

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURAL RESEARCH & EDUCATION

LOK SABHA
STARRED QUESTION NO. 374
TO BE ANSWERED ON 28/03/2017

AGRO-CLIMATIC ZONES

***374. SHRI KRUPAL BALAJI TUMANE:**

Will the Minister of AGRICULTURE & FARMERS WELFARE
कृषि एवं किसान कल्याण मंत्री be pleased to state:

- (a) the details of different agro-climatic zones in the country and the crops cultivated in such areas;
- (b) the details of crops requiring more water and those requiring less water, separately;
- (c) the land area in hectares dependent upon rainfall and those irrigated through ground water sources like wells, tube-wells, canals and tanks separately;
- (d) the allocation made and funds utilized so far for irrigation by various States during the last three years and the current year, State-wise; and
- (e) whether the Government proposes to educate the farmers to conserve water and grow crops as per the availability of water in the respective regions, and if so, the details thereof?

ANSWER

THE MINISTER OF AGRICULTURE AND FARMERS WELFARE
कृषि एवं किसान कल्याण मंत्री (SHRI RADHA MOHAN SINGH)

(a) to (e): A Statement is laid on the Table of the House.

**STATEMENT IN RESPECT OF PARTS (a) to (e) OF LOK SABHA STARRED
QUESTION NO. 374 TO BE ANSWERED ON 28/03/2017 REGARDING
“AGRO-CLIMATIC ZONES”**

(a) The Planning Commission has grouped the country into 15 agro-climatic zones, based on agro-climatic features, particularly soil type, climate including temperature and rainfall. The agro-climatic classification attempted by the Planning Commission is primarily for developmental purpose. The details of different agro-climatic zones in the country and the crops cultivated in such areas is given in **Annexure –I**.

(b) The details of crops requiring more water and those requiring less water is provided in **Annexure-II**.

(c) As per latest information available (2013-14), out of net sown area of 141.4 million ha in the country, only 68.1 million ha area is irrigated and remaining 73.3 million ha area is rainfed. The major sources of irrigation used in the country includes canals in 16.28 million ha, tanks in 1.84 million ha, wells in 42.44 million ha and other sources in 7.54 million ha area.

(d) The Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWR, RD & GR) provides financial assistance to the State Governments to encourage sustainable development and efficient management of water resources through various schemes such as Accelerated Irrigation Benefits Programme (AIBP) under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY). Under AIBP, the MoWR-RD&GR has released Rs. 2048.45 crores in 2013-14, Rs. 1901.67 crores in 2014-15, Rs. 2327.82 crores in 2015-16, and Rs. 2969.26 crores in 2016-17 to different states. The details of fund released to different states are given in **Annexure-III**.

Similarly, under Per Drop More Crop component of PMKSY, Rs 1556.73 crores during 2015-16 and Rs 1975.68 crores during 2016-17 have been released to different states. Details of state wise fund released under Per Drop More Crop component is given in **Annexure-IV**.

(e) Indian Council of Agricultural Research (ICAR) through its research institutes, Krishi Vigyan Kendras (KVKs) and All India Co-ordinated Research Programme on Irrigation Water Management located across different agro-climatic zones of the country is educating farmers through training and demonstrations on location specific water conservation techniques, judicious use of water and growing crops as per the availability of water.

Furthermore, the National Water Mission (NWM) is conducting Human Resource Development and Capacity Building, training and mass awareness programmes under Goal-II for various stakeholders including representatives of Water Users Associations (WUA). NWM has organised 51 trainings/mass awareness programmes for about 3600 persons during 2015-16 and 23 trainings/mass awareness programmes for about 800 persons during 2016-17 on water conservation and water use efficiency. NWM has organized one National Convention of Water User Associations (WUAs) on Participatory Irrigation Management (PIM) and three Regional Conventions covering WUAs and officials from Northern (States of J&K, HP, Uttarakhand, Punjab, Rajasthan and Haryana), Western (Maharashtra, M.P., Gujarat, Chhattisgarh and Goa) and Southern (Andhra Pradesh, Telangana, Tamil Nadu, Karnataka and Kerala) regions to identify the problems being faced by WUAs with the overall objective of water conservation, increasing water use efficiency in irrigation.

Description of agro-climatic zones and their major cultivated crops

Zone No.	Name of zone	States	Crops cultivated	
			Kharif	Rabi
1.	Western Himalayan Region	Himachal Pradesh, Jammu & Kashmir and Uttarakhand	Rice, maize, sorghum, tomato, brinjal	Wheat, rapeseed potato, barley, cauliflower, cabbage
2.	Eastern Himalayan Region	Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, West Bengal (3 districts)	Rice, maize, jute, finger millet	Wheat, potato, rapeseed
3.	Lower-Gangetic Plains Region	West Bengal (15 districts)	Rice, jute	Potato, mustard, wheat, groundnut
4.	Middle-Gangetic Plains Region	Eastern Uttar Pradesh (23 districts), Bihar (37 districts)	Rice, maize, pigeon pea, mung bean	Wheat, gram, lentil, green pea, sesamum, groundnut
5.	Upper-Gangetic Plains region	Western and Central Uttar Pradesh (40 districts)	Rice, maize, pigeon pea, sorghum, pearl millet, mung bean, groundnut, sugarcane*	Wheat, gram, rapeseed and mustard, lentil, potato, green pea
6.	Trans-Gangetic Plains Region	Chandigarh, Delhi, Haryana, Punjab, Rajasthan (Ganganagar district)	Rice, maize, pearl millet, cotton, sugarcane*	Wheat, rapeseed and mustard, gram,
7.	Eastern-Plateau and Hills Region	Chhattisgarh, Jharkhand, Madhya Pradesh (3 districts), Maharashtra (4 districts), Orissa (15 districts), West Bengal (1 district)	Rice, pigeon pea, jute, maize, groundnut, fingermillet	Gram, mung bean, urdbean, sorghum, sesame, sunflower,
8.	Central-Plateau and Hills Region	Madhya Pradesh (31 districts), Rajasthan (20 districts), Uttar Pradesh (7 districts)	Sorghum, rice, pearl millet, soybean, Tomato	Wheat, gram, potato, okra, rapeseed
9.	Western-Plateau and Hills Region	Madhya Pradesh (14 districts), Maharashtra (25 districts)	Sorghum, pearl millet, cotton, soybean, maize,	Wheat, gram, potato

Zone No.	Name of zone	States	Crops cultivated	
			Kharif	Rabi
10.	Southern-Plateau and Hills Region	Telangana, Andhra Pradesh (4districts), Karnataka (21 districts) ,Tamil Nadu (13 districts)	Sorghum, rice, pearl millet, ragi, groundnut, maize, cotton, castor, turmeric*	Wheat, maize, gram
11.	East-Coast Plains and Hills Region	Andhra Pradesh (9 districts), Orissa (15 districts), Pondicherry, Tamil Nadu (15 districts)	Rice, sorghum, maize, groundnut, , urdbean, potato, gram, fingermillet, cotton, sugarcane*	
12.	West-Coast Plains and Ghats Region	Goa, Karnataka (6 districts), Kerala, Maharashtra (6 districts), Tamil Nadu.	Rice, fingermillet, Maize, mungbean, cotton, coconut*, urdbean, cowpea, turmeric*, ginger*, tea*, Tapioca*, cashewnut*, arecanut*, banana*	
13.	Gujarat-Plains and Hills Region	Gujarat, Dadra & Nagar Haveli, Daman & Diu	Cotton, groundnut, Sesamum, rapeseed and rice, pearl millet, mustard, castor, pigeon pea cauliflower	
14.	Western Dry Region	Rajasthan (9 districts)	Pearlmillet	Wheat, rapeseed and mustard, ram
15.	Islands Region	Andaman & Nicobar Islands, Lakshadweep	Rice	Coconut*, arecanut*, oilpalm*

*annual / perennial crop

The details of crops requiring more and less water.

Crops requiring more water	Crops requiring less water
The crops requiring more water includes rice, sugarcane and banana.	The less water requiring crops includes greengram, cowpea, blackgram, horsegram, bengalgram, green pea, moth bean, cluster bean, lentil, sunflower, safflower, sesamum, groundnut, castor, linseed, maize, sorghum, pearl millet, finger millet, foxtail millets, barley, oats, wheat, water melon, okra, datepalm, ber, pomegranate, amla, citrus species (sweet orange, acid lime), and guava etc..

Annexure-III

[Part (d) to Lok Sabha SQ No.374 for 28/03/2017]

CENTRAL ASSISTANCE RELEASED UNDER AIBP DURING LAST THREE YEARS AND CURRENT YEAR (Rs. in Crore)					
States		2013-14	2014-15	2015-16	2016-17
1	Assam	0.00	89.22	107.92	0.00
2	Bihar	0.00	0.00	41.51	0.00
3	Chhattisgarh	37.53	0.00	0.00	0.00
4	Gujarat	607.57	1033.94	128.00	961.88
5	Jammu & Kashmir	13.85	14.21	34.31	0.00
6	Jharkhand	0.00	0.00	281.62	145.75
7	Karnataka	199.84	150.82	208.16	131.34
8	Madhya Pradesh	314.41	96.01	188.21	265.85
9	Maharashtra	279.52	32.00	307.81	361.33
10	Manipur	0.00	82.68	142.38	89.25
11	Odisha	0.00	19.98	173.80	308.29
12	Punjab	0.00	0.00	1.05	47.17
13	Rajasthan	0.00	9.49	45.51	45.90
14	Telangana	0.00	65.33	112.50	538.87
15	Uttar Pradesh	595.73	307.99	555.04	73.63
		2048.45	1901.67	2327.82	2969.26

Annexure-IV

[Part (d) to Lok Sabha SQ No.374 for 28/03/2017]

Fund released during 2015-16 and 2016-17 (as on 20.3.17) under Per Drop More Crop component of PMKSY, (Rs. in Crore)			
S.No.	State	2015-16*	2016-17*
1	Andhra Pradesh	206.47	295.00
2	Bihar	28.60	21.60
3	Chattisgarh	20.30	44.80
4	Goa	0.30	0.80
5	Gujarat	213.05	274.00
6	Haryana	34.97	27.00
7	Himachal Pradesh	7.60	8.50
8	Jharkhand	14.97	30.70
9	Jammu & Kashmir	4.87	5.40
10	Karnataka	213.12	229.00
11	Kerala	8.53	0.00
12	Madhya Pradesh	161.74	121.10
13	Maharashtra	107.26	305.70
14	Odisha	28.70	39.70
15	Punjab	43.00	1.18
16	Rajasthan	142.84	129.00
17	Tamil Nadu	129.78	143.50
18	Telangana	111.32	189.00
19	Uttarakhand	9.60	15.00
20	Uttar Pradesh	37.51	41.40
21	West Bengal	4.80	19.90
22	Arunachal Pradesh	2.60	2.00
23	Assam	5.03	11.00
24	Manipur	2.76	3.60
25	Meghalaya	1.43	0.00
26	Mizoram	3.27	6.30
27	Nagaland	2.34	4.50
28	Sikkim	4.86	5.40
29	Tripura	1.55	0.00
30	A&N Islands	0.20	0.00
31	Puducherry	2.03	0.00
	NCPAH (TSG)/ HQ	1.35	0.60
	Grand Total	1556.73	1975.68

* Including both Micro Irrigation & Other Interventions

Note: The RE for 2015-16 was Rs. 1550.00 Cr

The RE for 2016-17 is Rs. 1990.00 Cr
