

Water

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Table 6.1: Details of Inland Fishery Water Resources of various types in Uttarakhand

Water Bodies	(Lakh ha)	
	2012-13	2013-14
Rivers & Canals (Length in km)	2686	2686
Reservoirs	0.20	0.20
Tanks & Ponds	0.01	0.01
Floodplain Lakes & Derelict Water	0.00	0.00
Brackish Water (Lakh ha)	-	-
Total Water Bodies (Lakh ha)	0.2	0.21

Source: Department of Animal Husbandry and Dairying, Ministry of Agriculture, Central Water Commission, Ministry of Water Resources, Govt. of India (Water and Related Statistics, 2015).
<http://www.cwc.gov.in/main/downloads/Water%20&%20Related%20Statistics%202015.pdf>
 (accessed on 05.01.2016)

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

Year	2009-10	2010-11	2011-12	2012-13
Biogas Plants (Nos.)	10508	10508	14704	16535
Water Pumping Wind Mills (Nos.)				
SPV Pumps (Nos.)	26	26	26	26
Solar Photovoltaic				
SLS (Nos.)	64023	8568	8568	8568
HLS (Nos.)	91307	91307	91307	91307
SL (Nos.)	7673	64023	64023	64023
PP (KWP)	80	180	180	280
Aerogen. Hybrid System (KW)	-	-	4.00	4.00
Solar Cooker (Nos.)	10534	10534	5.05	5.05
Biomass Gasifiers (Nos.)	250	350	1100	1400
Waste to Energy (MW)	2	3.07	3.07	4.02
Remote Village				
Villages (Nos.)	1171	472	472	476
Hamlets (Nos.)	34	34	34	118

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

Source: Ministry of Statistics and Programme Implementation, Govt. of India (Statistical Year Book, India 2015).
http://mospi.nic.in/Mospi_New/upload/SYB2015/index1.html (accessed on 06.01.2016)

Table 6.3: Installed Capacity of Grid Interactive Renewable Power (in MW)

Power/ Energy	2010	2011	2012	2013
Biomass Power	-	10	10	10
Waste to Energy	-	-	-	-
Wind Power	-	-	-	-
Small Hydro Power	132.92	134.62	170.82	174.82
Solar Power	0.05	0.05	5.05	5.05

Source : Ministry of Statistics and Programme Implementation, Govt. of India (Statistical Year Book, India 2015).
http://mospi.nic.in/Mospi_New/upload/SYB2015/index1.html (accessed on 06.01.2016)

Table 6.4: Installed Capacity of Power Utilities (Including allocated shares in joint & central sector utilities) (as on February, 2016)

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	1252.15	62.88	1315.03
Private	99	0.00	0.00	99.00	0	730.0	181.45	1010.45
Central	300.50	69.35	0.00	369.85	22.28	459.67	0.00	8515.80
Sub-Total	399.50	69.35	0.00	468.85	22.28	2441.82	244.33	3177.28

Table 6.5: Status of Hydropower Potential Development

(Installed Capacity)

Capacity	2015	2016
Identified Capacity Total(MW)	18175	18175
Above 25 MW	17998	17998
Capacity Developed		
Mega Watts	3756.4	3756.4
Percent	20.87	20.87
Capacity under construction		
Mega Watts	1310.0	1430.0
Percent	7.28	7.95
Capacity Development & Under Construction		
Mega Watts	5066.4	5186.4
Percent	28.15	28.82
Capacity yet to be Developed		
Mega Watts	12931.7	12811.7
Percent	71.85	71.18

Source (Tables 6.4-6.5) : Central Electricity Authority, Ministry of Power, Govt. of India.
http://www.cea.nic.in/reports/monthly/installedcapacity/2016/installed_capacity-02.pdf
 (accessed on 11.03.2016)

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

Electricity Sold	2008-09	2009-10	2010-11	2011-12	2012-13 (P)
Total sold to ultimate consumers	4736.11	6249.21	7249.95	8252.72	8574.11
Domestic	1162.9	1387.23	1484.84	1675.92	1799.56
Commercial	712.43	858.66	933.48	885.42	953.94
Industrial Power at low & medium voltage	156.2	201.82	234.96	269.77	289.42
Industrial Power at high voltage	2131.45	3197.34	3962.76	4535.75	4595.46
Public lighting	45.23	51.42	53.86	66.89	69.83
Traction	9.48	7.34	7.8	8.39	7.83
Agriculture	300.2	298.1	295.88	325.02	387.84
Public water works & sewage pumping	217.38	247.3	276.37	324.52	302.68
Miscellaneous	0.84	0.00	0.00	161.04	167.55

P = Provisional

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)	86	86	86	86	86	86
Electrified	86	86	86	86	86	86
Percentage	100	100	100	100	100	100
Villages						
Number of Villages (2011 Census)	15761	15761	15761	15761	15761	15761
Electrified	15276	15276	15213	15593	15593	15593
Percentage	96.9	96.9	96.5	98.9	98.9	98.9

P = Provisional

Sources Tables 6.6-6.7) : Ministry of Statistics and Programme Implementation, Govt. of India (Statistical Year Book, India 2015).

http://mospi.nic.in/Mospi_New/upload/SYB2015/index1.html (accessed on 06.01.2016)

Table 6.8: Distribution of Large Dams Completed (as on October, 2014)

Year of Completion							
1961 to 1970	1971 to 1980	1981 to 1990	1991 to 2000	2001 & beyond	Total Dams Completed	Under Construction	Total
5	4	2	1	4	16	8	24

Source: Dam Safety Monitoring Directorate, Central Water Commission, National Registrar of Large Dam, Ministry of Water Resources, Govt. of India (Water and Related Statistics, 2015).
<http://www.cwc.gov.in/main/downloads/Water%20&%20Related%20Statistics%202015.pdf>
 (accessed on 08.01.2016)

Table 6.9: Live Storage Capacity of Large Dams/Reservoirs/Projects

(as on 17-03-2015)

Total Live Storage Capacity (BCM)		
Completed	Under Construction	Total
5.670	1.613	7.283

Source: Water Monitoring Directorate, Central Water Commission, Govt. of India (Water and Related Statistics 2015).
<http://www.cwc.gov.in/main/downloads/Water%20&%20Related%20Statistics%202015.pdf> (accessed on 08.01.2016)

Table 6.10: 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)
Kishau	1) 0.97 Lakh 2) 600 MW 3) 1.04 MAF	DPR prepared, Environment & forest clearance awaited	-

MAF—Million Acre Feet; MW—Mega Watt

Source: National Projects-II Directorate, Central Water Commission, Govt. of India (Water and Related Statistics 2015).
<http://www.cwc.gov.in/main/downloads/Water%20&%20Related%20Statistics%202015.pdf>
 (accessed on 08.01.2016)

Table 6.11: Ultimate Irrigation Potential (UIP)

('000 ha)

Irrigation Potential		Year, 2015
Major & Medium		346
Minor	Surface	14
	Ground	504
	Sub-Total	518
Total		864

Source: Planning & Progress Directorate, Central water Commission, Govt. of India (Water and Related Statistics 2015).
<http://www.cwc.gov.in/main/downloads/Water%20&%20Related%20Statistics%202015.pdf>
 (accessed on 08.01.2016)

Table 6.12: 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
346	Included in UP				280.3	185.4	289.0	191.0	83.5	66.1

IPC: Irrigation Potential Created; IPU: Irrigation Potential Utilized; UIP: Ultimate Irrigation Potential

Source: Planning and Progress Directorate, Central Water Commission, Govt. of India (Water and Related Statistics 2015).
<http://www.cwc.gov.in/main/downloads/Water%20&%20Related%20Statistics%202015.pdf>
 (accessed on 08.01.2016)

Table 6.13: 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)	346.00	518.00	864.00
Potential created till and of IX Plan ('000 ha)			
Created	280.30	500.98	781.28
Utilised	185.41	400.80	586.21
Irrigation Potential during X Plan ('000 ha)			
Created	8.68	17.77	26.45
Utilised	5.64	8.04	13.96

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.
<http://planningcommission.gov.in/hindi/data/datatable/> (accessed on 09.01.2016)

Table 6.14: 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)
61	316.9	127.8	216.3	310.26	399.7	256.62

Table 6.15: 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)
3.52	3.52	83.42	86.94	23.62	18.14	6.50	5.54	-

Source (6.14-6.15): Planning and Progress Directorate, Central Water Commission, Govt. of India (Water and Related Statistics 2015).

<http://www.cwc.gov.in/main/downloads/Water%20&%20Related%20Statistics%202015.pdf>
(accessed on 08.01.2016)

Table 6.16: 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	Year of Inclusion	CCA	CCA Covered till 31.3.2013	Reported balance of executable CCA
Laster Canal's Offshoots	2001-02	1.12	0	1.12
Nathuwala & Balawala Canals	2001-02	1.12	1.12	0
Jatowala & Prateetpurcanal	2001-02	0.54	0.262	0.278
Tumaria Dam canal system	2003-04	32.54	2.094	30.436

CCA - Cultural Command Area

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

<http://www.cwc.gov.in/main/downloads/Water%20&%20Related%20Statistics%202015.pdf>
(accessed on 08.01.2016)

Table 6.17: 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	0.00	435.5	409.9		0.0		845.4

Table 6.18: 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 (M.Ha.)	Value (Rs. Crores)	Nos.	Value (Rs. Crores)				
0.00	0.11	0.00	0.00	4726	0.00	9470	580	0.00	0.00

Source (Tables 6.17-6.18): Ministry of Water Resource, Govt. of India (CAD wing) (Water and Related Statistics 2015). <http://www.cwc.gov.in/main/downloads/Water%20&%20Related%20Statistics%202015.pdf> (accessed on 08.01.2016)

Table 6.19: Ground Water Resources Availability, Utilization and Stage of Development (as on 2009)

(in bcm)

Annual Replenishable Ground Water Resource			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			Irrigation	Domestic and industrial uses	Total				
Recharge from rainfall	Recharge from rainfall	Recharge from other sources	Natural Discharge during non-monsoon season				Domestic and Industrial uses upto 2025	Ground Water Availability	Ground Water Availability for future irrigate on use	Stage of Ground Water Development (%)
1.26	0.24	0.20	0.46	2.17	1.01	0.03	1.05	0.08	0.98	51

Table 6.20: 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													
	Fall		2-4 m		>4 m		0-2 m		2-4 m		>4 m		No.		%													
	Min	Max	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%												
22	0.3	3.91	0.11	7.94	11	50.0	3	13.6	0	0	7	31.8	0	0	1	4.5	0	0	0	0	0	0	0	0	0	0	0	0

Source (Tables 6.19-6.20): Central Ground Water Board, Ministry of Water Resource, Govt. of India (Ground Year Book, 2013-14).
<http://www.cgwb.gov.in/documents/Ground%20Water%20Year%20Book%202013-14.pdf>
 (accessed on 08.01.2016)