

Water

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Table 6.1: Details of Inland Fishery Water Resources of various types in Arunachal Pradesh (A.P.)

(Lakh ha)

Year	2005-06	2007-08	2012-13	2013-14
Rivers & Canals (Length in km)	2000	2000	2000	2000
Reservoirs	-	-	-	-
Tanks & Ponds	2.76	2.76	2.76	2.76
Floodplain Lakes & Derelict Water	2.00	0.42	0.42	0.42
Brackish Water (Lakh ha)	-	-	-	-
Total Water Bodies (Lakh ha)	3.18	3.18	3.18	3.18

Source: Annual Report 2005-06, Department of Animal Husbandry and Dairying, Ministry of Agriculture, Government of India.

Central Water Commission, Ministry of Water Resources, Government of India, Water and Related Statistics 2013, 2015

Table 6.2: Installation of off-Grid/Decentralized Renewable Energy Systems/Devices

Year	2009-10	2010-11	2011-12	2012-13
Biogas Plants (Nos.)	2957	2957	3282	3472
Water Pumping Wind Mills (Nos.)	-	-	-	-
SPV Pumps (Nos.)	15	15	18	18
Solar Photovoltaic				
SLS (Nos.)	13937	1071	1071	1071
HLS (Nos.)	7120	10178	10349	18945
SL (Nos.)	1071	13937	14433	14433
PP (KWP)	17	17	17.10	17.10
Aerogen. Hybrid System (KW)	7	7	6.80	6.80
Solar Cooker (Nos.)	530	530	0.03	0.03
Biomass Gasifiers (Nos.)	180	180	750	750
Waste to Energy (MW)	-	-	-	-
Remote Village				
Villages (Nos.)	246	-	297	297
Hamlets (Nos.)	-	13	13	-

Note: SLS = Street Lighting System; HLS = Home Lighting System; SL = Solar Lantern; PP = Power Plants; SPV= Solar Photovoltaic; SHP = Small Hydro Power; MW = Mega Watt; KWP = Kilowatt peak

Sources: Energy Statistics 2013, Central Statistics Office. Statistical Year Book, India 2015

Table 6.3: Source wise Installed Capacity of Grid Interactive Renewable Power

(in MW)

Year	2010	2011	2012	2013
Biomass Power	-	-	-	-
Waste to Energy	-	-	-	-
Wind Power	136.1	-	-	-
Small Hydro Power	73.42	78.84	79.23	103.91
Solar Power	0.03	0.03	0.03	0.03

Sources: Energy Statistics 2014, Central Statistics Office; Statistical Year Book, India 2015

Table 6.4: Installed Capacity of Power Utilities (Including allocated shares in joint & central sector utilities) (as on July, 2015)

Ownership/ Sector	Mode wise Breakup							Grand Total
	Thermal				Nuclear	Hydro (Renewal)	RES (MNRE)	
	Coal	Gas	Diesel	Total				
State	0.00	0.00	0.00	0.00	0.00	0.00	104.61	104.61
Private	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03
Central	12.35	43.06	0.00	55.41	0.00	97.57	0.00	152.98
Sub-Total	12.35	43.06	0.00	55.41	0.00	97.57	104.64	257.62

Source: Central Electricity Authority, Ministry of Power, Govt. of India

Table 6.5: Status of Hydropower Potential Development

(Installed Capacity)

Year	2008	2013	2015
Identified Capacity Total(MW)	50328	50328	50328
Above 25 MW	-	50064	50064
Capacity Developed			
Mega Watts	423.5	405.0	405.0
Percent	0.84	0.81	0.81
Capacity under construction			
Mega Watts	2600.00	2710.00	2854.0
Percent	5.17	5.41	5.70
Capacity Development & Under Construction			
Mega Watts	3023.5	3115.00	3259.0
Percent	6.01	6.22	6.51
Capacity yet to be Developed			
Mega Watts	47304.5	46949.00	46805.00
Percent	93.99	93.78	93.49

Source: Central Electricity Authority, 2008, 2013, 2015. Ministry of Power, Govt. of India

Table 6.6: Electricity Sold to Ultimate Consumers (Utilities only)

(Gwh)

Year	2008-09	2009-10	2010-11	2011-12	2012-13 (P)
Total sold to ultimate consumers	271.47	311.00	360.00	436.05	470.93
Domestic	97.00	115.41	118.52	143.56	137.65
Commercial	29.00	27.35	29.29	35.48	42.16
Industrial Power at low & medium voltage	45.00	30.00	41.01	49.67	33.97
Industrial Power at high voltage	71.47	47.63	65.08	78.83	156.60
Public lighting	17.00	12.08	14.14	17.13	10.94
Traction	-	-	-	-	-
Agriculture	-	-	-	-	-
Public water works & sewage pumping	12.00	6.27	7.34	8.89	7.97
Miscellaneous	-	72.26	84.62	102.50	81.64

P: Provisional

Source: Central Electricity Authority, Ministry of Power, Govt. of India; Statistical Year Book, India 2015

Table 6.7: Towns and Villages Electrified

(in Nos.)

Year	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13 (P)
Towns						
Number of Towns (2011 Census)	17	17	17	17	17	17
Electrified	17	17	17	17	17	17
Percentage	100	100	100	100	100	100
Villages						
Number of Villages (2011 Census)	3863	3863	3863	3863	3863	3863
Electrified	2195	2195	2195	2256	2917	2917
Percentage	56.8	56.8	56.8	58.4	75.5	75.5

P: Provisional

Source: Central Electricity Authority, Ministry of Power, Govt. of India; Statistical Year Book, India 2015

Table 6.8: Annual per Capita Consumption of Electricity

Year	Per Capita Consumption (Kwh)
2009-10	503.27
2010-11	582.08
2011-12	683.13

Source: Central Electricity Authority, Ministry of Power. Statistical Year Book, India 2015

Table 6.9: Distribution of Large Dams Completed (as on October, 2014)

Year of Completion			
2001 & beyond	Total Dams Completed	Under Construction	Total
1	1	3	4

Source: Dam Safety Monitoring Directorate, Central Water Commission, National Registrar of Large Dam, Water and Related Statistics 2015

Table 6.10: Live Storage Capacity of Large Dams/Reservoirs/Projects
(as on 17-03-2015)

Total Live Storage Capacity (BCM)		
Completed	Under Construction	Total
0.000006	0.241	0.241066

Source: Water Monitoring Directorate, Central Water Commission, Govt. of India, Water and Related Statistics 2015

Table 6.11: Water Resources Projects Declared as National Projects

Name of the Project	1) Irrigation (ha.) 2) Power (MW) 3) Storage (MAF)	Status	Central Assistance Released (Rs. Crores)
Noa-Dehang Dam Project	1) 8000 ha. 2) 75 MW 3) 0.26 MAF	Under appraisal in CWC/CEA	-
Upper Siang	1) Indirect 2) 9500 MW 3) 17.50 MAF 4) Flood moderation	Under conceptual stage	-

MAF—Million Acre Feet

MW—Mega Watt

Source: Source: National Projects-II Directorate, Central Water Commission, Water and Related Statistics 2015

Table 6.12: Ultimate Irrigation Potential (UIP)

('000 ha)

Year	2013	2015
Major & Medium	0	0
Minor	Surface	150
	Ground	18
	Sub-Total	168
Total	168	

Source: Water and Related Statistics 2013, 2015. Planning & Progress Directorate, Central water Commission

Table 6.13: Cumulative Irrigation Potential Created/Utilized in respect of Major & Medium Irrigation Projects
(‘000 ha)

Ultimate Potential	Sixth Plan 1980-85		Seventh Plan 1985-90		Annual Plan 1990-92		Eight Plan 1992-97		Ninth Plan 1997-2002		Tenth Plan 2002-2007		% of IPC to UIP	% of IPU to IPC
0	0	0	0	0	0	0	0	0	0	0	1.2	0.8	0.0	65.0

IPC: Irrigation Potential Created; IPU: Irrigation Potential Utilized; UIP: Ultimate Irrigation Potential
Source: Planning and Progress Directorate, Central Water Commission, Water and Related Statistics 2013, 2015

Table 6.14: Irrigation Potential, Flood Control, Ground Water, Distribution of Large Dams and Hydro Potential Status

Category	Major Medium Irrigation	Minor Irrigation	Total
Ultimate Irrigation Potential ('000ha)	0.00	168.00	168.00
Potential created till and of IX Plan ('000 ha)			
Created	0.00	99.52	99.52
Utilised	0.00	77.40	77.40
Irrigation Potential* during X Plan ('000 ha)			
Created	1.20	14.85	16.05
Utilised	0.78	9.21	9.99

Source: Annual Plan Documents by the States and UT's and Working Group Report on Water Resources for XI Plan. Data book for PC; 22nd December, 2014; Status as on 20.03.2008

Table 6.15: Plan-wise Financial Expenditure on Major and Medium Irrigation
(Rs. Crores)

Ninth Plan (1997-02)	Tenth Plan (2002-07)	Actual Expenditure (2007-08)	Actual Expenditure (2008-09)	Revised Approved Outlay (2009-10)	Revised Approved Outlay (2010-11)	Actual Expenditure (2011-12)
1.7	2.2	0.5	0.5	0	0.6	0.72

Source: Planning and Progress Directorate, Central Water Commission, Water and Related Statistics 2015

Table 6.16: Plan-wise Financial Expenditure on Flood Management Work
(Rs. Crores)

During IX Plan (1997-02)	Upto IX Plan (1997-02)	During X Plan (2002-07)	Upto X Plan (2002-07)	Actual Expenditure (2007-08)	Actual Expenditure (2008-09)	Revised Approved Outlay (2009-10)	Revised Approved Outlay (2010-11)	Actual Expenditure (2011-12)
20.07	47.72	35.85	83.57	5.95	46.10	36.14	70.39	39.76

Source: Planning and Progress Directorate, Central Water Commission, Water and Related Statistics 2015

Table 6.17: List of on-going Projects under CADWM Programme during the period of XIth Plan (2007-08 to 2011-12) as on March, 2013

Project Name	Districts benefitted	Year of Inclusion	CCA	CCA Covered till 31.3.2013	Reported balance of executable CCA
Cluster of 62 MI in 4 Panchayats in the district of Papumpare: Namely Sagalee, Megio, Balijan and Itanagar	Lower & Upper Dibang Valley, Lohit, Anjaw, Changlang, Tirap	2000-01	2.76	2.76	0
Cluster of 102 MI schemes under Daporijo and Itanagar Circle	Tawang, West Kameng, East Kameng, Papurm Pare, Lower Subansiri, Upper Subansiri, E/Siang, U/Sing W/Siang, Kurung Kumey	2006-07	7.47	4.88	2.59
Cluster of 39 MI schemes under Namsai Circle	Lower/Upper Dibang, Lohit Anjaw, Tirap	2006-07	3.34	2.371	0.969

CCA - Cultural Command Area

Source: Ministry of Water Resources (CAD Wing), Govt. of India. Water and Related Statistics 2015

Table 6.18: Central Released under the Command Area Development Programme (CADP)

(Rs. Lakh)

Total up to end of VIII Plan	Up to IX Plan	Up to X Plan	Total XI Plan	During XII Plan			Cumulative Up to 2014-15
				2012-13	2013-14	2014-15	
0.0	48.5	573.9	586.0	168.8	277.8	150.0	1756.5

Source: Ministry of Water Resource, Govt. of India (CAD wing), Water and Related Statistics 2015

Table 6.19: Damage due to Flood during 2013

Area Affected (Mill. Ha.)	Population Affected (Million)	Damage to Crops		Damage to Houses		Cattle lost Nos.	Human lives lost Nos.	Damage to Public utilities (Rs. Crores)	Total damages to crops, houses & public
		Area (MHa.)	Value (Rs. Crores)	Nos.	Value (Rs. Crores)				
30.67	0.31	313.57	8.25	986.00	12.85	75.00	52.00	854.42	875.52

Source: Ministry of Water Resource, Govt. of India (CAD wing), Water and Related Statistics 2015

Table 6.20: Ground Water Resources Availability, Utilization and Stage of Development (as on 2009)

(in bcm)

Annual Replenishable Ground Water Resource					Natural Discharge during non-monsoon season	Net Annual Ground Water Availability	Annual Ground Water Draft			Projected demand for Domestic and Industrial uses upto 2025	Ground Water Availability for future irrigate on use	Stage of Ground Water Development (%)
Monsoon Season		Non-monsoon Season		Total			Irrigation	Domestic and industrial uses	Total			
Recharge from rainfall	Recharge from other sources	Recharge from rainfall	Recharge from other sources									
3.41	0.0003	1.04	0.0004	4.45	0.45	4.01	0.002	0.001	0.003	0.01	4.00	0.07

Source: Ground Year Book 2013-14, Central Ground Water Board, Ministry of Water Resource, Govt. of India

Table 6.21: Decadal Water Level Fluctuation with Mean [January (2004 to 2013)] and January, 2014

No. of Wells Analysed	Range in m				Rise						Fall						Rise	Fall	Wells showing no change			
	Rise		Fall		0-2 m		2-4 m		>4 m		0-2 m		2-4 m		>4 m							
	Min	Max	Min	Max	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%					No.	%
11	0.06	1.37	0.02	0.02	8	72.7	0	0.0	0	0.0	3	27.3	0	0.0	0	0.0	8	73	3	27	0	0

Source: Ground Year Book 2013-14, Central Ground Water Board, Ministry of Water Resource, Govt. of India