



Uttarakhand Project Development And Construction Corporation Ltd.
उत्तराखण्ड परियोजना विकास एवं निर्माण निगम लिमिटेड
Damuadhunga, Kathgodam (Nainital)
दमुवाढुंगा, काठगोदाम(नैनीताल)

पत्रांक : ५१६ / डी०जी०एम०-१/पीआईयूजे,

दिनांक:-२६/६/२५

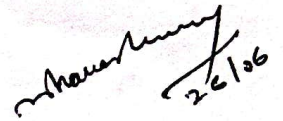
विषय:- UPDCC की ३०वीं बैठक के सम्बन्ध में।

उपमहाप्रबन्धक-२ एवं उपमहाप्रबन्धक-०३, पी०आई०यू० जमरानी, हल्द्वानी।

परियोजना प्रबन्धक-०१, ०२, ०३, ०४, ०५, ए-१ एवं ए-२ पी०आई०यू० जमरानी, हल्द्वानी।

उपरोक्त विषयक यू०पी०डी०सी०सी० की ३० वीं बोर्ड मीटिंग में जमरानी बांध बहुउद्देशीय परियोजना के प्रोजेक्ट मैनेजमेन्ट मैनुअल अनुमोदन के उपरान्त सूचनार्थ प्रेषित है।

संलग्नक-उपरोक्तानुसार


२६/६

(बी०बी० पाण्डे)
उप-महाप्रबन्धक

(28)

UTTARAKHAND PROJECT DEVELOPMENT AND CONSTRUCTION CORPORATION LIMITED
P-IV/15 YAMUNA COLONY, DEHRADUN

Phone No. 0135-2531898



CIN-U45400UR2010SGC033341

Minutes of the 30th Meeting of Board of Directors of Uttarakhand Project Development and Construction Corporation Limited held on Friday, 24th Day of March, 2023 in Chairmanship of Secretary, Irrigation at Secretariat office, Subhash Road, Dehradun.

Present :-

1	Shri Hari Chandra Semwal, IAS Secretary, Irrigation Uttarakhand	Chairman
2	Shri Umesh Pandey, Additional Secretary, Irrigation, Uttarakhand	Director
3	Shri Subhash Chandra	Managing Director

1- Chairman of the Meeting

Shri Hari Chandra Semwal, Chairman of UPDCC was present in the meeting. He presided over the chair and convened the meeting in order.

2- Ascertainment of Quorum

As per Section 174 of the Companies Act, 2013 read with Articles of Association of the Company which requires that minimum one third of total strength of the Directors or two Directors whichever is higher must be present for the meeting to fulfil the quorum.

Since, the Quorum being fulfilled, the Chairman declared the meeting to be in order.

3- Leave of Absence

Smt Sowjanya (DIN: 08074398), Director of the company was granted leave of absence as she could not attend the meeting.

4- 30.01 Confirmation of the minutes of the 29th Board meeting.

No comments were received, therefore the Board confirmed the minutes of the 29th Board Meeting held on Wednesday, 7th Day of December, 2022.

4- 30.02 Action taken report

The Board took note of the Action Taken Report (ATR) of the 29th Board Meeting held on Wednesday, 07th Day of December, 2022.

Item	Agenda	Action taken
29.03 Approval of Draft Directors Reports for the Financial year 2021- 2022.	The Draft Director's Report of the company for the Financial Year ended 31 st Day of March, 2022 was placed before the meeting. The Board may approve the Directors report by passing the following resolution: "RESERVED THAT the draft Directors Report of the company for the financial year ended 31 st Day of March 2022 as placed before the meeting, be and are hereby considered, approved and taken on record by the Board of Directors." "RESERVED FURTHER THAT Mr. Subhash Chandra (DIN: 09743221), the Managing Director of the company be and is hereby authorized to sign the same.	Approved

(28)

UTTARAKHAND PROJECT DEVELOPMENT AND CONSTRUCTION CORPORATION LIMITED
P-IV/15 YAMUNA COLONY, DEHRADUN

Phone No. 0135-2531898



CIN-U45400UR2010SGC033341

29.04 Approval of draft notice of Adjourned Annual General Meeting for the Financial year 2021-2022	The Board of Directors may approve the below mentioned draft Notice of Adjourned Annual General Meeting. The shareholders of Uttarakhand Project Development and Construction Corporation Limited are hereby given notice to attend the Adjourned Annual General Meeting for financial year 2021-2022 to be held on Friday, 30th Day of December, 2022 at 11:30 A.M. at the office of Secretary, Irrigation at Secretariat, Subhash Road, Dehradun to transact the following business: ORDINARY BUSINESS: 1. To receive, consider and adopt the Audited Financial Statements of the Company for the financial year ended March 31, 2022 and the Reports of the Board of Directors and the Independent Auditors and the comments thereupon of Comptroller & Auditor General of India. DRAFT RESOLUTION: "RESOLVED THAT Audited Financial Statement for the Financial Year ended 31st March, 2022, Director's Report, Independent Auditor's Report and comments thereupon of Comptroller & Auditor General of India be and are hereby received, considered and adopted."	Approved
---	---	-----------------

5. 30.03 To take note of the Rehabilitation Policy of Jamrani Dam Multipurpose Project 2022 notified by Government of Uttarakhand.

GM, PIU, Jamrani apprised the Board of Directors the Rehabilitation Policy of Jamrani Dam Multipurpose Project, 2022 duly notified by Govt. of Uttarakhand which shall be useful for running the project smoothly.

The Board of directors considered and took note of the same.

30.04 To approve the Project Management Manual, Jamrani Dam Multi Purpose Project, submitted by GM, PIU, Jamrani

The Project Management Manual, Jamrani Dam Multipurpose Project comprises the planning of implementation, financial management, contract management, R & R implementation plan and performance evaluation and monitoring etc.

The Board of Directors considered and approved the same.

30.05 To consider and approve, opening a current Account of GM, PIU, Song, for PIU (song) in Axis Bank.

The GM, PIU, Song proposes to open a new Current Account in the name of UPDCC Song Dam Drinking Water Project for PIU (Song) by closing the existing Bank account i.e. 3968000100227206 in PNB to ease the Financial transactions related to the Song Dam.

The Board of Directors considered and approved the same.

(13)

UTTARAKHAND PROJECT DEVELOPMENT AND CONSTRUCTION CORPORATION LIMITED
P-19/19 YAMUNA COLONY, DEHRADUN

Phone No. 0135-2931090

UPDCC

CIN:U434000H2010820013341

30.06 To consider and approve opening of a subsidiary account of GM, PIU, Jampurani linked with SNA (Single Nodal Agency) Account for PIU, Jampurani.

Office memorandum of DoE, MoF, Govt for revised procedure for fund flow under Centrally Sponsored Schemes dated 24.03.2022 shall be followed under category Module-2: Implementation through scheduled commercial banks. State has designated E-in-C Irrigation department as Single Nodal Agency which in turn shall open a SNA Account as per G.O. 28713 dated 17.03.2023. PIU Jampurani (Implementation Agency) shall have subsidiary zero Balance account with allocated limits set by SNA from time to time.

The Board considered and approved the same.

30.07 To take note of appointment of Shri Krishna Singh Chauhan, Deputy GM, PIU, Song in Song Dam Drinking Water project.

Shri Krishna Singh Chauhan, Deputy GM, PIU, Song was appointed in Song Dam project w.e.f. 23.02.2023 vide order No. 480 dated 22.02.2023 of Engineer in Chief, Irrigation Department with the approval of Secretary Irrigation, Uttarakhand Government.

The Board of Directors noted and approved the same.

30.08 To take note that Shri V K Maurya, Deputy GM has been relieved from his duties.

Shri V K Maurya, Deputy GM has been relieved from his duties Vide Office Letter Number 31 DATED 04/02/2023 signed under the name of MD, UPDCC.

The Board of Directors noted and approved the same.

30.09 To take note of the appointment of Shri Puroshottam as Deputy GM, PIU, Jampurani.

Vide Engineer-in-Chief, Irrigation Department, Office Order Number 441 dated 21/02/2023 = Shri Puroshottam, Executive Engineer, Irrigation Division, Kashipur has been appointed as Deputy GM, PIU, Jampurani in place of Shri Mohd Javed Anwar, Ex-GM, PIU, Jampurani.

The Board of Directors noted and approved the same.

30.10 Transfer of shares from Shri H C Nautiyal to Shri Krishna Singh Chauhan.

The Board of Directors propose to transfer 1(one) share standing in the name of Shri H C Nautiyal to Shri Krishna Singh Chauhan, as Shri H C Nautiyal has retired from office and Shri Krishna Singh Chauhan is the appropriate officer for holding the share.

The Board of Directors noted and approved the same.

30.11 Transfer of shares from Ex-MD, UPDCC Shri Mukesh Mohan to MD, UPDCC Shri Subhash Chandra.

The Board of Directors propose to transfer 1(one) share standing in the name of Ex-MD, UPDCC Shri Mukesh Mohan to Shri Subhash Chandra, Managing Director of UPDCC, as Shri Mukesh Mohan has retired from office and Shri Subhash Chandra, Managing Director of UPDCC is the appropriate officer for holding the share.

The Board of Directors considered and approved the same.

25

UTTARAKHAND PROJECT DEVELOPMENT AND CONSTRUCTION CORPORATION LIMITED
P-IV/15 YAMUNA COLONY, DEHRADUN

Phone No. 0135-2531898

UPDCC

CIN-U45400UR2010SGC033341

30.12 Transfer of share from Ex-GM, UPDCC Shri Sanjeev Jain to GM, UPDCC Shri Sharad Srivastava,

The Board of Directors propose to transfer 1(one) share standing in the name of Ex-GM, UPDCC Shri Sanjeev Jain to Shri Sharad Srivastava, General Manager, UPDCC, as Shri Sanjeev Jain has been relieved from office and Shri Sharad Srivastava, General Manager of UPDCC is the appropriate officer for holding the share.

The Board of Directors considered and approved the same.

30.13 Discussion for partial payment of compensation for land acquisition for Song Dam Drinking Water Project from remaining sum of Rs.3.94 crores against budget allotment of Rs.6.66 crores for execution of various works during the financial year 2022-23 vide G.O. E-file No. 14018 dated 25-11-2022 of Uttarakhand Government.

Under the chairmanship of Chief Secretary, Uttarakhand Government, an EFC meeting regarding Infrastructure & Development works during pre- construction phase of the project was convened on 03.06.22. Vide MoM No. 858/920/Irrigation/E.F.C/R.M.R/2022, dated 22.06.2022 and accordingly the administrative and financial approval of Rs 120.74 Crores has been granted which also includes prior administrative and financial approval of Rs 39.60 Crores (vide letter no. 1164/11(2)2018-04(11)/2010, dated 18.06.2018). Also, provision of Rs 30.00 Crores had been made under Forest land transfer & Rehabilitation head in administrative & financial approval of Rs 39.60 Crores. A sum of Rs 12.61 Crores is remaining under this head.

During financial year 2022-23, budget of Rs.6.66 Crores for execution of various works during pre-construction phase of the project have been allotted vide G.O. E-file No. 14018 dated 25-11-2022 of Uttarakhand Government. Against this allotment, sum of Rs.2.72 Crores have been provided to Song dam, PIU as per demand letter no. 44 dated 28.01.23 of Office of Managing Director, UPDCC. Thus, a sum of Rs 3.94 Crores is still remaining from the allotted budget.

Further, for private land acquisition in district Dehradun & Tehri Garhwal for the project, preliminary notification under section 11(1) of RFCTLARR Act, 2013 was published on 03.02.21 & 05.03.21 respectively, which was valid for 1 year. Thus, in accordance to section 19(7) of the act, additionally extension of 12 months has been granted vide G.O. E-file No. 45273 dated 30.01.23 of Uttarakhand Government. For publication of Section 19 of Act' 2013, demand of Rs 1.63 Crores & Rs 11.66 Crores for compensation for land acquisition have been raised by SLAO Dehradun & Tehri Garhwal respectively, it is imperative to deposit partial/ full sum against their demand failing to complete the proceeding of section 19(2) may result in repeating the whole process of land acquisition from the beginning. Therefore it is necessary to deposit partial/ full compensation for land acquisition.

Hence, permission to utilize remaining sum of Rs 3.91 Crores from budget allotment to provide partial compensation for land acquisition for the project to SLAO Dehradun & Tehri Garhwal under Forest land transfer & Rehabilitation head is requested.

The Board of Directors discussed the matter at length and decided to increase further the time limit of one year under Section 19(7) of RFCTLARR Act, 2013.

[Signature]
UPDCC
Dehradun

(28)

UTTARAKHAND PROJECT DEVELOPMENT AND CONSTRUCTION CORPORATION LIMITED
P-IV/15 YAMUNA COLONY, DEHRADUN

Phone No. 0135-2531898



CIN-U45400UR2010SGC033341

30.14 To Consider and Approve, dual charge of Irrigation Department Uttarakhand staff for execution of Jamrani Dam Multipurpose Project.

The following staff may be approved for dedicated dual charge against sanctioned & vacant posts in the Nigam for PIU, Jamrani as per GO. 1375 (I) dated 07-09-2020

S.no.	Designation	Recommended employee for dual charge	Present Office Name
1	Assistant Project Manager	1- Shri Harish Chandra Sati, AE 2- Shri Yogesh Chandra Kandpal, AE	1- I.D. Rudrapur 2- I.D. Bageshwar

The Board of Directors considered and approved the same.

30.15 To Initiate the process for starting works under the head K-Building (Residential and Non-Residential) within the approved cost of Rs. 33.89 Crores.

The Board was apprised of the fact that there is requirement of buildings for execution of the project under sub head K-Building which includes buildings for all units including electrical/mechanical work. Building may be classified into residential buildings and non-residential buildings. Residential buildings will be provided for all officers and staff engaged on site of work as necessary. Non-residential building shall include office building, testing laboratory, rest house and field hostel, stores and shades, pump house, fire stations, community center, canteens, etc. Two separate detailed estimates for residential and non-residential buildings have been prepared within the financial allocations of the DPR under sub head K-Building.

The Board of Directors discussed and suggested that High Rise Buildings be made in future in order to reduce the space likely to be used for making the buildings. The Board of Directors also suggested to renovate the existing buildings to utilize the same under sub head K-Building.

6. Vote of Thanks

There being no other business to transact, the meeting was concluded with a vote of Thanks to the Chairman and other participants to the meeting.

The Chairman announced the summary of the decisions taken in the Meeting and that all the decisions were approved unanimously by the Directors present in the meeting.

Date of Entry:

Place:


Managing Director
UPDCC Ltd.
Dehra Dun.


Chairman

Approved in 30th meeting of Board of
Directors of UPDCC Ltd. on 24-03-20
It is being issued in April 2024 with
update as per latest approvals & MoUs

PROJECT MANAGEMENT MANUAL FOR JAMRANI DAM MULTIPURPOSE PROJECT UNDER PMKSY-AIBP (MAJOR)

APRIL 2024

PROJECT IMPLEMENTATION UNIT JAMRANI
UPDCC AND PROJECT DEVELOPMENT AND CONSTRUCTION CORPORATION JAMRANI
COLONY, DAMIYADHUNSA, KATHGODAM, HALDWANI-263139

Contents

ABBREVIATIONS	5
CHAPTER 1. PROJECT DESCRIPTION.....	5
1.1 RATIONALE	5
1.2 OUTPUTS	6
CHAPTER 2. IMPLEMENTATION PLANS	7
2.1 PROJECT CLEARANCES	7
TABLE 1: PROJECT CLEARANCES	7
2.2 INTER STATE MOU	8
TABLE 2: WATER SHARING AS PER MOU	8
2.3 PROJECT FUNDING	9
2.6 IMPLEMENTATION PLANS.....	9
2.7 TREE DIAGRAM OF IMPLEMENTING AUTHORITY.....	11
CHAPTER 3. PROJECT MANAGEMENT ARRANGEMENTS	12
3.1 PROJECT IMPLEMENTATION ORGANIZATIONS: ROLES AND RESPONSIBILITIES	12
3.1.1 PIU JAMRANI.....	12
TABLE 4: SANCTIONED POSTS IN PIUJ.....	12
CHAPTER 4. COSTS AND FINANCING	15
4.1 COST ESTIMATES PREPARATION AND REVISION.....	15
4.2 DETAILED COST ESTIMATES HEAD WISE.....	15
TABLE 5: DETAILED COST ESTIMATES HEAD WISE.....	15

DETAILED COST ESTIMATES BY YEAR	16
TABLE 6: FINANCIAL SCHEDULE, JDMP	16
TABLE 7: PHYSICAL PROGRESS SCHEDULE, JDMP (PERCENTAGE).....	17
CHAPTER 5. FINANCIAL MANAGEMENT	18
5.1 FINANCIAL MANAGEMENT ARRANGEMENTS.....	18
5.2 FUND FLOW.....	18
5.3 INTEGRATION WITH PFMS.....	19
5.4 ACCOUNTING AND AUDIT OF UPDCC LTD.....	19
CHAPTER 6. PROCUREMENT AND CONSULTING SERVICES	22
6.1 PROCUREMENT PLAN.....	22
TABLE 8: IMPLEMENTATION TIMELINES FOR PACKAGE 1-DAM COMPONENT.....	23
TABLE 9: GANTT CHART FOR DAM COMPONENT	24
TABLE 10: IMPLEMENTATION TIMELINES FOR INFRASTRUCTURAL WORKS	25
TABLE 11: GANTT CHART FOR INFRASTRUCTURAL WORKS	25
TABLE 12: IMPLEMENTATION TIMELINES FOR IRRIGATION CANAL COMPONENT	25
TABLE 13: IMPLEMENTATION TIMELINES FOR IRRIGATION CANAL COMPONENT	26
CHAPTER 7. R & R IMPLEMENTATION PLAN.....	27
TABLE 16: IMPLEMENTATION TIMELINES FOR RESETTLEMENT SITE DEVELOPMENT WORKS	28
TABLE 17: GANTT CHART FOR RESETTLEMENT SITE DEVELOPMENT WORKS	28
7.1 HEAD WISE ALLOCATION AND EXPENDITURE.....	29
TABLE 18: BUDGETARY PROVISIONS FOR R&R OF DAM & RESERVOIR COMPONENT	29
7.2 YEAR WISE ALLOCATION	30

CHAPTER 8. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION	
8.1 PROJECT DESIGN AND MONITORING FRAMEWORK	31
8.2 MONITORING OF WORKS AND QUALITY ASSURANCE	32
FIGURE 1: PROJECT MONITORING ARRANGEMENT	32
8.3 QUALITY CONTROL	32
FIGURE 2: QUALITY CONTROL	32
FIGURE 3: ENVIRONMENTAL AND SOCIAL SAFEGUARDS MONITORING OF THE PROJECT	33
8.4 EVALUATION	33
8.5 REPORTING	33
CHAPTER 9. RECORD OF CHANGES TO THE PROJECT MANAGEMENT MANUAL	35
CHAPTER 10. DELEGATION OF POWERS	35
REFERENCES	37

ABBREVIATIONS

1.	AIBP	Accelerated Irrigation Benefit Program
2.	APM	Assistant Project Manager, PIU Jamrani
3.	BoD	Board of Directors
4.	CA	Chartered Accountant
5.	CCEA	Cabinet Committee on Economic Affairs, Govt of India
6.	CWC	Central Water Commission
7.	CWC D&R	Central Water Commission Design and Research
8.	DoE	Department of Expenditure, Govt of India
9.	DoWR RD&GR	Department of Water Resources River Development and Ganga Rejuvenation
10.	DPR	Detailed Project Report
11.	GM & HO	General Manager & Head of Office, PIU Jamrani
12.	GST	Goods and Sales Tax
13.	DGM	Deputy General Manager, PIU Jamrani
14.	EC	Environmental Clearance
15.	EIA/EMP	Environmental Impact Assessment/ Environmental Management Plan
16.	E-in-C	Engineer -in-Chief of Irrigation Department Uttarakhand
17.	EPC	Engineering, Procurement and Construction
18.	GoUK	Govt of Uttarakhand
19.	HPC	High Power Committee
20.	MPR	Monthly Progress Report
21.	MD	Managing Director, UPDCC
22.	MDC	Multi-Disciplinary committee
23.	NIC	National Informatics Centre
24.	NOC	No Objection Certificate
25.	NP	National Projects
26.	NTCA	National Tiger Conservation Authority
27.	PIB	Public Investment Board, Govt of India
28.	PFMS	Project Financing Management System
29.	PM	Project Manager, PIU Jamrani
30.	PMC	Project Management Consultant
31.	QCBS	Quality cum Cost-Based Selection
32.	QPR	Quarterly Progress Report
33.	RC	Retainer Consultant
34.	R&D	Research and Development
35.	R&R	Rehabilitation & Resettlement
36.	RFCTLARR	Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement
37.	TAC	Technical Advisory Committee
38.	TDS	Tax Deducted at Source
39.	T&P	Tools & Plants
40.	UID	Uttarakhand Irrigation Department
41.	UJVNL	Uttarakhand Jal Vidyut Nigam Ltd.
42.	UPDCC	Uttarakhand Project Development and Construction Corporation Ltd.
43.	1S2E	Single Stage Two Envelope

CHAPTER 1. PROJECT DESCRIPTION

1.1 Rationale

1. The objective of the project is to utilize the water resources of Gola River by constructing a 150.60 meters high concrete gravity dam on Gola River upstream of existing Gola barrage, located about 10 Km upstream of Kathgodam in Nainital district of Uttarakhand for providing irrigation benefits to additional 57065 ha of command area located in Uttarakhand and UP and to meet the drinking water needs of the ever- increasing population of Haldwani, which faces acute water crisis during summermonths. This project shall provide 42.70 MCM drinking water annually to population of Haldwani city.
2. Investigations for the proposed Jamrani Dam project on the Gola River in Uttarakhand, were initiated in the 1970s, with the project sanctioned by the Planning Commission in 1975. Studies continued intermittently over the following decades, with the selection of a concrete gravity dam type and an associated DPR being prepared by the Uttarakhand Irrigation Department (UKD) in 2005. On the basis of various comments, observations and additional studies, an updated DPR was prepared and the same was approved by CWC in February 2019. Most of the clearances regarding the project have been obtained from various ministries/departments of Govt.
3. **Need for Irrigation:** Bhabar area depends entirely on Gola canal taking off from a weir constructed at river Gola near Kathgodam both for irrigation & domestic use. Tarai & Gangetic areas are fed by canal systems taking off from rivers Baur, Bhakra, West Baigul, Nahal & others. Irrigation has further been supplemented by construction of Baur- Haripura & Dhaura storage reservoirs across main rivers in the area. Except for areas served by these storage reservoirs, irrigation is met by temporary head works & there is always uncertainty & difficulty in diverting the flows, especially during monsoons resulting in wastage of bulk of discharge.
4. The Department of Irrigation & Drainage Engineering College of Technology G.B. Pant University of Agriculture & Technology, Pantnagar carried out a final study entitled "Assessment of possible changes in existing cropping pattern and available waterresources in the command area after construction of Jamrani Dam" in May 2010. The results of the study carried out in respect of the proposed cropping pattern on the basis of present resources and cropping pattern; and considering the scenario of post dam construction period are available in DPR of Jamrani Drinking Water MultipurposeProject. Based on this study the proposed cropping pattern has been reviewed. The existing and proposed cropping pattern in Bhabar, Tarai, and Gangetic sub-regions of Jamrani Dam Command show that area of high-water consuming crops like paddy, wheat and sugarcane have been reduced whereas area of less water consuming cropslike maize, soyabean, lahi/sarson and pea are increased in the proposed cropping pattern. The existing cropping area, proposed cropping area and total CCA (Culturable Command Area) of Bhabar, Tarai, and Gangetic sub-regions is 238317 ha, 295382 ha and 150027 ha respectively. The irrigation intensity of Bhabar, Tarai, and Gangetic sub-

regions of Jamrani Dam Command after construction of Jamrani Dam shall increase from 158.84 % to 196.88 %.

5. **Drinking Water Requirements:** As mentioned in preceding paras the project has provisions for supplying 42.70 MCM drinking water annually to Haldwani town. Haldwani also called the Gateway of Kumaon has seen tremendous increase in urbanization over the past decades. People from hills of Kumaon migrate to the town for want of better education and health facilities. As a result, ground water has been exploited to alarming levels to fulfill the drinking water needs of ever-increasing population. This has resulted in the Haldwani block being categorized to semi critical zone by Central Ground Water Board. Urgent need is thereby being felt to explore alternate means of meeting the drinking water needs of the town. The project will cater to drinking water requirements of 10.65 lacs population of Haldwani projected for year 2051.
6. **Project Location:** Index Map showing location of dam sit. The latitude & Longitude of Dam site are 29°16'15" N and 79°36'36" E respectively. The dam & all appurtenant works are located in the foothills of Himalayas about 10 Kms upstream of Gola Barrage at Kathgodam in district Nainital. The project structures, including the reservoir area, lies in Nainital district of Uttarakhand.

1.2 Outputs

7. The Jamrani Dam Project was planned for implementation in two phases. Under Phase-I, construction of Gola barrage together with 40.5 Km length of canal system and renovation of about 244 Km long canal system was completed in 1981. At present Golawar Canal and Golapar Canal emerging out from Gola barrage are providing total irrigation in CCA of 12541 ha. Under phase-II, construction of Jamrani dam is proposed so as to provide augmentation storage for Gola barrage. As a consequence of construction of Jamrani dam, additional irrigation to 57,065 ha (9,458 ha in Uttarakhand and 47,607 ha in UP) is proposed. The dam proposes a live storage of about 142.72 MCM out of which about 42.7 MCM will be utilized for meeting the drinking water requirements for the projected population of 10.65 Lakh in year 2051.
8. An indirect benefit like industry & market centers will be developed leading to generation of more employment. Fresh water fish have always attracted markets, not only because of their taste, but also their nutritive value. The dam will have 4.28 sq. km of water spread at full pond level exposing its expansive potential of large scale pisciculture. Besides, the Jamrani lake will also serve as a great tourist attraction. Development of backward areas is one of the priority programs. By the construction of Jamrani dam employment & improvement in the living standard of the local people is expected.

CHAPTER 2. IMPLEMENTATION PLANS

9. Plans for implementation of various project components have been described in this chapter. As the project has been referred to GoI for funding significant developments with regard to the project comprising the project clearances, inter-state matters and project funding aspects have also been discussed briefly before description of implementation plans.

2.1 Project Clearances

10. Project has received almost all statutory clearances required for implementation. A list of clearances accorded to the project is detailed below:

Table 1: Project Clearances

S No	Agency/ Ministry	Clearances Obtained	Date of Clearance
1.	Planning Commission	Administrative approval	05.05.1975
2.	Central Water Commission	Seismic Analysis	02.12.2009
3.		Hydrology	01.03.2011
4.		Irrigation Planning	05.07.2012
5.	Central Water Commission	Dam Design	07.01.2013
6.		Hydel Civil Design	10.05.2013
7.		Gate Design of Dam	16.05.2013
8.		Construction Machinery	07.06.2013
9.		Inter State Matters	25.05.2018
10.		Project Cost Approval	04.02.2019
11.		B.C Ratio	09.02.2019
12.		TAC of the Project	18.02.2019
13.	Central Electricity Authority	Power Potential Studies	07.12.2012
14.		BoQ E&M Works	21.11.2014
15.		Costs E&M Works	06.11.2018
16.	DoWR RD&GR, RD & GR	CSMRS	23.07.2007
17.		International Clearance/JRC Angle	29.11.2018
18.	NGO Division, Ministry of Tribal Affairs, GOI	ST Population under R&R	17.04.2008
19.	MoEF& CC	Forest Stage I	25.04.2018
20.		Forest Stage II	16.01.2023
21.		Environmental Clearance	13.12.2019
22.		Willd Life Clearance regarding NOC from NTCA	30.01.2024
23.	NMCG	E Flow	17.12.2019
24.	State Govt Uttarakhand	State Finance Concurrence	01.11.2019
25.	Inter – state matters on MOU	Inter – state matters-2 Dte., CWC, GOI	25.05.2018

26.	Drinking water and Sanitation	Ministry of Jal Shakti	29.11.2019
27.	NOC from MNRE	Ministry of New & Renewable Energy, GOI	05.12.2019
28.	PPR from MoHUA	Ministry of Housing & Urban Affairs, GOI	16.12.2019
29.	Investment clearance to revised cost estimate at 2018 PL	State Project Wing , Water Resource, RD & GR, Ministry of Jal Shakti	30.06.2022
30.	Financial Approval under PMKSY-AIBP	Cabinet Committee on Economic Affairs, GoI	25.10.2023
31.	State Govt Uttarakhand	Administrative and financial approval of revised estimated cost of Jamrani Dam Project.	13.03.2024

2.2 Inter State MoU

11. The project derives assured 42 MCM annual volume of drinking water for feeding the drinking water requirements of Haldwani city and majority of its benefits with provisions of irrigation in additional area of 57065 ha in states of Uttarakhand and UP. Detailed assessment of irrigation water requirements for regions of Uttarakhand and UP and subsequent approvals by CWC for cropping patterns and project hydrology have resulted in assessment of irrigation requirements for both states as presented in Table 2.2(a). As prior to according TAC for the project CWC had mandated an inter-state MoU detailing sharing of irrigation water and project costs a MoU for the same was signed between two states in year 2018 after much deliberations. The MoU stipulates the irrigation requirements as well as the criteria for sharing of project costs as presented in Table 2.2(b) below.

Table 2: Water sharing as per MOU

Water sharing as per MoU			
Proportion of Irrigation Water Requirement of UP & Uttarakhand			
Description	Uttarakhand	UP	Total
Irrigation Water Demand (in MCM)	180.26	236.03	416.29
% age	43	57	100

Table 3: Cost sharing as per MoU

Description	Amount in INR Crores
<u>Cost of Project as per 2015 price level</u>	2350.56
A. Cost of Unit-I works	2085.56
B. Cost of distribution works in Uttarakhand	155.63
C. Cost of Power plant, Civil works	109.37
<u>Breakup of Costs b/w Urban development, Irrigation & Power Sector as per State Planning Commission</u>	

i. Urban Development sector 25% of A above	521.39
ii. Irrigation sector 50% of A plus 100% of B above	1198.41
iii. Power Setor 25% of A plus 100% of C above	630.76
Total	2350.56
Cost Share of UP	
57% of Item ii. – B above 57% of (1198.41 – 155.63)	594.38

Note: Costs sharing shall be revised as per cost of revised project at the time of completion

2.3 Project Funding

2.4 Investment Clearance: The Government of India had accorded investment clearance to the project in 17th Meeting of Investment Clearance Committee (ICC) held under Chairmanship of Secretary, DoWR RD&GR, Gol on 10th June 2022. The project has also been recommended for appraisal by PIB, DoE, Gol and subsequent funding approval by CCEA, Gol in 04th Screening Committee meeting of DoWR, MoJS, Gol on 18th Oct 2022.

2.5 Funding Assistance: Proposal for funding of the project under revised guidelines for medium and major irrigation projects issued by DoWR RD&GR, Gol in Feb 2022 under PMKSY-AIBP was taken up for consideration in 04th meeting of the Screening Committee of DoWR RD&GR held in Oct 2022. The Committee recommended appraisal of the project by PIB, Gol and subsequent approval by CCEA under PMKSY-AIBP. Consequently, financial assistance under PMKSY-AIBP for the project has been accorded by CCEA, Gol in proportion of 90:10 amounting to central assistance of INR 1557.18 Cr for project cost of INR 2584.10 Cr at May 2018 on 25th Oct 2023. Project has been awarded its financial and administrative approval of recommended (by TAC planning, Irrigation Department Uttarakhand) revised cost of Rs 3808.16 (Rs 3678.23+ Rs 129.93) by Uttarakhand government.

2.6 Implementation Plans

12. Main Dam: The main dam is proposed to be tendered for Item rate contract as per prevailing contracts with respect to similar works in the State. It comprises construction of a 150.6 m high concrete gravity dam with appurtenant structures. The dam shall have 17 non overflow blocks and 05 overflow blocks. All blocks except the 2 nos overflow blocks carrying surface spillway and right embankment block shall be of 18 m wide and varying depths. Overflow blocks carrying surface spillway and right embankments will be of 20 and 16 m width respectively. The overflow blocks shall house five spillway gates of 8 m (W) x 10 m (H) and one surface spillway of size 4.0 m (W) x 4 m (H). Two penstocks of 1.7 m dia shall supply water for power generation. Up gradation of existing approach road 8.1 km in length from single lane (3.75 m width) to intermediate lane (5.5 m) shall also be carried out under main dam work. A Project Management

Consultant (PMC) shall be hired under QCBS method for support in bidding and evaluation of Dam contract as well as during execution of the dam component. Forest land required for dam construction has already been transferred to the project. Private land acquisition for the reservoir component is currently under acquisition and is planned to be carried out in parallel to dam construction. The affected population shall be entitled for compensation as per the entitlement matrix developed for the Dam and Reservoir Component in projects R&R Policy.

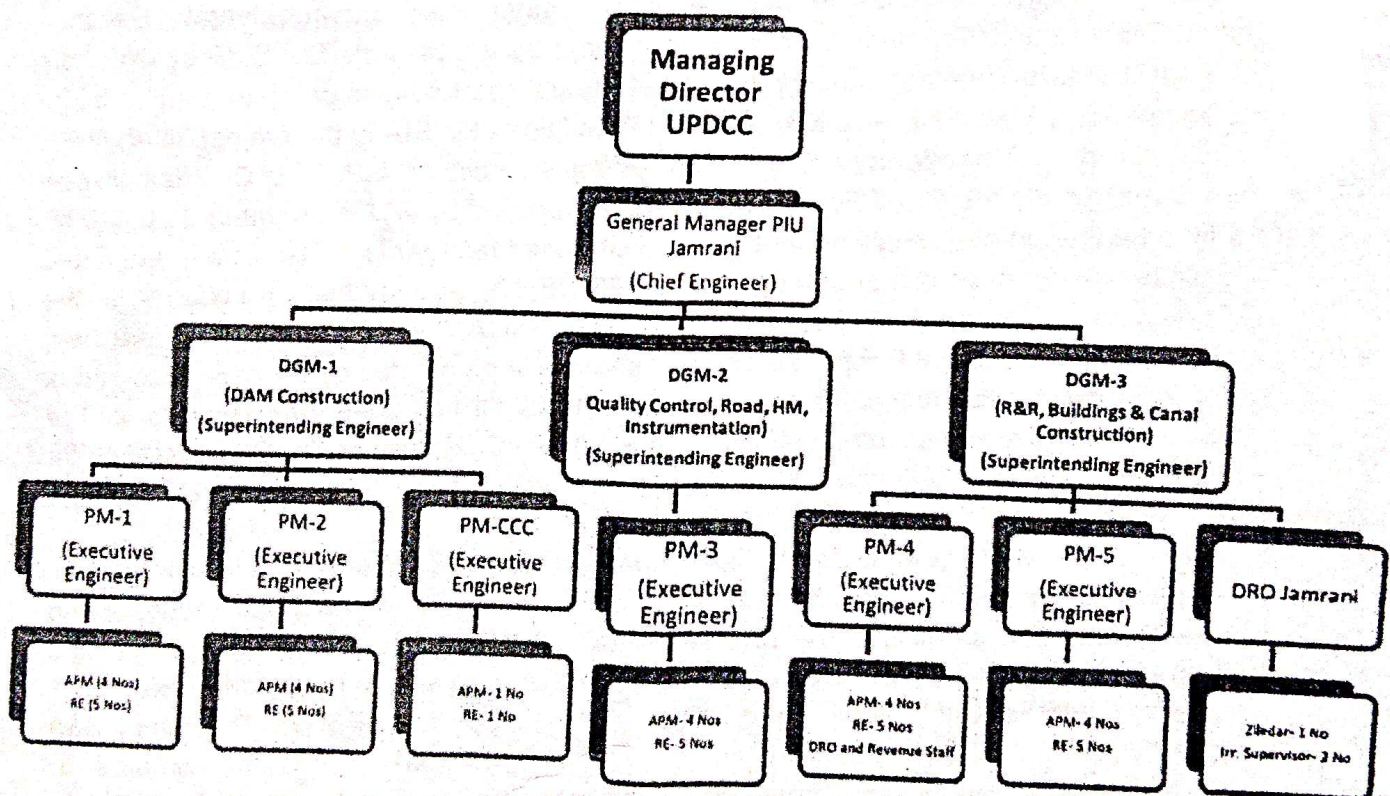
13. Irrigation Canals Component: Construction of new canals, renovation and remodeling of existing canals under this component. 1S2E method shall be adopted for taking up various canals under the component. Existing canals do not require any land acquisition. However, forest land transfer is being carried out for construction of new canals. Affected families for the component shall be compensated as per the entitlement matrix developed for the component in project R&R Policy.
14. Infrastructural Works: Construction of project offices, renovation of residential and non-residential buildings shall be carried out under the component using 1S2E method of tendering.
15. Forest Clearance and Environmental Management Plan: Environmental clearance conditions compliance shall be closely monitored by the project. The EMP costing INR 19.70 Cr shall be implemented by the State Forest Department as per details on Wild Life Conservation Plan, Fisheries Management Plan laid out in EIA of the project. In addition, Tiger Corridor Management Plan at an estimated cost of INR 2.70 Cr shall also be implemented by the State Forest Department approved by NTCA on dated 30.01.2024. Fisheries Department shall implement the Fisheries Management Plan at an estimated cost of INR 2.10 Cr. An amount of INR 88.95 CR has already been transferred to the State Forest Department for CA, SMC, NPV & CAT in year 2019. In addition, Corporate Environment Responsibility Plan shall be implemented by the project as part of EC conditions compliance. An amount of INR 12.92 Cr has been earmarked for it. The recommended activities which shall be carried out in CER, are infrastructure creation for drinking water supply, sanitation, health, education, skill development etc. as per EIA/EMP plan for the project.

Muck Disposal: A quantity of 14 lakh cum has been estimated for dam excavation. Approximately 20-25%, shall be required to be disposed. For its disposal, about 3.33 ha area have been identified. The proposed muck disposal sites are located on the right bank of Dam axis (approx. 2.535 km away from the dam axis at right side of river) DS1 (29°17'168IN, 79°36'5805E and DS2 (29°17'21.69N, 79°36'35'5'E) and DS3 (29°17'25.59"N 79'3629.25E). An amount of INR 434.25 lakh has been estimated for muck disposal plan including connectivity and making of muck dumping sites with safety measures.

Solid waste management plan: The project will adopt a systematic approach for solid waste collection and disposal during construction and operational phase of the project. Solid waste generated from the project will be collected properly and will be managed as per Solid Waste Management Rule, 2016. This will include solid waste from labor

- colony & at construction site, municipal waste from residential staff colony etc. Cost estimate for solid waste and wastewater management is INR 0.80 Crore.
16. R&R Implementation: The project specific R&R policy framed after widespread consultations with affected families and other stakeholders shall be guiding document for implementation of R&R program. About 226 severely impacted families by the dam component and requiring relocation shall be relocated at a location about 50 Km from existing settlements. Detailed project specific R&R Policy has been developed in consultation with affected families. The affected families shall be entitled to compensation in accordance to entitlement matrix developed for respective project components.

2.7 Tree Diagram of Implementing Authority



CHAPTER 3. PROJECT MANAGEMENT ARRANGEMENTS

3.1 Project Implementation Organizations: Roles and Responsibilities

17. UPDCC was formed by GoUK in year 2010 under UID for providing consultancy and specific construction services in civil engineering viz. fabrication and erection of structures for installation of hydropower units, civil structures etc.
18. In Sept 2020 GoUK has constituted Project Implementation Unit Jamrani (PIUJ) under UPDCC for planning and implementation of Jamrani Dam Multipurpose Project. By the said government order posts have also been sanctioned for PIUJ by way of service transfer from UID as well as outsourcing.
19. GoUK acting through Uttarakhand Project Development and Construction Corporation Ltd. (UPDCC), the project executing agency shall be responsible for overall strategic guidance and for project management, supervision, and project implementation.
20. In addition to PIU Jamrani which shall be responsible towards the Dam and Irrigation Component of the Project will be awarded as per Clause 13.

3.1.1 PIU Jamrani

21. PIU Jamrani will be headed by General Manager (Chief Engineer level) supported by three Deputy General Managers (Superintending Engineering level) and five Project Manager (Executive Engineer level). Posts sanctioned under PIUJ for timely implementation of the project are detailed in table below:

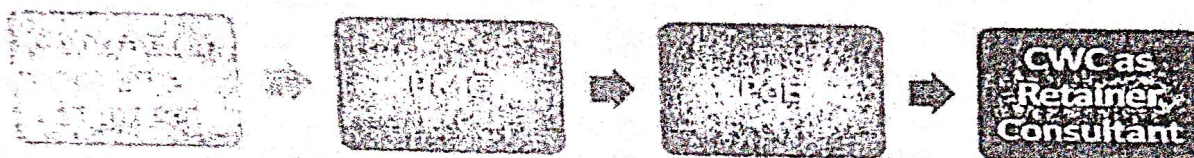
Table 4: Sanctioned Posts in PIUJ

Sl No	Name of Post	No of sanctioned posts	Remarks
By way of service transfer from UID			
1	General Manager	01	Chief Engineer level and PIU head
2	Deputy General Manager	03	Superintending Engineer Level
3	Project Manager	05	Executive Engineer level
4	Assistant Project Manager	21	Assistant Engineer level
5	Regional Engineer	26	Junior Engineer/Additional Assistant Engineer level
6	Deputy Revenue Officer	01	
7	Zileadar	01	
8	Irrigation Supervisor	02	
9	Head Assistant	04	
10	Junior Assistant	08	
11	Work Supervisor	10	
	Total	82	

SI No	Name of Post	No of sanctioned posts	Remarks
By way of Outsourcing			
1	Environment Expert	01	
2	Social Expert	01	
3	Economic Expert	01	
4	Technical Expert	01	
5	MIS Specialist	01	
6	Documentation Expert	01	
7	Accounts Officer	01	
8	Accounts Assistant	01	
9	Data Entry Operator	05	
	Total	13	

22. **Project Management Consultant (PMC):** PMC shall support PIU Jamrani for contract management, Review of detailed design and technical reports/design/Plans/Methodology submitted by Contractor, quality control, monitoring the progress, measurement of the work done and making payment to the contractors, etc. under respective project components, coordination with Retainer Consultant. PMC will comprise experienced Owners Engineers, Environment Expert and Geologist.
23. **Reviewer Consultant (RC) :** CWC D&R wing will be hired as Review Consultant for periodic monitoring of construction activities and detailed review/vetting of construction designs, drawings of the civil components of the Project provided by the UPDCC Engineers & PMC from start of the project to its completion.
24. **High Power Committee (HPC):** A committee already constituted under the chairmanship of Chief Secretary of Uttarakhand shall have full powers on administrative and financial matters related to the project. The committee will provide strategic guidance and oversee the implementation of the project, facilitate and resolve critical project implementation issues, interdepartmental coordination, and provide guidance to the executing and implementing agencies.
25. **Panel of Experts:** Panel of Experts (PoE) will be a technical committee to be constituted for taking decisions on technical matters during implementation of dam component. The committee shall comprise of—
- | | |
|---|----------|
| 1. Engineer-in-Chief, Irrigation Department | Chairman |
| 2. Managing Director, UPDCC | Member |
| 3. General Manager, PIUJ | Member |
| 4. Respective DGM, PIUJ | Member |
| 5. PMC | Member |
| 6. Representative Engineer of Contractor | Member |

26. Procedure for approval of site specific technical decisions which have financial implications (less than 1 Cr) during construction will be decided by PIU Jamrani on recommendations of PMC. It should be decided within one week of flagging of the issue.
27. Procedure for approval of site specific technical decisions which have moderate financial implications (between 1-10 Cr) during construction will be decided by Panel of Experts (PoE) and should be decided within 15 days after flagging of the issue.
28. Procedure for approval of site specific technical decisions which have substantial financial implications (>10 Cr) during construction will be decided by Review Consultant and should be decided within a month after flagging of the issue.



29. **Resettlement and Rehabilitation Committee:** A committee headed by District Magistrate, Nainital shall monitor the implementation and monitoring of R&R activities for the project. The said committee is required to be framed by the State Govt in compliance to provisions of Section 45 of RFCTLARR Act 2013. The Rehabilitation and Resettlement Committee shall include, apart from officers of the appropriate Government, the following members, namely:— (a) a representative of women residing in the affected area; (b) a representative each of the Scheduled Castes and the Scheduled Tribes residing in the affected area; (c) a representative of a voluntary organization working in the area; (d) a representative of a nationalized bank; (e) the Land Acquisition Officer of the project; (f) the Chairpersons of the panchayats or municipalities located in the affected area or their nominees; (g) the Chairperson of the District Planning Committee or his nominee; (h) the Member of Parliament and Member of the Legislative Assembly of the concerned area or their nominees; (i) a representative of the Requiring Body; and (j) Administrator for Rehabilitation and Resettlement as the Member-Convenor.
30. **Resettlement Authority:** To provide legal relief to affected families from the project on matters pertaining to their rehabilitation and resettlement, a Land Acquisition, Rehabilitation and Resettlement Authority shall be established in accordance to provisions of Chapter VIII of RFCTLARR Act 2013. A district level judge shall head the authority and decision of the authority on matters of R&R shall be binding and conclusive on all parties.
31. **Cost Control Cell:** As recommended in guidelines for preparation of river valley projects an independent cost control cell shall be set up for keeping continuous track on actual costs and suggest measures for effective savings. The cell shall also update the cost estimates at regular intervals. Cost Control Cell shall be headed by 01 Project Manager who shall be assisted by 01 Assistant Project Managers, 01 Regional Engineer and 01 clerical staff.

CHAPTER 4. COSTS AND FINANCING

4.1 Cost Estimates Preparation and Revision

32. The cost estimates were prepared based on the detailed project report, where available, and other relevant details of subprojects. The cost estimate model was prepared using Microsoft Excel and is available with PIU.

An updated DPR after carrying out additional studies in compliance to various observations of CWC was prepared and project costing INR 2584.10 Crore at May 2018 price levels was approved in 141st Advisory Committee meeting of CWC in Feb 2019. Project has been awarded its financial and administrative approval of recommended (by TAC planning, Irrigation Department Uttarakhand) revised cost of Rs 3808.16 (Rs 3678.23+ Rs 129.93) by Uttarakhand government.

33. The project shall be funded under PMKSY-AIBP scheme for major and medium irrigation projects in proportion of 90:10 as Central and State share respectively. State Government has already incurred expenditure of INR 129.92 Cr till Nov 2023 towards project activities.

4.2 Detailed Cost Estimates Head Wise

34. Detailed cost estimate for balance works for the project prepared in accordance to guidelines for river valley projects by CWC has following provisions for various sub heads

Table 5: Detailed Cost Estimates Head Wise

S. No	Project Component	Cost (in INRCr)	Remarks
1.	Preliminary	5406.28	Costs towards PMC, Consultancy, Surveys, trainings, testing, hydraulic models, project printing, inspections are included. Salary & Other Office Expenses
2.	Land, Resettlement and Rehabilitation Expenses	60475.38	Cost for Land acquired as per proposed policy, development of resettlement colony for displaced families, R & R assistance for project affected families
3.	Construction of Dam and its appurtenant	249426.14	Cost of main dam and appurtenant works. Costs include Diversion Tunnel & Cofferdams.
4.	Residential and Non-Residential Building at Jamrani Colony, Damwadhunga and Amritpur Colony	4061.13	Provisions for residential and nonresidential building
5.	Canal Works related to Dam	37155.68	Provisions comprise land acquisition costs for submergence area and proposed Jamrani & Tarai

			FeederCanals. Costs for acquiring affected land of submergence area and compensations.
6.	Jamrani-Amritpur Motor Road and other service roads	3130.11	Amritpur Jamrani Motor Marg 8.6 km, new road in reservoir area & left bank at d/s of dam, maintenance of roads
7.	Environment and Ecology	5307.25	A sum of bio-diversity conservation plan, fisheries management plan, reservoir rim treatment, muck management plan, disaster management plan, public health delivery plan, sanitation and solid waste management plan etc.
8.	Miscellaneous Expenses	2861.96	Includes provisions for T&P, Plantations, Losses on Stock, Indirect Charges.
	Total	3678.23	A sum of INR 129.92 Cr has been expended till Nov 2023 for the project.

4.3 Detailed Cost Estimates by year

35. Yearly estimates on financial and physical progress schedules for the project have been presented in Tables 6 & 7 below:

Table 6: Financial schedule, JDMP

Description	Cost (in INR Cr)	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Jamrani Dam and Appurtenant works	3678.23	201.34	700	800	850	850	276.89
Cummulative Annual %age		-	20	45	70	90	100

Table 7: Physical Progress schedule, JDMP (percentage)

Sl No	Project Component	2024-25	2025-26	2026-27	2027-28	2028-29
1	Approach Roads/Buildings	100%	-	-	-	-
2	Dam Diversion Works					
(i)	Excavation of diversion tunnels	100%	-	-	-	-
(ii)	Lining/Concreting of Diversion Tunnels (including portals)	100%	-			
(iii)	Coffer Dams	100%	-	-	-	-
3	Dam & Appurtenant Works					
(i)	Stripping Foundation & Abutment	50%	50%	-	-	-
(ii)	Curtain/Consolidation Grouting	10%	40%	40%	10%	
(iii)	Concreting	10%	30%	30%	30%	-
(iv)	Sluices Construction		40%	50%	10%	-
(v)	Fabrication & Fixing of Gates				80%	20%
(vi)	Control Structures			30%	40%	30%
4	Remodeling of Existing Channels & Construction Of New Channels	20%	25%	25%	30%	-

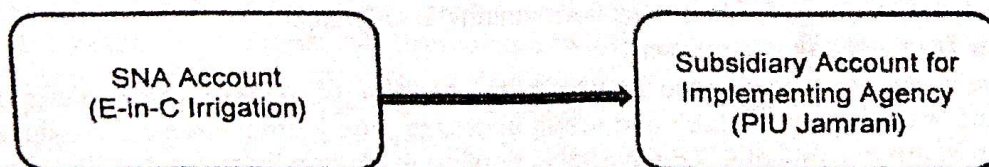
CHAPTER 5. FINANCIAL MANAGEMENT

5.1 Financial Management Arrangements

36. UPDCC's financial arrangement structure comprises of an overall account unit for all project components headed by Chartered accountant. The CA shall be supported by an Accounts Officer and Account Assistant hired by way of outsourcing. Clerical establishment of PIUJ shall support the above unit in financial management with regard to the project.
37. The financial management procedures and auditing and public disclosures shall be followed in accordance with General Financial Rules (GFR) 2017 of GoI and Financial Handbook Volume I to Volume VI, Procurement Rules and approved Delegation of Powers UPDCC.

5.2 Fund Flow

38. Office memorandum of Department of Expenditure, Ministry of Finance, Govt of India for **Revised procedure for flow of funds under Central Sector Schemes** dated 24.03.2022 shall be followed under category *Model-2 : Implementation through scheduled commercial banks.*
39. State shall designate a Single Nodal Agency (SNA) which in turn shall open a Single Nodal Agency Account in a Scheduled Commercial Bank which is E-in-C Irrigation Department.
40. PIU jamrani under UPDCC, the implementing agency for the project shall be designated as Sub Agency (SA). PIU Jamrani shall use SNA's account with clearly defined drawing limits set for SNA's account.
41. To begin with PIU jamrani shall have subsidiary zero balance account with allocated limits set by SNA from time to time. The subsidiary accounts shall draw on real time basis from SNA account as and when payments are to be made to vendors, beneficiaries etc.
42. Additional subsidiary accounts shall be decided during course of project for R&R works.
43. The schematic fund flow shall be as below:



5.3 Integration with PFMS

44. In accordance with the Implementation Strategy for Central Assistance to State Plan (CASP), following activities shall be monitored and supported by State NIC Technical Nodal Officer who shall keep a coordination between PFMS and State Implementing Agency:
- State Treasury Integration with PFMS
 - Registration of PIU, Jamrani on PFMS (1st level & below)
 - Mapping of State Schemes with corresponding central schemes
 - Configuration of State Schemes on PFMS
 - Configuring State Scheme Components
 - Identify and configure hierarchy of each state scheme
45. Project Implementing Units shall get registered on PFMS (a web-based online software application developed and implemented by the Controller General of Accounts (CGA), Department of Expenditure, Ministry of Finance, Government of India). PFMS is for monitoring of bank balances and tracking of fund flow. The bank balances of implementing agencies can be monitored through PFMS after their registration on PFMS.
46. A treasury interface for sharing data with Uttarakhand State has been developed in PFMS. This aims at tracking of utilization of funds for all Central Schemes in the State which are either transferred through the State Consolidated Fund or Implementing Agency route. Funds transferred from Central Ministries are tracked at each successive stage, starting with the initial release with the help of PFMS – Core Banking Solution (CBS) interface.

5.4 Accounting and audit of UPDCC Ltd

47. Finance and accounting play a vital role in project management and administration by helping construction managers to control and oversee all the costs involved in the process with comparison to estimated costs.
48. Accounting and law are closely related. Compliance of various statutory law is inherent with ideal accounting. With respect to UPDCC, accounting will involve the following steps:
1. *Identifying and Analyzing Business Transactions*
The process involves analyzing source documents like the project agreement, receipts etc. that are the evidence for business transactions in UPDCC.
 2. *Posting Transactions in Journals*
This process is done using the double-entry system of bookkeeping, where the transactions are recorded in debit and credit accounts. The journal carries the date and description of the transactions. The journal is booked in electronic form in tally system.
 3. *Posting from Journal to Ledger*

The financial information recorded in the journal, both debit and credit, now gets transferred into the ledger. The ledger is also called the book of final entry and it shows UPDCC accounts and the changes it underwent due to various business transactions.

4. *Preparing the adjusted trial balance*

This is the stage laid for preparing for the financial statements of the company and therefore is an important phase in the accounting cycle. Any error detected in the trial balance of UPDCC requires immediate correction.

5. *Preparing financial statements:*

After the adjusted trial balance, the financial statements are prepared. Following financial statements with annexures shall be prepared:

- Profit and Loss Account
- Balance Sheet
- Cash flow Statement

6. *Presenting the financial statements prepared to board of directors of the company:*

The financial statements will be presented to the directors of the company for review. At this stage the directors evaluate the performance of the company.

7. *Complying with Goods and Service Tax Act 2017 :*

On monthly basis, statutory liabilities with respect to GST Act is quantified and all the government dues with respect to the same are paid on timely basis. There are various GST returns that are submitted to government on regular basis, GSTR-3B, GSTR-1, GSTR7, GSTR-9 and GSTR 9C. To adhere to the compliance of law all these returns will be filed by UPDCC on timely basis.

8. *Compliance with Companies Act 2013:*

Companies Act 2013, mandates all the registered companies to act in accordance with the said law. To comply with the same, regular board meetings of board of directors of UPDCC shall be conducted, regular filing of all reports will be done at Registrar of Companies.

9. *Compliance with Income Tax Act 1961:*

The various provisions of income tax act apply of UPDCC on routinely basis. These include deduction of tax at source, filing of TDS returns, filing of income tax return etc. All these compliances shall be done by UPDCC on regular basis.

49. **AUDIT :** Auditing and accounting are two branches of one tree. Audit of UPDCC is done to promote the long-term success of the company and project undertaken within it. There are many contributors to that success including boards, management, employees, regulators and policy makers, as well as auditors.

50. The objectives of audit under UPDCC are:

- i. Procure and bid responsibly and deliver consistently across the lifetime of a contract; -
- ii. Work collaboratively with stakeholders to help plan for the future;
- iii. Be more transparent in its reporting; and
- iv. Provide more investment in commercial and operational technology advances and R&D.

51. To ensure high-level risks are mitigated and all the above-mentioned objectives are achieved, the first step in the audit process is to perform a risk assessment of the common risk areas in a project. The common risk areas which need assessment are:
- i. Contract term definitions are understood by all parties
 - ii. Records are accessible to review for compliance
 - iii. Costs charged are within the scope of the construction contract
 - iv. The contractor has the financial strength to pay subcontractors and finance its financial and operational construction requirements
 - v. What has been promised in the contract is delivered
52. For audit it is essential to have access to sufficient information to determine whether a project is being delivered successfully. For the audit of UPDCC, a statutory auditor is appointed by Comptroller and Auditor General of India. On first stage, the audit is done by the appointed statutory auditor. The auditor:
- i. Verifies the internal control system of UPDCC and possible weakness in the same,
 - ii. Confirms balance of debtors and creditors via third party confirmation
 - iii. Scrutinize all the financial statements of UPDCC including all journal entries done by the company.
 - iv. Check whether UPDCC has complied with all laws applicable on it on timey basis or not.
 - v. Verifies invoices issued and payments made by UPDCC.
53. Once the appointed auditor has completed the audit on his behalf, the audit report is submitted by auditor to the board of directors and Comptroller and Auditor General of India. On second stage, a team from Comptroller and Auditor General of India is assigned to conclude the statutory audit.

CHAPTER 6. PROCUREMENT AND CONSULTING SERVICES

6.1 Procurement plan

54. Type of Contract: As per decision by State Govt, item rate contract has been envisaged to be followed for the Main Dam Construction.
55. Jamrani Dam Multipurpose Project has prepared a perspective plan for 5 years for undertaking different types of works. There shall also be a provision of annual review of plan by UPDCC. A Project Management Committee (PMC) comprising of officers of UPDCC PIU Jamrani & E-in-C UID shall be formed for making modifications, if any in the 5-year perspective plan.
56. All advance contracting, all procurement of goods, works and consulting services will be undertaken in accordance with Uttarakhand Procurement Rules 2017 and Uttarakhand Delegation of Powers 2018, as amended from time to time.
57. Procurement Plans includes following stages which shall be normally observed for the execution of work:
- (i) Preparation of Preliminary Project Report (PPR),
 - (ii) Acceptance of necessity,
 - (iii) Administrative Approval,
 - (iv) Financial sanction,
 - (v) Preparation of Detailed Project Report (DPR) & Detailed Estimates,
 - (vi) Technical sanction,
 - (vii) Appropriation of funds,
 - (viii) Preparation of Tender documents,
 - (ix) Call of Tenders and Award of Work,
 - (x) Execution of works,
 - (xi) Monitoring of works and Quality Assurance
 - (xii) Satisfactory Completion, and
 - (xiii) Maintenance of assets created.
58. Five distinct packages have been planned for implementation of the project and are detailed as below:

Package ID	Package Particulars	Estimated Completion Timeline
Package 01	Construction of Main Dam	March 2029
Package 02	Infrastructural Works comprising residential and non-residential buildings (Damuadhunga Colony)	Feb 2025
Package 03	Irrigation Canals Construction, remodeling and renovation.	Dec 2027
Package 04	Infrastructural works at rehabilitation site	March 2026
Package 05	Widening and Upgradation of Amritpur Jamrani Motor Road	March 2025

59. Details on description of key activities and associated timelines under various packages have been detailed in succeeding paras.

60. **Package 01 Construction of Main Dam:** Key activities include finalization of bidding documents and bidding for project management consultant (PMC) and dam contract. PMC will support during bidding of dam contract and construction of dam. Dam construction shall involve stripping of foundation and abutments, river diversion works comprising diversion tunnel and coffer dams, concreting works, construction of sluices, gates fabrication & fixing, control structures and energy dissipation arrangements. Prior to start of dam construction activities arrangement for construction power and installation of crushing and batching plants shall also be required. Timelines of these activities have been presented in tabular and Gantt chart.

Table8: Implementation Timelines for Package 1-Dam Component

Activity	Timeline
Preparing bid documents for PMC	Completed
Approval of bid documents and bidding process	Completed
Selection of PMC and award of work	Completed
Preparing bid documents for Dam Contract	Completed
Approval of Bidding documents for Dam Contract	Completed
Process of Bid invitation for Contractor	Completed
Pre-Construction Activities (Amritpur Colony and Construction Power Arrangement, etc.)	Completed
Selection of Contractor and award of Work	Nov 2024
Installation of Crushing & Batching & Mixing Plants	June 2024
Diversion Tunnel Construction.	Dec 2024
Coffer Dam (Upstream & Downstream)	March 2025
DAM & SPILLWAY	March 2025
Stripping Foundation & Abutment	
Curtain Grouting	Dec 2025
Concreting	June 2027
Spillway Construction	Jan 2028
Slide protection works in Dam and reservoir area	June 2027
Fabrication & Fixing of Gates	May 2028
Control Structures	June 2028
Energy Dissipation	March 2029
	March 2029

Table 9: Gantt Chart for Dam Component

Sl No	ACTIVITY	2023-24 Quarters				2024-25 Quarters				2025-26 Quarters				2026-27 Quarters				2027-28 Quarters				2028-29 Quarters			
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
1	Preparing bid documents for Dam Contract	Completed																							
2	Approval of Bidding documents	Completed																							
3	Process of Bid Invitation for Contractor	Completed																							
4	Selection of Contractor and award of Work																								
5	Pre-Construction Activities (Mobilization of Contractor Staff and machinery, Construction Power Arrangement, etc.)																								
6	Installation of Crushing & Batching & Mixing Plants																								
7	Diversion Tunnel Construction.																								
8	Coffer Dam (Upstream & Downstream)																								
9	DAM & SPILLWAY																								
(i)	Stripping Foundation & Abutment																								
(ii)	Curtain Grouting																								
(iii)	Concreting																								
(iv)	Spillway Construction																								
(v)	Slide Protection Works in Dam and reservoir area																								
(vi)	Fabrication & Fixing of Gates																								
(vii)	Control Structures																								
(viii)	Energy Dissipation																								

61. Package 02 Infrastructural Works comprising Residential & Non-residential buildings:

The package includes repair and maintenance and construction of residential and non residential buildings at project colony at Damuwadhunga Kathgodam

The activities under the package are planned to be completed by June 2025 as under-

Table 10: Implementation Timelines for Infrastructural Works

Activity	Timeline
Architectural Planning and designs for buildings at Damuwadhunga	Complete
Preparing Bid Documents for Bidding	Complete
Bidding	Completed
Award & Commencement of Work	April 2024
Completion and Hand over	June 2025

Table 11: Gantt Chart for Infrastructural Works

Activity	Year	FY 2024-25 Quarters				FY 2025-26 Quarters			
Award & Commencement of Work		I	II	III	IV	I	II	III	IV
Completion and Hand over									

62. Package 03 Remodeling and Renovation of Existing Channels & Construction Of New Channels: Provision of remodeling and renovation of existing canals and construction of two new canals have been made in the sanctioned project estimate by CWC. The length and discharge of new feeder canals i.e. Tarai Feeder and Chakferi Canal are 18.566 Km & 7.39 cumec and 2.684 km & 1.478 cumec respectively. Timelines for implementation of the package has been planned to be completed by Dec 2027. Details of critical activities have been presented in Table and Gantt chart below:

Table 12: Implementation Timelines for Irrigation Canal Component

Activity	Timeline
CA land to be identified for forest land transfer case of new canals	Completed
Planning, Designs and Estimates for remodeling/renovation work	Completed
Bidding Documents for remodeling/renovation of canals	June 2024
FRA, physical documents, Online application for forest land transfer of new canals	June 2024
Approval of bidding documents and bidding process for remodeling/renovation work	June 2024
Award Commencement and completion of Remodeling/Renovation work	June 2027
Planning, Designs and Estimates for new canals	Completed
Preparing Bid Documents for new canals construction	June 2024
Compensation of CA Land	July 2024
Bidding for new canals construction	Nov 2024
Actual Approval of Forest Land Transfer	Dec 2024

Award & Commencement of New Canals Construction Work
Construction and Completion of all canal works

Table 13: Implementation Timelines for Irrigation Canal Component

ACTIVITY	FY2024-25 Quarters				FY2025-26 Quarters				FY2026-27 Quarters				FY2027-28 Quarters				FY2028-29 Quarters				FY2029- Quarter	
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
Bidding Documents for remodeling/renovation of canals																						
FRA, physical documents, Online application for forest land transfer of new canals																						
Approval of bidding documents and bidding process for remodeling/renovation work																						
Award Commencement & Completion of Remodeling/Renovation work																						
Planning, Designs and Estimates for new canals																						
Preparing and approval of Bid Documents for new canals construction																						
Compensation of CA Land																						
Bidding for new canals construction																						
Actual Approval of Forest Land Transfer																						
Award & Commencement of New Canals Construction Work																						
Construction and Completion of all canal works																						

63. Package 04 R&R Works:

The details of R&R implementation have been covered in following Chapter 7 on R&R Implementation Plan.

64. Package 05 Upgradation of Amritpur Jamrani Motor Road:

Widening and up gradation of 8.1Km approach road to dam site including cross drainage work like bridges, culvert, causeways etc. shall be completed by March 2025

CHAPTER 7. R & R IMPLEMENTATION PLAN

65. The PIUJ will have one full-time Social Safeguard Expert with the required support staff to assist in implementing land acquisition and R&R activities under the project.
66. As per requirements of RFCTLARR Act various institutions will be set up by the State government. The Additional District Magistrate Nainital has been appointed as Administrator for R&R as per Section 43(1) of the Act. Commissioner Kumaun has been appointed as Commissioner for R&R as per Section 44(1) of the Act.
67. Major portion of R&R for the project is involved in the Dam & Reservoir component of the project. The R&R for the component shall involve displacement of severely impacted families while the project components of Irrigation Canal & Power Transmission shall not involve any displacement.
68. After widespread consultations with affected villagers and other stakeholders a project specific R&R Policy has been framed for rehabilitation and resettlement of affected families.
69. Construction of dam and resulting reservoir shall affect 06 villages in its submergence area. About 1323 families have been estimated to be affected and land acquisition of about 49.471 ha land would be required for the project. Land for relocation of the displaced families by the project and agreed upon by the affected population has been identified by State Govt at about 50 Km from existing settlements of affected families.
70. The package for Rehabilitation and Resettlement would largely involve providing of rehabilitation assistance to project affected families and relocation of displaced families by the project at location of their choice with all infrastructural amenities as enlisted in Third Schedule of RFCTLARR Act 2013, key legal framework for R&R of affected families in the country.
71. Various critical activities have been planned broadly in two sub heads namely Land Acquisition & Rehabilitation and Resettlement Site Development Works for relocation of displaced families. Brief description of critical activities in above sub heads are detailed and represented in table and Gantt chart below:

Table 14: Implementation Timelines for Land Acquisition & Rehabilitation

Activity	Timeline
Approval of R & R Policy	Completed
Census of affected families, preparation of draft R&R schemes/Plan, publication of draft R&R scheme/plan and public hearing by Administrator.	Completed
Review of the rehabilitation and resettlement scheme/plan by R&R Committee.	Completed
Approved rehabilitation and resettlement scheme/plan to be made public.	Completed
Publication of declaration and summary of rehabilitation and resettlement.	April 2024
Establishment of Land Acquisition Resettlement Authority.	Completed
Transfer of compensation amount to Collector (38%)	March 2024
Determination of market value of land by the Collector.	April 2024
Determination of amount of compensation.	May 2024
Determination of value of things attached to land or buildings amount compensation.	April 2024
Award of Solatium as per Section 30 of RFCTLARR Act 2013.	May 2024
Rehabilitation and Resettlement Award by Collector.	Oct 2024
Start of payment of compensation	Dec 2024

Table 15: Gantt Chart for Land Acquisition & Rehabilitation

ACTIVITY	FY2024-25 Quarters			
	I	II	III	IV
Forest Land Transfer for resettling Hardakhan Temple				
Determination of market value of land by the Collector.				
Determination of amount of compensation.				
Determination of value of things attached to land or buildings				
Award of Solatium as per Section 30 of RFCTLARR Act 2013.				
Rehabilitation and Resettlement Award by Collector.				
Start of payment of compensation				

Table 16: Implementation Timelines for Resettlement site development works

Activity	Timeline
Initiating land transfer of resettlement land for relocation of displaced families	Completed
Detail town planning and preliminary survey works for resettlement site	April 2024
Design and estimation of all infrastructural facilities and submission of final reports.	Sep 2024
Notice for invitation of tenders	Nov2024
Allotment of work	Dec 2024
Construction of site office, Road, sewer and proper arrangement of water and electricity.	June2025
Construction of all houses/plot's and infrastructural facilities.	Dec 2025
Possession to villagers.	Dec 2026

Table 17: Gantt Chart for Resettlement site development works

ACTIVITY	FY 2023-24 Quarters				FY 2024-25 Quarters				FY 2025-26 Quarters				FY 2026-27 Quarters			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
Initiating land transfer of resettlement land for relocation of displaced families	Completed															
Detail town planning and preliminary survey works for resettlement site																
Design and estimation of all infrastructural facilities and submission of final reports.																
Notice for invitation of tenders																
Award of work																
Construction of site office, Road, sewer and proper arrangement of water and electricity.																
Construction of all houses/plot's and infrastructural facilities.																
Possession to villagers.																

7.1 Head wise allocation and expenditure

72. As Dam & Reservoir component of the project involve the largest share of R&R component of the project a detailed assessment of budgetary requirements for the components has been made and presented in Table 18 below. Assessment of rehabilitation assistance required for Irrigation Canal and Transmission line components shall be carried out in future as these activities are not on critical path of project execution.

Table 18: Budgetary Provisions for R&R of Dam & Reservoir Component

S.No.	Components of R&R	Cost (Rs. lakh)
A	Resettlement Plan	
1.	Compensation of acquired land of six villages including multiplying factor and solatium	2968.26
2	Interest payable	425.58
3	Stamp duty	637.392
4	Additional Compensation payable to Category II	22794.415
5.	Legal expenses and demarcation cost as per CWC guidelines	297.94
6.	Compensation for assets attached to private land	6799.57
7.	Compensation for community properties	3666.78
	Sub-Total [A]	37589.94
B	R&R Cash Assistance	14126.67
	Sub-Total [B]	14126.67
C	Resettlement work	8758.75
	Total(A+B+C)	Rs. 60475.38Lacs
	Say	Rs 604.75 Crores

7.2 Year wise allocation

73. Yearly distribution of budget for R&R for the above component shall be as below:

Sl No	Component	Yearly Budgetary Provision				Total
		2023-24	2024-25	2025-26	2026-27	
1	Resettlement Activities at Prag Farm		71.00	16.58		87.58
2	Compensation Assistance	200.00	280.49	-	-	480.49
3	Compensation for Community Properties	-	36.67	-	-	36.67
	Total	200.00	388.16	16.58	-	604.75
	%age	33.07	64.18	2.74	-	100

CHAPTER 8. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

8.1 Project Design and Monitoring Framework

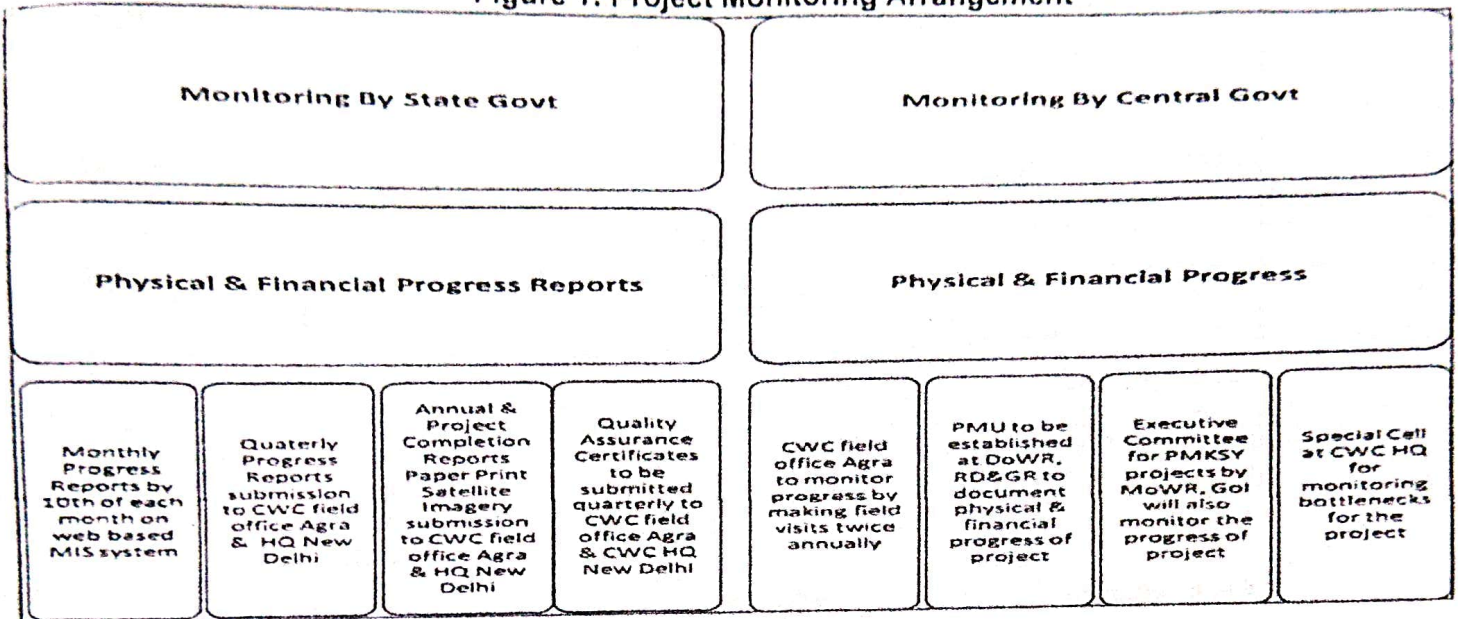
Evaluation of the Project is aligned with	
1.	Universal and equitable access to safe and affordable drinking water improved with provision of 42.7 MCM drinking water to Haldwani city, which will cater the water demand of 10.65 Lakh population of Haldwani projected for year 2051.
2.	Increase in annual intensity of irrigation from 158.85% to 196.88% in Culturable command area of 150027 ha.

1.	Output	Assured availability of 42 MCM annual volume of drinking water
	Performance Indicators	By Design yr 2051, About 975762 permanent population and institutional population 160059 in project location shall receive gravity water supply at the standard norm of 135 lpcd in Haldwani at d/s of dam site.
	Data Sources and Reporting Mechanisms	PIU Jamrani will submit monthly project progress reports submitted to UPDCC
2.	Output	Increase Irrigation Intensity
	Performance Indicators	Increase in annual intensity of irrigation from 158.85% to 196.88% in Culturable command area of 150027ha.
	Data Sources and Reporting Mechanisms	PIU Jamrani will submit monthly project progress reports submitted to UPDCC

8.2 Monitoring of works and quality assurance

74. The project will be closely monitored through two tier monitoring mechanism by State Government and Central Water Commission/DoWR, RD&GR. The physical and financial progress of the projects shall be monitored by the Uttarakhand State Government regularly and monthly progress data shall be updated by them in the web-based MIS system of DoWR, RD&GR by 10th of every succeeding month. A PMC agency shall be appointed by the State Government and evaluation reports will be submitted along with the utilization certificate. An illustration of the monitoring arrangement for the project is shown in the Figure 1 below:

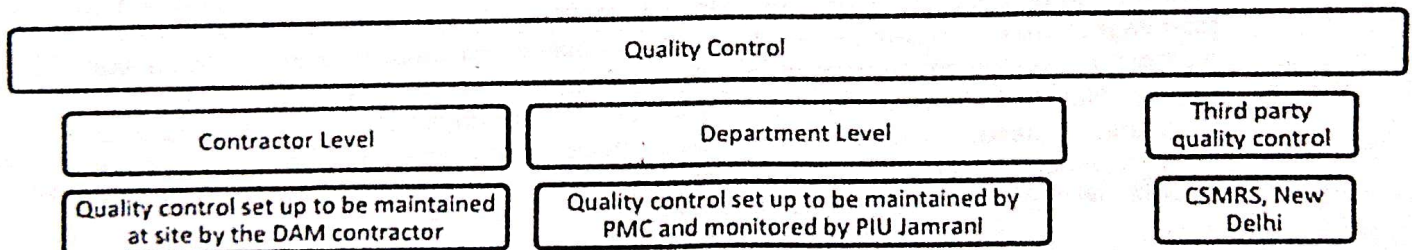
Figure 1: Project Monitoring Arrangement



8.3 Quality Control

75. A three tier quality control set up shall be used for quality control aspects of the project. Details are presented in the Figure 2 below:

Figure 2: Quality Control

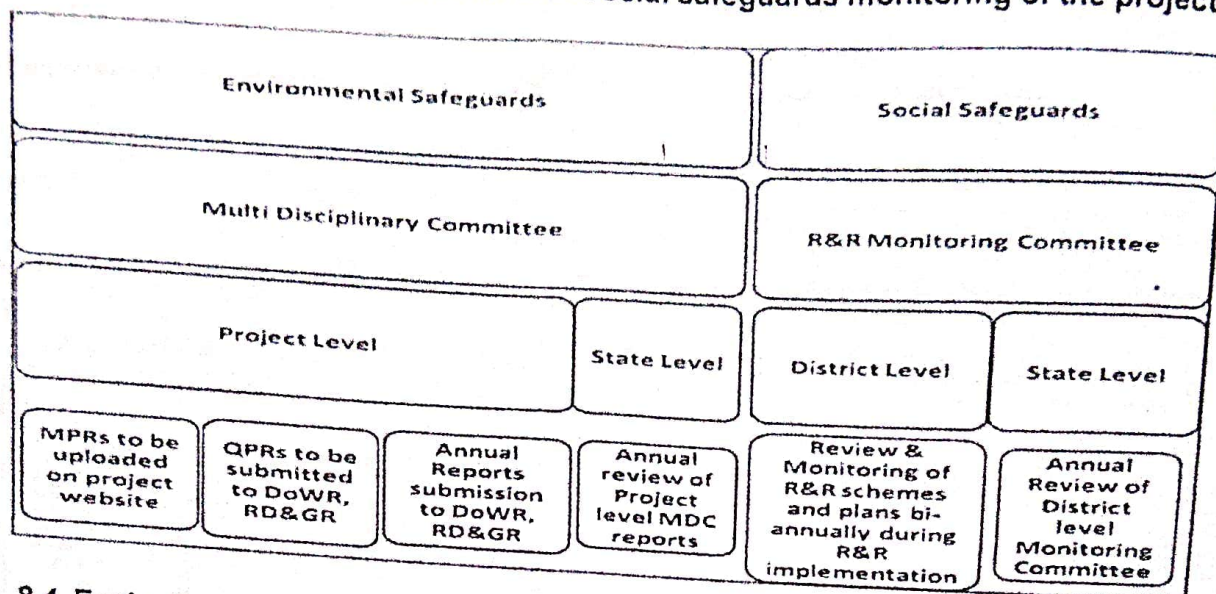


77. Multi-Disciplinary committee (MDC) at project and state level will be setup with Experts from Ecology, Forestry, Wildlife, Sociology, Soil Conservation Fisheries NGO. The project level committee shall upload monthly monitoring reports on projects website. Quarterly Progress Reports (QPRs) and Annual Reports shall be submitted to State Projects wing of DoWR, RD&GR

78. District level and State level monitoring committees shall review and monitor the implementation of R&R schemes.

79. In addition to above the environmental and social safeguards monitoring for the project shall be undertaken as indicated in Figure 3 below.

Figure 3: Environmental and Social safeguards monitoring of the project



8.4 Evaluation

80. The state government shall review the project quarterly and the central government will review the project at least twice a year, and more regularly if required. This includes: (i) the performance of the PIUJ, consultants and contractors; (ii) physical progress of projects and effectiveness of R & R implementation, and the action plan (iii) assessment of subproject sustainability in technical and financial terms. In addition to the regular grant reviews, the GoUK and the GOI will undertake a comprehensive mid-term review in the third year of project implementation to identify problems and constraints encountered and suggest measures to address them. Specific items to be reviewed will include: (i) appropriateness of scope, design, implementation arrangements, and schedule of activities; (ii) assessment of implementation pace against investment project indicators; (iii) effectiveness of capacity building and reform programs including with regards to sustainability of O&M; (iv) compliance with safeguard measures.

81. Concurrent evaluation of the project by Uttarakhand State Government shall be done at the end of each financial year during the period of funding.

82. Third party evaluation of projects completed under AIBP/ NP scheme shall be carried out by DoWR, RD&GR on sample basis, to assess their impact relevant to envisaged benefits.

8.5 Reporting

83. The PIU Jamrani, UPDCC shall be responsible for providing following reports to state govt i.e. (i) monthly physical and financial progress reports (ii) consolidated annual reports including (a) progress achieved (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for the next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. To ensure

that projects will continue to be both viable and sustainable, project accounts and the executing agency audited financial statement together with the associated auditor's report, shall be adequately reviewed.

84. *Project Completion Report.* The PIU, UPDCC will submit the Project Completion Report to the Uttarakhand govt, within 6 months of the completion of the project, that project completion report will cover the details of implementation (including changes in scope), costs, monitoring and evaluation of activities, problems encountered, actions taken, and other information required by state govt and implementing agency.

CHAPTER 9. RECORD OF CHANGES TO THE PROJECT MANAGEMENT MANUAL

85. All necessary revisions and/or updates to the contents of this Project Management Manual during project implementation will be possible with approvals from BoD, UPDCC. Such changes will be recorded in the Project Management Manual to provide a chronological history of changes to be implemented.

CHAPTER 10. DELEGATION OF POWERS

86. Officers of PIU Jamrani and delegates of UPDCC, Irrigation department Uttarakhand shall exercise their financial powers as specified in Uttarakhand Delegation of Powers 2018 or its subsequent amendments, Govt of Uttarakhand.
87. For smooth function of UPDCC Ltd., Board of Directors of Uttarakhand Project Development and Construction Corporation Ltd. have passed and delegated the following financial powers as mentioned below:

S.No.	Designation	Delegation Of Power
1.	Project Manager	Manager will exercise powers of Irrigation department.
2.	Deputy General Manager	Deputy General Manager will exercise powers of Superintending Engineer, Irrigation department
3.	General Manager	General Manager will exercise powers of Chief Engineer, Irrigation department but with limit of Rs. 10.0Crore for Construction Works.
4.	Managing Director	Managing Director will exercise powers of Head of Department/ E-in-C, Irrigation department but with limit of Rs. 25.0 Crore for Construction Works.

88. Resolved that subject to be Annual budget approved by Board of directors, following administrative and financial powers be and are hereby delegated to Managing Director which may be delegated by the Managing Director to other officers time to time as may be required in the interest of Corporation.

	Powers of Managing Director	Limit
1.	Award of contract, Signing and Execute Agreements, Contract and other documents on behalf of the corporation	Full Powers
2.	Acceptance of Tenders, bids, quotations for purchase of equipment, construction etc.	10.00 Crores
3.	Sanction of advance to contractor	20% of the amount of Agreement
4.	To make payments on account of statutory liabilities, taxes, insurance etc..	Full Powers
5.	Taking property on rent In respect of travelling allowances including permission of travel in higher class and payment of D.A at the higher rate in exceptional circumstances	Full Powers
6.	To appoint employees in all categories of group A, B, C & D	Full Powers

REFERENCES

- i. Uttarakhand Procurement Rules 2017
- ii. Irrigation Manual of Orders
- iii. Uttarakhand Delegation of Powers 2018(with amendments in)2019
- iv. UPDCC Delegation of Powers
- v. Financial Hand Book Vol. I to Vol. VI
- vi. Guidelines of Pradhan Mantri Krishi Sinchayee Yojana -Accelerated Irrigation Benefit Programme (PMKSY-AIBP) and National Projects.
- vii. Revised procedure for flow of funds under Central Sector Schemes, Department of Expenditure, Ministry of Finance, Govt of India dated 24.03.2022