





**Calculation of NPV, IRR, etc - Thankassery (Kollam) Port**  
(Rs. Million)

Particulars	Years of Operation																														
	0	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	28	29	30
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	
a) Capital investments	(1,167)	0	0	0	0	0	0	(658)	(658)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,217
b) (Increase) / decrease in working capital		(1)	(1)	(1)	(1)	(0)	0	(1)	(0)	(3)	(0)	(0)	(3)	(1)	1	(4)	(1)	(1)	(5)	(1)	(1)	(7)	(1)	(1)	(9)	(2)	(1)	(9)	1	53	
c) Profit before depreciation and interest (TL + USL)	0	20	42	64	84	89	88	115	121	127	206	216	227	292	306	284	288	299	314	399	434	469	600	652	703	894	974	1,029	1,230	1,280	1,326
d) Less: Non operating incomes (interest on investments)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	15	28	49	79	112	153	199	248	310	379	451	537	626	719	
<b>Net Cashflow (a+b+c-d)</b>	<b>(1,167)</b>	<b>19</b>	<b>41</b>	<b>63</b>	<b>83</b>	<b>89</b>	<b>88</b>	<b>114</b>	<b>(538)</b>	<b>(532)</b>	<b>203</b>	<b>216</b>	<b>226</b>	<b>289</b>	<b>306</b>	<b>285</b>	<b>281</b>	<b>283</b>	<b>285</b>	<b>346</b>	<b>354</b>	<b>356</b>	<b>440</b>	<b>452</b>	<b>454</b>	<b>574</b>	<b>593</b>	<b>578</b>	<b>684</b>	<b>654</b>	<b>1,877</b>
<b>Cumulative Cashflow</b>	<b>(1,167)</b>	<b>(1,148)</b>	<b>(1,106)</b>	<b>(1,043)</b>	<b>(960)</b>	<b>(871)</b>	<b>(784)</b>	<b>(669)</b>	<b>(1,207)</b>	<b>(1,740)</b>	<b>(1,537)</b>	<b>(1,321)</b>	<b>(1,094)</b>	<b>(805)</b>	<b>(499)</b>	<b>(214)</b>	<b>67</b>	<b>350</b>	<b>635</b>	<b>980</b>	<b>1,335</b>	<b>1,691</b>	<b>2,131</b>	<b>2,582</b>	<b>3,036</b>	<b>3,611</b>	<b>4,203</b>	<b>4,781</b>	<b>5,465</b>	<b>6,120</b>	<b>7,997</b>
Discount Factor (WACC)	1.000	0.902	0.813	0.733	0.661	0.596	0.538	0.485	0.437	0.394	0.355	0.320	0.289	0.261	0.235	0.212	0.191	0.172	0.155	0.140	0.126	0.114	0.103	0.093	0.083	0.075	0.068	0.061	0.055	0.050	0.045
Discounted Cashflow	(1,167)	17	34	46	55	53	47	55	(235)	(210)	72	69	65	75	72	60	54	49	44	48	45	41	45	42	38	43	40	35	38	33	84
Cumulative Discounted Cashflows	(1,167)	(1,150)	(1,116)	(1,070)	(1,014)	(962)	(915)	(859)	(1,094)	(1,304)	(1,232)	(1,163)	(1,097)	(1,022)	(950)	(890)	(836)	(787)	(743)	(695)	(650)	(609)	(564)	(522)	(484)	(441)	(401)	(366)	(328)	(295)	(211)
<b>Internal Rate of Return (30 yr)</b>	<b>9.77%</b>																														
<b>NPV (INR, million) at WACC</b>	<b>(190.31)</b>																														
Payback period (Phase I)																															

Calculation of Weighted Average cost of capital	
Equity ratio	30%
Debt ratio	70%
Cost of equity	13.00%
Cost of debt	10.00%
WACC	10.90%