

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 478
ANSWERED ON 22.07.2026

EMPLOYMENT AND ENTREPRENEURSHIP IN RENEWABLE ENERGY SECTOR

478. SHRI MAGUNTA SREENIVASULU REDDY
SHRI PUTTA MAHESH KUMAR

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- a) the details of the initiatives taken by the Government to skill/re-skill youth for employment and entrepreneurship in the renewable energy sector including solar, wind, green hydrogen, energy storage and allied emerging technologies during the last five years;
- b) the details of the total amount of funds allocated, released and utilised for such schemes/ initiatives for skilling youth in the renewable energy sector during the last five years, State and year-wise, especially in Andhra Pradesh;
- c) the details of the total number of beneficiaries (male, female and others) trained and certified under such initiatives during the last five years across the country, State-wise especially in Andhra Pradesh;
- d) whether the Government has undertaken any steps to raise awareness among youth, educational institutions, MSMEs and industry stakeholders regarding skilling in renewable energy sector in the country especially in Andhra Pradesh; and
- (e) if so, the details thereof and if not, the reasons therefor?

ANSWER

THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER

(SHRI SHRIPAD YESSO NAIK)

(a) The Ministry of New and Renewable Energy (MNRE) is implementing the following skill development programmes in the renewable energy sector:

(i) Skill development programmes such as Suryamitra (Solar PV Technician), Vayumitra (Wind Power Plant Technician) and Jal-urjamitra (Small Hydro Power Plant Technician) are being implemented under short term training component of Human Resource Development Programme. These programmes are being implemented to equip youth with skills in Solar, Wind and Bio energy through its autonomous research institutions namely National Institute of Solar Energy (NISE) Gurugram, Haryana, National Institute of Wind Energy (NIWE), Chennai, National Institute of Bio Energy (NIBE), Kapurthala, Punjab. The skilling program of the Ministry in hydro power is administered through Hydro and Renewable Energy Department (HRED), IIT Roorkee. The implementing agencies are executing these programmes through empaneled Training centers located throughout the country.

ii. Under PM Surya Ghar Muft Bijli Yojana (*PMSGMBY*), to build capable local expert workforce for installation/design/ O&M for solar roof top systems throughout the country, trainings for the Technicians/ Electricians/ Installers/ Engineers/ Supervisors / vendors / trainers are being imparted through Directorate General of Training (DGT), National Institute for Entrepreneurship and Small Business Development (NIESBUD), National Institute of Solar Energy (NISE), Skill Council of Green Jobs (SCGJ) and TATA Power Skill Development Institute (TPSDI) etc.

iii. Further, skilling of manpower is done for Green Hydrogen Sector under the National Green Hydrogen Mission (NGHM) through a scheme on skilling, up-skilling and re-skilling.

(b) There are no state wise allocation of funds under the capacity building and skill development programmes of the Ministry.

The scheme/programme wise details of fund during the last five years across the country are given in **Table -1** and in the state of Andhra Pradesh are given in **Table - 2, Annexure -1.**

(c) There are no state wise targets under the capacity building and skill development programmes of the Ministry.

The state wise total number of trained and certified candidates (male and female) under skill development and capacity building initiatives during the last five years across the country including specific details for the state of Andhra Pradesh are given in **Table - 1 to 3 of Annexure-2.**

(d) & (e) To raise awareness among youth, educational institutions, MSMEs and industry stakeholders regarding skilling in the renewable energy sector in the country, including in the state of Andhra Pradesh, the Ministry of New and Renewable Energy (MNRE) has under taken various steps which inter-alia include organising conferences, workshops and stakeholder consultations, from time to time.

Annexure in reply to the Lok Sabha unstarred question no. 478, Part (b), (Employment and Entrepreneurship in Renewable Energy Sector) to be answered on 22.07.2026

Table 1: Funds utilised under skill development programmes (FY 2021-22 to up to 2025-26)

Financial year	Funds in Rs.				
	Suryamita programme	Jal-Urjamitra programme	Vayumitra programme	Pradhan Mantri Surya Ghar Muft Bijli Yojna	Green hydrogen skilling*
2021-22	28,74,07,572	-	18,030	-	-
2022-23	6,85,94,097	12,39,108	1,04,08,106	-	-
2023-24	7,98,26,983	1,47,29,010	2,80,44,395	-	1,20,076
2024-25	20,80,44,480	2,63,92,907	1,51,77,117	18,85,72,478	1,19,528
2025-26	28,69,90,088	5,20,65,960	1,67,84,782	60,55,70,903	44,00,000
Total	93,08,63,220	9,44,26,985	7,04,71,093	79,41,43,381	46,39,604

*Fund under NGHM and PMKVY

Table 2 : Funds utilised under skill development programmes in the state of Andhra Pradesh (FY 2021-22 to up to 2025-26)

Financial year	Fund in Rs.			
	Suryamita programme	Jal-Urjamitra programme	Vayumitra programme	Green hydrogen skilling
2021-22	70,43,642	-	-	-
2022-23	50,62,642	-	-	-
2023-24	9,50,385	-	-	-
2024-25	56,90,876	19,22,950	-	-
2025-26	44,65,136	1,03,85,660	2,21,407	5,93,860
Total	2,32,12,681	1,23,08,610	2,21,407	5,93,860
Grand Total	3,63,36,558			

Note: Fund allocation, release and utilization details for PMSGMBY are maintained agency-wise and not state wise. Therefore, the year wise details of funds allocated, released and utilized for state of Andhra Pradesh are not available with implementing agency.

Annexure in reply to the Lok Sabha unstarred question no. 478, Part (b), (Employment and Entrepreneurship in Renewable Energy Sector) to be answered on 22.07.2026

Table 1: State wise, trained and certified candidates (male and female) under Suryamitra, Jal-urjamitra and Vayumitra skill development programmes during the last five years (FY 2021-22 to 2025-26)

S. No.	State/UT	No. of Suryamitras Trained & Certified			No. of Jalurjamitras Trained & Certified			No. of Vayumitras Trained & Certified			No. of Total Trained & Certified		
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1	Andaman and Nicobar Islands (UT)	0	0	0	0	0	0	0	0	0	0	0	0
2	Andhra Pradesh	460	435	25	261	222	39	41	31	10	762	688	74
3	Arunachal Pradesh (NER)	120	55	65	29	22	07	0	0	0	149	77	72
4	Assam (NER)	198	175	23	0	0	0	0	0	0	198	175	23
5	Bihar	390	382	8	0	0	0	4	4	0	394	386	8
6	Chandigarh (UT)	53	48	5	0	0	0	0	0	0	53	48	5
7	Chhattisgarh	293	241	52	0	0	0	0	0	0	293	241	52
8	Dadra and Nagar Haveli & Daman and Diu (UT)	0	0	0	0	0	0	0	0	0	0	0	0
9	Delhi	44	44	0	0	0	0	2	2	0	46	46	0
10	Goa	0	0	0	0	0	0	0	0	0	0	0	0
11	Gujarat	439	402	37	0	0	0	219	175	44	658	577	81
12	Haryana	257	252	5	0	0	0	0	0	0	257	252	5
13	Himachal Pradesh	90	90	0	133	112	21	0	0	0	223	202	21
14	Jammu and Kashmir (UT)	1377	932	445	0	0	0	0	0	0	1377	932	445
15	Jharkhand	120	115	5	0	0	0	1	1	0	121	116	5
16	Karnataka	499	432	67	53	51	2	254	210	44	806	693	113
17	Kerala	193	182	11	0	0	0	18	16	2	211	198	13
18	Ladakh (UT)	46	41	5	0	0	0	0	0	0	46	41	5
19	Lakshadweep (UT)	0	0	0	0	0	0	0	0	0	0	0	0
20	Madhya Pradesh	2692	2387	305	0	0	0	131	119	12	2823	2506	317
21	Maharashtra	1189	1099	90	239	146	93	597	563	34	2025	1808	217
22	Manipur (NER)	0	0	0	0	0	0	0	0	0	0	0	0
23	Meghalaya (NER)	60	50	10	0	0	0	0	0	0	60	50	10
24	Mizoram (NER)	0	0	0	0	0	0	0	0	0	0	0	0
25	Nagaland (NER)	0	0	0	0	0	0	0	0	0	0	0	0
26	Odisha	642	581	61	510	396	114	0	0	0	1152	977	175
27	Pondicherry (UT)	87	86	1	0	0	0	4	3	1	91	89	2
28	Punjab	549	513	36	0	0	0	0	0	0	549	513	36
29	Rajasthan	3062	2906	156	0	0	0	391	338	53	3453	3244	209
30	Sikkim (NER)	30	30	0	0	0	0	0	0	0	30	30	0
31	Tamil Nadu	957	863	94	115	101	14	1029	961	68	2101	1925	176
32	Telangana	569	552	17	0	0	0	6	5	1	575	557	18
33	Tripura (NER)	90	80	10	0	0	0	0	0	0	90	80	10
34	Uttar Pradesh	3194	2555	639	0	0	0	1	1	0	3195	2556	639
35	Uttarakhand	503	479	24	324	286	38	0	0	0	827	765	62
36	West Bengal	503	474	29	0	0	0	1	0	1	504	474	30
Total:		18706	16481	2225	1664	1336	328	2699	2429	270	23069	20246	2823

Note: A total of 762 no. of candidates were trained and certified under Suryamitra, Jal-urjamitra and Vayumitra in the state of Andhra Pradesh out of which 74 no. are female candidates.

Table 2: State wise trained and certified candidates (male and female) under PM Surya Ghar Muft Bijli Yojana (PMSGMBY) during the last five years (FY 2021-22 to 2025-26)

Trained Trainees under trainings of PMSGMBY																			
S . N o.	State	Solar Installers/ Engineers/ Technicians			Solar Helpers/ Assistant Technicians			Entrepreneurs as Vendors			Rooftop Solar Supervisors			DISCOM Officials		Total			Grand Total
		M*	F\$	O#	M*	F\$	O#	M*	F\$	O#	M*	F\$	O#	M*	F\$	M*	F\$	O#	
1	Andaman & Nicobar Islands	96	4	-	-	-	-	-	-	-	-	-	-	-	-	96	4	-	100
2	Andhra Pradesh	8,135	238	-	12	14	-	1,508	355	-	4	-	-	-	-	9,659	607	-	10,266
3	Arunachal Pradesh	15	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	15
4	Assam	697	67	-	712	232	-	984	178	-	-	-	-	-	-	2,393	477	-	2,870
5	Bihar	7,229	1,869	-	231	251	-	4,055	468	-	44	1	-	-	-	11,559	2,589	-	14,148
6	Chandigarh	85	6	-	-	-	-	30	-	-	-	-	-	-	-	115	6	-	121
7	Chhattisgarh	717	157	-	140	110	-	715	146	-	-	-	-	-	-	1,572	413	-	1,985
8	Delhi	384	66	-	101	21	-	-	-	-	195	19	-	713	146	1,393	252	-	1,645
9	Goa	103	-	-	-	-	-	-	-	-	-	-	-	-	-	103	-	-	103
10	Gujarat	3,189	94	-	91	344	-	1,467	217	-	118	4	-	860	37	5,725	696	-	6,421
11	Haryana	6,201	673	-	363	216	-	963	122	-	-	-	-	-	-	7,527	1,011	-	8,538
12	Himachal Pradesh	2,751	201	-	112	57	-	1,744	663	-	-	-	-	-	-	4,607	921	-	5,528
13	Jammu And Kashmir	1,811	883	-	987	1,716	-	777	361	-	1	-	-	-	-	3,576	2,960	-	6,536
14	Jharkhand	1,151	385	-	722	465	-	871	162	-	493	71	-	41	3	3,278	1,086	-	4,364
15	Karnataka	13,029	294	1	97	141	-	302	15	-	5	1	-	-	-	13,433	451	1	13,885
16	Kerala	3,855	454	-	32	6	-	45	8	-	52	9	-	-	-	3,984	477	-	4,461
17	Ladakh	11	3	-	-	-	-	87	62	-	-	-	-	-	-	98	65	-	163
18	Lakshadweep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Madhya Pradesh	4,296	795	-	1,473	1,069	-	1,683	159	-	12	-	-	1,181	48	8,645	2,071	-	10,716
20	Maharashtra	4,438	1,366	-	531	224	-	1,687	177	-	646	167	-	201	95	7,503	2,029	-	9,532
21	Manipur	38	-	-	-	-	-	321	104	-	-	-	-	-	-	359	104	-	463
22	Meghalaya	39	1	-	-	-	-	-	-	-	-	-	-	-	-	39	1	-	40
23	Mizoram	6	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	6
24	Nagaland	18	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-	18
25	Odisha	2,661	816	1	337	207	-	2,948	349	-	433	73	-	301	15	6,680	1,460	1	8,141
26	Puducherry	207	10	-	-	-	-	112	30	-	-	-	-	-	-	319	40	-	359
27	Punjab	1,894	232	-	592	760	-	3,461	438	-	1	-	-	-	-	5,948	1,430	-	7,378
28	Rajasthan	5,018	682	-	1,558	736	-	1,969	73	-	23	-	-	1,360	104	9,928	1,595	-	11,523
29	Sikkim	75	15	-	47	38	-	-	-	-	-	-	-	-	-	122	53	-	175
30	Tamil Nadu	2,436	409	-	227	224	-	655	296	-	244	38	-	50	21	3,612	988	-	4,600
31	Telangana	5,766	327	2	173	191	-	266	27	-	1	-	-	-	-	6,206	545	2	6,753
32	Dadra and Nagar Haveli & Daman and Diu	45	-	-	-	-	-	-	-	-	3	-	-	-	-	48	-	-	48
33	Tripura	464	34	-	-	-	-	159	-	-	-	-	-	-	-	623	34	-	657
34	Uttar Pradesh	8,787	3,130	-	4,568	3,189	-	5,196	707	1	160	6	-	4	-	18,715	7,032	1	25,748
35	Uttarakhand	835	347	-	137	229	-	1,330	293	-	-	-	-	-	-	2,302	869	-	3,171
36	West Bengal	258	39	-	420	282	-	440	81	-	302	32	-	-	-	1,420	434	-	1,854
Total		86,740	13,597	4	13,663	10,722	-	33,775	5,491	1	2,737	421	-	-	469	141,626	30700	5	1,72,331

M*- Male ; F\$- Female ; O # – Others

Note: A total of 10266 no. of candidates were trained under **PMSGMBY** in Andhra Pradesh out of which 607 no. are female candidates.

Table 3: State wise trained and certified candidates (male and female) under National Green Hydrogen Mission (NGHM) during the last five years (FY 2021-22 to 2025-26)

States	No. of trained candidates					
	Female		Male		Total	
	Trained	Certified	Trained	Certified	Trained	Certified
Andhra Pradesh	96	94	235	226	331	320
Assam	24	24	107	100	131	124
Delhi	78	78	191	175	269	253
Gujarat	158	149	567	494	725	643
Haryana	190	179	486	460	676	639
Karnataka	22	19	155	146	177	165
Madhya Pradesh	238	218	446	395	684	613
Maharashtra	143	123	470	416	613	539
Odisha	82	51	302	227	384	278
Rajasthan	141	116	512	466	653	582
Tamil Nadu	7	7	210	186	217	193
Uttar Pradesh	1396	1195	1435	1273	2831	2468
Uttarakhand	104	100	136	133	240	233
West Bengal	19	18	199	180	218	198
Total	2698	2371	5451	4877	8149	7248

Note: A total of 331 & 320 no. of candidates were trained & certified under **NGHM** in the state of Andhra Pradesh out of which 96 & 94 no. are female candidates respectively.

Trained manpower in Andhra Pradesh

A total of 11359 & 11348 no. of candidates were trained & certified under MNRE Skill Development Programmes in the state of Andhra Pradesh out of which 777 & 775 no. are female candidates respectively.
