



# Bundelkhand Drought Impact Assessment Survey 2015

Swaraj abhiyan  
In association with Parmarth, Orai



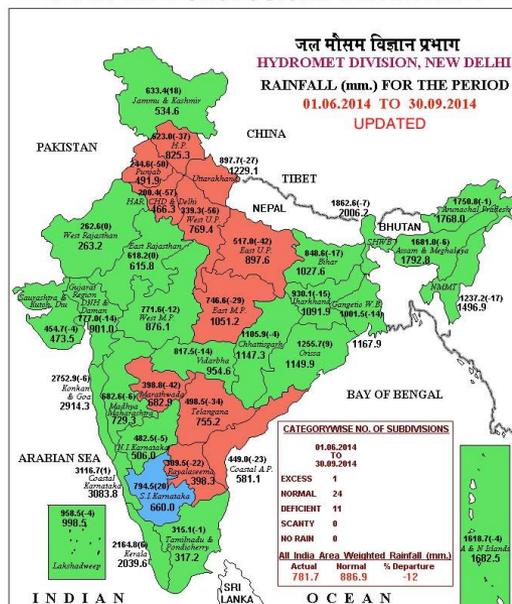
# Second successive drought in the country

14% Rainfall deficit during this monsoon.

12% Rainfall deficit last year.

Only 3<sup>rd</sup> instance in last century of back to back drought.

## भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT

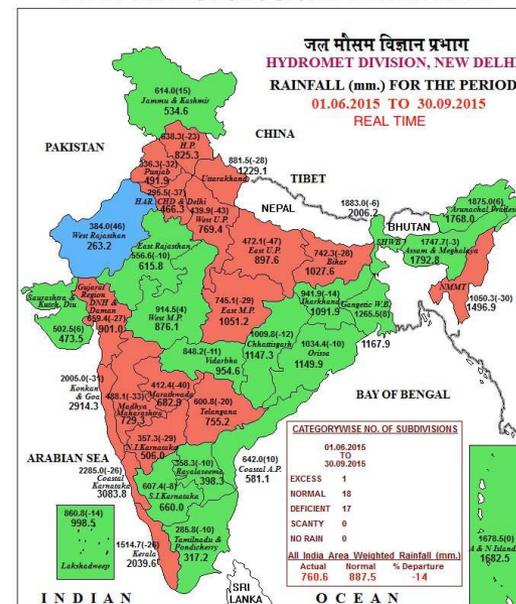


LEGEND: ■ EXCESS [+20% OR MORE] ■ NORMAL [+19% TO -19%] ■ DEFICIENT [-20% TO -59%]  
■ SCANTY [-60% TO -99%] ■ NO RAIN [-100%]  NO DATA

NOTES:  
 [a] Rainfall figures are based on operational data.  
 [b] Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.).  
 Percentage Departures of Rainfall are shown in Brackets.

# 2014

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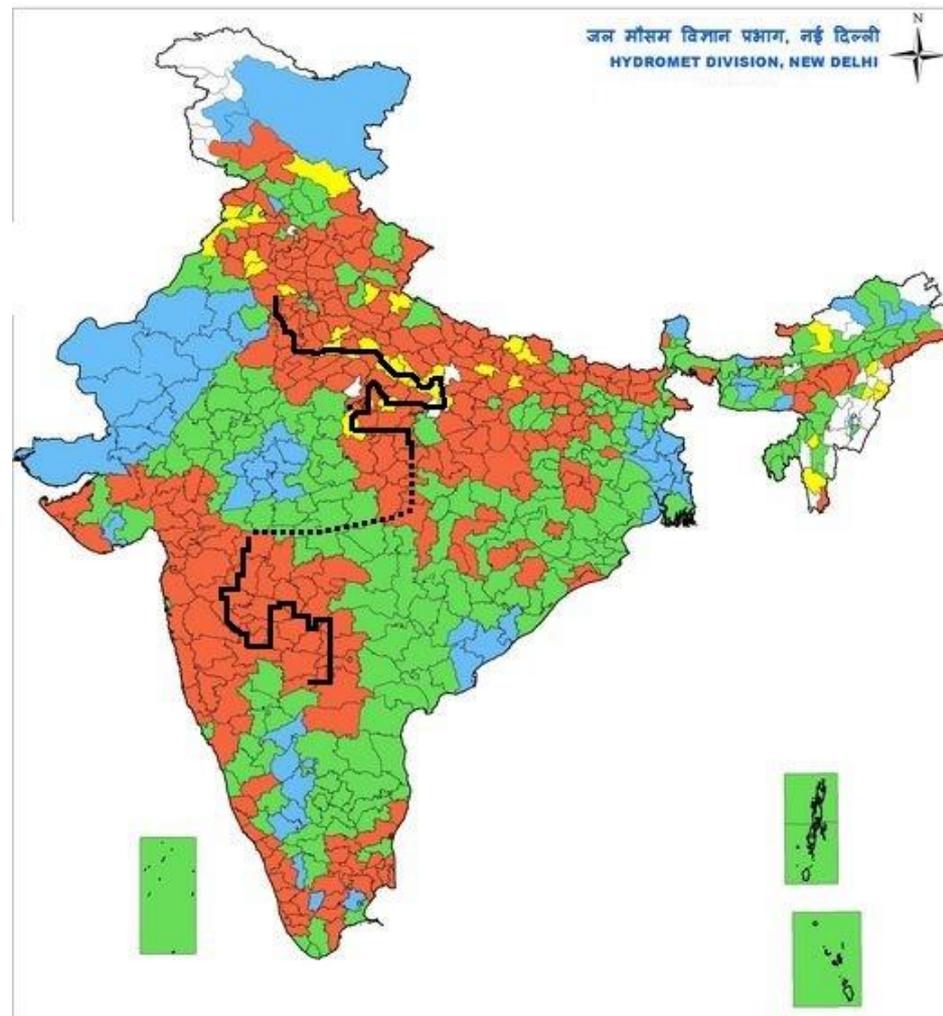
# 2015

# Samvedna yatra across drought affected districts

2<sup>nd</sup> October to 15<sup>th</sup> October  
From Karnataka to Haryana  
Letters to CMs of all states

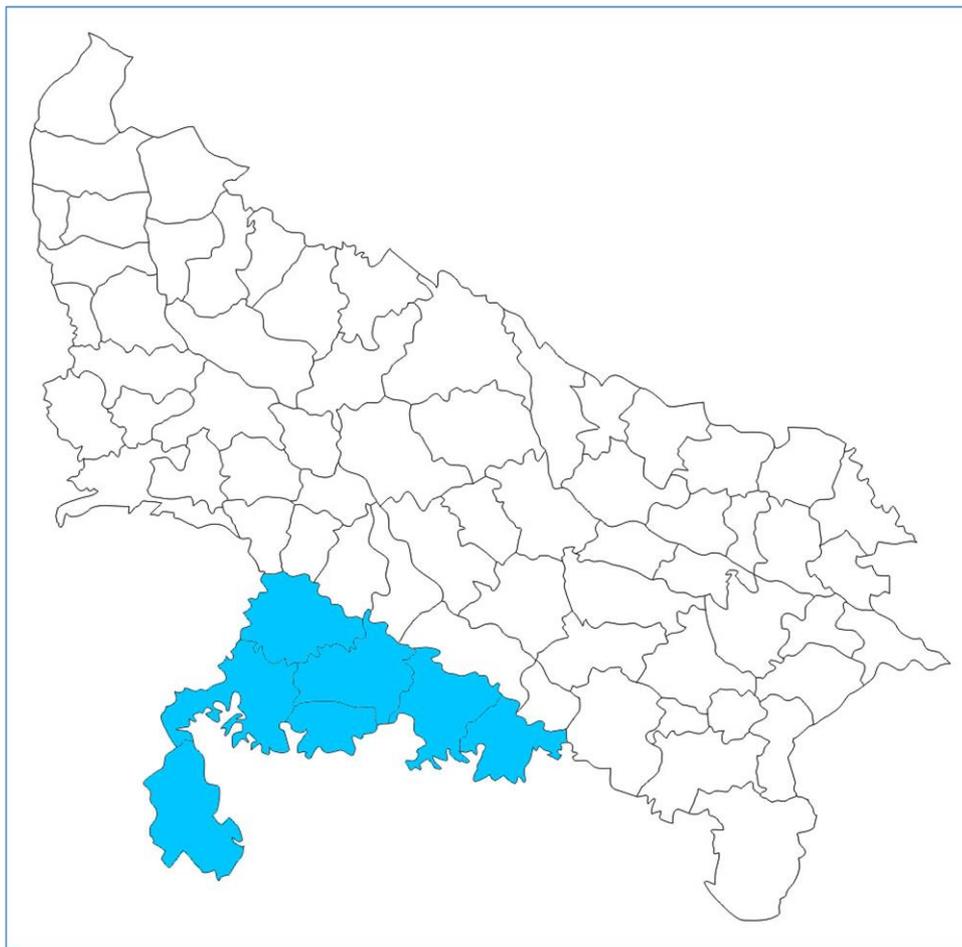


DISTRICT RAINFALL MAP



# Bundelkhand, the epi-centre of drought

- UP had highest rainfall deficit this year.
- 3<sup>rd</sup> consecutive drought in Bundelkhand
- Region falls in rainfall shadow area.
- Rabi crop also damaged by hail storm.



# Why this survey?



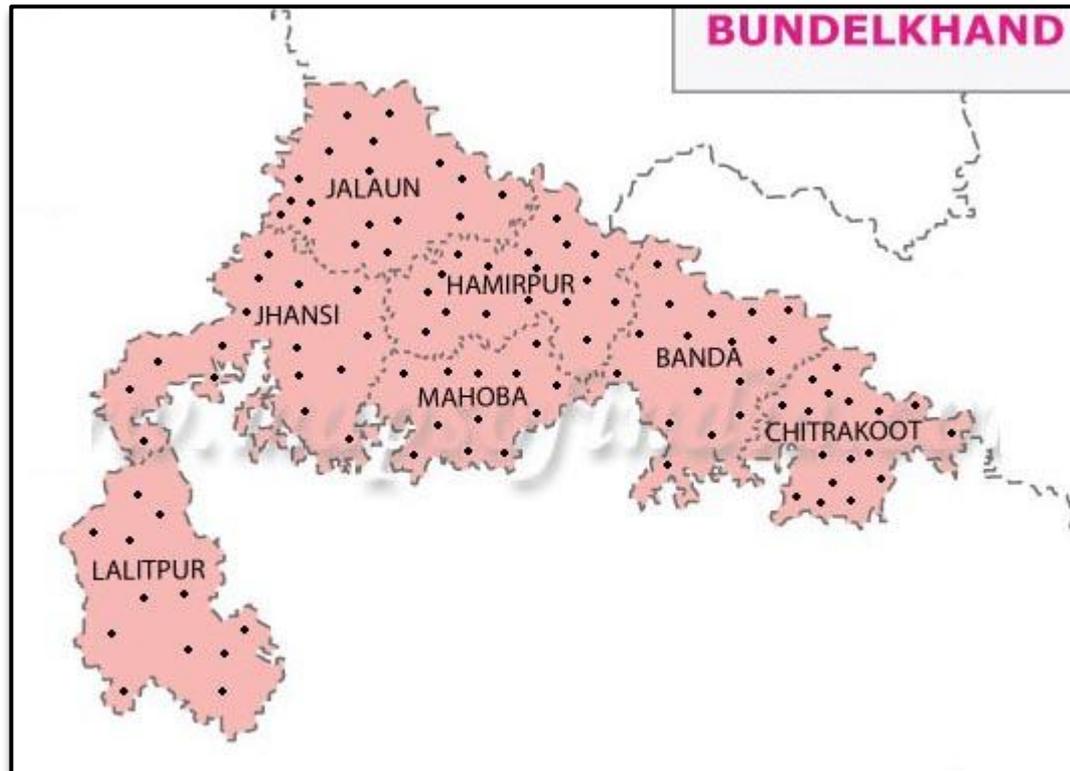
- Objectives of Bundelkhand Drought Impact Assessment Survey, 2015: verification of popular impressions by a careful study of random sample of villages and households
- Main question: Is the drought turning into a famine?
  - Extent of crop damage
  - Impact on water availability and quality
  - Impact on employment opportunities
  - Impact on food and nutrition
  - Impact on cattle
  - Availability of relief measure

# Survey Methodology



- Sample:
  - All 27 tehsils in all 7 districts of Bundelkhand
  - Random selection of 4 villages in each Tehsil (Total: 108)
  - Random selection of 8 households in each village (Total 807)
  - Purposive selection of 4 poorest households in each village (Total: 399)
- Data collection:
  - Face-to-face interviews at respondent's home, using structured household schedule
  - Group discussion with informed villagers, using structured village schedule
  - Fieldwork dates 27 October to 9 November (between Dushehra-Diwali)
  - Volunteers given special training for fieldwork
  - Survey funded by Swaraj Abhiyan, volunteers donated their time

# Survey locations



27 Tehsils

108 Villages

807 Households

807 Poorest households

# Limitations and precautions

- Sample survey gives a broad picture, not reliable for disaggregate analysis
- Based on survey responses, no independent verification. Caution on figures related to crop damage and deaths etc.
- More of a rapid assessment than a rigorous scientific survey. Food intake questions did not follow NSS/NFHS protocol
- Investigators were trained for a day, errors possible

# Extensive damage of major crops



CROP	% HOUSEHOLDS REPORTING TOTAL LOSS
TIL	61
URAD	68
ARHAR	84
JOWAR	90
BAJRA	91
MOONG	92
SOYABEEN	96

HOUSEHOLDS REPORTING LOSS OF PREVIOUS RABI CROP: 96%

Based on Household Survey, % of those households which had sowed that crop

# Severe drinking water crisis



INDICATOR	VILLAGES
Proportion of non-functional hand pumps	31%
Villages with 20 or less hand pumps	74%
Decline in domestic water availability compared to last year	65%
Deterioration in quality of water compared to last year	54%
Quarrels over water have increased over last 8 months	66%
Women spend over an hour on collecting water	51%

Based on village schedule

Households reporting inadequate availability of drinking water: 38%

# Alarming levels of food/nutrition

HOUSEHOLD CONSUMPTION OVER LAST 30 DAYS	GENERAL	POOREST
Vegetables consumption (Average days)	13.4	11.5
Dal consumption (average days)	4.0	2.6
Milk consumption (average days)	6.1	3.7
Egg or Meat or fish consumption (average days)	0.9	0.8
Not consumed vegetables for more than 10 days	47%	59%
Not consumed daal at all in last 30 days	39%	53%
Not consumed milk at all in last 30 days	60%	69%
Went hungry at least once in last 30 days	14%	19%

Based on household survey

# Severe fall in last 8 months



IN THE LAST EIGHT MONTHS (SINCE HOLI) HAVE YOU/ ANYONE IN YOUR HOUSEHOLD ...	% of households reporting
Cut down on your consumption of daal	86%
Cut down on milk consumption for children	84%
Had to eat rice or roti just with salt, chutney	79%
Had to consume substitute for rice and wheat, like potato	60%
Had to eat Fikara (roti made of grass)	17%
Often or sometimes not sure of getting two square meals	67%

Household based information

**Villages reporting at least one**

**Death due to hunger/malnutrition: 38%**

# Footsteps of famine?



IN THE LAST EIGHT MONTHS (SINCE HOLI) DID YOU OR YOUR FAMILY ...	% HOUSEHOLD REPORTING
Had to send your child for labour	24%
Had to borrow food for survival	36%
Had to withdraw child from school	22%
Had to let off cattle for lack of fodder (of owners)	27%
Had to resort to distress sale of cattle (of owners)	40%
Had to sell/mortgage land	27%
Had to sell/mortgage ornaments	24%

Households reporting indebtedness:	71%
Of those, households reporting increase in debt	97%
Of indebted households, those reporting inability to pay back	87%

# Signs of cattle emergency



IN THE LAST EIGHT MONTHS (SINCE HOLI)	AMONG CATTLE OWNING HOUSEHOLDS
Reduction in cattle feed	77%
Decline in milk yield of cows/buffalows	88%
Decline in monetary value of livestock	79%
Death of cattle due to “poisonous” fodder	20%
	AMONG VILLAGES
More than 100 cows/buffallows let off	36%
More than 10 cattle deaths due to starvation	48%

# Weak state response so far



% of poorest households that possess BPL/antodaya card	42%
Average foodgrain received from ration shop by poorest families	25.7 kg
Poorest families with MNERGA job cards	59%
Average number of days of MNREGA job since Holi	9.5 days

# Need for emergency measures



- Administrative measures
- Measures to ease water crisis
- Measures to save animals
- Provide food to the hungry
- Provide gainful, alternative employment
- Compensation measures
- Relief in loans and recoveries
- Responding to farmers' suicide

# Survey team



- Advisors
  - Yogendra Yadav
  - Jean Dreze, Ranchi
  - Sanjay Singh, Jhansi
  - Reetika Khera, Delhi

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Hemant kumar
Jamvad Ahmed
Janki saran yadav
kailash
Krisan Kant
Manohar Yadav
Naredra
Narender kaur
Nathu Singh
Nishant kumar
Partyush

Pursotam Tiwari
Pushkar
Ragvendera
Rahul Bharti
Rahul Gupta
Rajkumar
Ramakant Rajput
Ramkarn
Ramnik kumar
Ramyash yadav
Ravi Kumar
Rosan
Sandeep Misra
Shiv Pratap
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Veena Singh
vikash Jha
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Virender kumar
Vishal Paliwal
Yogesh Kumar

# NAME OF INVESTIGATORS



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Jamvad Ahmed

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kailash

Krisan Kant

Manohar Yadav

Naredra

Narender kaur

Nathu Singh

Nishant kumar

Partyush

Pursotam Tiwari

Pushkar

Ragvendera

Rahul Bharti

Rahul Gupta

Rajkumar

Ramakant Rajput

Ramkarn

Ramnik kumar

Ramyash yadav

Ravi Kumar

Rosan

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Shiv Pratap

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Yogesh Kumar



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