Water Laws in Himachal Pradesh and Water Resource Management

A network of laws governs the use of water for drinking, irrigation, and energy generation purposes. The chief among them are given below.

H.P. Minor Canals Act, 1955
H.P. Minor Canals (Amendment) Act, 1956
H.P. Ferries Act, 1956
H.P. Water Supply Act, 1968
H.P. Water Supply (Amendment) Act, 1978
H.P. Municipal Act, 1968
H.P. Minor Canals Act, 1976
H.P. Municipal Corporation (Amendment) Act, 1983
The Bengal Aluvion and Diluvion Regulation Act, 1825
The Northern India Canal and Drainage (Amendment) Act, 1958
The Northern India Canal and Drainage (Punjab Amendment) Act, 1961/1963/1964/1965

The State has considerable surface river water resources. The net and gross areas irrigated by the Sutlej, Beas, and Chenab (Chandra and Bagchal) rivers (tributaries of the Yamuna), and by lakes, canals, wells, and tubewells, are shown in Tables 6 and 7.

Table 6: Net Irrigated Area

(hectares)

Agricultural Year	Canals	Tanks	Wells & Tub-wells	Other sources	Total
1	2	3	4	5	6
1972/73	789	242	1,938	91,643	94,612
1973/74	1,180	281	1,858	90,539*	93,858
1974/75	914	289	3,121	86,418	90,742
1975/76	-	289	2,814	87,057	90,160
1976/77	-	271	2,917	86,421	89,609
1977/78	1,175	234	2,554	86,264	90,227
1978/79	-	287	2,046	86,650	88,983
1979/80	1,101	280	3,443	85,750	90,574
1980/81(P)	1,469	331	2,428	87,590	91,818
Bilaspur	-	28	214	2,325	2,567
Chamba	-	-	-	3,543	3,545
Hamirpur	-	-	15	1,549	1,564
Kangra	-	-	184	32,227	32,411
Kinnaur	-	-	-	3,591	3,591
Kulu	-	-	-	2,496	2,496
Lahaul Spiti	-	-	-	3,007	3,807
Mandi	-	-	-	14,952	14,952
Shimla	-	-	-	4,813	4,813
Sirmaur	1,469	38	190	9,932	11,629
Solan	-	265	555	8,061	8,881
Una	-	-	1,270	1,094	2,364

Source: Annual Season and Crop Report- Directorate of Land Records, Himachal Pradesh.

Note :* Includes 136 hectares irrigated by lift irrigation in Sirmaur District.

Table 7: Gross Irrigated Area

('000 hectares)

	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81
1	2	3	4	5	6	7	8	9	10
FOOD GRAINS (a)Cereals									
Rice	53.6	53.5	50.7	50.8	52.3	51.4	52.7	51.0	50.5
Maize	16.6	16.5	14.8	15.7	51.4	16.0	16.5	17.3	50.5
Wheat	59.8	54.3	53.7	55.6	16.0	55.8	55.4	59.7	17.5
Barley	6.5	6.3	6.2	5.9	55.8	6.0	5.3	5.6	56.7
Ragi	0.7	0.6	0.5	0.5	6.0	0.5	0.5	0.5	5.5
Millets	3.7	3.7	4.3	3.5	0.5	3.3	3.6	3.0	0.5
(b) Pulses	2.1	1.3	1.8	1.3	3.3	2.1	1.2	1.6	0.1
Total Foodgrains	143.0	136.2	131.7	134.0	135.5	135.1	135.2	138.7	131.9
NON-FOOD GRAINS									
Potato	2.4	2.2	2.3	1.9	1.7	2.4	2.9	3.0	3.0
Rape and Mustard	0.3	0.2	0.3	0.4	0.3	0.4	0.3	0.2	0.4
Linseed	6.3	6.2	6.0	5.9	5.9	5.5	5.3	2.2	4.7
Others	13.1	11.6	10.5	10.3	11.0	12.1	11.9	12.7	15.9
Total	22.1	20.2	19.1	18.5	18.9	20.4	20.4	18.1	24.0
Grand Total	165.1	156.4	150.8	152.5	154.4	155.5	155.6	156.8	155.9

Source: *Annual Season and Crop Report*, Directorate of Land Records, Himachal Pradesh.

The annual average surface flow of major rivers in the State is 16,503 million m^3, according to the 1972 Irrigation Commission Report. The usable ground water potential, as estimated by the Central Ground Water Board in 1983/84, is 670 million m^3. The total number of villages receiving drinking water supplies from the Public Works' Department (PWD) in 1983 was 10,787. The remaining villages depend upon streams or lake water for their drinking water supply. Table 8 gives the drinking water supply in H.P. in various districts.

The manner in which the water resources of H.P. are being used may tempt one to say that this is purely a matter of State policy and that law is merely an instrument to advance this policy. This is a totally wrong concept of law. If laws have to be constitutionally valid, and if they embody a policy then it follows that the policy has to be constitutionally valid too. It is only in a dictatorial or autocratic State, where a Benthamite or Austinian type of legal positivism is practised, that one can say law can propagate whatever the sovereign desires.

Table 8: Drinking Water Supply

District	Villages Served with Drinking Water Supply as of 31st March			Population Served as of 31st March (million)		
	1980	1981	1982	1980	1981	1982
1	2	3	4	5	6	7
1. Bilaspur	242	350	450	0.52	0.75	0.94
2. Chamba	488	584	663	1.09	1.30	1.43
3. Hamirpur	389	651	954	0.80	1.28	1.76
4. Kangra	1,683	2,120	2,624	4.14	4.90	5.74
5. Kinnaur	74	74	...	0.49	0.49	...
6. Kulu	62	64	72	0.73	0.84	0.91
7. Lahaul-Spiti	155	186	199	0.20	0.26	0.28
8. Mandi	906	1,081	1,270	2.20	2.54	2.83
9. Shimla	1,193	1,321	1,475	2.26	2.53	2.83
10. Sirmaur	326	396	482	0.97	1.19	1.42
11. Solan	632	704	770	0.73	0.90	1.01
12. Una	275	356	444	1.67	1.87	2.17
Himachal Pradesh	6,425	7,887	...	15.80	18.85	...

Source: Public Works' Department, Himachal Pradesh.

Note: Total number of villages served with drinking water supply as of 31-3-83 was 10,787 in Himachal Pradesh.

In a democratic, constitutional State, the principles of democracy enshrined in the constitution becomes binding on all policies proclaimed or enforced through laws. In the light of this, it does not appear that the water laws/policies of Himachal have been for the common good of the Himalayan ecology or of the poor people. Legal science is basically a policy science which seeks the construction of a just society -- justice not only for people but also for animals, trees, plants, and the environment. From this perspective, numerous research issues come up for scrutiny. But, before we lay out this agenda for legal research, it is important to know the facts. The water use data, in terms of power production, its actual consumers, and finances involved, are given in Tables 9, 10, and 11.

Table 9: Installed Capacity in Himachal Pradesh

Year	Hydro	Diesel	Total
1	2	3	4
1950/51	2.000	2.316	4.316
1955/56	2.000	2.316	4.316
1960/61	2.000	2.369	4.369
1965/66	2.719	2.369	5.088
1970/71	48.919	2.369	52.482
1974/75	49.969	2.513	52.482
1975/76	49.969	2.513	52.483
1976/77	50.070	2.513	52.583
1977/78	50.270	2.513	52.783
1978/79	110.270	2.513	112.783
1979/80	111.020	2.513	113.533
1980/81	126.520	1.504	128.024
1981/82	126.520	1.504	128.024

Source: Himachal Pradesh State Electricity Board.

Ultimate Irrigation Potential

The ultimate irrigation potential of the States through schemes based on utilisation of surface as well as on groundwater is presently assessed as given below.

(in 100,000 ha)

	H.P.	All India	Percentage
Major & Medium Schemes (based on surface waters)	0.50	584.75	0.09
Minor Schemes			
i) based on surface water	2.40	148.57	1.62
ii) based on ground water	0.50	400.22	0.12
Total	3.40	1,133.32	0.30

Table 10: Station-wise Details of Electricity Generation

S. No.	Name of Generating Stations	Energy Generated in M kWh during				
		1977/78	1978/79	1979/80	1980/81	1981/82
1	2	3	4	5	6	7
A	Hydro Generating Station					
1	Giri Power House	-	260.224	219.993	76.172	227.254
2	Bassi Power House	194.266	117.714	115.665	149.970	184.252
3	Nogli Power House	5.421	5.282	6.439	7.512	7.830
4	Chaba Power House	10.992	12.392	10.596	8.220	8.895
5	Chamba Power House	0.996	0.867	0.879	0.754	0.790
6	Menbar Power House	0.572	0.594	0.552	0.202	-
7	Billing Power House	0.166	0.141	0.142	0.178	0.202
8	Shansha Power House	0.085	0.098	0.063	0.080	0.091
9	Jubbal Power House	0.087	0.023	-	-	-
10	Gharola Power House	0.107	0.164	0.123	0.095	0.080
11	Bharmaur Power House	0.029	0.034	0.025	0.029	0.023
12	Sissu Power House	0.016	0.039	0.019	0.072	0.058
13	Rukti Power House	-	-	0.388	1.650	2.173
	TOTAL - A	212.7372	397.572	354.884	244.934	431.684
B. Diesel Generating Stations						
1	Idgah, Shimla	0.086	0.029	0.003	0.108	-
2	Dalhousie	-	-	-	-	-
3	Kandaghat	-	-	-	-	-
4	Kasauli	-	-	-	-	-
5	Kaza	0.028	0.030	0.023	0.024	0.040
6	Jubbal	-	-	-	-	-
	TOTAL - B	0.114	0.059	0.026	0.132	0.040
GRAND TOTAL - (A+B)		212.851	397.631	354.910	245.066	431.688

Source: Himachal Pradesh State Electricity Board.

Table 11: Energy Generated, Purchased, and Sold

(Million Units)

Item	1977/78	1978/79	1979/80	1980/81	1981/82
1	2	3	4	5	6
1. Energy					
(i) Hydro	212.737	397.572	354.884	244.934	431.648
(ii) Diesel	0.114	0.059	0.026	0.132	0.040
TOTAL	212.851	397.631	354.910	245.066	431.688
2. Energy consumed in station auxiliaries	0.840	2.306	1.935	1.064	1.938
3. Energy purchased from from other States	179.286	216.347	232.920	265.411	258.298
4. Total energy available for sale	391.297	611.672	585.895	509.413	688.048
5. Energy Sold:					
(i) within the State	49.982	49.810	54.250	62.374	70.559
(a) domestic	23.874	26.956	27.998	32.630	34.991
(b) commercial	40.947	69.989	93.339	107.550	130.467
(c) industrial	1.897	1.964	1.853	1.970	1.965
(d) public eighting	5.456	5.456	32.731	54.440	41.469
(e) agriculture	80.198	39.241	32.731	54.440	41.469
(f) bulk & misc.					
TOTAL	202.354	191.282	216.267	264.734	285.962
(ii) Outside the State	107.386	309.210	258.542	147.125	273.645
Total Energy Sold	309.740	500.492	474.809	411.859	559.607

Source: Himachal Pradesh State Electricity Board.

Monitored Projects

No project in the State is being monitored by the Central Water Commission.

Technical Examination of Projects

The following is the position of the Technical Examination of Original and Revised Project Reports received for the State Government in C.W.C. as of 31st March, 1986.

	Original Reports		Revised Reports	
	Major	Medium	Major	Medium
1. Under examination in C.W.C.	-	-	-	-
2. Replies to comments awaited from the State	-	-	-	-
3. Submitted to P.C.	-	-	-	-
4. Replies to T.A.C., observations awaited from the State	-	1	-	-
5. Pending with P.C.	-	-	-	-
Total	-	1	-	-