



# 1

**What has been done to carry out the RUP?**

## SCHEDULE AND ACTIVITIES

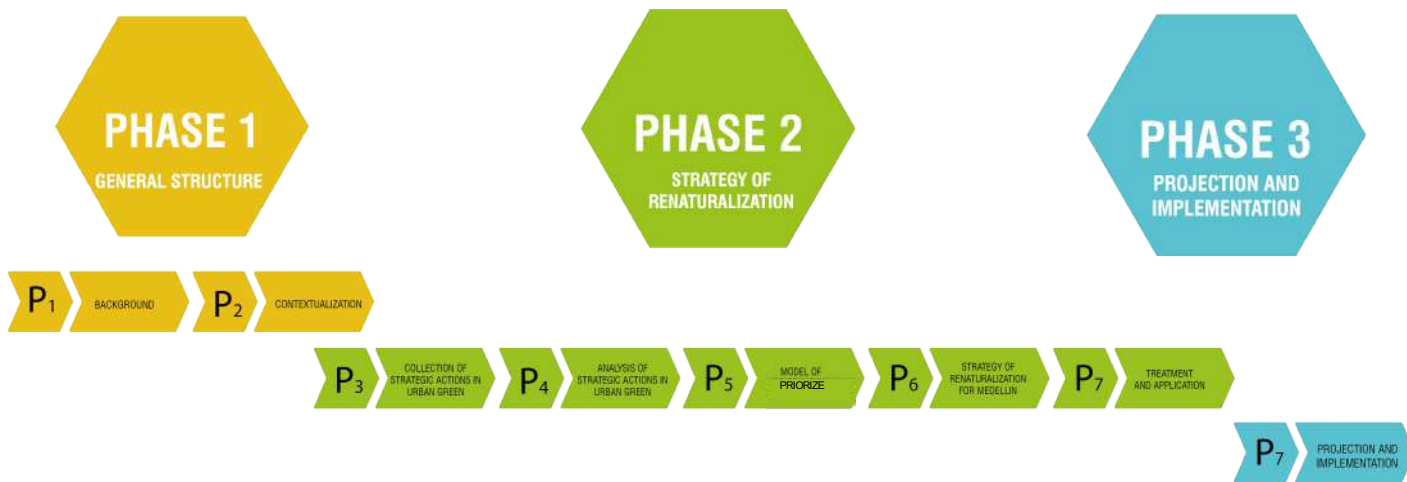
# STEP BY STEP FOR THE DEVELOPMENT OF MEDELLIN RENATURALIZATION PLAN

PHASE 1

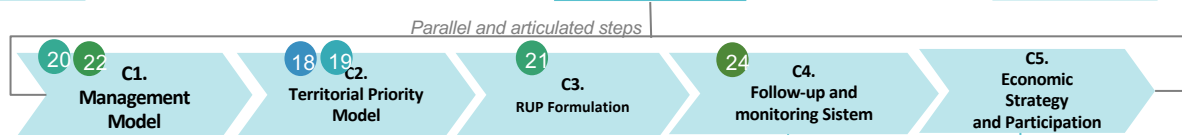
PHASE 2

PHASE 3

For the elaboration of each phase a methodological route established by steps is designed, which will allow the development of the Renaturalization Plan for Medellin, according to the guidelines established by the Urban Green UP team – WP6.



# METHODOLOGICAL COMPARISON: PHASE 3 AND GUIDELINES URBAN GREEN UP



Roles, competences and instances of institutional actors for the implementation of the Plan

Definition of management indicators

Prioritization of challenges (review and incorporation of new information)

Assessment of the territorial offer

NBS prioritization (it has participatory meetings of territorial actors)

Integration of the territorial model for prioritization and synthesis analysis.

Monitoring indicators of the implemented NBS (early implementations)

Review and adjustment of spatializable indicators for the entire model.

Definition of the general structure of the Greening Plan, strategic lines, programs and projects

Integration of the management model, territorial prioritization model, financial and participation strategy, and monitoring and follow-up system.

Definition and integration of RUP indicators

Definition of the parameters for the monitoring and follow-up system

Integration with the RUP and the different elements that compose it (C1, C2, C3 and C5).

Definition of indicators for the monitoring and follow-up system by NBS, territorial offer and city challenge

Evaluate the current funding sources that will have applicability in the future implementation of NBS

Propose direct channels to operationalize financing sources

Green job offer inventory and potential operators.

Definition of indicators of financial strategy and participation

## Phase 3 – Write the RUP Plan

16 Introduction

17 Targets

18 Adopted solutions

19 Expected impacts

20 Legal constrains

21 Programme and Budget

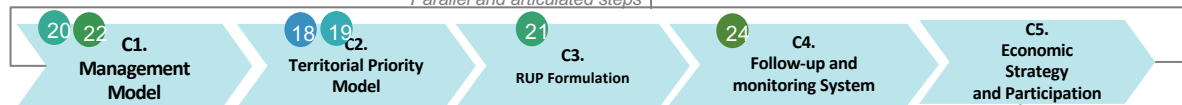
22 Roles and Responsibilities

23 Processes and reforms

24 Monitoring &Review



Parallel and articulated steps



Roles, competences and instances of institutional actors for the implementation of the Plan

Prioritization of challenges (review and incorporation of new information)

Request for information related to diseases associated with climate change in Medellín

Participatory space structure with social actors - Environmental Tables

- Identification of institutional actors involved in the urban green
- Identification of the normative dossier related to urban green.

NBS prioritization (it has participatory meetings of territorial actors)

Monitoring indicators of the implemented NBS (early implementations)

Review and adjustment of spatializable indicators for the entire model.

- Participation instrument (survey)
- Meeting planning

- Updating of information on early interventions in the city.

Socialization and information request meetings with institutional actors with special emphasis on determining financial instruments and other aspects of financial strategy.

Phase 3 – Write the RUP Plan

Introduction

Targets

Adopted solutions

Expected impacts

Legal constrains

Programme and Budget

Roles and Responsibilities

Processes and reforms

Monitoring & Review

## 2

**Final results: progress in the formulation of the RUP**

## FORMULATION OF THE PLAN FOR THE RENATURALIZATION OF MEDELLÍN: progress by 70%



### 3



**How are we going to start implementing the renaturalization plan?**  
*EARLY INTERVENTIONS IN THE GREEN*

# WHY IMPLEMENT NBS TO RENATURALIZE?

PRIORITIZED NEIGHBORHOODS  
FOR IMPLEMENTATION OF NATURE-BASED  
SOLUTIONS  
BY CONFLUENCE OF GREATER NUMBER OF  
SUBCHALLENGES.

## PROBLEMÁTICAS

De **10** a **15**  
**SUBRETO**  
**S** sobrepuestos

## Problems such as:

- Heat islands
- Lack of vegetation
- Lack of green areas
- Diseases associated with climate change
- Water quality
- Risk mitigation
- Ecological connectivity...



Where?

In the most critical areas

¿How?

¿About what?

In green, blue and grey infrastructures

## CHALLENGES

- C1. Climate change
- C2. Water Management
- C3. Management of green and blue spaces
- C4. Air Quality
- C5. Sustainable Urban Development
- C6. Participatory planning and governance
- C7. Justice and social cohesion
- C8. Welfare and public health
- C9. Economic potential opportunities and green jobs

## QUÉ OPERAR?

### OFERTA TERRITORIAL

(Kpi Estado)

### SISTEMAS

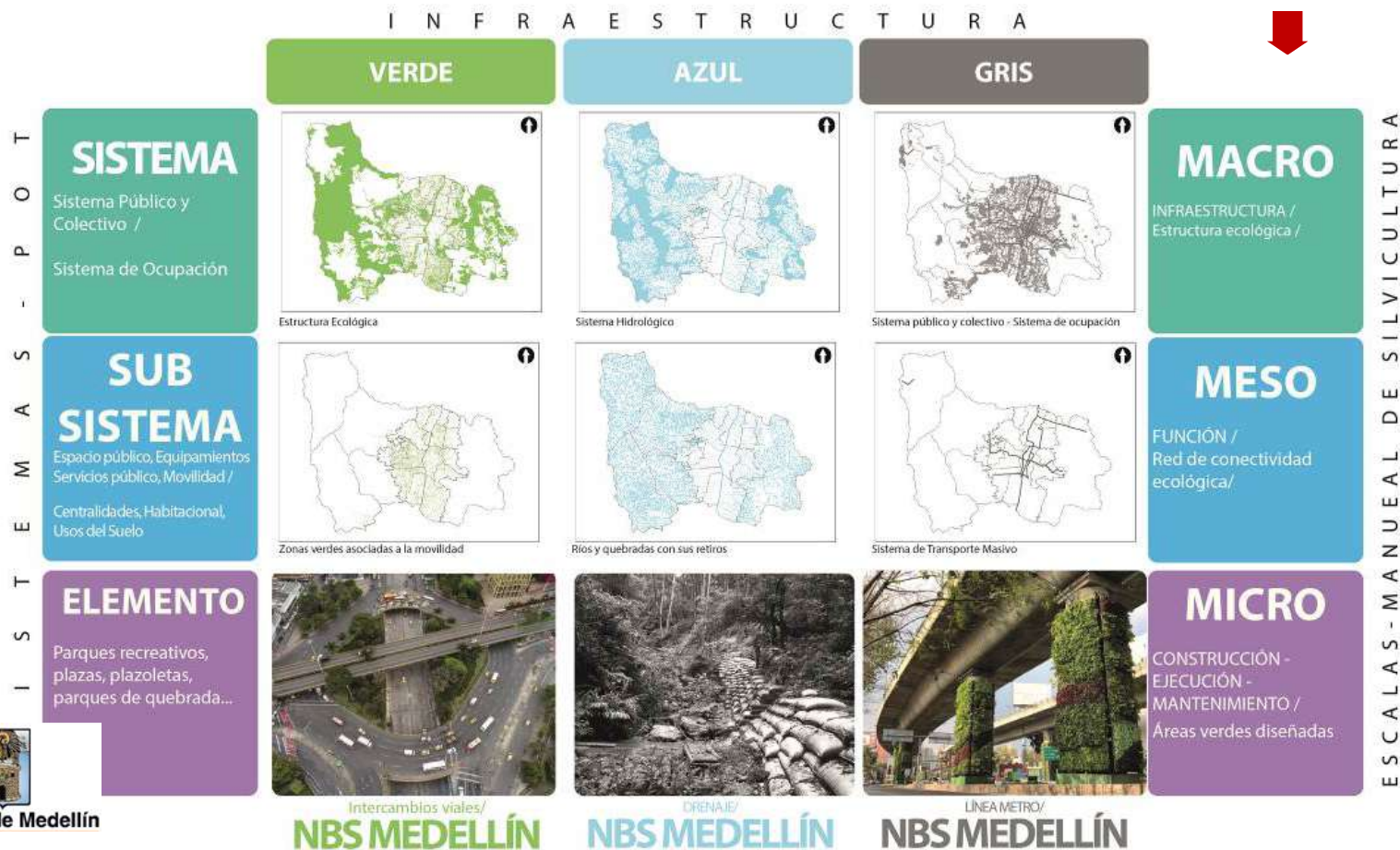


# Structure for the classification of the territorial offer

The territorial offer is understood as the physical elements on which the NBS are implemented as a strategy to face the problems of the city represented by the challenges and the subchallenges.

This is defined based on criteria that articulate the methodological positions of the URBAN GREENUP PROJECT and the territorial structure of the mayor's office of Medellín. In this way, the proposed green, blue and gray infrastructures are related; the systems and subsystems of the Medellín Territorial Planning Plan (agreement 48 of 2014); and the categories of the Medellín Forestry Manual with a multiscale approach.

Conceptual scheme to structure the territorial offer of the Medellín Renaturalization Plan



# CATEGORIES AND TYPOLOGIES: NBS AND YOUR CO-BENEFITS



47 TYPOLOGIES  
13 CATEGORIES





# Application of the proposed methodology, case study

*Step 1 | Identification of early actions carried out by the municipal administration in the communes with the most critical results*

8. Infraes. verdes verticales

Jardín vertical portátil

11. Polinizadores

Bermas y espacios para polinizadores aledaños

11. Intervenciones Arbóreas

Árboles urbanos

3. Áreas de descanso

Parques de bajo impacto

11. Polinizadores

12 Mariposario

*Recovery of creek retreat areas from light interventions by the Secretary of the Environment of Medellín.*

# Application of the proposed methodology, case study

*Step 3/ Identificación de la oferta territorial desde las infraestructuras verdes, azules y grises*

2. Agricultura Urbana



Huertas Urbanas

8. Infraes. verdes verticales



Contenciones  
escalonadas

11. Polinizadores



Antejardines  
Polinizadores

5. Drenajes sostenibles



Drenajes en jardines  
escalonados

11. Polinizadores



Polinizadores  
escalonados





# Application of the proposed methodology, case study

Step 5/ *Selection of NBS categories for application in green, blue and gray infrastructures*



*List of NBS categories with a table with the Green Areas of the Hydrographic System.*



# Application of the proposed methodology, case study

## 11. Intervenciones Arbóreas



Arboles urbanos

## 3. Áreas de descanso



Gimnasios Urbanos

## 8. Infraes. verdes verticales



Muros Verdes

## 11. Polinizadores



Bermas y espacios para polinizadores aledaños



# Incorporation of NBS in city projects – Development Plan Checklist

## In the conception phase

- Consult the zonal and local challenges (Renaturalization Plan)
- Identify the territorial offer (green, gray, blue infrastructure) on which it is feasible to implement the NBS considered.
- Consult the typologies of NBS that respond to these challenges (Renaturalization Plan)

## In the design and co-creation phase

- Perform a site analysis (Sustainable Construction Policy Guides)
- Identify technically feasible NBS according to the nature of the project and the availability of operators/consultants.
- Identification of sources of financing and elements of sustainability (concurrence of actors and roles).
- Socially validate the NBS suitable for the project and build a strategy of appropriation and social monitoring of the NBS.
- Plan and design in detail the implementation of specific NBS in the project (considering the Public Space Manual and the Forestry Manual)

# Incorporation of NBS in city projects – Development Plan Checklist

## In the implementation and monitoring phase

- Implement NBS and document their initial status (baseline) for public communication and subsequent monitoring (impact measurement).
- Apply the socio-environmental management guide of infrastructure construction projects.



# THANK YOU

## WP6

