

NAME OF PROJECT: Impounding/Recharging Dam at Tlawngnar for Zobawk WSS @164,12,000/-

BENEFIT-COST RATIO (BCR) ANALYSIS

ASSUMED CONDITIONS:

- 1) All household families are willing to have their own House Water Connections
- 2) All House water connection holders are paying monthly water bills regularly
- 3) Operation & Maintenance cost for Dam is small and considered negligible in monetary terms
- 4) Expected volume of Dam to be constructed = 70,00,000 lits
- 5) Expected No. of Hwc after completion = 700 average for life period (30 yrs)@1200 per connection per month as per current PHED Water Tariff Rates for minimum consumption

Project Year	Cash Inflows/Outflows	PV Factor @3%	PV of benefit expected from Project
0 th Year : 2022	-1,64,12,000	-	-
1 st Year : 2023	16,80,000	0.97087	16,31,068
2 nd Year : 2024	16,80,000	0.94260	15,83,561
3 rd Year : 2025	16,80,000	0.91514	15,37,438
4 th Year : 2026	16,80,000	0.88849	14,92,658
5 th Year : 2027	16,80,000	0.86261	14,49,183
6 th Year : 2028	16,80,000	0.83748	14,06,974
7 th Year : 2029	16,80,000	0.81309	13,65,994
8 th Year : 2030	16,80,000	0.78941	13,26,208
9 th Year : 2031	16,80,000	0.76642	12,87,580
10 th Year : 2032	16,80,000	0.74409	12,50,078
11 th Year : 2033	16,80,000	0.72242	12,13,668
12 th Year : 2034	16,80,000	0.70138	11,78,318
13 th Year : 2035	16,80,000	0.68095	11,43,998
14 th Year : 2036	16,80,000	0.66112	11,10,678
15 th Year : 2037	16,80,000	0.64186	10,78,328
16 th Year : 2038	16,80,000	0.62317	10,46,920
17 th Year : 2039	16,80,000	0.60502	10,16,428
18 th Year : 2040	16,80,000	0.58739	9,86,823
19 th Year : 2041	16,80,000	0.57029	9,58,081
20 th Year : 2042	16,80,000	0.55368	9,30,175
21 st Year : 2043	16,80,000	0.53755	9,03,083
22 nd Year : 2044	16,80,000	0.52189	8,76,779
23 rd Year : 2045	16,80,000	0.50669	8,51,242
24 th Year : 2046	16,80,000	0.49193	8,26,449
25 th Year : 2047	16,80,000	0.47761	8,02,377
26 th Year : 2048	16,80,000	0.46369	7,79,007
27 th Year : 2049	16,80,000	0.45019	7,56,318
28 th Year : 2050	16,80,000	0.43708	7,34,289
29 th Year : 2051	16,80,000	0.42435	7,12,902
30 th Year : 2052	16,80,000	0.41199	6,92,138
TOTAL			3,29,28,741
Benefit-Cost Ratio = -D42/B11			2.01

Note: PV means Present Value

Since BCR is > 1, the Project is feasible

Project cost recovery is achievable as early as by 13th year.

Superintending Engineer, PHED
Lunglei WATSAN Circle