**Supplementary File**

**Table A1.** Coding system with themes and categories.

|  |  |  |  |
| --- | --- | --- | --- |
| **Themes** | **Categories** | **Code** | **Sub-categories** |
| **Social knowledge** | Institutional aspects and actorsDynamics, functions, and flowsPhysical aspects and spaces | *S-IC**S-DC**S-PD* | Conceptual co-design phaseEmbodiment co-design phaseDetailing co-design phase |
| **Social-ecological knowledge** | Institutional aspects and actorsDynamics, functions, and flowsPhysical aspects and spaces  | *SE-IC**SE-DC**SE-PD* | Conceptual co-design phaseEmbodiment co-design phaseDetailing co-design phase |
| **Ecological knowledge** | Institutional aspects and actorsDynamics, functions, and flowsPhysical aspects and spaces  | *E-IC**E-DC**E-PD* | Conceptual co-design phaseEmbodiment co-design phaseDetailing co-design phase |

**Table A2.** The stakeholders involved in the co-design processes.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sectors** |  | **Kaukari Urban Park** |  | **Antofagasta Seaside Park** |
| Public | 12345678 | Housing and Urbanism Ministry (Minvu)Hydraulic Infrastructure Department (DOH)Public Infrastructure Ministry (MOP)Municipality of CopiapóRegional Government of Atacama (GORE)National Assets Ministry (MBN)Social Development Ministry (MDS) | 12345678 | Port Infrastructure Department (DOP)Road Infrastructure Department (DV)Public Infrastructure Ministry (MOP)Housing and Urbanism Ministry (Minvu)Municipality of AntofagastaRegional Government of Antofagasta (GORE)Social Development Ministry (MDS)Chilean Army |
| Private | 91011 | Teodoro Fernández Associate ArchitectsBonifacio Fernández*Habiterra* Consultants | 910111213 | Teodoro Fernández Associate ArchitectsUrbana ED urban managementGSI EngineersBHP BillitonIndustrial Association of Antofagasta (AIA) |
| Third sector | 1213 | Community Organisations (I)School organizations | 141516 | CREO Antofagasta NGO (CA)*Urbanismo Social* NGO (US)*Ciudad Emergente* NGO (CE) |
| Citizen | 141516 | Community Organisations.Neighbourhood organizations Public Schools | 171819 | Executive Council (EC)Citizen Council (CC)Community Organizations (multiple sports and cultural) |
| Academic |  | (not applicable) | 2021 | University of Antofagasta (UA)Catholic University of the North (UCN) |

**Table A3.** Design teams and experts involved in the co-design processes.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **Kaukari Urban Park** |  | **Antofagasta Seaside Park** |
| Expert studies | 1234567 | Urban development consultingUrban planning studiesAgronomy consultingMine tailing consultingSoil mechanics studyManagement models studyCitizen participation study | 123456 | Soil mechanics studyUrban planning studiesManagement models studyCitizen participation studyTactical urbanism study and interventionsUrban Management study |
| Disciplinary design projects | 8910111213141516 | Urban designLandscape designHydraulic engineering designArchitectural designStructural designPaving and rainwater designElectrical engineering designSanitary Engineering designLighting design | 78910111213141516 | Urban designLandscape designPort hydraulic engineering designArchitectural designStructural designIrrigation designPaving and cycle path designElectrical engineering designSanitary Engineering designLighting design |