

BHAWSA MEDIUM IRRIGATION TANK PROJECT

COST BENEFIT ANALYSIS

PARAMETER FOR EVALUATION OF LOSSES OF FOREST

S.NO.	PARAMETER	IRRIGATION PROJECT
1	Loss of Value of timber fuel wood & minor forest produce on annual basis. Including loss of main - hours of people who derived livelihood & wages from the harvest of these commodities	Construction of Bhawasa medium tank project is in fully forest area. It doesn't envisage displacement of population. A plan for compensatory afforestation shall be prepared & under taken by state forest department. In addition to improve green cover in the command it is proposed for plantation in 2774.3 ha. Suitable land is handed over to forest department
2	Loss of animal husbandry productivity inclusive of loss of fodder	However, afforestation and other conservation measures would be taken up.
		NII
3	Cost of human resettlement	Based on the preliminary survey, there is no displacement of any outsees in the project and hence there would be no resettlement.
4	Loss of public facilities & administrative infrastructure of forest land or which would require forest land if facilities were diverted due to the project	Based on the preliminary survey there is no loss of any facilities or existing infrastructure in the project area
		NII
5	Environmental losses (soil, erosion, wild life habitat, effect on hydrological cycle, micro climate up setting of ecological balance)	There is no soil erosion else it will stop soil erosion. NO wild life is affected. As scheme is of small nature it will not affect hydrological cycle
6	Suffering to oustees	NII

(V.K. MANDLOI)

EXECUTIVE ENGINEER

WATER RESOURCES DIVISION, BURHANPUR

Executive Engineer
Water Resources Division
Burhanpur

ANNEXURE- G (i) (B)	
BHAWSA MEDIUM IRRIGATION TANK PROJECT	
COST BENEFIT ANALYSIS	
PARAMETER FOR EVALUATION OF LOSSES OF FOREST	
S.NO.	PARAMETER
1	Increase in productivity attributed to the specific project The Bhawsa medium irrigation tank project is conceived to cater irrigation water to 3750 hect. of c.a in village Bhawsa, Khamni, Mohad, Malvir, Bambada & Shahpur of Burhanpur block of tehsil & distt. Burhanpur. Irrigation intensity is proposed to be increased from Existing 50% to 53% in command area. Total amount annual benefits from increase productivity have been worked out as 278400 qtl. from 124250 qtl. therefore total profit in next 100 years would be rs. 238867.00 lacs
2	Benefits to economy The main objective of Bhawsa irrigation tank project is to provide benefit of irrigation water to 3750 ha. Land. Which is mainly owned by low income group & tribals & after completion assured water will be given to boost up their economy.
3	No. of population benefited The Bhawsa medium irrigation tank project is conceived to cater irrigation water to 3750 hect. of c.a in village Bhawsa, Khamni, Mohad, Malvir, Bambada & Shahpur of Burhanpur block tahsil & distt. Burhanpur will be benefited by this scheme by way of irrigation. So the total cultivators benefitted through irrigation shall be nearly 2800 nos.
4	Employment potential During the construction stage temporary employment to 48000 mandays & permanent employment 10 person shall be generated for 36 months.
5	Cost of acquisition facility on non forest land wherever feasible Non forest land is not coming under submergence. However "van adhikar patra" for 129-60^{Ha} is issued on forest land.
6	Loss of (A) agriculture & (B) animal husbandry production due- to diversion No loss of agriculture envisaged in fact present object has been proposed for the improvement of agriculture in this area. No loss of animal husbandry production is there.
7	Cost of rehabilitating the displacement of person as different from Not applicable, Based on the survey, it was found that there is no displacement due to project and as such there is no resettlement issue related to project

Executive Engineer
Water Resources Division
Burhanpur

EXECUTIVE ENGINEER
WATER RESOURCES DIVISION, BURHANPUR

(V.K. MANDLOI)

[Signature]

238867.00 lacs
1426.59 lacs
1.67
2.94

(i) Total benefit due - to project
(ii) Total annual cost (expenditure)
(iii) benefit cost ratio 10%
(iv) Cost benefits ratio 5%

Cost benefits analysis :

9	Total benefit due - to project	Rs.2388.67 lacs per years. Rs. 238867.00 lacs after 100 year
8	Cost of supply of free fuelwood to workers residing in or near forest area during period of construction	The labour camps will be facilitated with kerosine/lpg facilities and hence no tree cutting shall be there for fuel wood.

BHAWASA MEDIUM PROJECT BENEFIT COST RATIO

S.No	Particulars	Amount in Lakhs
1	Estimated Cost of the Project	12320.24
2	ANNUAL BENEFITS	
	(A) Benefit before canal Irrigation	
	i. Value of total agriculture produce before irrigation	2966.17
	ii. Cost of cultivation including all expences	1250.13
	iii. Net produce before irrigation .	1716.04
	(B) Benefit after cananal Irrigation	
	i. Value of total agriculture produce after irrigation	6142.72
	ii. Cost of cultivation including all expences	2038.01
	iii. Net produce after irrigation.	4104.71
	Net value of benefits	2388.67
3	ANNUAL COST	
	i. Interest on capital cost	12320.00
	ii. Depreciation @ 1%\$ of the estimated cost	123.20
	iii. Annual Operation and maintenance charges @Rs 1175/Ha.On 4030 Hactare	44.06
	iv. Maintenance of head work @1% of its cost	27.33
	Total	1426.59
4	B.C RATIO	810.59
	i. Interest @ 10% i. e. 2388.67/1426.59	1.67
	i. Interest @ 5% i.e. 2388.67/810.59	2.94

Executive Engineer
Water Resources Division
Burhanpur

Sub Divisional officer
Water Resources sub division no.1
Burhanpur

Executive Engineer
Water Resources Division
Burhanpur

FINACIAL STATEMENT BEFORE CANL IRRIGATION

S.No.	Particulars	Amount in Lakhs
(i)	GROSS RECEIPTS	
	i. Gross value of farm produce	2838.44
	ii. Add dung receipts (for fuel and manuar) @ 30% of fodder 4.50	127.73
iii.		2966.17
(ii)	ABSTRACT OF EXPENCES	
	(i) MATERIALS	
	(a) Seeds	95.60
	(b) Fertilizers	59.89
	(c) Compost	80.50
	(d) Agro Chemicals	8.05
	(ii) Add fodder expences 15% of farm produce	425.76
	(iii) Hired labouir, Bullock cart, Macheneries	305.00
	(iv) Depreciation on implents @ 2.7% of Gross farm produce	76.64
	(v) share and cashment @ 2% of gross farm produce	141.92
	(vi) Land revenue @ 2% of gross farm produce	56.77
(vii)		1250.13
(iii)	Net Value of Produce	1716.04
	Total Rs.	

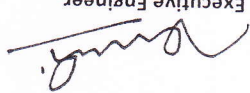
Executive Engineer
Water Resources Division
Burhanpur

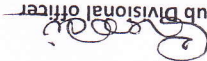
Sub Divisional officer
Water Resources sub division no.1
Burhanpur

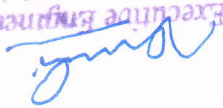
Executive Engineer
Water Resources Division
Burhanpur

FINACIAL STATEMENT AFTER CANL IRRIGATION

S.No.	Particulars	Amount in Lakhs
(i)	GROSS RECEIPTS	
	i. Gross value of farm produce	5878.20
	ii. Add dung receipts (for fuel and manuar) @ 30% of fodder	264.52
	iii.	
(ii)	ABSTRACT OF EXPENCES	
	(i) MATERIALS	
	(a) Seeds	104.04
	(b) Fertilillizers	77.48
	(c) Compost	131.25
	(d) Agro Chemicals	11.25
	(ii) Add fodder expences 15% of farm produce	778.98
	(iii) Hired labour, Bullock cart, Macheheries	431.27
	(iv) Depriatation on implents @ 2.7% of Gross farm produce	140.22
	(v) share and cashment @ 2% of gross farm produce	259.66
	(vi) Land revenue @ 2% of gross farm produce	103.86
	(vii)	
(iii)	Net Value of Produce	2038.01
	Total Rs.	4104.71


 Executive Engineer
 Water Resources Division
 Burhanpur


 Sub Divisional Officer
 Water Resources sub division no.1
 Burhanpur


 Executive Engineer
 Water Resources Division
 Burhanpur

BHAWASA MEDIUM PROJECT
STATEMENT SHOWING VALUE OF PRODUCE AFTER IRRIGATION

STATEMENT SHOWING VALUE OF PRODUCE AFTER IRRIGATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
s. no	Name of Crop	Yield Tonnes per Ha.		Total product in Tonnes		Rate Rs. Per Tonnes		Total Value of product in Lakha		Expenditure on Seeds		Expenditure on Fertilizers						Compost		Agro Chemical				Labour		Bullock Carts		Transport/ Machineryes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
		Area in Ha	Main product	By product	Main product	By product	Main product	By product	Total	Req. Qty. Kg/Ha	Rate of Seed Rs. Per kg.	Total Amount of Seed in Lakha	Urea		TSP		KCL		Total Amount of Compost in Lakha	Req. Qty. /Ha	Rate/kg or Liter	Total Amount of Agro Chemical in Lakha	Req. Qty. /Ha	Rate/kg or Liter	Total Amount of Labour in Lakha	Rate/Ha	Total Amount in Lakha	Rate/Ha	Total Amount in Lakha	Rate/Ha	Total Amount in Lakha																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
													Req. Qty. /Ha	Total Amount of Urea in Lakha	Req. Qty. /Ha	Total Amount of TSP in Lakha	Req. Qty. /Ha	Total Amount of KCL in Lakha																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				</

(Signature)
Sd/- Engineer
Water Resources Division
Bharatpur (M.P.)

(Signature)
Sd/- Engineer
Water Resources Division
Bharatpur (M.P.)

(Signature)
Sd/- Engineer
Water Resources Division
Bharatpur (M.P.)

(Signature)
Executive Engineer
Water Resources Division
Bharatpur

BHAWASA MEDIUM PROJECT
STATEMENT SHOWING VALUE OF PRODUCE BEFORE IRRIGATION

STATEMENT SHOWING VALUE OF PRODUCE BEFORE IRRIGATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
s. no	Name of Crop	Area in Ha	Yield Tonnes per Ha.		Total product in Tonnes		Rate Rs. Per Tonnes		Total Value of product in Lakha		Expenditure on Seeds				Expenditure on Fertilizers				KCL		Compost		Agro Chemical		Labour	Bullock Carts	Transport/ Machineries																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
			Main product	By product	Main product	By product	Main product	By product	Req. Qty. Kg/Ha	Rate of Seed Rs. Per kg.	Total Amount of Seed in Lakha	Req. Qty. /Ha	Rate/kg or Liter	Total Urea in Lakha	Req. Qty. /Ha	Rate/kg or Liter	Total TSP in Lakha	Req. Qty. /Ha	Rate/kg or Liter	Total Amount of KCL in Lakha	Req. Qty. /Ha	Rate/kg or Liter	Total Amount of Compost in Lakha	Req. Qty. /Ha				Rate/kg or Liter	Total Amount of Agro Chemical in Lakha	Rate/Ha	Total Amount in Lakha																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
1	BABU	2	3	4	5 (3x4)	7(3x5)	8	9	10(6x8)	11(7x9)	12(10x11)	13	14 (x14)	15(3x13)	16	17 (x17)	18(3x16)	19	20 (x20)	21(3x19)	22	23 (x23)	24(3x22)	25	26	27																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

[Signature]
Sd/- Engineer

[Signature]
Sub Division Officer
Water Resources Sub Div. No. 1
Bharanpur (M.P.)

[Signature]
Executive Engineer
Water Resources Division
Bharanpur (M.P.)

[Signature]
Executive Engineer
Water Resources Division
Bharanpur (M.P.)