

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURE, COOPERATION AND FARMERS WELFARE

LOK SABHA
UNSTARRED QUESTION NO.1375
TO BE ANSWERED ON THE 9TH FEBRUARY, 2021

COVERAGE OF DRIP IRRIGATION

1375. SHRI NABA KUMAR SARANIA:

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

- (a) the details of the agriculture land adopting drip irrigation and flood irrigation system in the country, State-wise including the State of Assam;
- (b) whether the Government has conducted any study about the Suchma Irrigation Project by Global Agri System Limited if so, the details thereof;
- (c) the crop-wise quantity of water likely to be saved through the use of drip irrigation along with the details;
- (d) the details of the schemes being run by the Government for drip irrigation;
- (e) the details of the funds allocated to States for encouragement thereof, State-wise;
- (f) whether the Government has initiated any solar irrigation system for farmer and if so, the details of the schemes alongwith the names thereof; and
- (g) the details of the allocated funds for the purpose to the States?

ANSWER

MINISTER OF AGRICULTURE AND FARMERS WELFARE

कृषि एवं किसान कल्याण मंत्री (SHRI NARENDRA SINGH TOMAR)

(a): As per available information, the net irrigated area in the country is 68649 thousand ha. The agriculture land covered under Micro Irrigation is 12908.44 thousand ha in which drip irrigation is 6112.05 thousand ha and Sprinkler Irrigation is 6796.39 thousand ha. The State-wise details of net irrigated area and area covered under Micro Irrigation including the State of Assam is given at **Annexure I**.

(b): An impact evaluation study of Micro Irrigation scheme was carried out by Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW) in 2014 through M/s Global Agri System Ltd. The major findings of the study are as under:

- Irrigation cost is reduced by 20% to 50% with average of 32.3%.
- Electricity consumption is reduced by about 31%.
- Saving of fertilizers in the range of 7% to 42%.
- Average productivity of fruits and vegetables increased by about 42.3% and 52.8%.
- Overall income enhancement of farmers in the range of 20% to 68% with an average of 48.5%.

(c): The crop-wise quantity of water likely to be saved through the use of drip irrigation as reported under All India Coordinated Research Project (AICRP) on Irrigation Water Management of Indian Council of Agricultural Research(ICAR) is as under:

Sl. No.	Crop under drip irrigation	Water saving (%)
1.	Sugarcane	24.0 - 59.5
2.	Maize	15.8 – 29.0
3.	Banana	22.9 – 59.4
4.	Rice	30.0 – 50.0
5.	Cotton	22.8 – 50.0
6.	Potato	32.7 - 41.1
7.	Groundnut	20.0 – 30.9
8.	Pea	40.0 – 50.2
9.	Papaya	20.0 – 71.2
10.	Okra	20.0 – 60.9
11.	Brinjal	34.1 – 47.3
12.	Cabbage	13.3 – 30.0
13.	Onion (small and big)	18.0 – 30.0
14.	Turmeric	22.7 – 32.0
15.	Chilli	36.2 – 51.2
16.	Bittergourd	28.9 - 59.0
17.	Garlic	17.2 – 28.3
18.	Tomato	33.0 – 67.4

(d)& (e): The DAC&FW is implementing Per Drop More Crop component of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY-PDMC) from 2015-16 which focuses on enhancing water use efficiency at farm level through Micro Irrigation viz. Drip and Sprinkler irrigation systems. The details of Central Assistance released under the scheme from 2015-16 to till date is given at **Annexure – II**.

Besides, with a view to provide impetus to the Micro Irrigation in the country, Micro Irrigation Fund with a corpus of ₹ 5000 Crore was created with NABARD during 2018-19.

The major objective of the fund is to facilitate the States in mobilizing the resources to provide top up/additional incentives to farmers for incentivising micro irrigation beyond the provisions available under PMKSY-PDMC. States may also access MIF exclusively for innovative integrated projects (like high water duty crops like sugarcane/solar linked systems/ Micro irrigation in command area etc.) including projects in the Public Private Partnership (PPP) mode depending on State specific requirements. Govt. of India provides 3% interest subvention on loans extended to State Govt. under MIF.

Under the ongoing MIF fund, projects for ₹ 3970.17 crore has been approved for loan under MIF to the States of Andhra Pradesh(₹ 616.13 crore), Gujarat(₹ 764.13 crore), Tamil Nadu(₹ 1357.93 crore), Haryana(₹ 790.94 crore), West Bengal(₹ 276.55 crore), Punjab(₹ 149.65 crore) & Uttrakhand (₹ 14.84 crore) which would be facilitating bringing of 12.83 lakh ha of area under Micro Irrigation.

(f) & (g): The Ministry of New and Renewable Energy is implementing Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyaan(PM-KUSUM Scheme), which, inter alia, provides for:

- (i) Installation of 20 lakh standalone off-grid solar water pumps for irrigation purpose; and
- (ii) Solarisation of 15 lakh existing grid-connected agriculture pumps.

Under the scheme, quantities for installation of standalone solar pumps and solarisation of existing agricultural pumps are sanctioned based on demand received from States. Central Financial Assistance (CFA) for the sanctioned quantities, depend on capacity/ type and number of pumps installed / solarized. State-wise information of sanctioned quantities during 2019-21 is given at **Annexure- III**

Besides, deep well (Submersible)/ Shallow well Solar photovoltaic(SPV) Water pumping systems with A.C/ DC Induction Motor Pump Set and a suitable inverter are supported under Sub Mission on Agriculture Mechanization(SMAM) of DAC&FW. Financial progress of Solar Pump under SMAM is given at **Annexure- IV**.

Net Irrigated Area and area covered under Drip Irrigation

Area in thousand ha

S.No	State	Net Irrigated Area*	Area covered under Micro Irrigation#		
			Drip Irrigation	Sprinkler Irrigation	Total
1	Andhra Pradesh	2719	1388.13	519.17	1907.30
2	Bihar	3101	12.49	106.98	119.47
3	Chhattisgarh	1486	28.23	318.97	347.20
4	Goa	37	1.34	1.26	2.60
5	Gujarat	4233	852.02	747.75	1599.77
6	Haryana	3146	36.83	596.72	633.55
7	Himachal Pradesh	114	7.89	6.36	14.25
8	Jharkhand	283	25.08	17.30	42.38
9	Jammu & Kashmir	336	0.09	0.06	0.15
10	Karnataka	3104	752.82	1148.70	1901.52
11	Kerala	378	23.95	8.92	32.87
12	Madhya Pradesh	9876	322.27	249.24	571.51
13	Maharashtra	3163	1314.78	561.65	1876.43
14	Odisha	1122	26.13	105.09	131.22
15	Punjab	4128	36.03	13.70	49.73
16	Rajasthan	8257	277.12	1709.99	1987.11
17	Tamil Nadu	2385	735.81	311.06	1046.87
18	Telangana	2158	196.87	71.03	267.90
19	Uttar Pradesh	14337	33.52	179.64	213.16
20	Uttarakhand	329	12.38	15.25	27.63
21	West Bengal	3106	10.32	78.12	88.44
22	Arunachal Pradesh	54	0.61	0.00	0.61
23	Assam	362	2.44	9.72	12.16
24	Manipur	75	0.29	4.18	4.47
25	Mizoram	16	5.09	2.45	7.54
26	Meghalaya	97	0.31	0.31	0.62
27	Nagaland	110	2.42	5.86	8.28
28	Tripura	82	0.44	1.65	2.09
29	Sikkim	16	6.35	5.26	11.61
30	Andaman & Nicobar Islands	0	-	-	-
31	Chandigarh	0	-	-	-
32	Dadar & Nagar Haveli	5	-	-	-
33	Delhi	22	-	-	-
34	Puducherry	13	-	-	-
	Total	68649	6112.05	6796.39	12908.44

Source: * Directorate of Economics & Statistics, DAC&FW

*Net Irrigated area includes irrigating by Government canals, Private canals, Tanks, Tube-well, Other Wells, Other Sources.

From 2005-06 to 2020-21(as on 3.2.2021)

Annexure II

Central Assistance released under PMKSY- PDMC from 2015-16 to 2020-21(as on 3.2.2021)

S.No.	States/UT	Amount (Rs. in Crore)
1	Andhra Pradesh	2104.26
2	Bihar	90.61
3	Chhattisgarh	205.64
4	Goa	2.80
5	Gujarat	1439.55
6	Haryana	145.19
7	Himachal Pradesh	91.35
8	Jharkhand	145.64
9	Jammu & Kashmir	55.07
10	Karnataka	1909.15
11	Kerala	42.53
12	Madhya Pradesh	667.40
13	Maharashtra	1660.46
14	Odisha	231.40
15	Punjab	53.18
16	Rajasthan	722.82
17	Tamil Nadu	1820.83
18	Telangana	679.32
19	Uttarakhand	164.30
20	Uttar Pradesh	421.79
21	West Bengal	135.70
22	Arunachal Pradesh	68.40
23	Assam	91.03
24	Manipur	121.36
25	Meghalaya	16.73
26	Mizoram	91.97
27	Nagaland	121.64
28	Sikkim	101.24
29	Tripura	38.30
30	Andman& Nicobar Island	0.70
31	Puducherry	2.03
32	Ladakh	2.40
33	HQ	28.55
	Total	13473.34

Standalone Solar Pumps and Solarization of Existing Pumps Sanctioned during 2019-21 under PM-KUSUM

S. No.	State	Total Standalone Solar Pumps Sanctioned (Nos.)	Total Solarization of Existing Agricultural Pumps Sanctioned (Nos.)
1	Arunachal Pradesh	50	0
2	Chhattisgarh	20000	0
3	Gujarat	2199	7000
4	Goa	200	7000
5	Haryana	37000	468
6	Himachal Pradesh	1550	0
7	Jammu & Kashmir	5000	0
8	Jharkhand	11000	500
9	Karnataka	10500	51000
10	Kerala	100	100
11	Ladakh	600	0
12	Madhya Pradesh	60000	25000
13	Maharashtra	100000	50000
14	Manipur	150	0
15	Meghalaya	700	0
16	Nagaland	50	0
17	Odisha	6000	0
18	Punjab	9500	12500
19	Rajasthan	75000	37500
20	Tamil Nadu	6500	20000
21	Telangana	0	30000
22	Tripura	3900	2600
23	Uttar Pradesh	23000	0
24	Uttarakhand	0	200
25	West Bengal	0	700
	Total	372999	244568

Financial progress of Solar Pump under SMAM from 2015-16 to 2020-21(as on 3.2.2021)

S.No.	States	Amount (Rs. in Lakhs)
1	Gujarat	2637.08
2	Manipur	100.00
3	Nagaland	100.00
4	Kerala	28.28
5	Arunachal Pradesh	194.83
6	Uttar Pradesh	69.2
	Total	3129.39
