

Annex 4: Impact Assessment

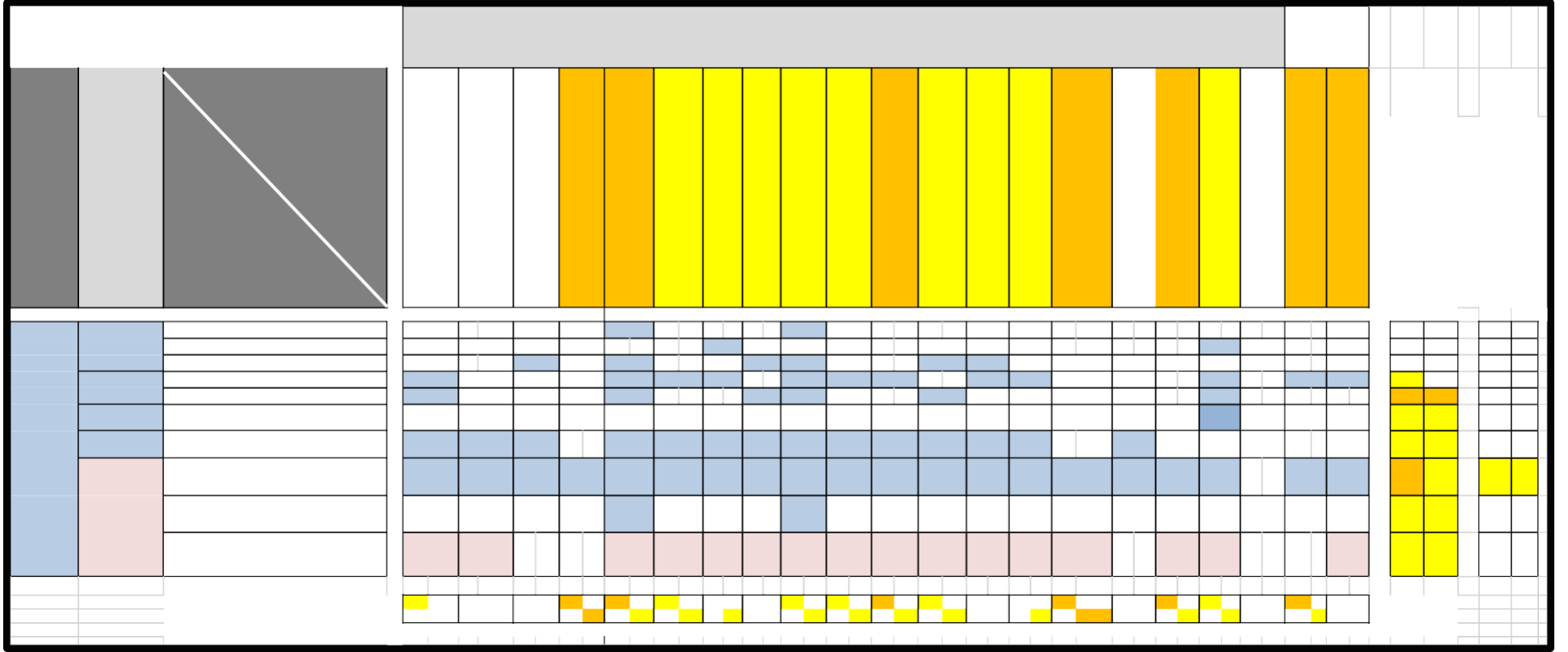
The impact of each activity on each receptor was assessed according to magnitude on a scale of -10 to 10, where negative values indicate a negative influence on the receptor, and importance on a scale of 0 to 10, which encompasses the probability of occurrence, frequency of the impact etc. The numbering system is used as a relative measure, where more negative numbers correspond to impacts having a higher negative magnitude. Susceptible receptors and corresponding activity are deduced and addressed if both magnitude and importance are of minor severity.

Further, the Buroz Relevant Integrated Criteria and is used to determine the total importance, I, of the impact for each activity on all receptors and of the project overall.

On the basis of the value of the importance of impact, I, obtained, the severity of the impact of an activity is assessed.

| Criterion | Definition | Scoring Scale |
|--------------------------|--|---|
| Intensity (IN) | Degree of destruction of activity on receptor | 1 (lowest)-12 (highest) |
| Extension (EX) | Theoretical area of influence of the impact | 1 (localized) – 8 (widespread) |
| Momentum (MO) | Period of time for manifestation of the impact | 4 (immediate: <1 year) – 2 (medium: 1-5 years)- 1 (long term: > 5 years) |
| Persistence (PE) | Duration of the effect of the impact | 1 (fleeting, < 1 year), 2 (temporary, 1-5 years), 4 (permanent, >5 years) |
| Reversibility (RV) | Possibility of returning to pre-activity initial conditions by rebuilding or natural means | 1 (short term, < 1 year)- 2 (medium term, 1-5 years) – 4 (long term, > 5 years or irreversible) |
| Recoverability (MC) | Possibility of reconstruction with corrective measures | 1 -2 (full and immediate recovery)- 4 (partial recovery and medium term)- 8 (unrecoverable) |
| Synergy (SI) | Reinforcement ability of manifested effects | 1 (No synergy of actions on a receptor) -2 (moderate synergism)-4 (high synergy) |
| Accumulation (Ac) | Progressive increase of the effect | 1 (no cumulative effect)- 4(cumulative effect) |
| Effect (EF) | Directionality of impact-the cause (action)-effect (impact) | 4 (direct)- 1 (indirect) |
| Frequency (PR) | Regularity of manifestation of the effect | 4 (continuous) – 2 (irregular)-1 (periodic) |
| Importance of Impact (I) | $I = \pm (3 \times IN + 2 \times EX + MO + PE + RV + SI + AC + EF + PR + MC)$ | |

The table below is based on the Buroz's Relevant Integrated Criteria



| Activities | Construction | | | | | | | | | Operation and maintenance | |
|------------|--------------------------------|---|---------------------|---------------|-------------|---|---------------------------------------|----------------------------|------------------|---------------------------|------|
| | Working in outdoor environment | Excavation: intermediate pressure network | Pipe laying (PE100) | Welding PE100 | Backfilling | Excavation: low pressure PE80 connections | Pipe laying: low pressure connections | Leakage testing: pneumatic | Waste Generation | Gas network | |
| Criteria | | | | | - | - | - | - | - | | |
| | 9 | 9 | 9 | 9 | 5 | 9 | 9 | 12 | 6 | 8 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | 4 | |
| | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 4 | |
| | 1 | 4 | 4 | 4 | 1 | 4 | 4 | 1 | 4 | 1 | |
| | 1 | 4 | 4 | 4 | 1 | 4 | 4 | 1 | 1 | 1 | |
| | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 2 | |
| | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | |
| | 4 | 4 | 4 | 4 | 1 | 4 | 4 | 4 | 1 | 1 | |
| | | 44 | 52 | 48 | 48 | 27 | 52 | 48 | 57 | 46 | 47 |
| | Importance of impact (I) | 45.5 | | | | | | | | | 43.0 |
| 44.3 | | | | | | | | | | | |