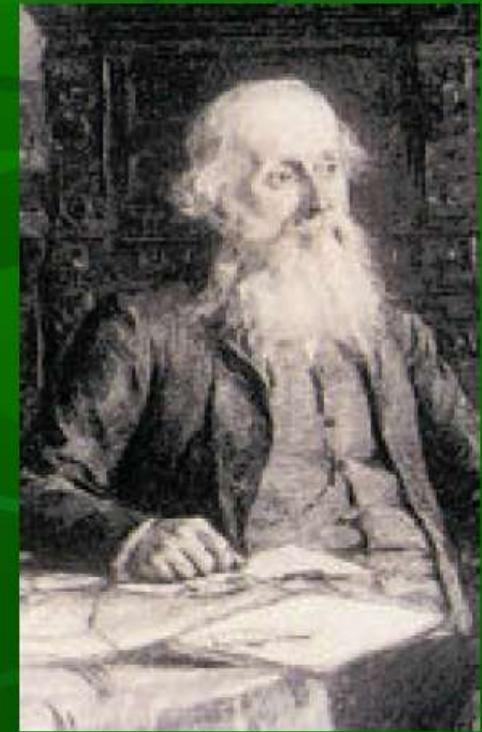
Developing Nations will face

- **Reduced agricultural productivity**
 - * **Collapse of ecosystems**
 - * **Water scarcity – glacial melting**
 - * **Increased health risks**
 - * **Extreme weather: storms, floods, sea level rise**

Holy Ganges alone supports 400 million farmers !

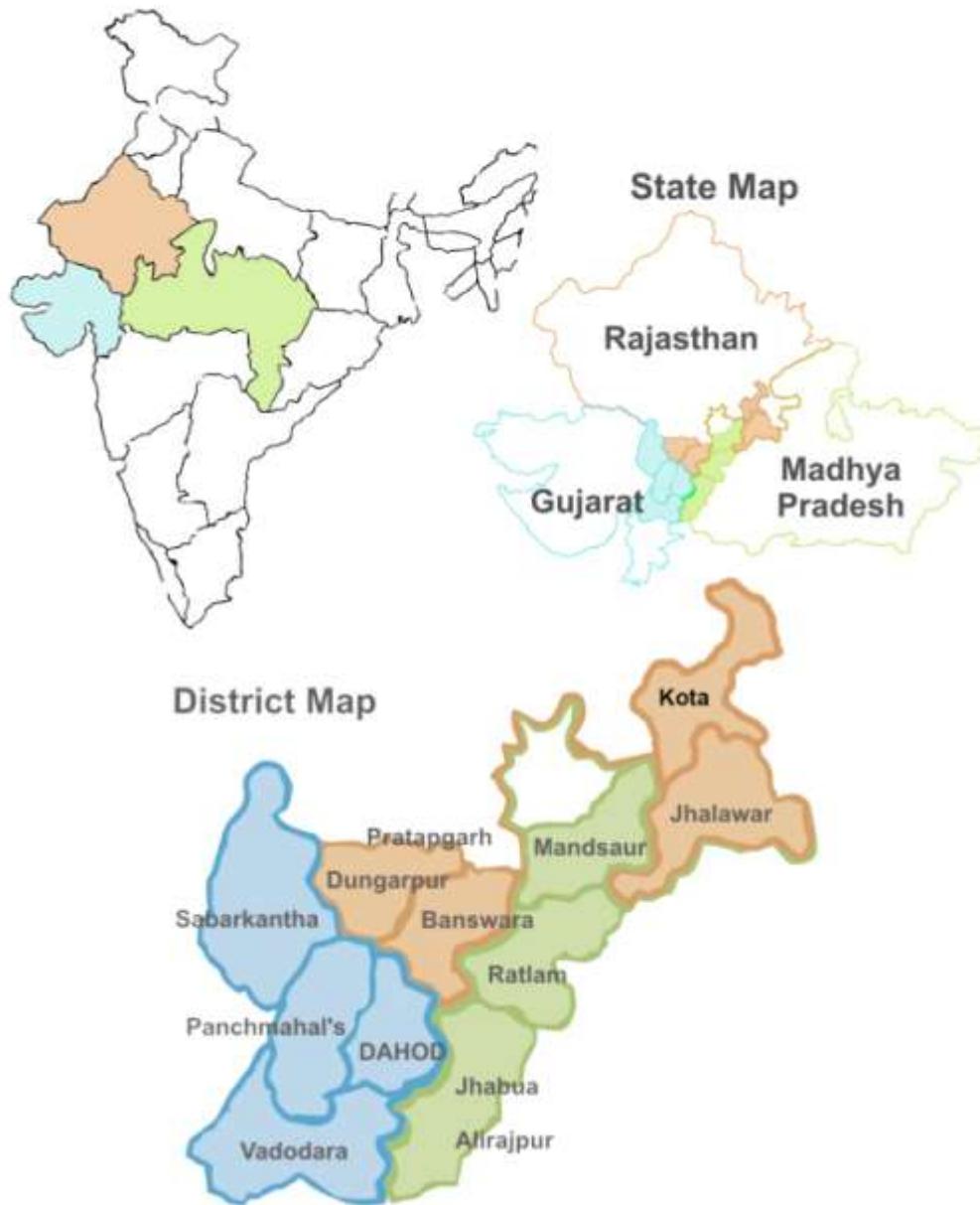


Climate Change is an Old News in India.. Earliest whistle blower was.....



Huge Cleghorn - India's first IG of Forests reported on the dangers of deforestation leading to climate change to the British Association for the Advancement of Science in 1851

Program area of
NMSWDF



**Sadguru Model of
Development in
villages ensures
Food Security and
Effectively Mitigates
Climate Change**

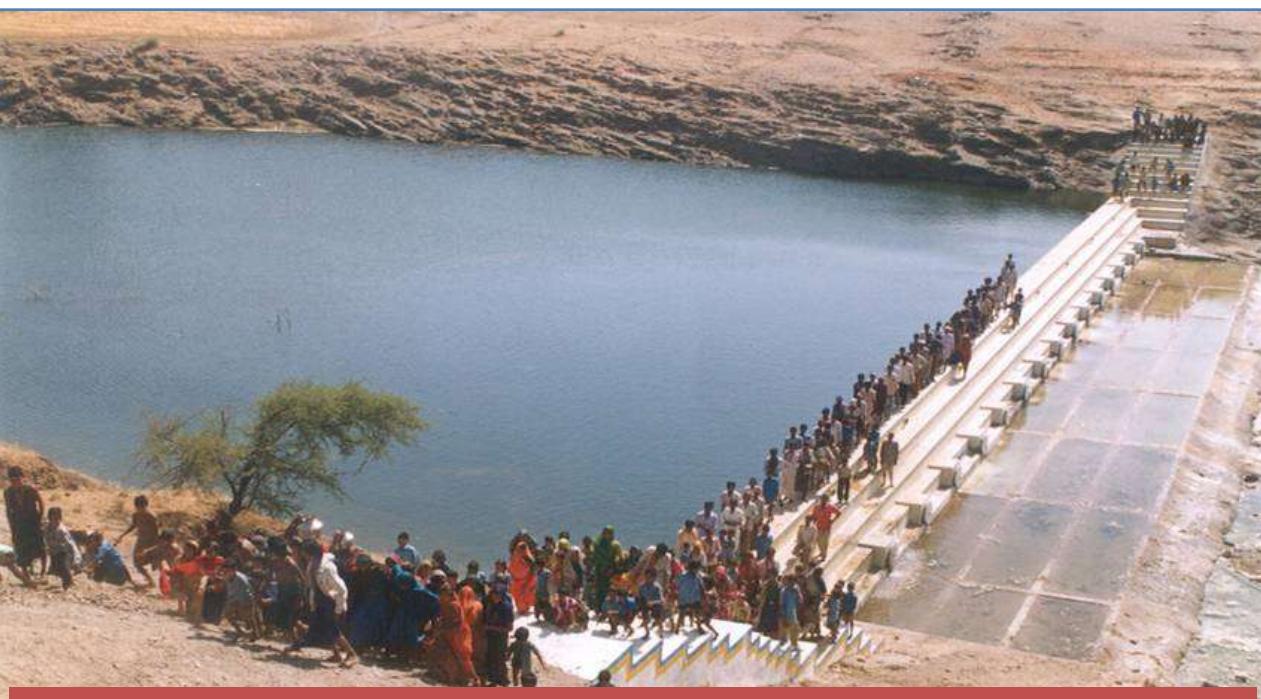
**Model is replicable in
developing nations**

Sadguru's Eco-friendly Small Dams Government / Private / Community Partnership

In mitigating climate change



Building Small Dams



Providing Water to People



Community Managed Small Dam

Water: Surface water harvesting, storage and conservation



Community water harvesting structures

376 check dams,
55,976 acre land irrigated and
24,418 households benefited



65 Local rivers and rivulets have been made perennial and 5 more are in the process of becoming perennial.

Water: Irrigation efficiency



Community Lift Irrigation Schemes
401 schemes covering 52,344 acres: 27,200 households

Soil and Water Conservation

Micro watershed area development



**1,04,633 acres land treated
32,171 households benefited**

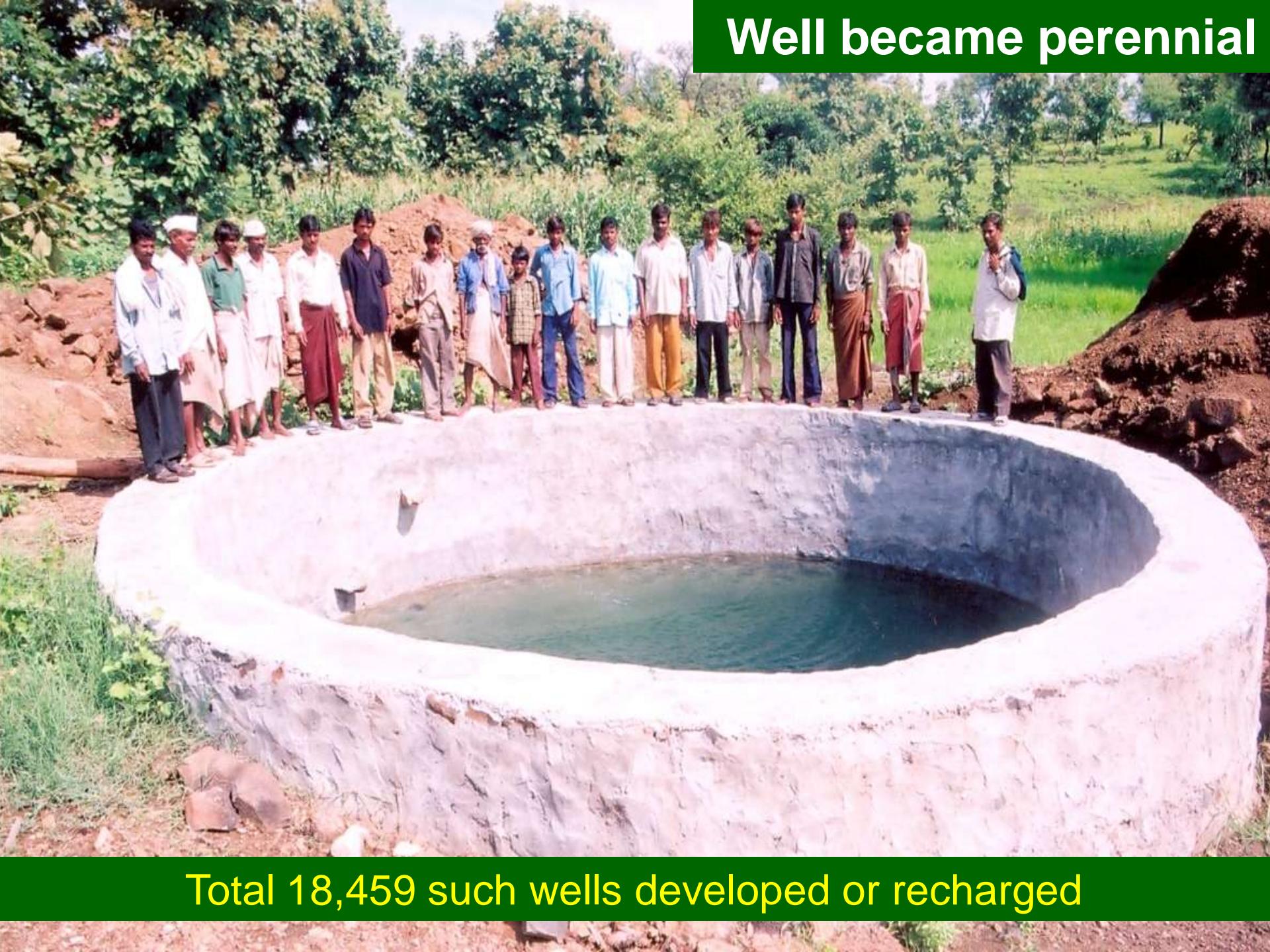
Drainage line treatment and grade stabilization



Let water walk, not run



Well became perennial



Total 18,459 such wells developed or recharged

Climate change - Agriculture - Livelihood

Agriculture: improved crop land management



Post monsoon crop is possible with community lift irrigation system

Agriculture Production Enhancement (through knowledge application and capacity building)



A photograph showing a group of farmers walking through a dense, green cassava field. The farmers are dressed in traditional Indian attire, including sarees and dhotis. The field is filled with tall, green cassava plants. The sky is overcast, suggesting a rainy day. The overall scene conveys a sense of rural agriculture and environmental sustainability.

Diversification in Agriculture

Climate friendly Horticulture

31,910 plots covering 31,910 farmers



Floriculture on small piece of land means surety for about 10 fold income compared to traditional crop

Traditional vegetable cultivation

Every year more than 20000 farmers opting vegetable cultivation



Vegetable cultivation : (Trellis system (4,946 plots and farmers)

Rs. 50,000/- to 75,000/-



SPICES CULTIVATION

Chilly



Ginger



Turmeric



Onion



DAIRY DEVELOPMENT



The tribal youth giving up government job opted for Self Employment in Dairy. He earns Rs.40,000/- per month

DAIRY DEVELOPMENT



Shantaben Bhuriya earning Rs. 80,000 per month from Dairy.
She is also leader of SHG Federation of Garbada taluka of Dahod district

96 Milk co-operatives with a total of 6,226 members engaged in Dairy

Agriculture: eco-friendly organic manure (Vermi compost)



More than 10,000 households having Vermicompost units economizing on the use of fertilizer and cost of cultivation

Biogas plant

Mitigating climate change



2,975 households having biogas plants and housemakers enjoying cooking with biogas

Eliminating use of fuel wood, reducing use of chemical fertilizer and kerosene



Use of Solar Lantern

Mitigating climate change



Agro Forestry : reforestation, afforestation on the barren lands

A natural renewable resource

Photosynthesis is the only and simplest tool to sequestrate the carbon dioxide



Tree plantation on the farm bunds



**6,75,38,564 plants: 1,32,456 households
70,702 acres – long term survival 50 %**

MAGNITUDE OF IMPACT AT A GLANCE TOWARDS CLIMATE CHANGE MITIGATE (AS ON 31.03.2015):

- 1,45,476 acres land under irrigation (LI + Check dam + Wells)
- More than 2,000 mcft water is stored
- 1,04,633 acres land treated under micro watershed development
- 6.75 crores plants / saplings planted under social forestry program
- 31,910 horticulture plots by equal number of farmers
- 3,30,234 families covered in different programs
- 3,82,382 acres dry land transformed under different programs
- More than 64 lakh acres influenced at national level through training and technical inputs in watershed development





Thanks



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