MAHARASHTRA STATE DRAFT TARIFF PROPOSAL FOR CONTROL PERIOD JULY 2020 TO 2023



MAHARASHTRA WATER RESOURCES REGURATORY AUTHORITY

JANUARY 2022

Draft Tariff Proposal For Conrtrol Period 2020-2023

1.0 BACKGRAOUND:-

1.1 Provisions as per para 17 of Maharashtra State Water Policy 2019,dated 05 September 2019, is as follows -

Water pricing plays an important role in regulating the water use and ensuring the efficiency of water use. The State has already entrusted the responsibility of tariff determination to MWRRA.

The Authority is further guided by following Principles in finalising tariff structure;

- 1) The Authority shall function in a transparent and participatory manner, conducting public consultations & hearing before deciding upon the tariffs.
- 2) Authority shall ensure the realisation of at least norm based recurring expenses on the water infrastructure initially, as well as cost reflective water pricing subsequently in a phased manner.
- 3) The recurring expenses shall include operation and maintenance charges including electricity charges, spares, consumables, establishment and administrative charges, overheads and also the cost of special repairs (restoration and retrofitting of structures) including replacement cost of any component of the infrastructure (viz. control gates etc.), required to ensure sustainability of the system, water use efficiency, user access to avail water rights and equitable water distribution.
- 4) In order to meet equity, efficiency and economic principles, the water charges, as a rule, shall be determined on volumetric basis.
- 5) The pricing of water shall encourage its efficient use and reward conservation.

- 6) Recycle and reuse of water after treatment of sewage water to specified standards be incentivised through a properly planned tariff system.
- 7) The cross-subsidy among various users categories will be removed in a gradual manner.
- 1.2 There is a provision as per the Maharashtra Water Resources Regulatory Authority Act, 2005 Section 11 (d), to esatablish a water tariff system, and to fix the criteria for water charges based on the priciple that the water charges shall refelct the full recovery of the cost of the irrigation management, administration, operation and maintenance of water resources project.
- 1.3 As per the provisions of the Act, MWRRA has set the criteria for determination of bulk water tariff for the first time during the control period 2010 to 2013. Accordingly water charges were fixed for the year 2010 to 2013, vide Government Resolution 2010 / (407/10) / IM(Policy), dt. 29/06/2011. The water charges for the period 2013 to 2016 could not be revised till January 2018 due to administrative reasons. Therefore, the government has extended the water tariff fixed for the period 2010 to 2013 from time to time. After that, the authority as per the order dated January 11, 2018, issued revised water charges for the control period from 2017 to 2020.
- **1.4** After the expiration of this control period , due to time consumed in receiving basic data and tariff proposal from the government for some technical issues and also due to adverse effect of Pandemic Covid -19 restrictions , the tariff order has been extended vide G.R. No. BSA-2019 / C. No. 153 / IM (Policy), 31/07/2020, 19/01/2021 , 29/07/2021 and 30/12/2021. This extension was given with the condition that the Government should

submit the tariff proposal to the Authority along with the basic data and after fixing the revised bulk water tariff by the Authority, these rates will be applicable from 01/07/2020.

- on past experience the regulations of tariff fixation have been repealed by separate Notification published in the Gazette Part 4 (c) dated 24/05/2019. The Authority, with an objective to set out a transparent and consistent procedure for fixing bulk water tariff system and also undertake its periodic review and revision, has notified "MWRRA (Fixing Criteria For and Issuance Of Tariff Orders For Bulk Water) Guidelines, 2019" on 14/11/2019. In the meantime, the Authority has finalised the "Approach Paper" for the determination of bulk water tariff for the year 2020-23, in October 2019. Both Marathi and English copies of it are available on the website.
- After scrutinizing the tariff proposal and basic data received from the government in October 2021, the authority has finalised draft criteria for determination of bulk water tariff (2020-23) as per paragraph 3 of the Guidelines, 2019 and sent it for consultation with Focus group as per paragraph 2 of Approach paper (October 2019). The revised draft of the criteria after taking into consideration the feedback and suggestions received from them is finalised and being made available separately for consultation with the beneficiaries alongwith draft tariff proposal.

1.7 This tariff proposal is based on volumetric method which is consistent with the policy as per the proposal submitted by the government of supplying water volumetrically to non-irrigation as well as for irrigation use. For this, the government is expected to install measuring devices in the irrigation sector as soon as possible with the time bound program. Similarly, it is the policy of the government to implement a time bound program for the establishment of Water User Associations in the remaining areas out of the constructed irrigation capacity.

2.0 Validity of the Criteria:-

This Criteria is valid for three years from 01/07/2020 to 30/06/2023 for the control period under consideration of 2020-23 and for such period thereafter, as may be extended by the Authority. For any review and revision of the Criteria, the Authority shall follow the procedure stipulated in the Guidelines.

3.00 Basic data for fixing water tariff for the period 2020 to 2023 as per MWRRA criteria.

3.1 The year wise irrigation potential created, irrigation potential utilised, aggregate irrigated area and un-irrigated area for the period 2016-17 to 2019-20 is as per Table 1 below.

Table No .- 1
Irrigation Potential Created & Actual Utilised (Lakh Hector)

Year	Irrigation potential	Irrigation potential
	Created (Aggreate)	Utilised (Aggreate)
2016-2017	49.65	40.56
2017-2018	50.36	39.43
2018-2019	51.23	35.97
2019-2020	53.04	40.97

Source :- (Irrigation Status Report Profroma - 5 & Profroma - 18)

3.1.1 Expected irrigated area for period 2020 - 2023 :-

As per Table-1, there is a difference of 12.00 lakh hectares (22.64%) between the irrigated potential created of the State and the irrigation potential utilised. The government plans to bridge the gap by repairing canals, supplying water through closed pipes, micro-irrigation and lining.

3.2 The annual water consumption (Mcum) for the period 2016-17 to 2019-20 for agricultural, domestic and industrial purposes is as per Table 2 below.

Table no.-2

Agriculture, Domestic & Industrial Water Use (Mcum)

Year	Agriculture	Domestic	Industrial	Other	Total
2016-17	19929.55	4688.78	672.09	2369.33	27659.75
2017-18	18573.26	4929.45	755.10	1631.56	25889.37
2018-19	16161.51	5234.85	774.64	1527.31	23698.31
2019-20	18764.72	4639.06	847.00	2294.22	26544.80

Source :- (Irrigation Status Report (ISR) Performa-39)

3.3 The average percentage of Domestic Water Use for the year 2016-17 to2018-19 by Gram Panchayats, ULBs and Muncipal Corporations is as perTable 3 below.

Table No.-3

Percentage of average Water Use (%) in Grampanchayat, ULBs

& Municipal Corporaion

		Sub Category			
Year	Grampanchyat	ULBs	Municipal Corporation		Total
			Domestic	Commercial	
2016-17	24.71	10.55	60.57	4.17	100
2017-18	23.91	11.78	60.74	3.84	100
2018-19	31.16	13.11	52.37	3.36	100
Average	26.59	11.81	57.80	3.79	100

3.4 The water use as a raw material & process industry is as per the table below

Table No.-4

Percentage of average Water Use as a raw material & process industry

	Sı			
			Domestic	
Year	Water as a raw	Process	Water Use	Total
i cai	material	industry	in	Total
	materiai	maustry	Industrial	
			units	
2016-17	1.68	79.83	18.48	100
2017-18	0.94	83.42	15.65	100
2018-19	1.36	84.64	14.00	100
Average	1.40	82.70	16.10	100

3.5 Water charges levy, recovery for irrigation & non-irrigation of projects for the year 2016-17 to 2019-20 is given in Table 5A & 5B.

Table: - 5 A

Irrigation Water Charges Levy & Recovery (Rs. Cr.)

	Irrigation			
Sr. No.	Year	Levy	Recovery (Including Local Cess)	
			Recovery	Percentage%
1	2	3	4	5 =(4/3*100)
1	2016-17	73.05	59.48	81.42
2	2017-18	93.72	74.30	79.28
3	2018-19	105.79	78.27	74.00
4	2019-20	114.04	55.96	49.07

Source :- (Irrigation Status Report Profroma-34)

Table No. -5 B Non Irrigation Water Charges Levy & Recovery (Rs. Cr.)

Sr.		Non Irrigation			
No.	Year	Leavy	Recovery (Includ	ling Local Cess)	
		Zeary	Recovery	Percentage %	
1	2	3	4	5=(4/3*100)	
1	2016-17	690.470	513.43	74.36	
2	2017-18	735.060	613.84	83.51	
3	2018-19	1030.950	965.87	93.70	
4	2019-20	1195.680	908.34	75.97	

Source :- (Irrigation Status Report - Profroma 34)

3.6 Operation & Maintenance Cost: Section 11 (d) of the Act provides for fixing of water tariff rate in such a way that the entire cost of administration, operation and maintenance of irrigation management is reflected. As per the definitions in the Guidelines issued by MWRRA on 14/11/2019, the cost of various items covered under "Addmitted Operation and Maintenance Cost "is given in the table below.

Table No.-6
Operation & Maintenance Cost (Rs. Cr.)

Sr. No	Of MWRRA		Of MWRRA Guidelines, 2019 Details of Cost	
1	15	Cost of Administration	Total number of staff as per norms (Akrutibandh) of Circle & Division offices is 2960. Cost of salaries & allowances as per seventh pay commission.	116
2	16	Cost of Irrigation Management	It includes salaries and allowances of Irrigation Management Sections & Irrigation Sub Divisions as per 7 th pay commission, expenses on contingent field staff appointed during rotation period,officeexpenses,stationery,advertisements, vehicles, purchase of miscellenous material, formation of Water User Associations, crop	850

			measurement, assessment and recovery of water	
			charges.	
3	17 + 19	Cost of Maintenance + Cost of Operative Maintenane	It includes expenses on pumping out water from the drainage galleries, restoring discharge carrying capacity of canals by removing sealed, weeds, shrubs, restoring bridged sections of canals, repairs to canals structures to prevent water losses, replacing damaged rubber seals/ stem rods, repairs of residential and non-residential buildings for operating staff.	500
4	18	Cost of Operations	It includes Energy charges of lift irrigation schemes, spares, consumbles etc. including other items.	254
5	20	Cost of Preventive maintenance	It includes expenses on painting, lubrication of moving parts in Electro-mechnical equipments in head works, lift irrigation schemes and canal control structure, treating the leakage paths and arresting the leakages through bank work to avoid piping failures, remedial measures to prevent progress of retrograsion in Spillway channels, restoring damged pointing in stone machinery etc.	200
		l	Total O & M Cost	1920

3.7 Taking into consideration average of last 15 years data estimated available storage, kharif water use and evaporation loss, total utilisable water and category wise estimated use is given in Table 7 – A below.

Recoverble water charges from agricultural, domestic and industrial use as per criteria proposed by MWRRA is given in table 7 – B.

Table 7 - A
Water Use of different user categories from WRD projects for BWT 2020-23

Sr.	Description	Quantity of	Refernece
no.		Water (Mcum)	
1	Storage potential created (as on year 2019)	43837	ISR 2019 – 20, Proforma 39
2	Estimated Storage as on 15 October of every year	30686	70% of Storage Potential (average of last 15 years 70%) ISR 2005 – 06 to 2019 – 20, Proforma 39
3	Estimated Evaporation Loss	4613	Average of last 15 years ISR 2005 – 06 to 2019 – 20, Proforma 40
4	Net Utilisable storage on 15 Oct.	26073	
5	Estimated kharif use	6283	Last 15 year average ISR 2005-06 to 2019-20 Proforma 40
6	Total Annual Water Use (2 +5)	36969	Average of last 15 years ISR 2005 – 06 to 2019– 20
7	Category wise annual use		
	7.1) Domestic Water Use	6760	Last 5 years average 2015-16 to 2019-20
	7.2) Industrial Water Use	847	ISR 2019-20, Proforma 39
	7.3) Evaporation Losses	4613	Average of last 15 years ISR 2005 – 06 to 2019 – 20 Proforma 40
	7.4) Available Water for Agricultural use [6-(7.1+7.2+7.3)]	24749	Balance after deduction for other use
	Total	36969	

Average rate for each category based on estimated water use and allocation of O & M cost as per percentage in proposed criteria , for agricultural, domestic & industrial category for year 2020-21 is given in following table ;

Table no 7 – B

Sr. No	Category	Actual Water Use (Mcum) as per table 2	Estimated water use (Mcum)	Year 2020-21 Estimate d O & M cost) (Rs Cr)	Share in % as per MWRR A Criteria for 2020 – 23)	Estd. Recover y from category (Rs Cr)	Avg. rate (Rs/c um) (Rs. For 1000 Litre)
1	2	3	4	5	6	7	8
1	Agricultural	ISR 2005-06 to 2019-20 Proforma 39	24749.00		19	365	0.15
2	Domestic	ISR 2015-16 to 2019-20 Proforma 39	6760.00	1920	22	422	0.62
3	Industrial	ISR 2019-20 Proforma 39	847.00		59	1133	13.37
	Total		32356.00		100	1920	

Average rate in above table can be used for guidance only to calculate basic rate after taking into consideration source wise and category wise water use as well as allocated cost. Actual proposed rates are different. Source wise and category wise rates are based on basic rates and average rate is the limit for the basic rate.

4.00 Proposed Water Tariff for Agriculture Use :-

Total estimated water use for agriculture in year 2020-23 as per table 7 para 3.7 is 24749.00 Mcum and expected water charges recovery is Rs.365 Cr. Accordinly average rate for agricultureal use of water user associations is 15 Paise / Cum (15 Paise for 1000 Litre) in order to promote water user association formation basic rate for indiviual benificiries is proposed 1.25 times of this estimated rate.

Individual beneficiaries use about 60% of the water for Hot weather - which is 58.26% of the 76% of individual water users. As per the criteria , one & half times rate (1.5 times) is applicable for hot weather season. Considering both these factors, the basic rate for Water User Organization (for rabbi season) is proposed 11 paise / Cum (11 Paise for 1000 Litre) and for individual beneficiaries 14 paise / Cum (14 Paise for 1000 Litre) . Water supply for agriculture is carried out by canal flow & Lift. Water use by lift is through reservior, canal & river sources . Total estimated water use & water charges recovery is given in table – 8 below.

Table No. -8
Agricultural Source wise estimated water use & expected recovery for year 2020-23

Sr.N o.	Source of Water Supply	Percentage against total agricultural water use	Expected Total Water Use (Mcum)	Expected Total Revenue (Rs. Cr.)
1	Water Supply by canal flow	76	18810.00	365 - 48.26 =316.74
2	Water Supply by lift	24	5939.00	(Gov. Operated LIS(GLIS) Expenditure =Rs. 48.26)
	Total	100	24749.00	

Estimated Water use for canal flow system of WUAs and individual beneficiaries by lift from reservoir , canal & river is given table 9 below

Table - 9Agricultural estimated water use by canal flow & private lifts (Mcum)

	Agricultural estimated water use by canal flow & private lifts (Mcum)				
Sr. No.	Type of Water supply	Estimated Water use	Percentage with total agricultural use		
1	By canal flow system				
	A) WUAs	4299.00	17.37		
	B) Individual Beneciary	14511.00	58.26		
	Total (A+B)	18810.00	76		
2	By Lift				
	C) Assured Water Supply through Reservior.	1900.00	7.80		
	D) Regulated river reach downstream of dam / K.T. weirs with back up reservoirs on upstream / tail race water of hydropower stations	3330.00	13.65		
	E) Canals of minor projects, K.T. weirs without back up of reservoirs & arrangement without any regulation in absence of bandhara	650.00	2.68		
	F) Reservoir constructed at own cost by water user entity & also maintained at its own cost	59.00	0.24		
	Total (C+D+E+F)	5949.00	24		
	Total (1+2)	24749.00	100		

Table - 10Agricultural Water Rates for Flow Irrigation (Paise / Cum) (Paise for 1000 Litre)

		Registered	l WUAs	Individual Beneciary			
Sr. No	Season	Average Rate for year 2020-21	Proposed Rate (Year 2020- 21)	Average Rate for year 2020-21	Proposed Rate (Year 2020-21)		
1	Kharif		5.50		7.00		
2	Rabi	11.00	11.00	14.00	14.00		
3	Hot Weather	11.00	16.50	22,00	21.00		

Water Rates for agriculture use depending on type & source of supply for year 2020 to 23 are given table 11 (flow irrigation) & table 12 (Private Lift) below.

Table- 11
Proposed rates for flow irrigation depending on type & souce of water supply

during year 2020 to 2023 (Paise / Cum) (Paise for 1000 Litre)

Sr.	Type of water supply		Rate (Pais e for 1000 l		Ехре	ectecd wa	water Use Expected Water Charges recovery (Rs. Cr.)				
		Kharif	Rabi	Hot weather	Khari f (22%)	Rabi (47%)	Hot weather (31%)	Khari f	Rabi	Hot weat her	
1	2	3	4	5	6	7	8	9	10	11	
1	(A) WUAs	5.50	11.00	16.50	945.78	2020.53	1332.69	5.20	22.23	21.99	
2	(B) Indi vidual Benifici ary	7.00	14.00	21.00	3192.42	6820.17	4498.41	22.35	95.48	94.47	
				27.55	117.71	116.46					
									261.71		

Table – 12

Proposed Rates for Private Lift individual beneficiaries dedpending on type & source of supply during year 2020 to 2023

(Paise / cum) (Paise for 1000 Litre) (65 % of flow rate as per criteria)

				roposed R		Esti	mated Water	Use	Formation	D	(D- C-)		
Sr. No.	Type & Source of Water supply	Average	(Pais	e / cum) (F 1000 Litre			(Mcum)		Expectes	s Recovery	(Rs. Cr.)		
140.		Rate	K	R	HW	K (22%)	R (47%)	HW (31%)	K	R	HW		
1	2	3	4	5	6	7	8	9	10	11	12		
	Assured Water Supply												
1	1) Reserviors of Majaor Projects (75%)		6.50	13.00	19.50	313.50	669.75	441.75	2.04	8.71	8.61		
	2) Reserviors of Medium & Minor Projects Storage Tanks (25%)		5.00	10.00	15.00	104.50	223.25	147.27	0.52	2.23	2.21		
2	Regulated Water Supply including Transmission Losses	10	5.00	10.00	15.00	732.60	1565.10	1032.30	3.66	15.65	15.48		
3	Partly Assured Water Supply		2.50	5.00	7.50	143.00	305.50	201.50	0.36	1.53	1.51		
4	Reservoir constructed at own cost by water user entity & also maintained at its own cost		0.80	1.60	2.40	12.98	27.73	18.29	0.01	0.04	0.04		
	Total					1306.58	2791.33	1841.09	6.59	28.16	27.86		
	Total Expected recovery										62.62		

Table 11 + Table 12 = Rs. 261.71 + Rs. 62.62 = Rs. 324.33 Cr. will be recovered as against Rs. 316.74 Cr. in Table 8.

Incentives/ Penal Provisions :- Agricultural Water Use

- (1) The Basic Rate (BR) for flow irrigation will be based upon 19% of the O & M cost excluding expenditure (electricity charges, M&R cost and operation cost of the head works of Lift Irrigation Schemes) for Government Operated Lift Irrigation Schemes (LIS) & will be applicable to Registered Water User Associations (WUAs) registered under Maharashtra Co-operative Societies Act, 1960 and Maharashtra Management of Irrigation Systems by Farmers Act, 2005.
- (2) The BR for flow irrigation volumetric tariff will be fixed for Rabi season , 50% of it in Kharif season and 150% of it in Hot-weather season shall be applicable.
- (3) Period of Kharif, Rabi and Hot Weather seasons for Konkan & Vidarbha regions, and rest of the Maharashtra for purpose of levying water charges shall be as per CBWT.
- (4) Tariff for area under Government LIS in the State will be the Basic Rate for flow irrigation plus 19% of expenditure towards electricity charges, M&R cost and operation cost of the head works of LIS.(Balance 81% of such expenditure shall be added to other category of users as per apportionment in table 7 -B above). The scheme-wise tariff for Government Operated LIS shall be fixed by the respective RBA as per practice according to past Tariff Order.
- (5) Water charges for irrigation of cash crops (e.g. Sugarcane, Cotton, Banana & Horticulture etc.) on the wells, within influence zone as stated in Section 26 of Maharashtra Ground Water (Development & Management) Act, 2009 from the boundary of the canals or Full Reservoir Level (FRL) of the storage tank, will be levied at the rate of 50% basic rate.
- (6) In order to promote WUA formation, the BR of flow irrigation for individuals will be 125% of the BR.
- (7) The registered WUAs formed under Private LIS will be given 25% concession in the above rate.
- (8) The beneficiaries of Private LIS should install the water meter at the source on delivery pipeline at its own cost. During transition period before installation of water meter, the water charges shall be levied on the basis of discharge of the pump or standard duty. This concession will be

- applicable for a period of 1 year from the date of this Order. After this, water charges shall be levied at 2 times applicable rate for flow irrigation.
- (9) If Private LIS, fails to install water meter / water meter is not working / water meter is tampered, the assessment will be done at the rate, 2 times applicable water rate for flow irrigation with quantity calculated as per actual irrigated area and standard duty.
- (10) If the water is supplied by BWSE up to the decentralized storages as provided in Government Resolution dated 02/05/2017 then the water rates as prescribed in Sub-Paras (1), (4) & (6) of Para 10.1 above corresponding to the conveyance system viz. flow or lift will be applicable. If water is taken to decentralized storage by means of canals then conveyance losses shall not be levied. However, if the beneficiary takes the water to its decentralized storages through regulated source of natural stream, then these conveyance losses @ 10 % shall be applicable.
- (11) Water rates for fishery shall be the same as volumetric rates applicable to Agriculture.
- (12) Project affected farmers, having been allotted compensatory land in the command area, shall be entitled to get water at 75% of the applicable water rates. Further, if project affected farmer has resorted to Lift Irrigation at his/her own cost 50% of the applicable rates shall be charged.
- (13) If the water is taken for an extended Kharif crop in Rabi season or for an extended Rabi crop in Hot Weather, relevant Kharif / Rabi rates will be charged for such water taken in the extended irrigation rotation.
- (14) Water charges should not be levied for the irrigation in the first year of irrigation (trial irrigation) of the project.
- (15) If the individual farmer takes metered water supply for modern irrigation system (micro-irrigation) then the rates applicable shall be 75% of the rates prescribed for individual farmer practicing flow irrigation. (If registered WUA takes the metered water supply for micro irrigation then the rates applicable shall be 75% of the rates prescribed for registered WUA practicing flow irrigation).

- (16) If water charges for a season is paid in advance i.e. before commencement of that season then rebate @ 10% shall be given in applicable water charges for that season.
- (17) Water rates in case of ex-malgujari tanks shall be governed by the decision already given by the Supreme Court in case No. CIVIL Appeal No 2475 of 1968 dated 16/08/1978.
- (18) Penal interest at the rate of 10% per year will be charged for delayed payment/ part thereof, beyond permissible time limit.
- (19) If water supplied for irrigation use is found to be used for industrial purpose without prior permission of WRD, then assessment will be done at 2 times the rate applicable for industrial use.

5.0 Water Rates for Domestic Water Supply :-

Estimated domestic water use during the year 2020 to 2023 as per table 7 para 3.7 is 6760 Mcum & expected water charges recovery is Rs. 422.00 Cr. Accordingly average domestic water rates is Rs. 0.62 per Cum (62 Paise for 1000 Litre) .The criteria for determining sourcewise water tariff for the planned period is given in the bulk water tariff criteria. Accordingly, it is necessary to determine the source-wise use of water while calculating the estimated revenue to calculate the base rate.

Percentage of Source wise domestic water use during year 2020 to 2023 is proposed as given by the Government & accordingly expected water use is proposed in table 13 below.

Table no.- 13Source wise Projected Domestic Water Use (Mcum) for control period 2020 to 2023.

					Project	ed Water I	Jse		
Sr.	Source Wise			against t Water U	total		Unit (M	ICUM)	
No.	Category			N	ЛС			Mo	C
		GP	NP	Dom	Comm.	GP	NP	Dom.	Comm .
1	2	3	4	5	6	7	8	9	10
1	Assured Water Supply	14.15	7.59	39.44	2.39	954.54	513.08	2666.14	161.56
2	Regulated Water supply with transmission loss	8.95	3.74	12.50	0.89	605.02	252.82	845.00	60.16
3	Partly assured water supply	3.29	0.40	1.15	0.03	222.40	27.04	77.74	2.03
4	Water user entity has shared proportionate cost of infrastructure and Infrastructre constructed & maintained by water user entity.	0.20	0.08	4.71	0.47	14.20	5.41	319.07	31.79
		26.60	11.81	57.81	3.78	1798.16	798.35	3907.95	255.54
	Percentage	of Total	Water U		Total Projected domestic Water Use (6760.00 MCUM)				

Note: Assuming water consumption as above, the expected Rs. 422 crore for operation and maintenance cost, sourcewise rates for unit water use are being proposed for Gram Panchayat, Nagarpalika / Nagar Parishad, Muncipal Corporations sub-categories in table 14 below. The extent of use of all the three sub-categories including commercial water use of the Corporation has been proposed by the Government as per the data received from the Irrigation Development Corporations. Commercial rates are proposed 5 times domestic rate as per the Criteria.

Table No. - 14 Proposed Water rates for GP , ULBs & MC for year 2020-21

		Avera	Pro	nosed R	ate (Rs./ 0	Jum)			E	expected	Water	Use						
Sr.		ge Rate			1000 Litre			Unit (MCUM)			Percentage against total Domestic Water Use %				Expected Revenue(Cr.)			
No.	Source wise Category	Rs./cu			N	1C	GP	NP	N	МC	GP	NP	N	МC	GP	NP	N	1 C
		m)	GP	NP	Dom.	Comm .			Do m	Com m			Do m	Com m			Dom	Com m
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Assured Water Supply		0:30	0.35	0.55	2.70	956.54	513.08	2666.14	161.56	14.15	7.59	39.44	2.39	28.22	17.86	145.30	44.03
2	Regulated Water Supply with transmission loss		09'0	0.70	1.10	5.50	605.02	252.82	845.00	60.16	8.95	3.74	12.50	0.89	35.70	17.60	92.11	32.79
3	Partly assured water supply	0.62	0.16	0.17	0.27	1.36	222.40	27.04	77.74	2.03	3.29	0.40	1.15	0.03	3.50	0.47	2.12	0.28
4	Water user entity has shared proportionate cost of infrastructure and Infracture constructed & maintained by water	0.	0.05	90.0	60.0	0.44	14.20	5.41	319.07	31.79	0.20	0.08	4.71	0.47	0.07	0.03	2.78	1.39
	एकूण						1798.20	798.35	3907.95	255.54	26.60	11.81	57.81	3.78	67.48	35.95	242.31	78.47
														Total		42	24.22	

Note below Table-14

If the rates proposed in columns 4, 5, 6 and 7 Table No. 14 are implemented then as per column no. 16,17,18 and 19, Rs.424.22 crore will be recovered as against Rs 422 crore cost allocated for domestic category in Table -7.

Note: 1) For past agreements on sharing in total / proportionate cost of infrastructure or where shared cost of infrastructure is agreed to at planning stage in new projects or where weir / bandhara for the capacity equal to annual water demand is constructed by entity below a dam to use its share, the water rate will be 16% of applicable rate in proportion to the cost shared. However, in case of new agreements for water allocation to an entity from a completed dam, any payment in share cost will be treated only as advance water tariff to be adjusted against concessional water tariff of 16% applicable rate, the number of years the concessional tariff will be operative will be calculated by NPV method with 10% rate of interest. On full adjustment of the advance tariff, the appropriate basic rate will become applicable.

2) Water rates for commercial use is 5 times domestic rates as per criteria 3) Water rates for Grampanchayat , Nagarpalika / Nagarparishad , Municipal Corporations are 75 % , 90 % & 125 % of basic rate respectively as per criteria.

Incentives/ Penal Provisions :- Domestic Water Use

- (1) The BR for volumetric tariff will be same for all seasons and will be linked to source of supply.
- (2) The Applicable Rate (AR) will be 125% of BR for Municipal Corporations, 90% of BR for other Urban Local Bodies and 75% of BR for Grampanchayats.
- (3) While deciding annual demand in continuation with existing agreement with Municipal Corporation, Commercial use, will be separately quantified and charged appropriate Commercial rate i.e. five times the AR of Municipal Corporations.
- (4) The Private Townships, developed by private and other entities in accordance with the prevailing State Government policy to which water is supplied by BWSE, will be charged five times the AR of concerned ULB or Gram Panchayat in which the township is located.
- (5) During the construction phase of commercial entity, private colonies, townships; the water use will be charged at commercial rate and after completion of the construction (i.e. after receipt of Occupation Certificate), water use will be charged five times the AR of concerned ULB or Gram Panchayat. If both uses are concurrent, different meters are to be installed and assessments be done accordingly.
- (6) Water charges for BWUE, dependent on the wells, within influence zone as stated in Section 26 of Maharashtra Ground Water (Development & Management) Act , 2009 from the boundary of the canals or Full Reservoir Level (FRL) of the storage tank, will be levied at the rate of 50% of AR.
- (7) Water charges for Annual Quantities drawn upto 100% of sanctioned quota will be at AR, for more than 100% & less than 125% of sanctioned

- quota, water charges will be 1.50 times AR and beyond 125% of sanctioned quantity, water charges will be 3.0 times AR.
- (8) "Polluter pays" principle ULBs are expected to treat sewage to the standard specified by Maharashtra Pollution Control Board (MPCB) before its release into a natural water course **or** an irrigation canal. ULBs, who have not installed Sewage Treatment Plant (STPs) based upon their water allocation & STPs not working to its full capacity, will be charged 2 times applicable rate for the sanctioned quota or actual water use whichever is higher.
- (9) ULBs are entitled to use treated sewage provided such use is by way of conveyance through closed pipe from treatment plant (without discharging it into river /nalla). If such water is supplied for irrigation, its rates shall not be more than 60% of rates specified for irrigation by fresh water. Similarly, they shall submit details of such water use to BWSE. Treated sewage water if discharged into natural stream will be regulated by BWSE.
- (10) Water used without signing the agreement, will be charged at 2 times AR.
- (11) If ULBs are found to be supplying water from its drinking water entitlement to industrial users without prior approval of BWSE, such water use will be charged at 3 times the applicable industrial water rates retrospectively.
- (12) Where meter is installed but is found not functioning / removed / tampered / faulty , one months notice shall be given for repairing & commissioning of the meter .Water charges for this period will be 1.5 times of the AR on the sanctioned quantity of water or recent water use whichever is higher. Extension of one month can be given for repairing the water meter depending on specific local situation. If this defect is not rectified within 90 days, water charges will be 2 times AR.

(13) Penal interest @ 10% per annum shall be levied on arrears of water charges.

6.00 Water Tariff for Industrail Water use:-

Estimated industrail water use during the year 2020 to 2023 as per table 7 para 3.7 is 6760 Mcum & expected water charges recovery is Rs.1133.00 Cr. accordingly average industrial water rate is Rs. 13.37 per Cum (Rs.13.37 for 1000 Litre). The criteria for determining sourcewise water tariff for the planned period is given in the bulk water tariff criteria. Accordingly, it is necessary to determine the source-wise use of water while calculating the estimated revenue to calculate the base rate.

Percentage of Source wise industrial water during year 2020 to 2023 is proposed as given by the Government & accordingly expected water use is proposed in table 15 below.

<u>Table - 15</u> Sourcewise estimated water use during year 2020 to 2023 for industrial use

		Perc	entage wit	h total	Estim	ated wate	r use	
		i	ndustrial u	ıse	(Mcum)			
			Raw				Domes	
Sr.			Water	Domestic			tic	
No.	Source	Process		Water	Dwagagg	Raw	Water	
110.		Water		Use in	Process Water	Water	Use in	
		vvater		industral	vvater	vvater	indust	
				uints			ral	
							uints	
1	Assured Water Supply	51.08	0.97	7.28	432.65	8.22	61.66	
2	Regulated water supply with							
	transmission loss	24.52	0.33	7.22	207.68	2.80	61.15	
3	Partly assured water supply	2.26	0.03	0.17	19.14	0.25	1.44	

4	Water user entity has shared							
	proportionate cost of							
	infrastructure and	4.77	0.00	1.38	40.40	0.00	11 60	
	Infrastructre constructed &	4.//	0.00	1.36	40.40	0.00	11.69	
	maintained by water user							
	entity							
		82.63	1.33	16.04	699.88	11.27	135.94	
	Total Expected Indus	strail Water	Use (100 °	%)	847.00			

Source wise rates for unit water use of process & raw water industries proposed on the basis of above water use expected water charge recovery of table- 7 Rs. 1133.00 Cr. as per table 16 below Domestic water use in industrial units is as per sanctioned by irrigation development corporations as per government tariff proposal. Domestic water rates of Municipal corporations are proposed for this use which are as per table 14.

Table No. 16

Source wise Proposed Water Rates of Industrial Water Use (Rs. / Cum) (Rs. for 1000 Litre) for year 2020-2021

			Propos	sed Rate (Rs.	/Cum)	, ,	Es	timated V	Vater Use	,				
		Average		s. for 1000 Li		Unit	(MCUM)		Perce ind	ntage agai ustrial wa	inst total ter use	Expec	ted Reven	ue (Cr.)
Sr. No.	Soruce wise Category	Rate (Rs. /Cum)	Process	Raw Material	Domestic	Process	Raw Materi	Domes tic e	Process	Raw Materi	Domestic	Proce ss	Raw Materi al	Domesti c
				Material			al	tic e	110003	al		4X7	5X8	6X9
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Assured Water Supply		9.30	232.50	0.55	432.65	8.22	61.66	51.08	0.97	7.28	402.36	191.02	3.36
2	Regulated Water Supply with transmission loss	13.37	18.60	465.00	1.10	207.68	2.80	61.15	24.52	0.33	7.22	386.29	129.97	6.67
3	Partly assured water supply	10.07	4.65	116.25	0.27	19.14	0.25	1.44	2.26	0.03	0.17	8.90	2.95	0.04
4	Water user entity has shared proportionate cost of infrastructure		1.49	37.20	0.09	40.40	0.0	11.69	4.77	0.00	1.38	6.01	0.01	0.10
	Total					88.669	11.27	135.94	82.63	1.33	16.04	803.57	323.96	10.17
	Total Industrial Water Revenue								1137.70					

Note below Table -16

With the rates proposed in columns 4, 5 and 6 table no. 16 are implemented then as per column no. 13, 14 and 15, Rs.1137.70 crore will be recovered as against Rs. 1133 cr cost allocated for industrial category in Table -7.

Note:-

- 1) For past agreements on sharing in total / proportionate cost of infrastructure or where shared cost of infrastructure is agreed to at planning stage in new projects or where weir / bandhara for the capacity equal to annual water demand is constructed by entity below a dam to use its share, the water rate will be 16% of applicable rate in proportion to the cost shared. However, in case of new agreements for water allocation to an entity from a completed dam, any payment in share cost will be treated only as advance water tariff to be adjusted against concessional water tariff of 16% on applicable rate, the number of years the concessional tariff will be operative will be calculated by NPV method with 10% rate of interest. On full adjustment of the advance tariff, the appropriate basic rate will become applicable.
- 2) Water Rates for Raw Water industries are proposed 25 times process industries as per criteria.

Incentives/ Penal Provisions :- **Industrial Water Use**

- (1) The BR for volumetric tariff will be same for all seasons & will be linked to source of supply.
- (2) Basic Rate (BR) will be linked to source of supply as categorized below and subject to the condition that the effluent will be treated to the required MPCB standards before its release into a natural water course or an irrigation canal.
- (3) The BR will be applicable for process industries, industries using water for cooling (like thermal power plants) & in manufacturing. The industries using water as raw material viz. mineral water, beverages and for ethanol or alcohol production, cogeneration in the sugarcane process industries and other similar industries will be charged 25 times BR.
- (4) While entering into agreement Industries, "Domestic use in industrial units" will be separately quantified and charged as per AR of concerned ULB or Gram Panchayat in which the industrial colony is located. BWSE shall sanction such use & make such provision in the agreement on compliance of relevant infrastructure & water meters etc. as applicable.
- (5) Water charges for BWUE, dependent on the wells within influence zone as stated in Section 26 of Maharashtra Ground Water (Development & Management) Act, 2009 from the boundary of the canals or Full Reservoir Level (FRL) of the storage tank, will be levied at the rate of 50% of BR.

- (6) Water charges for Annual Quantities drawn upto 100% of sanctioned quota will be Applicable Rete (AR), for water use more than 100% & less than 125% of sanctioned quota, water charges will be 1.50 times of AR and beyond 125% of sanctioned quota, water charges will be 3.0 times of AR.
- (7) Water rates applicable for Agro-Industries like poultry, Rice Mill, Dairy, corn processing, Vegetable Ghee etc., 75% of the AR. However, this concession will not be applicable for industries manufacturing alcohol / ethanol from sugarcane or corn as well as for winery, breweries.
 - (8) "Polluter pays" principle Every industry is expected to treat effluent to the standard specified by Maharashtra Pollution Control Board (MPCB) before its release into a natural water course or an irrigation canal. Industries, who have not installed Effluent Treatment Plant (ETPs) based upon their water allocation & ETPs not working to its full capacity, will be charged 2 times of Applicable Rate for the sanctioned quota or actual water use whichever is higher.
- (9) If any industry reduces its requirement by recycling (reducing its net demand of water up to minimum 75% or less than that), it shall be charged at 75% of applicable rate, provided, officers of WRD not below the rank of Executive Engineer have confirmed the reduction made in water use by recycling.
- (10) Industries are entitled to use treated effluent provided such use is by way of conveyance through closed pipe from treatment plant (without

discharging it into river /nalla). If such water is supplied for irrigation, its rates shall not be more than 60% of rates specified for irrigation by fresh water. Similarly, they shall submit details of such water use to BWSE.

- (11) Water used without signing the agreement, will be charged at 2 times AR.
- (12) If an industry adopts zero liquid discharge technology and draws only upto 25% of its allocation to cover line loss, evaporation and process consumption, it will be charged only @ 25% of the AR for the water drawn.
- (13) Where meter is installed but is found not functioning / removed / tampered , one months notice shall be given for repairing & commissioning of the meter .Water charges for this period will be 1.5 times of the AR on the sanctioned quantity of water or recent water use whichever is higher. Extension of one month can be given for repairing the water meter depending on specific local situation. If this defect is not rectified within 90 days, water charges will be 2 times AR.
- (14) Penal interest @ 10% per annum shall be levied on arrears of water charges.

7.00 Commitment and Penal Charges:

Commitment Charges:

In order to ensure that water reserved for non-irrigation purpose shall not remain unutilized and available water shall be utilized optimally, non-irrigation water utilities are permitted to give phase-wise plan of utilization. In case, non-irrigation utility wants to use allocated water in phased manner, it has to plan so, prior to execution of agreement. Such phase-wise planned water use shall be incorporated in the agreement. The levy of water charges shall be based on such phase-wise planning. But, balance water quantity (total allocated quantity – phase-wise planned water use) should be charged at the rate of 5% towards commitment charges. Similarly, if variation in actual water use and phase-wise planned water use is more than 10%, the assessment shall be done as follows:

In case, actual water use happens to be less than 90% of the phase-wise planned quantity of water, the billing shall be done on the 90% of the quantity of water specified in the agreement. If the actual water use is between 90% to 100% of the corresponding phase-wise water use, billing shall be made as per the standard rate. However, if the actual water use is more than 100% of the planned quantity of water corresponding to that particular phase, the billing of such excess quantity shall be made at 1.5 times of the standard rate. Following is an illustration for more clarification;

Suppose a water user has signed an agreement with the BWSE for 100 Mcum of non-irrigation use of water for 5 years. The user will need 100 Mcum water from the 4th year and its need in first 3 years it is 50, 60 and 80 Mcum respectively. This stage-wise water supply requirement will be mentioned in the agreement.

The water tariff for this use will be as follows:

1.	Year One	50 Mcum X Applicable Rate+ 5% of Applicable Tariff
		on remaining 50 Mcum, as Commitment Charges
2.	Year Two	60 Mcum X Applicable Rate+ 5% of Applicable Tariff
		on remaining 40 Mcum, as Commitment Charges
3.	Year Three	80 Mcum X Applicable Rate+ 5% of Applicable Tariff
		on remaining 20 Mcum, as Commitment Charges
4.	Year Four	100 Mcum X Applicable Rate

Penal Charges-: If actual water use is not as per the above stages and, if the difference is more than 10%, then the penal rates as provided in domestic & industrial category will be levied.

8.00 Details of Estimated O & M Cost and expected water charges recovery during the control period 2020 to 2023 for the first year.

A) Operation & Maintanance Cost = Cost of Administration + Cost of Irrigation management + Cost of Maintance & cost of operations + Cost of Operative maintenance + Cost of Preventive maintenance

$$= 116.00 + 850.00 + 500 + 254 + 200$$

- = Rs. 1920 Cr.
- B) Expected Water Charges Levy (Agriculture + Domestic + Industrial)
- = 324.33 + 48.26 + 424.22 + 1137.70
- = Rs. 1934.51 Cr.

These rates will be applicable from 1st july 2020 & will be for year 2020-

2021. The rates for year 2021-22 & year 2022-23 will be increased as per

cost inflation index. Also all the rates for different categorical use are

based volumetric method.

The rates propsed are given in following annextures

Annexture 1 :- Propsed rates for agriculture.

Annexture 2:- Proposed rates for Domestic.

Annexture 3 :- Propsed rates for industrial.

Encl.:- Annexture 1 to 3

Sd/-(Dr. Ramnath Sonawane) Secretary

Annexture 1 Agriculture Water Use

Propsed Rates for Agricultural Water Use in year 2020-21

1) For Flow Irrigation (Paise / cum) (Paise for 1000 Litre)

Sr. No.;	Type of Water Supply	Proposed Rates for year 2020-21 (Paise / Cum) (Paise for 1000 Litre)					
	Agricultural Water Supply	Kharif	Rabi	Hot Weather			
1	2	3	4	5			
1	(A) WUAs	5.50	11.00	16.50			
2	(B) Individual Benificiary	7.00	14.00	21.00			

2) Proposed Water Rates for Private Lift Irriagation Schemes

(Paise / Cum) (Paise for 1000 Litre)

Sr.No.	Type & source of Water Supply	Proposed Rates for year 2020-21 (Paise / Cum) (Paise for 1000 Litre)					
	Agricultural Water Supply	er Supply Kharif Rabi		Hot Weather			
1	2	3	4	5			
	Assured Water Supply	6.50	13.00	19.50			
1	1) Reserviors of Major Projects						
1	 Reserviors of Medium Projets, Canals of Major Medium Projects, Storge Tanks 	5.00	10.00	15.00			
2	Regulated Water Supply with transmission losses	5.00	10.00	15.00			
3	Partly Regulated Water Supply	2.50	5.00	7.50			
4	Reserviors / Bhandhra constructed & maintained by water user entity at its own costs	0.80	1.60	2.40			

Annexture – 2 Proposed Water Rates for domestic use in year 2020-21

Sr. No.	Source	Proposed Rates (Rs./Cum) (Rs. For 1000 Litre)							
	Domestic Water Supply	GP	NP	MC					
	Domestic Water Suppry	Gi	141	Domestic	Commercial				
1	2	3	4	5	6				
1	Assured Water Supply	0.30	0.35	0.55	2.70				
2	Regulated Water Supply with transmission losses	0.60	0.70	1.10	5.50				
3	Partly Regulated Water Supply	0.16	0.17	0.27	1.36				
4	Reserviors / Bhandhra constructed & maintained by water user entity at its own costs	0.05	0.06	0.09	0.44				

Note: 1) For past agreements on sharing in total / proportionate cost of infrastructure or where shared cost of infrastructure is agreed to at planning stage in new projects or where weir / bandhara for the capacity equal to annual water demand is constructed by entity below a dam to use its share, the water rate will be 16% of applicable rate in proportion ti the cost shared. However, in case of new agreements for water allocation to an entity from a completed dam, any payment in share cost will be treated only as advance water tariff to be adjusted against concessional water tariff of 16% applicable rate, the number of years the concessional tariff will be operative will be calculated by NPV method with 10% rate of interest. On full adjustment of the advance tariff, the appropriate basic rate will become applicable.

- 2) Water rates for commercial use is 5 times domestic rates as per criteria
- 3) Water rates for Grampanchayat , Nagarpalika / Nagarparishad , Municipal Corporations are 75~% , 90~% & 125~% of basic rate respectively as per criteria.

Annexture – 3
Propsed Water Rates for Industral Water Supply in year 2020-21

Sr. No.	Source	Proposed Rates Rates (Rs. / Cum) (Rs. For 1000 Litre)		
	Industrial Water Supply	Process	Raw Water	Domestic Use in Industrail Units
1	Assured Water Supply	9.30	232.50	0.55
2	Regulated Water Supply with transmission losses	18.60	465.00	1.10
3	Partly Regulated Water Supply	4.65	116.25	0.27
4	Reserviors / Bhandhra constructed & maintained by water user entity at its own costs	1.49	37.20	0.09

Note:-

- 1) For past agreements on sharing in total / proportionate cost of infrastructure or where shared cost of infrastructure is agreed to at planning stage in new projects or where weir / bandhara for the capacity equal to annual water demand is constructed by entity below a dam to use its share, the water rate will be 16% of applicable rate in proportion to the cost shared. However, in case of new agreements for water allocation to an entity from a completed dam, any payment in share cost will be treated only as advance water tariff to be adjusted against concessional water tariff of 16% on applicable rate, the number of years the concessional tariff will be operative will be calculated by NPV method with 10% rate of interest. On full adjustment of the advance tariff, the appropriate basic rate will become applicable.
- 2) Water Rates for Raw Water industries are proposed 25 times process industries as per criteria.