



Jamrani Dam Multipurpose Project **Nainital, Uttarakhand,**

A brief Note on
Benefit-Cost Ratio
of Project
(Year 2019-20)

Benefit-Cost Ratio- 1.69



Uttarakhand Irrigation Department
सिंचाई विभाग उत्तराखण्ड

Contents

S. No.	Particulars	Page No.	Remark
1.0	Introduction	4	
2.0	Annual cost statement	4	
3.0	Brief on benefits of project	6	
3.1	Irrigation benefits	6	
3.2	Power/ electricity benefits	6	
3.3	Drinking water benefits	7	
3.4	Flood Control(Cost Saving benefits)	7	
3.5	Fisheries benefits	7	
3.6	Tourism (background and benefits)	7	
3.7	Benefits/ Cost cutting of Erection of new tube well, operation & Maintenance cost:	8	
3.8	Cost of recharge of ground water	9	
3.9	Other Benefits	10	
4.0.	Annual benefit statement	10	
5.0	Benefit-Cost Ratio	11	
	Annexure	12	

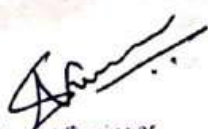

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List of Annexure

S. No.	Annexure No.	Particulars	Page No.	Remark
1	1	Financial statement Pre-Post Project & Appendix F1, F2	12	
2	2	Detail of the tube wells and ground water level	17	
3	3	Maintenance, operating running cost detail of Jal Sansthan (Gramin), Haldwani	18	
4	4	Detail of tourist, Distance Nainital	19	


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1.0 Introduction

Water is the most precious natural resource on the earth as very survival of the planet is linked to it. Over the period of time, with the ever increasing human population, the water is rapidly becoming a scarce resource. Many parts of the world are already water stressed and India is no exception. As per the National Water Policy, safe water for drinking and sanitation should be considered as pre-emptive needs. The National Water Policy stresses the need for planning of multi-purpose projects with a provision of storage to derive maximum benefits from available topology and water resources.

Jamrani Dam Multipurpose Project is one such project envisaging the following benefits:-

- | | | |
|--------------------------------------|------------------|-----------------------------|
| 1. Drinking water | 2. Irrigation | 3. Power generation |
| 4. Fisheries | 5. Flood control | 6. Tourism |
| 7. Reduce dependency on ground water | | 8. Recharge of Ground water |

In addition, the project will have associated benefits like increased employment to local population during the construction and in O&M phase. The implementation of project will also result in better road connectivity in the region and thus having spiraling positive effect on other sectors like health and education. Construction of the project will provide impetus to the state infrastructure in the region. The estimated cost of Jamrani Project is **258409.59 Lakh** (Year 2019-20). This includes the cost of all components of the project like **Unit I** (Main dam, Power component, utilities & other works) & **Unit II** (distribution system). Expected annual cost of the project works out to **Rs.32134.14 Lakhs** provided below.

2.0 Annual cost statement


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Jamrani Dam Multipurpose Project, Nainital, Uttarakhand

2.0 Annual cost statement

S. No.	Description	Rs. In Lakh	Reference	Remarks
1	Total Cost of the Project	258409.59		Unit I & Unit II
2	Cost of Unit-I (Head Works)	195267.35		Main Dam, appurtenant structures
3	Cost of Unit-II (Distribution system)	55039.42		Canal System
4	Cost of Power System by cost apportionment	8102.82		Power component
5	Cost to be Borne by Drinking Water Component (Urban Development Department)@ 30% of 2 above	58580.21		
6	Cost to be Borne by Irrigation Component (Irrigation Department)@ 50% of 2 above + 100% of 3 above	152673.10		
7	Cost to be Borne by Power Department @20 of 2 above + 100% of 4 above	47156.29		
8	Cost Allocated - (I) Drinking Water	58580.21		
	II) Irrigation Component	152673.10		
	III) Power System	47156.29		
A	Cost of Project	258409.59		
(ii)	Additional cost for tourist circuit	10000.00		(Construction of 22 km. Road, Complexes & other infrastructure)
	Grand Total	268409.59		
B	Annual Cost			
(i)	Interest charges @10% of the total cost of the project	26840.96		
(ii)	Depreciation charges @ 1% of the cost of project assuming life of the project as 100 years	2684.10		
(iii)	Annual O&M charges @Rs.1175 per ha of 25% of 295382.00 ha of total annual irrigated area.	867.68		
(iv)	Maintenance of Head Works @1% (I-Works - B Land)	1741.40		
	Net Annual Cost	32134.14		

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5

Control -

3.0 Brief on benefits of Project

3.1 Irrigation Benefits: The CCA of the Jamrani project is **150027** Ha which is spread in **Uttarakhand & Uttar Pradesh states**. The land in the command area is called **Bhabar & Tarai** in Uttarakhand and Gangetic in Uttar Pradesh respectively. The land is highly fertile and productive.

- Assured irrigation from the project will lead to increase in productivity/yield of crops.
- Additional barren/ non-agricultural land will also be brought under irrigation.
- Assured irrigation will also help in increased production of vegetables like Tomato, capsicum, broccoli, etc., as the current availability of irrigation water is limited.
- For most efficient use of stored water, adoption of micro irrigation techniques such as drip and sprinkler is being envisaged which will enable the introduction of high value vegetables like broccoli, tomato in at least 50% of the command area. Cluster for such crops shall be developed and linked with market to ensure fair pricing for farmers.

Annual Net value of the irrigation produce after the project

(Post Project) = Rs. **70344.56** Lakh,

Net value of the irrigation produce before the project

(Pre Project) = Rs. **39566.53** Lakh,

(Refer Annx- 1, 3 Pages)

Annual Benefits/ revenue to be generated from increase in agriculture produce

= **30778.03** Lakh

3.2 Power/Electricity Benefits: Uttarakhand is a power deficit state and to meet its energy demand it is purchasing electricity from other states. This project will generate 63.4 million Units annually, thus reducing the energy import from other states. The UPCL supply power in Rural and Urban areas for domestic and commercial purposes in Uttarakhand. The cost of power in Uttarakhand varies from Rs. 2.50 to 7.50 per unit of electricity.

Annual Benefits/ revenue to be generated from power/ electricity generation:

$63.4 \times 10^6 \times 5.00$

=

Rs. **3170** Lakh

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3.3 Benefits from Domestic Water Supply: As the population of Haldwani & nearby areas is growing rapidly, the demand of the drinking water is rising day by day. This project shall provide 42.70 million cubic meter quantity of water for drinking purpose annually. It is difficult to put the price of the drinking water in terms of amount as there is no substitute of water. A water bottle of 1 litre is generally sold at a price of excess of Rs. 10/-. Even if it is assumed that 5% of the domestic water is used for drinking purpose, the cost of the drinking water per year alone works out to (Rs. 42.70X 0.05X1000X10) **Rs. 21250 Millions**. However, to be on a very conservative side, the average water charge currently being charged in Haldwani & nearby areas @ Rs. 14.00 per kiloliter, has been considered for computations of benefits from the project.

Benefits/ revenue to be collected from domestic water supply:

$$42.70 \times 10^6 \times 14.00 = 5978 \text{ Lakh}$$

3.4 Flood control (Cost saving/Benefits): Gola River is a perennial river but the most of the flow is in monsoon season. The 24 hr PMP works out to more than 600 mm in the catchment. This coupled with the facts that catchment area of the project is small and river is flashy in nature, the flood discharges are quite high resulting in frequent damages to bridges, agricultural fields, culverts, dykes, spurs, embankments etc. Moreover, in the absence of a storage structure of adequate capacity, the precious flood water is wasted as flood discharges.

Frequent occurrence of flood in the river necessitates huge expenditure by Uttarakhand Government departments in re-building infrastructure and also controlling flood in the affected areas. There shall be a major reduction in flood damages after construction of the dam. The concerned departments at district level like Administration, Disaster Management and Irrigation Departments are estimating the annual saving of about **Rs. 1500 Lakhs** on this account.

3.5 Fisheries Benefits: Jamrani dam reservoir will be spread over an area of 452 Ha where fishes like Mahaseer, Rohu, Catfish and other expensive fish varieties will be cultured in consultation with the Fisheries department. Estimated average sustainable quantity of fishes caught per Ha is of the order 60kg/Ha at an average market rate of Rs. 175.

Thus, the revenue is expected = $452 \times 60 \times 175 \times 0.8$ = **37.97 Lakhs**

(less charges @ 20% of production)

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3.6 Tourism Benefits: Nainital District is well known for tourism in India and abroad. A number of natural lakes are present here and it is also well known for Corbett National Park. However, In the peak season and even otherwise Nainital city, Bhimtal city, and Corbett National Park etc. areas often get overcrowded. Also, many times there is shortage of parking space, water etc. causing problems to tourists and local residents. The government is also looking for some other options to resolve this issue. Employment through home stays, village tourism, and spiritual-medicinal herb tourism is on the rise and the way forward for increasing the tourism in Uttarakhand.

The Jamrani Reservoir which will be 9 km long and be surrounded by villages, parts of which are going to be submerged and made part of the tourism circuit which is proposed to be developed. Tourism circuit will consist of road on the reservoir periphery, a small market for herbal products, complex for handicrafts, processed food and local goods. Also, this road will shorten the distance in Nainital District between areas like Khansu, Okhalkanda, Dhanachuli and Paharpani etc. The famous Haidakhan Ashram already attracts a lot of local and international tourists, who will continue to visit this place and tourist footfall is likely to increase further, as the Haidakhan Ashram is proposed to be reconstructed as a part of the project.

Most of the tourists who visit Uttarakhand for shorter periods i.e. 1-3 days do not wish to travel a long distance in the hills as it consumes most of their visit time in journey and they prefer visiting cities located near the plains like Nainital, Bhimtal and Corbett National Park etc. Jamrani being very close to the Kathgodam rail head, is expected to attract additional tourists. Lucrative water sports, underwater sightseeing, boating, water parasailing, fishing spots for tourists, local camping spots, jungle trailing etc. will give impetus to the tourism industry in the region.

Around 10 lakh population visits Nainital district every year, out of which about 70% is expected to visit Jamrani Dam's reservoir area. Home stays, hotels, and resorts shall thus flourish here. Average per day expenditure per person is expected to be around Rs. 2500.

Out of the present tourist count i.e. 977169, its 70% is expected to visit the reservoir. Assuming a tourist stay in the area for minimum 2 days, the tourist will spend Rs. 5000, of which 30% can be considered as the net benefit.

Thus, the revenue expected from tourism

$$(977169 \times 70\% \times 5000 / 100000) \times 30\% =$$

10260.27 Lakh


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3.7 Benefits/ Cost cutting in erection,operation & maintenance of new tube wells:Haldwani City

is a major city of the Kumaon region where people from all districts of Kumaon region migrate mainly for education, employment, medical facilities etc. Population has grown substantially in the city and neighboring areas in the last decade. Haldwani city and nearby villages fall in the Bhabhar region of the area. The soil in Bhabhar region is highly porous, thus lots of surface water either seeps down or percolates to different areas in surrounding tarai region.

As the surface water is not so readily available, a number of tubewells have been drilled in this area. Also, dependency on the Groundwater is increasing every year. There is a fall of about 50-60 feet in the last 40 years in this region's Groundwater.

About 25 or more new tube wells (public and private) are drilled every year for drinking water and irrigation purpose. About Rs.50 lakhs is spent on drilling each tube well as 400 feet is the average depth drilled for tube wells in this region. Cost of drilling tube well is further increasing due to failure of tube wells because of reduction in Groundwater. Once the assured water from Jamrani project is made available, the dependence on ground water is likely to be reduced substantially.

Cost of tube wells = 25 x 50 = Rs.1250 lakhs,

Repair and operation cost @ 2 lakhs/ tube well = 400x 2 = Rs.800 lakhs

(No. of tube wells in this area = 400)

Total = 1250 + 800 = 2050 Lakhs.

3.8 Cost of recharge of ground water: Jamrani Dam has storage capacity of 208 MCM with a live storage of 142.70 MCM. This quantity of water shall be provided over the year for drinking and irrigation purpose. Also, as mentioned in point 3.7, groundwater quantity is reducing every year due to over exploitation and urbanization. This over exploitation has greatly harmed the environment and now the Bhabhar region has come under sub-critical zone or to say, it is perhaps the last phase to recover the present ground water status. There are recent Government orders to not to drill any new tube wells in this region to stop uncontrolled exploitation.

In many places ground water recharge projects have come up, because urbanization has over exploited groundwater and lesser water seepage areas are left. These groundwater recharge projects are not economically efficient but are considered at top priority for sustainable water usage.


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Jamrani dam will help in recharging the groundwater of the project area as about 100MCM shall be stored round the year, even in deficit water years a dead storage of 66 MCM shall remain in the reservoir. Also when sufficient amount of water will be made available to public for domestic and agriculture purposes, the extra water will further contribute to recharge of ground water.

Gross storage of dam = 208 MCM,

Seepage from dam = 6.24 MCM

(Assuming 3% seepage from reservoir)

Benefits/ cost of ground water recharge:

$6.24 \times 10^6 \times 7.00 = 436.80 \text{ Lakh}$

(Assuming water rates- half of the domestic water supply seepage from reservoir)

3.9 Other Benefits: There are additional indirect benefits from the project which are difficult to be to be quantified:-

1. The tourism circuit proposed to be built shall reduce the distance to Dhanachuli bend, a prominent junction for various hill stations.
2. When tourist cities cluster is developed it will benefit a no. of other destinations around it, as tourist get a multiple place package rather than just mainly visiting Nainital city. Mukteshwar, Patlot, Paharpani, etc tourist places shall also be benefitted.
3. This Dam will also help in increasing the carrying capacity of Haldwani city as International Stadium in Haldwani, International airport at Pantnagar etc. projects are proposed but deficiency of drinking water hinders these important projects.
4. This Dam will further support the water requirement of SIDCUL Industrial Area, Rudrapur.
5. Out of the muck that is expected to be generated, 70% is proposed to be sold in the tarai region as a filling material.

4.0 Annual benefit statement

It is also pertinent to mention that benefits worked out are based on prevailing rates as on today. No increase in value of benefits over the project life, which is certain, has been considered resulting in the understatement of overall benefits over the entire period of the project life.

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4.0 Annual benefit statement

C	Annual Benefits			
(i)	Revenue generated from agriculture produce post construction	30778.03	Page No. 6 # 3.1,	
(ii)	Annual revenue generated from electric generation. Annual generation 63.4 million units @ Rs. 5.00 per unit (average rate of electricity supply - domestic and commercial)	3170.00	Page No. 6 # 3.2,	
(iii)	Annual revenue generated from drinking water supply. Annual supply of drinking water 42.70 MCM @ Rs.14.00 per KL (average rate of drinking water supply)	5978.00	Page No. 7 # 3.3,	
(iv)	Annual benefit from reduction in flood control expenditure	1500.00	Page No. 7 # 3.4,	
(v)	Fisheries in 452 Ha submergence yielding 60kg/ha @ Rs. 175 per kg less charges @ 20% of production	37.97	Page No. 7 # 3.5,	
(vi)	Benefits expected from tourism by integrated tourism circuit to be developed	10260.27	Page No. 7 # 3.6,	
(vii)	Annual benefit considering repair, operation- maintenace cost of tubewells, and average increase in tubewells per year	2050.00	Page No. 9 # 3.7 ,	
(viii)	Recharge of Ground water from Dam at 50% rate of domestic water supply	436.80	Page No. 9 # 3.8,	
Net Annual Benefits (i+ii+iii+iv+v+vi+vii+viii)		54211.08		

5.0 Benefit-Cost Ratio

B/C Ratio = (Net Annual Cost/ Net Annual Benefits)	1.69		
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6.0 Annexures


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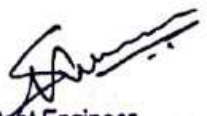

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अधीक्षक अभियन्ता
परियोजना मण्डल
हल्द्वानी

Jamrani Dam Construction Div 2 Haldwani

FINANCIAL STATEMENT NET BENEFITS OF PRE-POST PROJRCT

SL.No.	Particulars	Rs. In lakh	
		Post-Benefits	Pre-Benefits
A.	Gross Receipts		
(i)	Gross value of farm produce	181435.40	140117.80
(ii)	Add dung receipt at 30% of fodder expenditure	5443.06	6305.30
	Total Receipts	186878.46	146423.10
B.	Expenses		
(i)	Expenditure on seeds	84419.83	72247.47
(ii)	Expenditure on manure		
(iii)	Expenditure on agro-chemicals		
(iv)	Expenditure on Labour & Transportation		
(v)	Fodder Expenses		
(a)	10% of gross value of produce for post benefits	18143.54	
(b)	15% of gross value of produce for pre benefits		21017.67
(vi)	Depreciation of implements at 2.7% of the gross value of produce	4898.76	3783.18
(vii)	Share and cash rent		
(a)	3% of gross value of produce for post benefits	5443.06	
(b)	5% of gross value of produce for pre benefits		7005.89
(viii)	Land revenue at 2% of gross value of produce	3628.71	2802.36
	Total Expenses	116533.90	106856.57
Net value of produce = Total receipt - Total expenses		70344.56	39566.53


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NAME OF PROJECT - JAMRANI DAM PROJECT UTTARAKHAND**EXISTING CROP PATEREN AND PRODUCTIVITY PRE-PROJECT**

S. No.	Crop Name	Area in Ha.	Yield (Qtl/ Ha)	Total Produce in Qtl.	Rate per Qtl.(MSP based on 2019-20)	Value of Produce in Lakh	Expenditure of Seed,Fertilizer and Labour etc.	
							Rate Rs/ha.	Amount in lakh
1	2	3	4	5	6	7	8	9
A	KHARIF							
1	Paddy	97105.00	30.00	2913150.00	1815.00	52873.67	31500.00	30588.08
2	Arhar	28.00	6.90	193.20	5800.00	11.21	16800.00	4.70
3	Maize	1198.00	24.00	28752.00	1760.00	506.04	26250.00	314.48
4	Fodder	312.00	750.00	234000.00	150.00	351.00	9000.00	28.08
5	Sugarcane	26025.00	600.00	15615000	275.00	42941.25	50820.00	13225.91
6	Soyabean	2229.00	13.50	30091.50	3710.00	1116.39	18900.00	421.28
7	Urd	422.00	7.00	2954.00	5700.00	168.38	12600.00	53.17
8	Moong	48.00	7.76	372.48	7050.00	26.26	12600.00	6.05
9	Groundnut	18.00	11.00	198.00	5090.00	10.08	12000.00	2.16
10	Til	29.00	6.00	174.00	5300.00	9.22	15000.00	4.35
11	Sanwan	4762.00	13.00	61906.00	1600.00	990.50	19000.00	904.78
12	Vegetables	1121.00	200.00	224200.00	1500.00	3363.00	31500.00	353.12
	Total	133297.00		19110991.18		102366.99		45906.15
B	RABI							
1	Wheat	25027.00	23.00	575621	1925.00	11080.70	26250.00	6569.59
2	Potato	500.00	225.00	112500.00	700.00	787.50	53000.00	265.00
3	Lahi/sarson	35591.00	10.00	355910.00	4425.00	15749.02	34000.00	12100.94
4	Fodder	1121.00	750.00	840750.00	150.00	1261.13	9000.00	100.89
5	Pea	32241.00	11.50	370771.50	1350.00	5005.42	15000.00	4836.15
6	Lentil	2375.00	6.00	14250.00	4800.00	684.00	13650.00	324.19
7	Gram	8141.00	8.00	65128.00	4875.00	3174.99	26250.00	2137.01
8	Barley	24.00	22.00	528.00	1525.00	8.05	31500.00	7.56
	Total	105020.00		2335458.5		37750.80		26341.33
	Grand Total	238317.00		21446449.68		140117.80		72247.47

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NAME OF PROJECT JAMRANI DAM PROJECT UTTARAKHAND**PROPOSED CROP PATTERN AND PRODUCTIVITY POST - PROJECT**

S.No.	Crop Name	Area in Ha.	Yield (Qt/ Ha)	Total Produce in Qt.	Rate per Qt.(MSP based on 2019-20)	Value of Produce in Lakh	Expenditure of Seed,Fertilizer and Labour etc.	
							Rate Rs/ha.	Amount in lakh
1	2	3	4	5	6	7	8	9
A	KIARIF							
1	Paddy	95695.00	30.00	2870850.00	1815.00	52105.93	31500.00	30143.93
2	Arhar	28.00	6.90	193.20	5800.00	11.21	16800.00	4.70
3	Maize	6980.00	24.00	167520.00	1760.00	2948.35	26250.00	1832.25
4	Fodder	3013.00	750.00	2259750.00	150.00	3389.63	9000.00	271.17
5	Sugarcane	25916.00	600.00	15549600	275.00	42761.40	50820.00	13170.51
6	Soyabean	30066.00	13.50	405891.00	3710.00	15058.56	18900.00	5682.47
7	Urd	10787.00	7.00	75509.00	5700.00	4304.01	12600.00	1359.16
8	Moong	1431.00	7.76	11104.56	7050.00	782.87	12600.00	180.31
9	Groundnut	18.00	11.00	198.00	5090.00	10.08	12000.00	2.16
10	Til	27.00	6.00	162.00	5300.00	8.59	15000.00	4.05
11	Sanwan	63.00	13.00	819.00	1600.00	13.10	19000.00	11.97
12	Vegetables							
a	Tomato	250.00	300.00	75000.00	3000.00	2250.00	42000.00	105.00
b	Broccoli	100.00	300.00	30000.00	10000.00	3000.00	125000.00	125.00
c	Bitter Ground	150.00	200.00	30000.00	3500.00	1050.00	45000.00	67.50
d	Sponge Gourd	150.00	200.00	30000.00	3000.00	900.00	45000.00	67.50
e	French Bean	150.00	100.00	15000.00	3000.00	450.00	42000.00	63.00
f	Other vegetables	922.00	250.00	230500.00	1500.00	3457.50	36750.00	338.84
	Total	175746.00		21752096.76		132501.22		53429.52
B	RABI							
1	Wheat	89034.00	23.00	2047782	1925.00	39419.80	26250.00	23371.43
2	Potato	970.00	225.00	218250.00	700.00	1527.75	53000.00	514.10
3	Lahi/sarson	8840.00	10.00	88400.00	4425.00	3911.70	34000.00	3005.60
4	Fodder	2421.00	750.00	1815750.00	150.00	2723.63	9000.00	217.89
5	Pea	7714.00	11.50	88711.00	1350.00	1197.60	15000.00	1157.10
6	Lentil	3375.00	6.00	20250.00	4800.00	972.00	13650.00	460.69
7	Gram	293.00	8.00	2344.00	4875.00	114.27	26250.00	76.91
8	pulses	3660.00	7.00	25620.00	4900.00	1255.38	33000.00	1207.80
9	Vegetables							
a	Beetroot	100.00	250.00	25000	2500.00	625.00	50000.00	50.00
b	Cabbage	200.00	300.00	60000	1500.00	900.00	35000.00	70.00
c	Carrot	150.00	400.00	60000	2000.00	1200.00	45000.00	67.50
d	Cauliflower	250.00	200.00	50000	2500.00	1250.00	50000.00	125.00
e	Other vegetables	880.00	250.00	220000	1500.00	3300.00	36750.00	323.40
10	Barley	24.00	22.00	528.00	1525.00	8.05	31500.00	7.56
	Total	117911.00		4722635		58405.18		30654.98
C	ZAID							
1	Moong	345.00	7.76	2677.2	7050.00	188.74	12600.00	43.47
2	Urd	345.00	7.00	2415	5700.00	137.66	12600.00	43.47
3	Maize	345.00	24.00	8280	1760.00	145.73	26250.00	90.56
4	Vegetables	345.00	250.00	86250	1500.00	1293.75	36750.00	126.79
5	Fodder	345.00	750.00	258750	150.00	388.13	9000.00	31.05
	Total	1725.00		358372.2		2154.00		335.34
	Grand Total	295382.00		26833103.96		193060.40		84419.83

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Government of India
Ministry of Agriculture & Farmers Welfare
Department of Agriculture, Cooperation & Farmers Welfare
(Directorate of Economics and Statistics)

Minimum Support Prices (MSP) for Rabi Crops of 2019-20 to be marketed in Rabi Marketing Season 2020-21 (RMS 2020-21)

Government has approved the increase in the Minimum Support Prices (MSPs) for Rabi Crops of 2019-20 to be marketed in Rabi Marketing Season 2020-21 (RMS 2020-21). The decision of the Government to increase Rabi MSP fulfills the commitment to the farmers to provide at least 50 per cent return over cost of production. The details of MSPs for all Rabi Crops of 2019-20 season are given below:

(Rs per quintal)

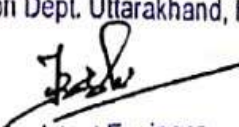
Commodity (Fair Average Quality)	MSP
Wheat	1925
Barley	1525
Gram	4875
Lentil	4800
Rapeseed & Mustard	4425
Safflower	5215

SLK
30/10/19

(Shweta Kumar)
Deputy Economic Adviser (FE)
Tel. No. 23383798
30.10.2019


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Minimum Support Prices

(According to crop year)

(Rs. per quintal)

Sl. No.	Commodity	Variety	2015-16	2016-17	2017-18	2018-19	2019-20##	(#) increase in MSP 2019-20 over 2018-19
	KHARIF CROPS							
1	PADDY	Common	1410	1470	1550	1750	1815	65(3.7)
		Grade 'A'	1450	1510	1590	1770	1835	65(3.7)
2	JOWAR	Hybrid	1570	1625	1700	2430	2550	120(4.9)
		Maldandi	1590	1650	1725	2450	2570	120(4.9)
3	BAJRA		1275	1330	1425	1950	2000	50(2.6)
4	MAIZE		1325	1365	1425	1700	1760	60(3.5)
5	RAGI		1650	1725	1900	2897	3150	253(8.7)
6	ARIHAR(Tur)		4625 [~]	5050 [~]	5450 [~]	5675	5800	125(2.2)
7	MOONG		4850 [~]	5225 [~]	5575 [~]	6975	7050	75(1.1)
8	URAD		4625 [~]	5000 [~]	5400 [~]	5600	5700	100(1.8)
9	COTTON	Medium Staple	3800	3860	4020	5150	5255	105(2.0)
		Long Staple	4100	4160	4320	5450	5550	100(1.8)
10	GROUNDNUT		4030	4220*	4450 [~]	4890	5090	200(4.1)
11	SUNFLOWER SEED		3800	3950*	4100*	5388	5650	262(4.9)
12	SOYABEEN (yellow)		2600	2775*	3050 [~]	3399	3710	311(9.1)
13	SESAMUM		4700	5000 [~]	5300*	6249	6485	236(3.8)
14	NIGERSEED		3650	3825*	4050*	5877	5940	63(1.1)
	RABI CROPS							
15	WHEAT		1525	1625	1735	1840	1925	85(4.6)
16	BARLEY		1225	1325	1410	1440	1525	85(5.9)
17	GRAM		3500**	4000 [~]	4400 [~]	4620	4875	255(5.5)
18	MASUR (LENTIL)		3400**	3950 [~]	4250*	4475	4800	325(7.3)
19	RAPESEED/MUSTARD		3350	3700*	4000*	4200	4425	225(5.4)
20	SAFFLOWER		3300	3700*	4100*	4945	5215	270(5.5)
21	FOUR		3290	3560	3900	4190		
	OTHER CROPS							
22	COPRA (Calender Year)	Milling	5550	5950	6500	7511	9521	2010(26.8)
		Ball	5830	6240	6785	7750	9920	2170(28.0)
23	DE-HUSKED COCONUT (Calender Year)		1500	1600	1760	2030	2571	541(26.7)
24	JUTE		2700	3200	3500	3700	3950	250(6.8)
25	SUGARCANE \$		230	230	255	275	275	0(0.00)

As on 23.10.2019 for rabi crops

Figures in brackets indicate percentage increase.

\$ Fair and remunerative price

* Including Bonus of Rs. 100 per quintal.

** Including Bonus of Rs. 75 per quintal.

[~] Including Bonus of Rs. 200 per quintal.

[~] Including Bonus of Rs. 425 per quintal.

[~] Including Bonus of Rs. 150 per quintal.

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नलकूप खण्ड, हल्द्वानी

विकासखण्ड हल्द्वानी के अन्तर्गत निर्मित नलकूपों के जलस्तर पर आख्या

नलकूप खण्ड, हल्द्वानी का सृजन दिनांक 12.07.1983 को हुआ। वर्ष 1983 में कुल 22 संख्या नलकूप निर्मित थे। वर्ष 1983 से 1990 तक 14 संख्या नलकूपों का निर्माण हुआ। वर्ष 1990 से 2000 तक 38 संख्या एवं 2001 से 2010 तक 68 संख्या नलकूप का निर्माण हुआ। वर्ष 2011 से वर्तमान तक 49 संख्या नलकूपों का निर्माण हुआ। खण्ड के अन्तर्गत कुल 191 संख्या नलकूप निर्मित एवं 02 संख्या नलकूप निर्माणाधीन है।

उपरोक्त नलकूपों के निर्माण के समय एवं वर्तमान में भूजल स्तर निम्न तालिकानुसार है:-

क्र.सं. एवं वर्ष	संख्या	विकासखण्ड हल्द्वानी के शीर्ष क्षेत्र में स्थापित नलकूपों का भूजल स्तर			विकासखण्ड हल्द्वानी के टेल क्षेत्र में स्थापित नलकूपों का भूजल स्तर		
		निर्माण के समय (फीट में)	वर्तमान में (फीट में)	अन्तर (फीट में)	निर्माण के समय (फीट में)	वर्तमान में (फीट में)	अन्तर (फीट में)
1	2	3	4	5	6	7	8
1- 1983 तक निर्मित नलकूपों की संख्या	22	220	272	52	125	170	45
2- 1984 से 1990 तक निर्मित नलकूपों की संख्या	14	225	273	48	129	172	43
3- 1991 से 2000 तक निर्मित नलकूपों की संख्या	38	310	328	18	251	273	22
4- 2001 से 2010 तक निर्मित नलकूपों की संख्या	68	390	403	13	335	352	17
5- 2011 से 2018 तक निर्मित नलकूपों की संख्या	49	424	434	10	362	370	8
योग	191	—	—	—	—	—	—

उपरोक्त तालिकानुसार वर्ष 1983 में भूजल स्तर के सापेक्ष विकासखण्ड हल्द्वानी के शीर्ष क्षेत्र में बने नलकूपों पर वर्तमान में भूजल स्तर लगभग 52 फीट नीचे चला गया है। एवं टेल क्षेत्र में निर्मित नलकूपों पर वर्ष 1983 में भूजल स्तर के सापेक्ष वर्तमान में लगभग 45 फीट नीचे चला गया है।


अधिरासी अभियन्ता
नलकूप खण्ड, हल्द्वानी

कार्यालय अधिशासी अभियन्ता, उत्तराखण्ड जल संस्थान, हल्द्वानी ग्रामीण (लालकुआँ)।

जल संस्थान हल्द्वानी ग्रामीण द्वारा हल्द्वानी ग्रामीण क्षेत्रों में जो द्यूववैल लगाये गये हैं, उनकी पिछले पँच वर्षों की Operating / Running Cost, Maintenance Cost कितनी आयी है :-

(घनराशि रु. लाख में)

S. No.	Financial Year	Operating/ Running Cost	Maintenance Cost	Remark
1	2014-15	—	—	—
2	2015-16	18.671	125.437	शाखा का सृजन माह 09/2015 में हुआ है।
3	2016-17	66.044	206.862	—
4	2017-18	69.141	249.672	—
5	2018-19	43.516	196.183	—

नोट :- विद्युत दंयक की घनराशि Maintenance Cost में सम्मिलित है।

✓
Executive Engineer,

Assistant Engineer
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जनपद नैनीताल की वर्ष 2006 से 2018 तक माह वार पर्यटक सांख्यिकी

माह	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
जनवरी	39439	43277	45371	50649	52651	47024	50754	54730	53002	34854	53285	56462	57,078	61053
फरवरी	19887	22342	23329	23375	25318	27496	29606	33701	32813	56181	37919	40214	43416	51600
मार्च	23277	25473	26655	27467	30223	31596	33903	37491	34324	37109	39788	42035	45045	52007
अप्रैल	33727	37033	40525	44342	47653	50312	54700	59815	55119	57438	62274	66254	71303	76690
मई	67887	74007	74736	89663	96478	104280	112667	121757	112007	117595	126982	137497	148082	156283
जून	141166	135486	146285	218821	245485	264783	285998	254506	272641	300683	382748	359822	325950	
जुलै	49149	49564	53156	67794	72442	78327	84482	12288	20700	22416	24336	24465	26126	
अगस्त	43474	47633	49700	54665	51545	54494	56837	18353	19606	42940	12392	15777	18172	
सितम्बर	49618	43809	47144	50756	46690	50699	54748	32864	34504	35636	37566	33411	36017	
अक्टूबर	52351	56464	60905	65160	60843	65042	67439	47376	49370	53424	56213	53598	59678	
नवम्बर	23452	25286	27632	30698	31974	33056	35819	31679	34542	37407	39403	41539	43457	
दिसम्बर	27633	29742	28104	31398	33027	35838	37380	35758	39395	42533	44526	46258	56206	
योग	5,82,080	5,89,518	6,22,538	7,55,278	7,83,828	8,43,815	8,08,333	7,44,218	7,58,123	8,15,805	8,73,385	9,17,861	9,33,661	


 जिला पर्यटन विभाग अधिकारी
 नैनीताल


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