



LEARNINGS FROM ODISHA ON WATER SENSITIVE URBAN PLANNING & DESIGN

PRESENTATION BY
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PRINCIPAL SECRETARY
HOUSING & URBAN DEVELOPMENT
DEPARTMENT



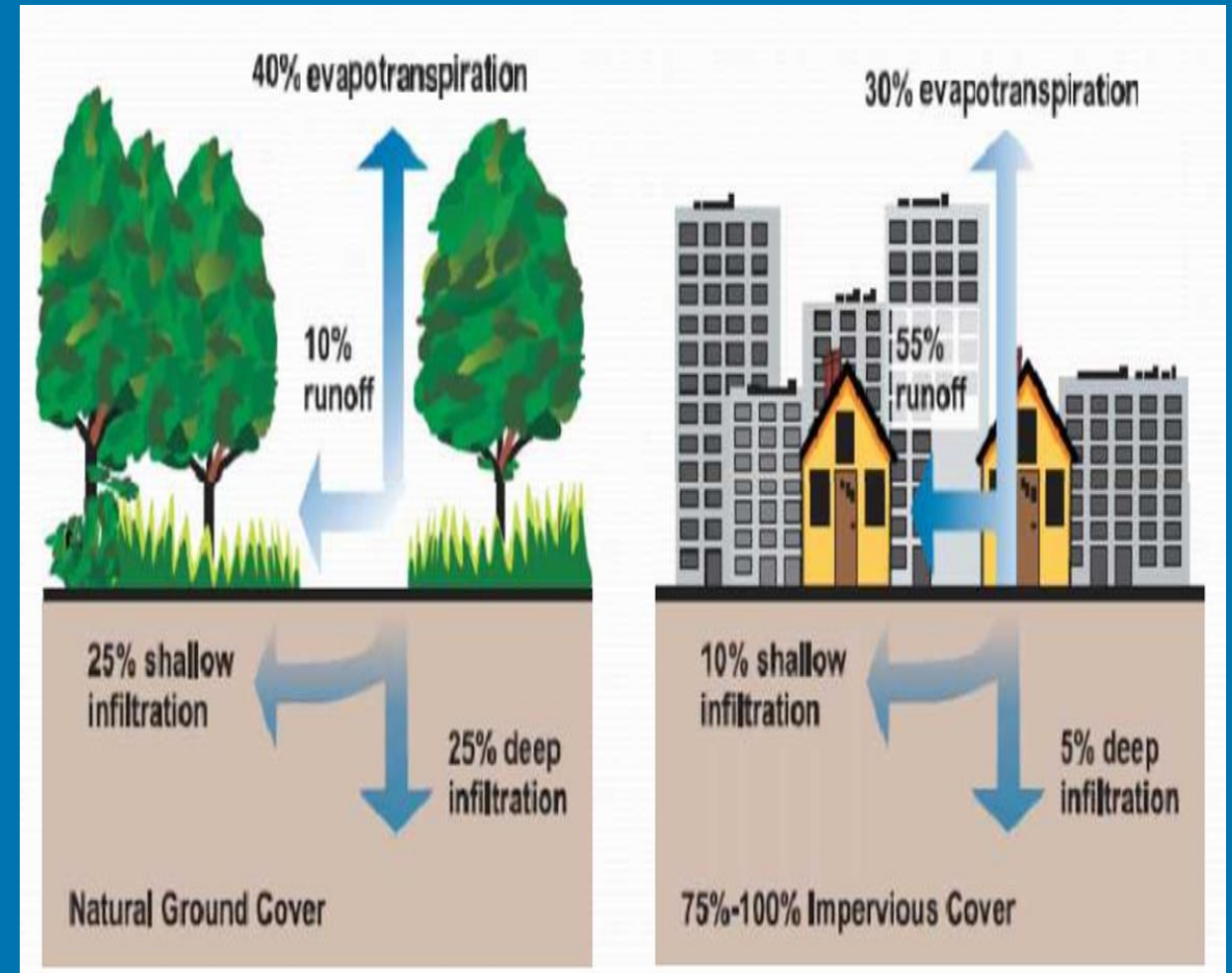
Right to Water &
Sanitation



UNDERSTANDING THE ISSUE

ODISHA IS A WATER SURPLUS STATE WITH
AVERAGE ANNUAL RAINFALL OF 1400 MM

DISTRIBUTION OF RAINFALL IS UNEVEN
RESULTING IN FLOODING & WATER SCARCITY
THAT AFFECTS LIVES & LIVABILITY FOR URBAN
POOR & THE MARGINALISED





NEED FOR WATER SENSITIVE URBAN DESIGN & PLANNING



- 25% OF URBAN ODISHA- ~ 18 LAKH PEOPLE LIVE IN THE SLUMS
- ENVIRONMENTAL CONDITIONS INCREASES VULNERABILITY OF POOR
- DURING MONSOONS; WHILE WESTERN ODISHA IS A RAIN-SHADOW AREA FACING WATER SCARCITY.
- THE LOW-LYING COASTAL AREAS WITNESS URBAN FLOODING
- IMPROVED WATER & SANITATION INFRASTRUCTURE ESPECIALLY IN SLUMS BECOMES EXTREMELY CRITICAL



KEY FOCUS AREAS FOR URBAN POOR



HARVESTING
RAIN WATER



ACCESS TO SAFE TAP
WATER
AT EVERY HOME



IMPROVING
SANITATION &
SEPTAGE TREATMENT

INITIATIVES



CONSTRUCTION OF
RAIN WATER
HARVESTING
STRUCTURES ON
CAMPAIGN MODE

INDIVIDUAL
HOUSEHOLD LEVEL
TOILET
CONSTRUCTION IN
2599 SLUMS IN 100
ULBs

INITIATIVES ARE
STATE LED &
FUNDED BY THE
STATE UNDER
MUKTA, JAGA
MISSION, & SUJAL

COMMUNITY GROUPS
W-SHG & SDAs
LEAD ONGROUND
IMPLEMENTATION



CATCH THE RAIN CAMPAIGN-MUKTA

MUKTA :

Launched during COVID Pandemic aims at creating wage employment opportunities through creation of community based assets.

MUKTA focuses on activities – that support sustainable economic and climate resilience.

FOCUS AREAS: PUBLIC PARKS,
PLAYGROUNDS, OPEN SPACE/VACANT
LAND, PREMISES OF SCHOOL, COLLEGE,
HOSPITAL AND GOVT. INSTITUTIONS

RWHS: 37,008 ACROSS URBAN
ODISHA ON CAMPAIGN MODE

CBO : 10106 COMMUNITY GROUPS
ENGAGED



RAIN WATER HARVESTING STRUCTURE : MODEL

COST PER UNIT : ~ ₹40,000

EXECUTION TIME: ~ 10 TO 12 DAYS

**Standardized model designs for simple civil
structure**

**Construction & MAINTENANCE: COST EFFECTIVE & TECHNOLOGY
FREE (JUST REMOVAL AND REPLENISHMENT OF SAND AND
PEBBLES ANNUALLY)**



STRATEGY

MAPPING & TRAINING OF ENGINEERS
ULB,WATCO,PHEO,OWSSB,DA(306)

STANDARDISING DESIGN & IMPLEMENTING
PROCESS (SoP)

SELECTING SUITABLE AND TECHNICALLY
FEASIBLE SITES

PARTNERSHIP WITH COMMUNITY GROUPS
(10106)

VERIFYING & CERTIFYING BY WARD
COMMITTEES



COMMUNITY ENGAGEMENT IN IMPLEMENTATION & SUPERVISION



Women SHGs



SDA



Ward Committee

CATCH THE RAIN CAMPAIGN 2021



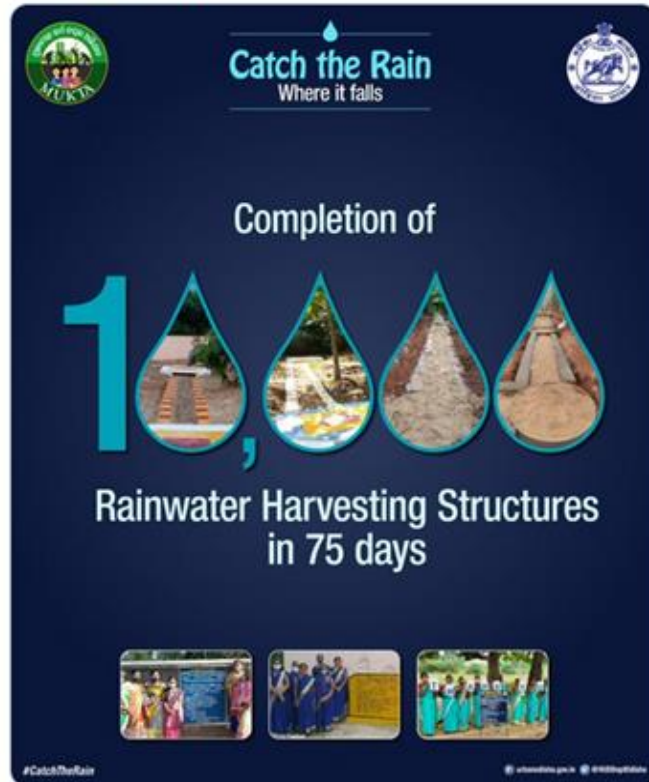
Gajendra Singh Shekhawat
@gssjodhpur

Brilliant effort Odisha!

10,000 Rain water harvesting structures in 75 days across 114 local bodies is a commendable feat.

This campaign run under Mukhya Mantri Karma Tatapara Abhiyan will help #CatchTheRain at a mammoth scale across the state.

#JalShaktiAbhiyan



PMO India and 5 others



National Water Mission @nwmgoi · Jul 2

#CatchTheRain- When It Falls, Where It Falls

10000 Rain Water Harvesting Structures Set Up Across Odisha In 75 Days

#NationalWaterMission #SaveWater #CatchTheRain #JalShakti #MoJS
#DoWR #JanShakti4JalShakti #NWM #watertechtalk #watertalk



Achyuta Samanta @achyuta_samanta · Jul 2

Appreciate #MUKTA initiative of @HUDDepthOdisha and congratulations on completing 10,000 Rain Water Harvesting Structures (RWHS) across Odisha in a record span of 75 days in the #CatchtheRain Campaign with support from @mission_shakti.



Dr. Amar Patnaik @Amar4Odisha · Jul 11

The state government has earned praise from the Center for setting up a 10,000 rainwater harvesting system in #Odisha to help with water conservation and groundwater recharge before the start of the southwest monsoon under "Catch the rain" campaign.

@Naveen_Odisha @CMO_Odisha

9

7

95



Rattan Lal Kataria
@kataria4ambala

Appreciate @CMO_Odisha Sh. Navin Patnaik ji and his team for their efforts. #CatchTheRain @gssjodhpur



Ministry of Jal Shakti #StayHome #StaySafe @MoJSDoWRR... · Jul 2
#CatchTheRain

Kudos to Odisha for constructing 10,000 Rain Water Harvesting Structures across all the 114 urban local bodies in a record span of 75 days.

The campaign is being run under "Mukhya Mantri Karma Tatapara Abhiyan" MUKTA Programme.
#JalCharcha



Pratap Jena @jenapratap66 · Jul 1

@HUDDepthOdisha has achieved a significant milestone in the "Catch the Rain" campaign by completing 10,000 Rain Water Harvesting Structures (RWHS) in 114 ULBs across Odisha in a record span of 75 days. (1/2)



Naveen Patnaik and 5 others



CMO Odisha
@CMO_Odisha

Commend @HUDDepthOdisha on completion of 10,000 Rain Water Harvesting Structures in #CatchTheRain Campaign under #MUKTA scheme in #Odisha in 75 days with active participation from @mission_shakti groups, SDAs.

twitter.com/HUDDepthOdisha/...



H & UD Dept @HUDDepthOdisha · Jul 1

Urban #Odisha reached a significant milestone in the #CatchtheRain Campaign by completing 10,000 Rain Water Harvesting Structures (RWHS) across Odisha in a record span of 75 days. 1/4

Show this thread



1:06 PM · Jul 2, 2021 · Twitter for Android



CATCH THE RAIN CAMPAIGN 2022

 **H & UD Dept** @HUDDeptOdisha

#Odisha has once again taken a lead in the #CatchtheRain campaign with the completion of more than 20,000 #RainwaterHarvestingStructures within a span of 60 days with an investment of nearly Rs 90 crores. 1/3



Catch the Rain Campaign - 2022
in Urban Odisha under MUKTA

20,000 Rainwater Harvesting Structures in just 60 days

#CatchTheRain

urbanodisha.gov.in @HUDDeptOdisha hudd_odisha

Naveen Patnaik and 4 others

6:27 PM · Jul 3, 2022 · Twitter for Android

 **H & UD Dept** @HUDDeptOdisha · Jul 19

#Odisha has constructed 22222 Rainwater Harvesting Structures (RWHS) under the flagship employment generation programme, #MUKTA, in partnership with more than 10,000 @mission_shakti groups & Slum Dwellers' Associations (SDAs). 1/2



Catch the Rain Campaign 2022
Urban Odisha touches the Magic Number **22222**

RAIN WATER
HARVESTING STRUCTURES

10100 Mission Shakti SHGs
111 ULBs
1Lakh+ Women SHG Members

MUKTA
An Urban Wage Employment Scheme under 5T initiative of Odisha

#TransformingUrbanOdisha

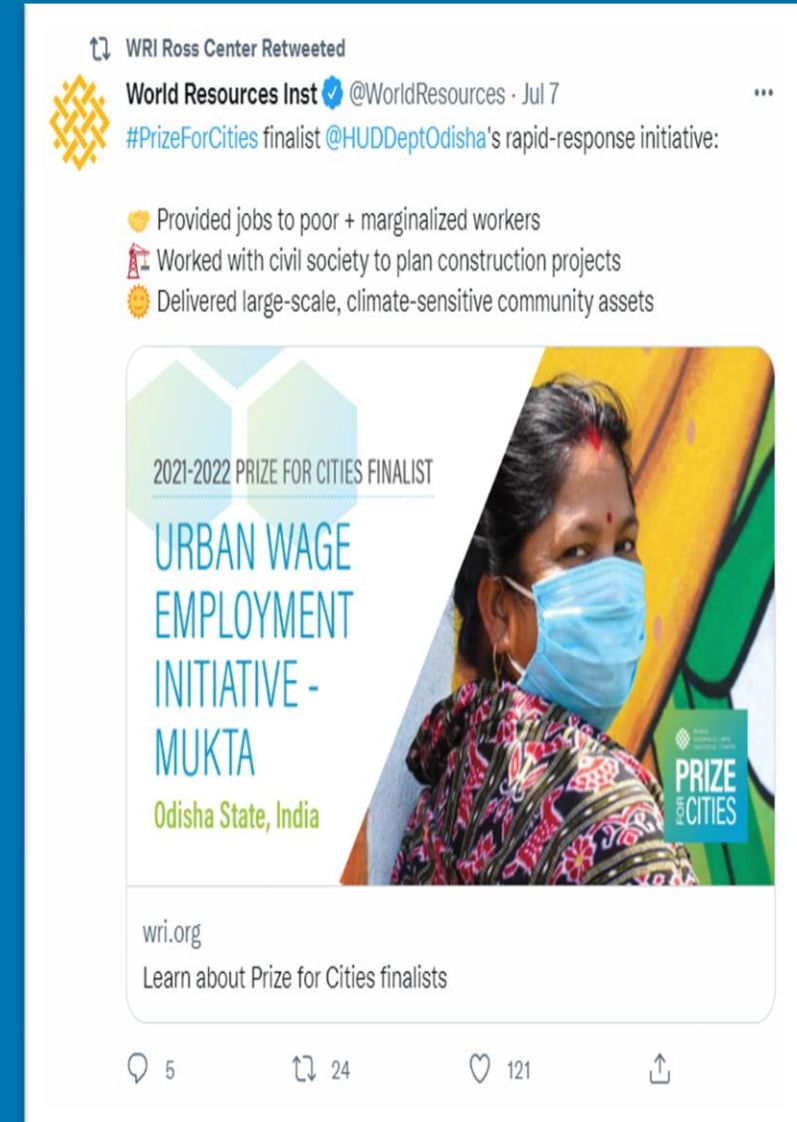
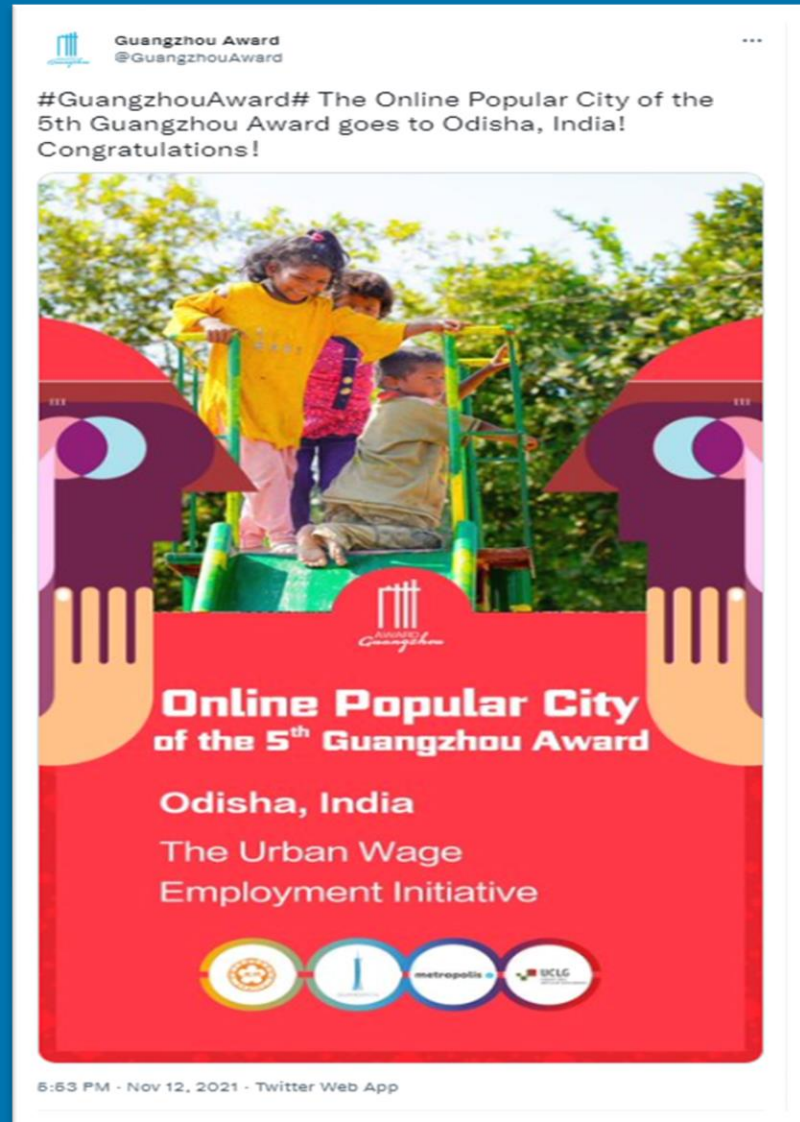
urbanodisha.gov.in @HUDDeptOdisha hudd_odisha

Naveen Patnaik and 3 others

6 47 196



CATCH THE RAIN CAMPAIGN AWARDS & RECOGNITIONS





CWIS

**ACCESS TO SAFE SANITATION
& ODF**



CHALLENGES

- SLUMS: 2919 WITH 18 Lakh people (25%)
- SPACE CONSTRAINTS
- FINANCIAL CONSTRAINTS OF ECONOMICALLY WEAKER & MARGINALISED SECTIONS WITHIN SLUM COMMUNITY.
- COMMUNITY TOILETS DOES NOT ENSURE ODF SUSTAINABILITY



ଓଡ଼ିଆ ଭାଷା
ନାମ - ବିନୟ ମହାନ୍ତି
ଘର ନଂ. ୧
ରାମଚରଣ ଶାନ୍ତି ସାହି
ପାଟଣା ଗୋଷ୍ଠୀ

RIGHT TO IHHT
CAMPAIGN MODE ~
MO TOILET

JAGA MISSION Phase-2
Adarsh colony program
9 components
Access to Tap water at Home
Access to Individual Toilet

SANITATION INFRASTRUCTURE MODEL

- **COST PER UNIT:** ~ RS. 8, 000 subsidy UNDER SBM & RS. 60, 327 PER SEAT FOR CLUSTER TOILETS
- **EXECUTION TIME:** ~ 1 MONTH FOR IHHT & 3 MONTHS FOR CLUSTER IHHT
- **MAINTENANCE:** BY INDIVIDUAL HOUSEHOLDS & FAMILY & SDAS IN CASE OF CLUSTER TOILETS



ବକ୍ସି ବାସିନ୍ଦା ସ୍ୱାସ୍ଥ୍ୟ ଉନ୍ନୟନ ଓ ଦାୟିତ୍ୱ

ଆସନ୍ତୁ ହାତରେ ହାତ ମିଶାଇବା,
ପ୍ରତ୍ୟେକ ପରିବାର ପାଇଁ ପାଇଖାନାଟିଏ
ସୁନିଶ୍ଚିତ କରାଇବା ।



ବ୍ୟକ୍ତିଗତ ଘରୋଇ ପାଇଖାନା ନିର୍ମିତ କରାଇବା ପାଇଁ
ପ୍ରବର୍ତ୍ତନ ମାନଙ୍କୁ ଚିହ୍ନିତ କରି ଘର ମୁଖ୍ୟାମାନଙ୍କୁ
ପ୍ରେରଣା ଦେବା ।

STRATEGIES-POLICY, GUIDELINES & IEC

- SoP ON LIVEABLE HABITAT UNDER JAGA MISSION
- SUPPORTING GUIDELINE ON MO-TOILET
- MODEL DESIGNS & ESTIMATES
- EXTENSIVE CAPACITY BUILDING
- ✓ INSTEAD OF AN INDIVIDUAL SEPTIC TANK, **SHARED SEPTIC TANK OR COMMUNITY SEPTIC TANK**
- ✓ WHERE IHHTS IS NOT POSSIBLE **CLUSTERED IHHT** IS CONSTRUCTED & EACH SEAT EARMARKED TO INDIVIDUAL HOUSEHOLD WITH LOCK & KEY
- ✓ THE COMMUNITY CAN GO FOR **MULTI- STORY CLUSTERED IHHT**; WHERE THERE IS LESS SPACE FOR CLUSTERED IHHT,
- **IEC (VIDEOS, POSTERS)**
- **DEEPER COMMUNITY ENGAGEMENT**
- **SDA RESPONSIBLE FOR 100% IHHT COVERAGE & ODF**
- **COMMUNITY DECLARES ODF SUSTAINABILITY & LINKED TO O&M FUND RELEASE**

DEEPER COMMUNITY ENGAGEMENT



SDAs IDENTIFY BENEFICIARIES WHO NEED IHHT

ACT AS A BRIDGE BETWEEN THE ULB & THE
COMMUNITY TO ENSURE TIMELY SATURATION OF
IHHT CONSTRUCTION

INFORM THE ULB ON COMPLETION OF
CONSTRUCTION OF IHHT, SUPPORT GEO-TAGGING
& TIMELY RELEASE OF INCENTIVES TO
BENEFICIARIES.

ENSURE MECHANIZED DESLUDGING SERVICES,
WATER SUPPLY & CLEANLINESS INSIDE THEIR
COMMUNITIES
COMMUNITY PRIDE IN ODF

ACHIEVEMENT

SDAs HAVE IDENTIFIED OVER 80,000 FAMILIES
FOR IHHT

COST EFFECTIVE PROTOTYPE DESIGNS
DEVELOPED

CONVERGENCE WITH SBM, JAGA & PMAY

SOCIAL AUDIT(SHG&SDA)
TO VERIFY AND CERTIFY IN 662 SLUMS,
ADDITIONAL FUNDS FOR GAP FUNDING



FSSM



FAECAL SLUDGE & SEPTAGE MANAGEMENT



Before Scenario...

- Only 3 cities had partial sewer network



- Absence of faecal septage treatment facilities



- Open defecation



- Indiscriminate open discharge of septage



- 98% of fecal sludge was allowed to contaminate groundwater & surface water



- Absence of FSM regulations & enforcement



- Lack of Public Awareness





After Scenario...



Availability of safe disposal - from 2% of urban population in 2014 to 98% in 2022



75% reduction in pollution in major rivers of Odisha (OPCB)



51 Mission Shakti groups engaged in SeTP O&M



Implementation of DRE method



100% access to mechanized emptying & transport

Path Followed...

Capacity Building-1,000+ officials trained

Enforcement of Regulations

Establishment of 106 FSTP in 105 cities & rest 10 to be covered by end 2022

360-degree IEC on FSM

Community engagement: More than 3000 MSGs

Leveraging digital tools for monitoring and tracking

Procurement of > than 200 cesspool vehicles





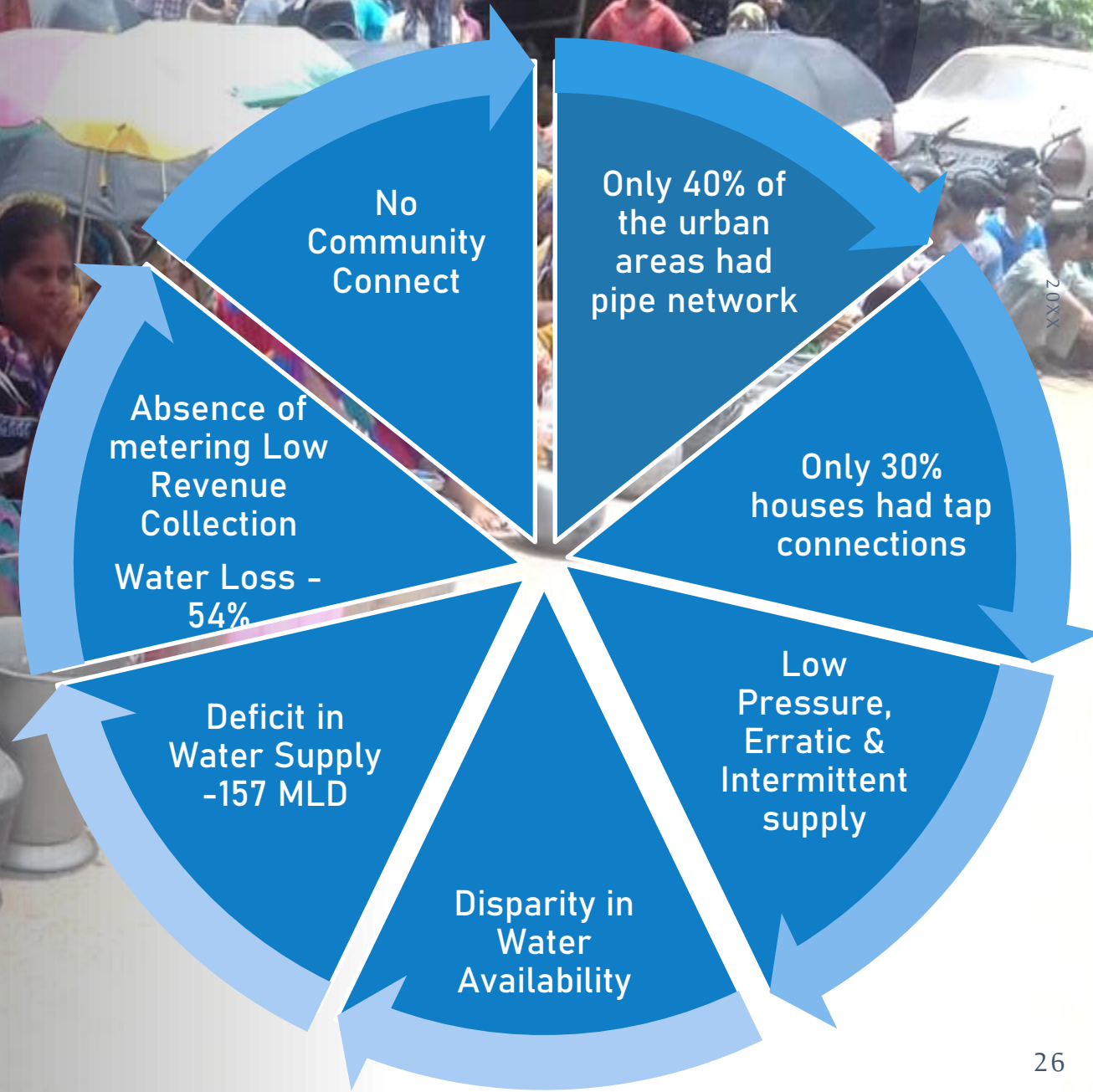
At a Glance...



WATER SECURITY AT EVERY HOME

**TAP WATER AT EVERY HOME
DRINK FROM TAP**

DRINKING WATER CHALLENGES in 2015



WATER CONTAMINATION ISSUES



WATER BORNE DISEASES

Home > States > Odisha

Jaundice resurfaces in Sambalpur

In 2014, jaundice had claimed more than 30 lives in the city, spreading panic among thousands of people.

Published: 11th March 2018 06:15 AM | Last Updated: 11th March 2018 06:15 AM



The spread of the disease was attributed to contamination of drinking water. (File)

By Express News Service

SAMBALPUR: Jaundice is back to haunt Sambalpur again with at least eight fresh cases being reported from Pensionpara and Mayabagicha areas here. In 2014, jaundice had claimed more than 30 lives in the city, spreading panic among thousands of people. The spread of the disease was attributed to contamination of drinking water.

The pipelines pass through drains in several areas of the city. "The leak in pipelines had been contaminating water and threatenin g the spread of the disease yet again," sources said.

Home > States > Odisha

Hepatitis in Sambalpur

Published: 31st October 2014 06:06 AM | Last Updated: 31st October 2014 06:06 AM

By Express News Service

SAMBALPUR: Hepatitis is taking the shape of an epidemic in most parts of Sambalpur town. Doctors have attributed the reason for spread of the disease to contaminated drinking water supplied by PHED.

While the number of patients afflicted with the virus is on the rise with each passing day, the PHED seems to have turned a blind eye to the impending danger.

HEALTH CRISIS

MORE FAMILIES ARE OPTING FOR PACKAGED DRINKING WATER AFTER THE HEPATITIS SCARE

- Doctors have attributed the reason for spread of the disease to contaminated drinking water supplied by PHED
- The drinking water pipeline network, has been damaged at several places resulting in waste getting mixed with water

Sources said the drinking water pipeline network, which passes near some of the drains in the town, has been damaged at several places resulting in waste getting mixed with water. The contaminated water is the cause of spread of the disease, the sources added.

Though the number of deaths due to Hepatitis is yet to be ascertained, sources said an employee of State Bank of India (SBI), Main Branch Maheswar Sahu died due to the disease a few days back in a hospital in Bhubaneswar where he was undergoing treatment. In fact, panic has gripped the employees of SBI Main Branch after six clerical and seven supervisory employees were diagnosed with Hepatitis.

Printed from
THE TIMES OF INDIA

Three people die of jaundice in Balangir

TNN | May 10, 2015, 11:36 AM IST

BHUBANESWAR: After Sambalpur town, jaundice has come to haunt people of Balangir with three people dying of the disease in three days.

On Saturday, M Jagadamba, 45 of Sudpada locality succumbed to jaundice. Rakesh Naik, 24, of the same locality died on Friday, while Rajendra Sahu died the day before.

According to official sources, blood samples of 65 persons have been found to be positive for jaundice in Balangir town. "We

Printed from
THE TIMES OF INDIA

Jaundice spreads to Odhisha capital

TNN | Feb 20, 2015, 02:04 AM IST

BHUBANESWAR: After Sambalpur and Cuttack, jaundice has reared its ugly head in the city.

Around 40 policemen residing in the reserve police barracks have suffered from the disease in the last one month, government authorities said on Thursday.

Printed from
THE TIMES OF INDIA

Jaundice breaks out in Cuttack, 22 affected

TNN | Feb 7, 2015, 11:11 AM IST

CUTTACK: Twenty-two people have been affected by jaundice at Jobra in the past two days, said health officer of Cuttack Municipal Corporation P K Pradhan.

On Friday, 13 cases were detected after nine the day before, he said. A team of doctors and health officers visited the affected area. Collector (Cuttack) Nirmal Mishra also took stock of the situation. The cause of outbreak is suspected to be consumption of contaminated water.

After the disease assumed alarming proportions in Sambalpur, the district administration convened a meeting in December to prevent any outbreak in the city. It was decided that the city would be divided into 10 zones and 20 teams would examine the condition of pipelines supplying drinking water and replace the damaged ones. "Pipelines in Jobra are in a very bad shape due to lack of maintenance," said Mihir Das, a resident.

CMC officers, however, said adequate measures, including awareness drives, were taken up. "We have sensitized people to drink boiled water and also distributed chlorine tablets and jaundice medicines in the locality," said Pradhan.

"We have asked the Public Health Engineering Organization to repair pipelines on a priority basis. We are also making arrangements to supply safe drinking water through tankers in the locality," said the health officer.

Vision Of Change

100% house connections
with adequate Quantity &
Quality in all cities covering
entire urban population



SUJAL

Drink From Tap Mission

Right to assured quality tap water at every home





TAP WATER AT HOME

9.8 Lakh
Connections(97%)

85 cities out of 115 with
100% HC



DFT- 24x7 : 6 Lakh
People in 4 cities
20 cities with 60% state
population to get by 2023



Heading towards 100%
Metering &
Jalasathi connect



SUJAL MISSION

24x7 WATER SCARCITY

JALASATHI



Partnership with Women Self Help Groups



Jalasathi empowered to manage water distribution at ward level



Act as a bridge between Water Supply Agency & Consumers



Performance linked Incentive System



ROLE OF JALSATHI

- Reading water Meters
- Generating Bills
- Collecting Water user charges
- Field Water Quality Testing
- Facilitating Consumer Complaint Redressal



CITY-WISE DECLARATION OF 100% HOUSE CONNECTION

 **EICPH**
@eic_pheo

Congratulations **#Junagarh** NAC, which joins the proud league of 75 ULBs in **#Odisha** that have completed 100% piped water supply connections to all households. **#PHEO** is committed to provide safe drinking water to all urban households in **#Odisha**.


5:06 PM · 22 Feb 22 · Twitter for Android

View Tweet activity

 **Collector & DM, Jajpur**
@dm_jajpur

Congratulations to Jajpur Municipality and PHED Jajpur on achieving 100% piped water supply connection to households of Jajpur Municipality. This will help people access safe drinking water and immensely benefit the residents of the municipal area.
@Jajpurmun @HUDDeptOdisha

3:02 pm · 16 Nov 21 · Twitter for iPhone

 **EE PHD SBP**
@EEPHDSBP · 2m

Realizing the dream of Hon'ble CM@Naveen_Odisha to provide safe drinking water to all households, PHEO is happy to announce that **#Bargarh** Municipality has achieved the landmark of water supply connections to all its households.

Sop for Third Party Verification of 100% Coverage by Piped Water
Annexure-B

SAFE DRINKING WATER FOR ALL
CERTIFICATE OF ACHIEVEMENT

This is to declare that Bargarh Municipality (name of ULB) has achieved 100% coverage of households by piped water supply connection with 10000 nos. of house connection as on 31.12.2021 (mention date) and no house hold/ property with requirement of pipe water connection has been left out.

Signed by:

Chairman, Project Director, DDA, Bargarh
(Municipal Commissioner/Collector's Representative/ Executive Officer)**
TAKHASILDAR BARGARH

Executive Officer, Bargarh Municipality
City Engineer/ Municipal Engineer**
Indrapati Rath

President of CLE/ALF/WSHG**
MAA DURGALF
W.No.16

Secretary of CLE/ALF/WSHG**
MAA DURGALF
W.No.16

Senior most Engineer from WATCC/PHEO
Assistant Engineer
P. H. Section, Bargarh

5:26 4G 16%

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 **EEPHANGUL**
@EEPHANGUL1

Realizing the dream of Hon'ble CM @Naveen_Odisha to provide safe drinking water to all households, PHEO is happy to announce that **#Talcher** Municipality in Angul District achieved the landmark of water supply connections to all its households. **@eic_pheo @sephctc @pheopmu**

SOP for Third Party Verification of 100% Coverage by Piped Water
Annexure - B

SAFE DRINKING WATER FOR ALL
CERTIFICATE OF ACHIEVEMENT

This is to declare that, Talcher Municipality has achieved 100% coverage of household by piped water supply connection with 5842 nos. of households connection as on 28.12.2021 and no household / property with requirement of pipe water connection has been left out.

Collector Representative
PHILIP S. SINGH
Talcher Municipality

Executive Officer
Talcher Municipality
MAA DURGALF

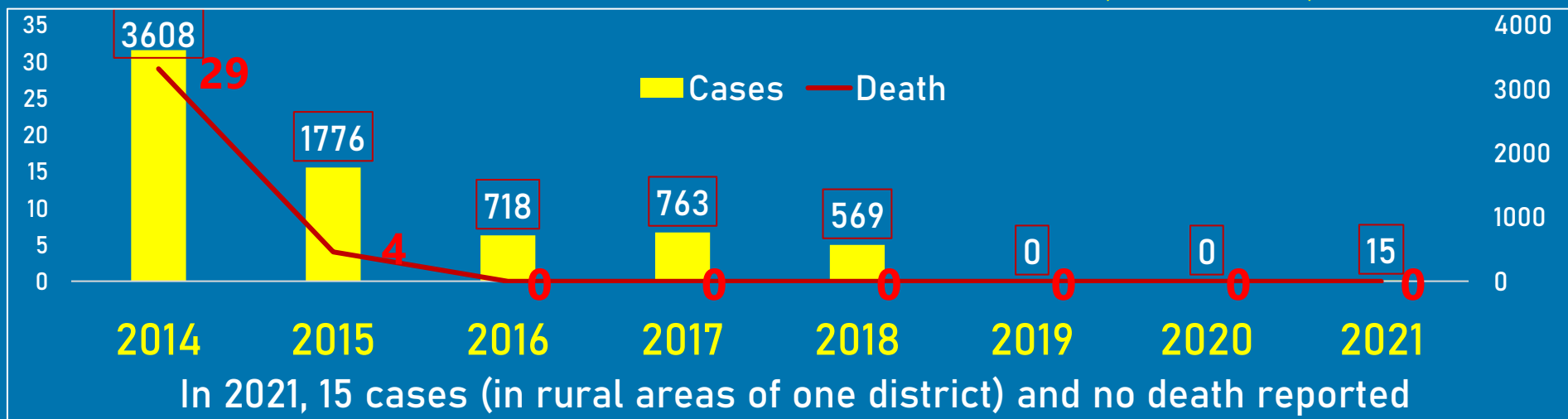
Go to website

Senior Engineer
Talcher Municipality

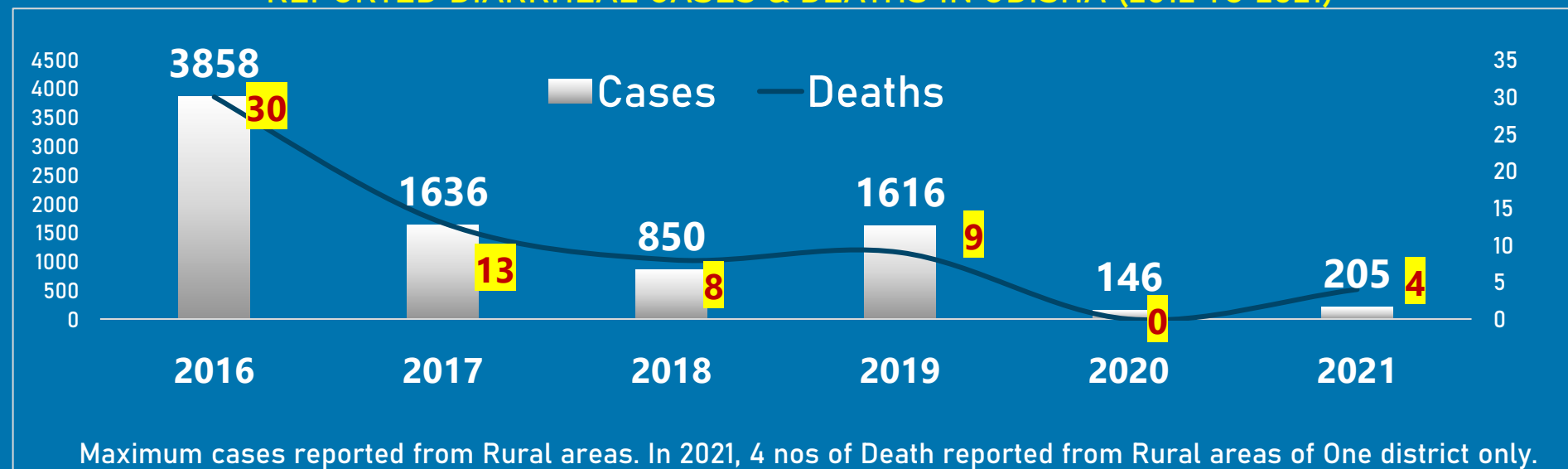


IMPACT ON PUBLIC HEALTH

REPORTED JAUNDICE CASES & DEATHS IN ODISHA (2014 TO 2021)



REPORTED DIARRHEAL CASES & DEATHS IN ODISHA (2012 TO 2021)



Source: integrated disease surveillance programme (IDSP), Odisha



Thank You

Housing & Urban Development Department
Government of Odisha