

Table S1. Objective, criteria and metric of the Dimension I "Integration of NBS in the city"

Metric	Question	Reference values
OBJECTIVE 1 GOVERNANCE AND STAKEHOLDERS INVOLVEMENT		
<i>Criterion 1.1 - NBS planning at the city level</i>		
Ecosystem services and protective infrastructure identification	Are the ecosystem services and the protective infrastructure objectives identified at city level?	3) Yes; 2) Partially, most of them are identified at city level; 1) Partially, some of them are identified at city level; 0) No.
NBS plan or strategy alignment with ecosystem services	Does the city have an specific plan or strategy focused on NBS implementation that ensures the alignment between the existing NBS and the main ecosystem services at city level?	3) Yes; 1.5) No, the city does not have an specific plan or strategy, however, there are some projects or initiatives focused on NBS and ecosystem services at city level; 0) No.
Risk identification	In such specific plan or strategy, have the risks that may affect the NBS been identified at the city level?	3) Yes; 2) Partially, some risks that may affect the NBS have been identified at the city level; 1) Partially, some risks that may affect some NBS have been identified; 0) No.
<i>Criterion 1.2 - Stakeholders awareness and involvement</i>		
Stakeholder service awareness	Is there an awareness of the stakeholders of NBS existence in the city and of the ecosystem services provided by the NBS?	3) Yes; 1.5) Yes, there is an awareness of NBS existence but not of the ecosystem services provided; 0) No.
Civil society links	Are stakeholders or community associations involved in decision-making, planning, monitoring and maintenance of NBS?	3) Yes; 2) Yes, stakeholders or community associations are involved in most of this activities; 1) Yes, stakeholders or community associations are involved in some of this activities; 0) No.
Awareness campaigns and events	Are there awareness events for a better understanding by the community of NBS contribution for resilience and for ecosystem services?	3) Yes; 1.5) Partially, there are events for NBS awareness, however, these are not focused on the contribution for resilience or ecosystem services; 0) No.
OBJECTIVE 2 ECONOMIC SUSTAINABILITY		
<i>Criterion 2.1 - Public finance</i>		
NBS budget	Is there a specific budget (in the financial plan of the city or the entity in charge) for NBS implementation, maintenance and monitoring?	3) Yes; 2) Yes, for NBS implementation and maintenance but NBS monitoring is not included; 1) Yes, for NBS implementation but NBS maintenance and monitoring are not included; 0) No.
NBS financial support to community involvement	Is there any initiative (developed by the municipality or the entity in charge) to subsidize the implementation of the NBS in households?	3) Yes, for the last and future years; 1.5) Yes, for the last or future years; 0) No.
NBS annual cost	Ratio between the annual costs of NBS monitoring and maintenance in the last year (considering the last year as the last year without disrupting events occurrences) and the operating annual NBS budget	3) More than or equal to 1,0 and less than or equal to 1,1; 1.5) More than or equal to 0,9 and less than 1,0 or more than 1,1 and less than or equal to 1,2; 0) Less than 0,9 or more than 1,2.
Scenario impact on NBS annual cost	Ratio between the costs with NBS monitoring and maintenance due to the most severe scenario and the operating annual NBS budget	3) Less than 1,1; 2) More than or equal to 1,1 and less than 1,5; 1) More than or equal to 1,5 and less than 2,0; 0) More than or equal to 2,0.
<i>Criterion 2.2 - Economic opportunities</i>		
Green jobs opportunities	Were new jobs created, or will be created, related to a NBS?	3) Yes, a significant number of new jobs were created or will be created; 1.5) Yes, a few jobs were created or will be created; 0) No.
Business and activities with benefits	Were new businesses or economic activities created, or will be created, related to a NBS?	3) Yes, a significant number of businesses or economic activities were created or will be created; 1.5) Yes, a few businesses or economic activities were created or will be created; 0) No.
Tourism enhancement	Do NBS contribute to enhance the tourism interest at the city or neighbourhood level?	3) Yes, NBS contribute significantly to enhance the tourism interest; 1.5) Yes, NBS contribute slightly to enhance the tourism interest; 0) No.

Metric	Question	Reference values
OBJECTIVE 3 SOCIAL INVOLVEMENT AND CO-BENEFITS		
<i>Criterion 3.1 - Citizens engagement and accessibility to NBS</i>		
Citizens engagement to NBS	Percentage of private NBS (e.g. green roof, green area, rain garden,...)	3) More than or equal to 10% of NBS are private; 1.5) More than or equal to 5% and less than 10% of NBS are private; 0) Less than 5% of NBS are private.
Public accessibility	Percentage of public NBS	3) More than or equal to 90% NBS have public access; 2) More than or equal to 50% and less than 90% NBS have public access; 1) More than or equal to 25% and less than 50% NBS have public access; 0) Less than 25% NBS have public access.
NBS distribution	Are NBS scattered in the city?	3) Yes, NBS are scattered in the city, existing one or more NBS in each neighbourhood; 1.5) Yes, NBS are partially scattered in the city but do not exist in all neighbourhoods; 0) No, a significant number of NBS (with an area higher than 0.25ha) are concentrated in a few locations or 50% of NBS area is located in one NBS.
<i>Criterion 3.2 - Social co-benefits</i>		
Citizens awareness of NBS urban heat island mitigation	Is it clear that citizens understand the NBS contribution to urban heat island mitigation, namely, a significant increase of visitors in the NBS installations occurs during heat waves?	3) Yes; 1.5) Partially, a slight increase of visitors is perceived; 0) No.
Health and well-being co-benefits	Are NBS used as community locations for sport and recreation activities (e.g. running or yoga)?	3) Yes, there is a significant number of events and a significant increase of NBS visitors; 2) Yes, there is a significant number of events but there is not a significant increase of NBS visitors; 1) Yes, there is some sport and recreation events; 0) No.
Urban biodiversity	Do NBS promote biodiversity?	3) Yes, all of the NBS; 2) Yes, most of them; 1) Yes, some of them; 0) No.
Aesthetical and recreational importance	Are NBS used as community locations for cultural activities (e.g. theatre or musical events)?	3) Yes, all of the NBS; 2) Yes, most of them; 1) Yes, some of them; 0) No.
OBJECTIVE 4 ENVIRONMENTAL RESILIENCE		
<i>Criterion 4.1 - Fresh water provision</i>		
Groundwater recharge	Is there a significant increase in groundwater level nearby NBS?	3) Yes; 1.5) Yes, there is significant increase in groundwater level nearby NBS only during wet season; 0) No.
<i>Criterion 4.2 - Local air quality regulation</i>		
Temperature reduction for local climate regulation	Is a local temperature reduction expected due to NBS implementation?	3) Yes, a high reduction is expected; 2) Yes, a significant reduction is expected; 1) Yes, only a slight reduction is expected; 0) No.
Air quality improvement	What is the estimated air quality improvement due to NBS implementation?	3) The air quality improve significantly; 1.5) The air quality improve slightly; 0) The air quality does not improve.
Carbon sequestration and storage	Is a carbon sequestration and storage increase expected due to NBS implementation?	3) Yes, above 30 t/ha; 2) Yes, between 20 and 30 t/ha; 1) Yes, between 10 and 20 t/ha; 0) Yes, less than 10 t/ha.
<i>Criterion 4.3 - Moderation of extreme events</i>		
Estimated infiltration enhancement	To the applicable NBS, what is the estimated infiltration rate due to NBS implementation?	3) The average NBS infiltration rate is above 200 mm/h; 2) The average NBS infiltration rate is between 100 and 200 mm/h; 1) The average NBS infiltration rate is between 10 and 100 mm/h. 0) The average NBS infiltration rate is less than 10 mm/h.
Estimated water retention enhancement	What is the estimated water retention due to NBS implementation?	3) The estimated water retention is between 80% and 100%; 2) The estimated water retention is between 50% and 80%; 1) The estimated water retention is between 20% and 50%; 0) The estimated water retention is less than 20%.
Estimated evapotranspiration improvement	What is the estimated evapotranspiration due to NBS implementation?	3) The estimated evapotranspiration is above 5 mm/day; 1.5) The estimated evapotranspiration is between 1 and 5 mm/day; 0) The estimated evapotranspiration is less than 1 mm/day.

Metric	Question	Reference values
<i>Criterion: 4.4 - Water treatment</i>		
Use of NBS for stormwater treatment	Do existing NBS contribute for the stormwater treatment of surface runoff?	3) Yes, all of the NBS; 2) Yes, most of them; 1) Yes, some of them; 0) No.
Use of NBS for wastewater treatment	Are NBS providing any pollution treatment in the city's wastewater treatment plants?	3) Yes, all of the NBS; 2) Yes, most of them; 1) Yes, some of them; 0) No.
Standing water quality	Is there standing water with good water quality in the NBS?	3) Yes, most of the time or in all of the NBS; 2) Yes, frequently or in most of the NBS; 1) Yes, sometimes or in some of the NBS; 0) No.
<i>Criterion 4.5 - Erosion prevention and maintenance of soil fertility</i>		
Regeneration of abandoned areas	Do NBS contribute to derelict areas and brownfield regeneration?	3) Yes, all of the NBS; 2) Yes, most of them; 1) Yes, some of them; 0) No.
Land slide and erosion prevention	Do NBS contribute to land slide and erosion prevention?	3) Yes, all of the NBS; 2) Yes, most of them; 1) Yes, some of them; 0) No.
<i>Criterion 4.6 - Habitats for species promotion</i>		
Adequate living spaces	Do NBS represent living spaces for plants or animals, providing appropriate conditions (food, water and shelter) for different species (migratory or non-migratory)?	3) Yes, all of the NBS; 2) Yes, most of them; 1) Yes, some of them; 0) No.
Undesired species	Do NBS represent living spaces for undesired species (e.g. plants emitting allergic pollen) and plagues (e.g. mosquitos)?	3) No; 2) Yes, sometimes or in some of the NBS; 1) Yes, frequently or in most of the NBS; 0) Yes, most of the time or in all of the NBS.

Table S2. Objective, criteria and metric of the Dimension II "Operation and service of NBS".

Metric	Question	Reference values
OBJECTIVE 5 SPATIAL PLANNING		
<i>Criterion 5.1 - Hazard and exposure mapping</i>		
Presentation process for risk information	Do clear and regularly updated hazard maps and data on hazard exist (e.g. flooding, heat waves)?	3) Yes; 1.5) Yes, but are not regularly updated; 0) No.
NBS on risk areas	Do risk related maps include the identification of NBS?	3) Yes; 2) Yes, risk related maps include the identification of most NBS; 1) Yes, risk related maps include the identification of some NBS; 0) No.
<i>Criterion 5.2 - Land use and NBS inclusion</i>		
Land use planning	Is there a land use planning and zoning in the city, and the NBS are considered?	3) Yes; 2) Yes, but only some NBS are identified; 1) Yes, but NBS are not identified; 0) No.
Integration of NBS into city policy and projects	Are NBS being promoted on major urban development and infrastructure projects through policy?	3) Yes; 0) No.
OBJECTIVE 6 SERVICE MANAGEMENT		
<i>Criterion 6.1 - Service management and planning</i>		
Integrated management plan and NBS management	Does the city have a periodically monitored and reviewed plan for the integrated management of the several NBS in the city?	3) Yes; 1.5) Yes, but it is not periodically monitored or reviewed; 0) No.
Service articulation	Is there an articulation and exchange of information between the entities in charge of NBS management, stormwater management services and green space management?	3) Yes; 1.5) Yes, only with stormwater management services or with green space management; 0) No.
<i>Criterion 6.2 - Resources availability and adequacy</i>		
Service management and competences adequacy	Are all NBS assigned to a specific management entity or department with adequate competences?	3) Yes; 2) Yes, but available competences have to be enhanced; 1) Yes, but available competences are not adequate; 0) No.
Financial and technical resources	Does the entity in charge of NBS have appropriate financial and technical (operational and technological) resources?	3) Yes; 1.5) Yes, the entity has some appropriate financial and technical resources; 0) No.
OBJECTIVE 7 RESILIENCE ENGAGED SERVICE		
<i>Criterion 7.1 - Flexible service</i>		
Ecosystem service improvement	Will the planned NBS contribute for the existing ecosystem service functions of regulating, provisioning, habitat/supporting and cultural objectives?	3) Yes; 2) Yes, planned NBS will contribute to most ES functions; 1) Yes, planned NBS will contribute to some ES functions; 0) No.
Water reuse	Is the water retained in the existing NBS used for other purposes (e.g. irrigation or urban cleaning)?	3) Yes; 2) Yes, in most NBS; 1) Yes, in some NBS; 0) No.
Water uses	% of stormwater water being used for irrigation, street cleaning, firefighting	3) More than or equal to 50%; 2) More than 25% and less than 50%; 1) More than 10% and less than or equal to 25%; 0) Less than or equal to 10%.
<i>Criterion 7.2 - Scenarios relevance for disaster response</i>		
Scenarios definition	Are relevant scenarios identified for heat waves, flooding and droughts?	3) Yes; 1.5) Partially, some relevant scenarios are identified; 0) No.
Risk awareness in scenarios	Are the identified risk considered in the established scenarios?	3) Yes; 1.5) Partially, some identified risks are considered; 0) No.
<i>Criterion 7.3 - Reliable service</i>		
Flooded area	[Maximum flooded area, related to stormwater drainage problems / area of NBS urban catchment] x 100	3) No flooded areas; 2) Less than or equal to 2,5% areas are flooded; 1) More than 2,5% and less than 5,0% areas are flooded; 0) More than or equal to 5,0% and less than 10,0% areas are flooded.
Affected critical locations	[Maximum number of critical locations affected by surface flooding in wet weather / number of critical locations at the reference date] x 100	3) No critical locations affected; 2) Less than or equal to 2,5% critical locations affected; 1) More than 2,5% and less than 5,0% critical locations affected; 0) More than or equal to 5,0% and less than 10,0% critical locations affected.

Metric	Question	Reference values
Period with critical locations affected	Maximum time critical location were out-of-service due to flooding NBS (hours)	3) Less or equal to 2 hours; 2) More than 2 and less than 6 hours; 1) More than or equal to 6 and less than 24 hours; 0) More than or equal to 24 hours.
Affected building	[Maximum number of affected buildings / number of building] x 100	3) No buildings affected; 2) Less than or equal to 2,5% buildings affected; 1) More than 2,5% and less than 5,0% buildings affected; 0) More than or equal to 5,0% and less than 10,0% buildings affected.
Affected people	[Maximum number of affected person / population of urban catchment] x 100	3) No person affected; 2) Less than or equal to 2,5%; 1) More than 2,5% and less than 5,0%; 0) More than or equal to 5,0% and less than 10,0%.
OBJECTIVE 8 INFRASTRUCTURE SAFETY AND ROBUSTNESS		
<i>Criterion 8.1 - Infrastructure assets criticality and protection</i>		
Critical components	Are the critical component of the NBS infrastructure known?	3) Yes; 2) Yes, in most NBS; 1) Yes, in some NBS; 0) No.
Protective buffer	If applicable to the specific NBS, is there a protective buffer for the infrastructure?	3) Yes; 2) Yes, there are protective buffers for most applicable NBS; 1) Yes, there are protective buffers for some applicable NBS; 0) No.
<i>Criterion 8.2 - Infrastructure assets robustness</i>		
Infrastructure flow rate	Ratio between monitoring flow last year and the design flow of the structure	3) More than or equal to 0,9 and less than or equal to 1,1; 1.5) More than or equal to 0,8 and less than 0,9 or more than 1,1 and less than or equal to 1,2; 0) Less than 0,8 and more than 1,2.
Infrastructure water level rate	Ratio between monitoring water level last year and the design water level of the structure	3) More than or equal to 0,9 and less than or equal to 1,1; 1.5) More than or equal to 0,8 and less than 0,9 or more than 1,1 and less than or equal to 1,2; 0) Less than 0,8 and more than 1,2.
Infrastructure volume rate	Ratio between monitoring volume last year and the design volume of the structure	3) More than or equal to 0,9 and less than or equal to 1,1; 1.5) More than or equal to 0,8 and less than 0,9 or more than 1,1 and less than or equal to 1,2; 0) Less than 0,8 and more than 1,2.
Time for restoration	Maximum out-of-service period last year (days)	3) More than or equal to 1,0 and less than or equal to 1,1; 2) More than 1,0 or equal to 0,9 and less than or equal to 3,0; 1) More than 3,0 and less than or equal to 6,0; 0) More than 6,0.
Overall hydraulic performance	Have the infrastructure presented an overall good hydraulic performance last year?	3) Yes; 2) Most of time, most of the infrastructure; 1) Most of time, some infrastructure; 0) No.
Overall water quality	Have the infrastructure presented an overall good water quality last year?	3) Yes; 2) Most of time, most of the infrastructure; 1) Most of time, some infrastructure; 0) No.
<i>Criterion 8.3 - Infrastructure monitoring and maintenance</i>		
Monitoring program	Is there a monitoring program and it is being implemented?	3) Yes; 2) Yes, but it is being only partially implemented; 1) Yes, but is not being implemented; 0) No.
Monitored variables and relevant aspects	What quality and quantity variables and relevant aspects are monitoring in the structure (Type 1: precipitation; Type 2: hydraulic variables (e.g. flow rate, velocity); Type3: water quality variables (e.g. Total Suspended solids, E.coli)?	3) All types of variables are monitored; 2) Only two types of variables are monitored; 1) Only one variable type is monitored; 0) The structure is no monitored.
Maintenance program	Is there a maintenance program and it is being implemented?	3) Yes; 2) Yes, but is being partially implemented; 1) Yes, but is not being implemented; 0) No.
Variables and relevant aspects for maintenance	What quality and quantity variables and aspects are relevant for the structure maintenance (Type 1: precipitation; Type 2: hydraulic variables (e.g. flow rate, velocity); Type3: water quality variables (e.g. Total Suspended solids, E.coli)?	3) Yes, maintenance interventions consider all types of variables; 2) Yes, maintenance interventions consider only two types of variables; 1) Yes, maintenance interventions consider only one of variables; 0) No, maintenance interventions do not depend on monitoring.
OBJECTIVE 9 INFRASTRUCTURE PREPAREDNESS		
<i>Criterion 9.1 - Infrastructure preparedness for recovery and buildback</i>		
Time for restoration under stress	Maximum out-of-service period for the last year under a disruptive event or continuous stress (days)	3) Less than or equal to 1,0; 2) Mores than 1,0 and less than or equal to 3,0; 1) More than 3,0 and less or equal to 6,0; 0) More than 6,0.

Metric	Question	Reference values
Overall hydraulic performance under stress	Have the infrastructure presented an overall good hydraulic performance last year under a disruptive event or continuous stress?	3) Yes; 2) Most of time, most of the infrastructure; 1) Most of time, some of the infrastructure; 0) No.
Overall water quality under stress	Have the infrastructure presented an overall good water quality last year under a disruptive event or continuous stress?	3) Yes; 2) Most of time, most of the infrastructure; 1) Most of time, some of the infrastructure; 0) No.
OBJECTIVE 10 INFRASTRUCTURE DEPENDENCE AND AUTONOMY		
<i>Criterion 10.1 - Infrastructure dependence</i>		
NBS dependency from other services	Do NBS infrastructure depend on other services (e.g. energy, irrigation)?	3) No; 2) Most NBS infrastructure do not depend on other services; 1) Most NBS infrastructure depend on one service; 0) Most NBS infrastructure depend on two or more services.
Infrastructure of other services dependent on NBS infrastructure	How many services (e.g. energy, irrigation, roads washing, recreation) depend on NBS infrastructure?	3) None; 1.5) One service depends on NBS infrastructure; 0) Two or more services depend on NBS infrastructure.
<i>Criterion 10.2 - Infrastructure autonomy</i>		
Infrastructure autonomy	Are NBS an autonomous infrastructure? (e.g. NBS has an autonomous energy or water source)	3) Yes; 1.5) Yes, some NBS are an autonomous infrastructure; 0) No.
Infrastructure autonomy duration	Number of days of infrastructure autonomy	3) More than or equal to 2,0; 2) More than or equal to 1,5 ad less than 2,0; 1) More than or equal to 1,0 and less than 1,5; 0) Less than 1,0.