

CONSTRUCTION PHASE IMPACTS for POL Storage and Port Facilities at Thilawa SEZ

Green for positive impact

score 1, 2 or 3

Ref.	Impact/Issue	Comment/Description of Impact (Reference: Baseline Para #)	Extent	Duration	Magnitude/ Intensity	Probability	Significance
Bio-Physical & Chemical							
BPC/1	Changes in surface water quality	Significance mostly in direct area during construction period. No reference baseline data to compare with the current construction stage.	1	1	1	2	low
BPC/2	Changes in groundwater quality	Soil composition has low permeability, so negligible impact by pollutants into the ground water.	1	1	1	1	low
BPC/3	Changes to drainage patterns	Alteration of the natural drainage system	1	2	2	3	medium
BPC/4	Changes in rates of erosion and siltation	No significant erosion and siltation in Yangon River because of construction work.	1	1	1	3	low
BPC/5	Changes to air quality	Air quality will be changed if construction by the companies are done simultaneously.	2	2	1	3	low
BPC/6	Changes to ambient noise levels	Noise levels will be significant if construction by companies are done simultaneously.	1	1	1	3	low
BPC/7	Changes to aquatic biota	Mainly due to the jetty construction, most of the aquatic biota and habitat types will be changed significantly.	1	3	2	3	medium
BPC/8	Changes to terrestrial biota	Due to construction works including land filling by borrowed soil from Yangon River and adjacent areas, terrestrial ecosystem may be changed.	1	3	1	3	low
BPC/9	Changes to disease vector populations	Health risk to construction laborers during construction period (4.7.4.1)	1	2	1	2	low
BPC/10	Changes to land cover	Due to different kinds of construction works, original land cover may be totally changed.	1	3	2	3	medium
BPC/11	Changes to areas of natural habitat	Due to the changes in vegetation in land and water, natural habitat may be changed to a certain extent.	1	3	1	3	low
Socio-Economic & Cultural							
SEC/1	Changes involving loss of private assets	Loss of paddyland and habitation from farmers (4.7.9)	1	3	3	3	high
SEC/2	Changes involving loss of cultural heritage	No significant cultural heritage (4.7.8)	1	1	1	1	low
SEC/3	Changes involving displacement of people	Displacement of inhabitants for the project (4.7.9)	2	3	2	3	high
SEC/4	Changes to local traffic patterns	Simultaneous construction works may change traffic pattern.	2	2	1	3	low
SEC/5	Changes to fisheries	Because of possible habitat change and fishery by construction workers, changes in fishery may happen.	1	2	1	2	low
SEC/6	Changes in local wage labour incomes/livelihood opportunities	Imported skilled workers are mostly employed.	2	2	1	2	low
SEC/7	Changes in local trade/commercial incomes/opportunities	No significant local trade / commercial incomes during construction phase.	1	2	1	2	low
SEC/8	Changes in visual amenity	No significant amenity to vision during construction period.	1	1	1	3	low
SEC/9	Changes to public infrastructure/community resources	Improved infrastructure and community resources with positive impact	2	3	2	2	medium

OPERATIONAL PHASE IMPACTS for POL Storage and Port Facilities at Thilawa SEZ

Green for positive impact

score 1, 2 or 3

Ref.	Impact/Issue	Comment/Description of Impact	Extent	Duration	Magnitude/Intensity	Probability	Significance
Bio-Physical & Chemical							
BPC/1	Changes in surface water quality	In case of leakage of POL at Jetty and Storage Tank	2	1	2	1	low
BPC/2	Changes in groundwater quality	Due to the soil type, there is low permeability for pollution of ground water.	1	1	1	1	low
BPC/3	Changes to drainage patterns	Operation of the POL Storage do not effect existing drainage system	1	3	1	3	low
BPC/4	Changes in rates of erosion and siltation	Due to the sea going vessels coming to and from Yangon River, the flow pattern of the Yangon river may change to a certain extent	1	3	1	3	low
BPC/5	Changes to air quality	Due to the wind speed and wind direction, the air quality in the project area and its surroundings may change.	2	1	2	1	low
BPC/6	Changes to ambient noise levels	Noise from the ships at the Jetty may raise the noise level.	2	1	2	3	medium
BPC/7	Changes to aquatic biota	In case of leakage of POL, changes in aquatic biota may happen.	1	3	1	2	low
BPC/8	Changes to terrestrial biota	In case of emission of poisonous gas in the air, changes in terrestrial biota may happen.	0	0	0	0	low
BPC/9	Changes to disease vector populations	Health risk to people at POL Storage and transfer site due to foreign sea going vessels.	1	1	1	2	low
BPC/10	Changes to land cover	No definite impact	0	0	0	0	low
BPC/11	Changes to areas of natural habitat	No further impact in project area	0	0	0	0	low
Socio-Economic & Cultural							
SEC/1	Changes involving loss of private assets	Probably no more impact as resettlement had occurred.	0	0	0	0	low
SEC/2	Changes involving loss of cultural heritage	No impact in operational phase.	0	0	0	0	low
SEC/3	Changes involving displacement of people	Resettlement had already occurred.	0	0	0	0	low
SEC/4	Changes to local traffic patterns	For the future development of Myanmar, and due to increasing POL requirement, there may be changes in local traffic pattern.	2	3	2	2	medium
SEC/5	Changes to fisheries	Water, air, and noise pollution may interfere with fish migration.	2	3	1	3	low
SEC/6	Changes in local wage labour incomes/livelihood opportunities	Increase income and livelihood opportunities due to POL Storage and distribution development works.	2	3	1	2	low
SEC/7	Changes in local trade/commercial incomes/opportunities	Increase income and livelihood opportunities due to POL Storage and distribution development works.	2	3	2	2	medium
SEC/8	Changes in visual amenity	Development infrastructure appears instead of natural landscape.	2	3	1	3	low
SEC/9	Changes to public infrastructure/community resources	Development infrastructure with better roads, water supply system, sanitation facilities, etc.	2	3	2	2	medium

Guidance for Use

Score	Extent	Duration	Magnitude	Probability
1	On site: Within the works/site area or immediate surroundings	Short: The impact is short term (0- 12 months) or intermittent	Low: No environmental functions and processes are altered No or minimal change to socio-economic condition	Low
2	Locally: Effects measurable/noticeable outside the works area and immediate surroundings	Medium: Medium term (1-2 years - construction phase)	Medium: Natural ecosystems are modified Changes are experienced to socio-economic condition	Medium
3	Beyond: The activity has impact outside the SEZ	Long: the impact persists beyond the construction phase for years or the operational life of the project	High: Environmental functions altered Socio-economic conditions highly modified Effects may be permanent or irreversible.	High