



Urban Biodiversity

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Colombian case studies of resilience planning

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Cities represent a contrasting duality of challenges and opportunities for biodiversity conservation. For example, urbanization in Colombia has brought deep changes in different regions of Colombian lands and people. This has led to a change in the approach of biodiversity studies in cities from descriptive analysis on their problems, to be incorporated as a strategic element in the processes of urban planning and environmental management in multiple cities around the world. The willingness to better relate to nature in cities -whether from academic, research centers, local governments or communities- is a promising beginning

Latin America:
27% of mammals
34% of its vegetation
37% of their reptiles
47% of their birds
47% of their amphibians
of the world

Of the ten countries with the highest biodiversity in the world, five are in Latin America: Brazil, Colombia, Ecuador, Mexico and Peru, which also share the Andes mountain, which is the most biodiverse area in the world.

10% OF THE
WORLD'S SPECIES

Colombian Cities in the Andes → Bogotá, Medellín, Cali, Manizales, Pereira, Bucaramanga, Cúcuta, Popayán, Armenia, Ibagué y Pasto

CHALLENGES

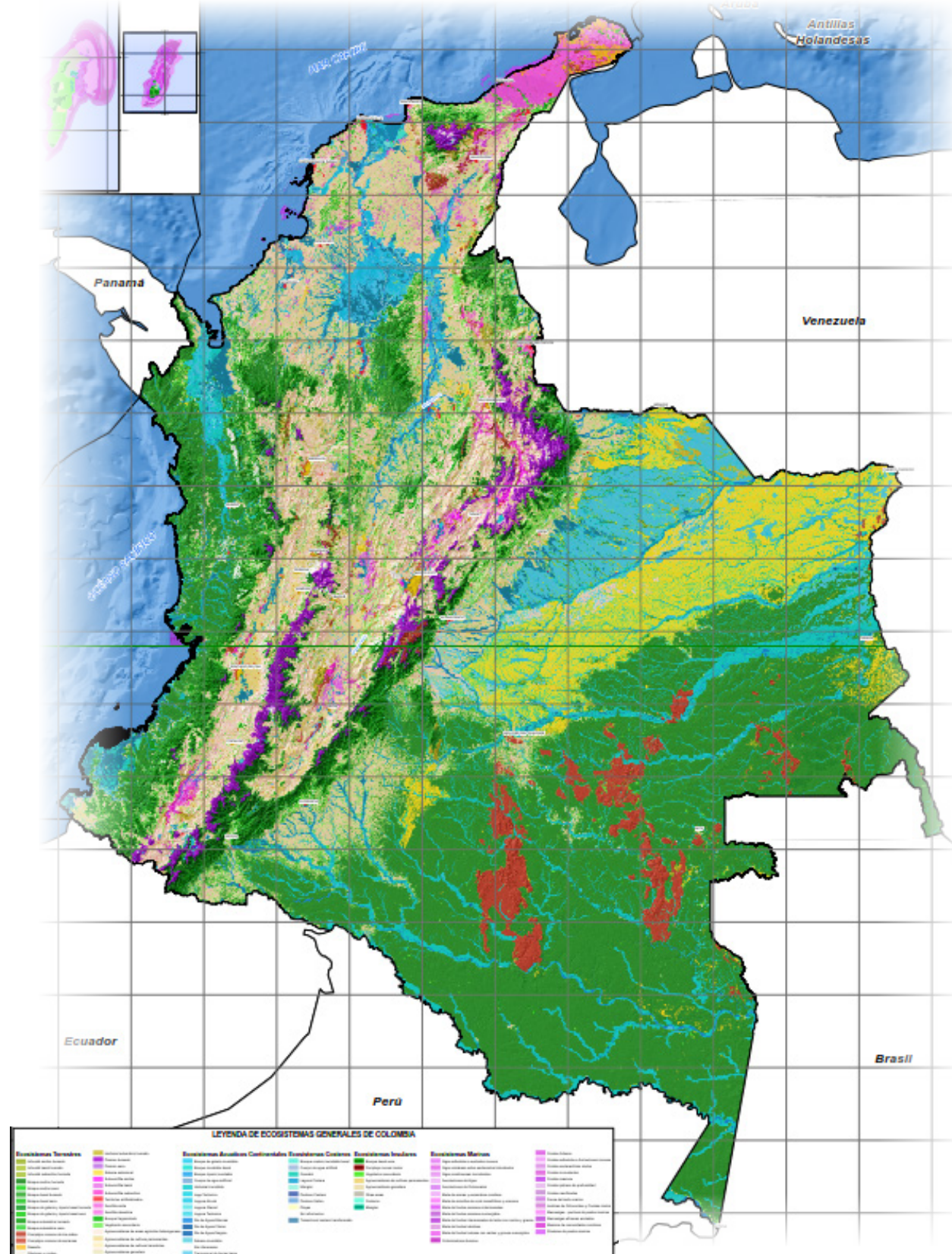
Colombia's shift towards urbanization has brought deep changes in the natural ecosystems, biodiversity and ecosystem services characterizing different regions of this country. A phenomenon that has generated the loss of multiple natural land covers or wildlife species, but also a dramatic reduction in the quality of life of people living in these territories. A fact evident in pollution, water scarcity, social and environmental conflicts and poverty that has been growing in all urban areas of Colombia. Yet, innovations are emerging nationwide

(IAVH, 2013; urban EAFIT, 2014; Conservation International 1999).

MAP → CONTINENTAL, COASTAL AND MARINE ECOSYSTEMS OF COLOMBIA

85 Types of general ecosystems
-Land and island:
• 26 natural and 8 processed
-Aquatic:
• 15 natural and 1 processed
-Coastal and island:
• 8 natural and 1 processed
-Marine:
26 natural

And more than 8,000 specific ecosystems ...



THE CITY SYSTEM

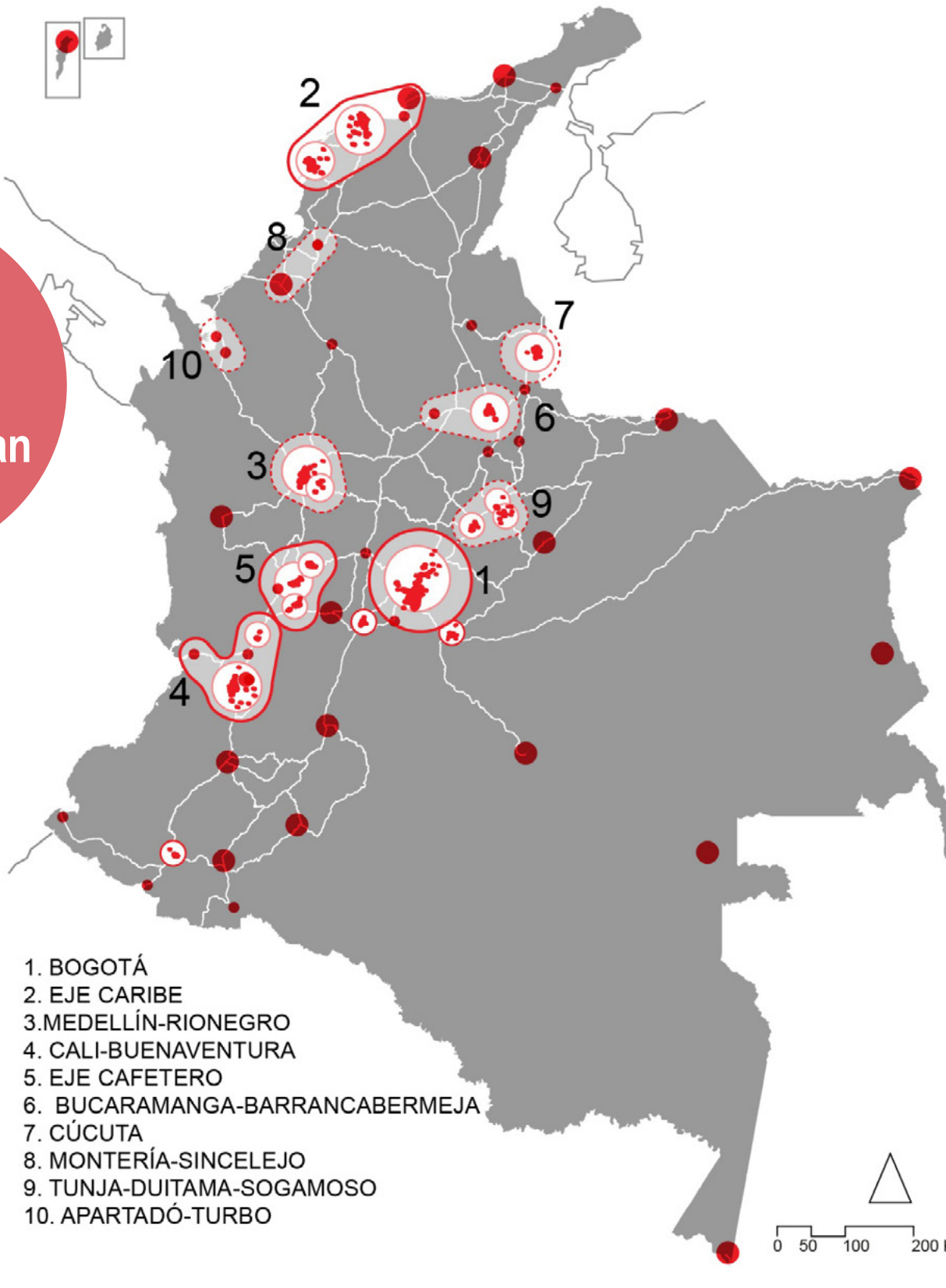


Total
151
municipalities

74%
Lives in urban
areas

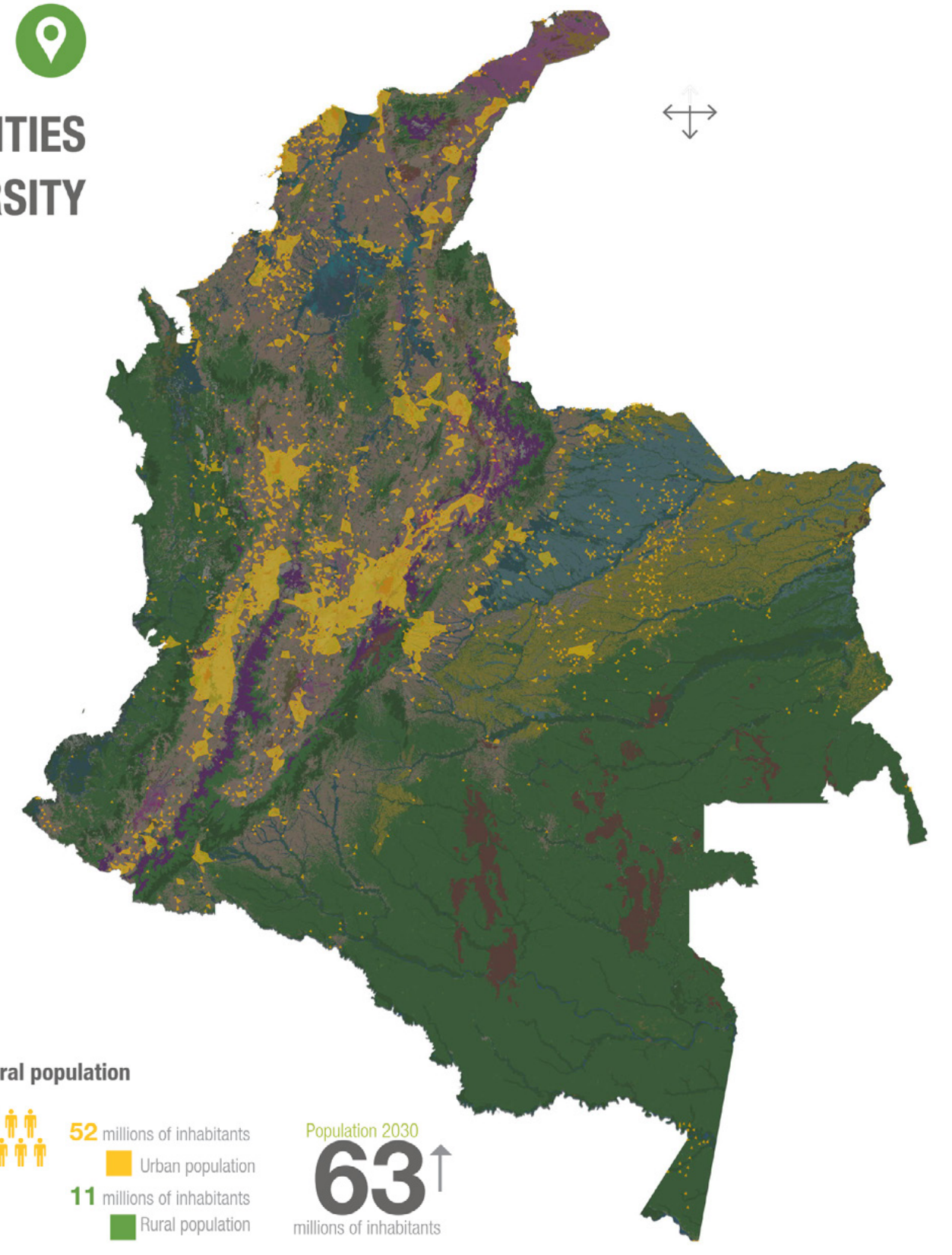
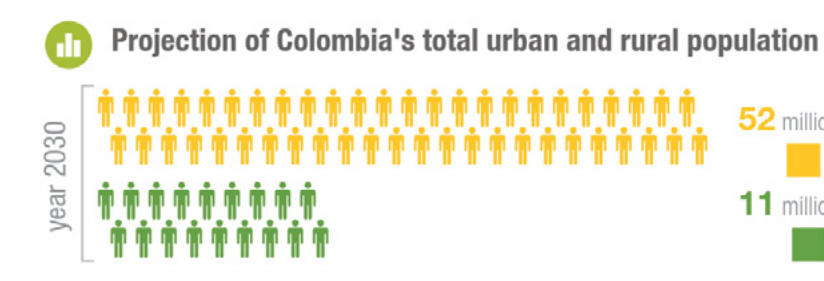
Total urban
Population 2010
27,5
millions

10 identified urban-regional
hubs



COLOMBIAN CITIES ARE NODES OF BIODIVERSITY

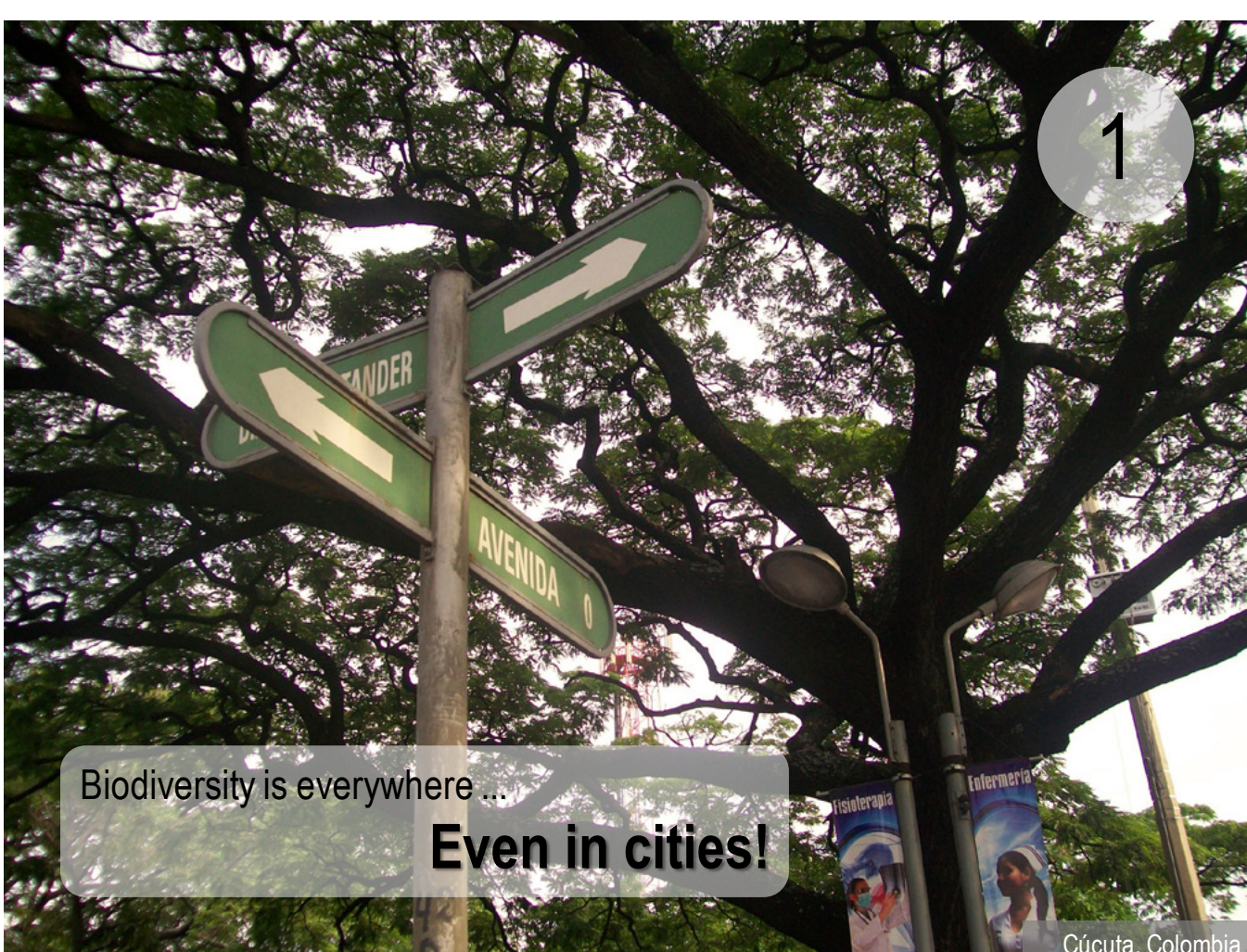
The Colombian megadiversity reflected in more than 85 types of general ecosystems and more than 8000 specific ones (IDEAM, et al., 2015), and the luminous emission of human settlements reveal to us the potential of sustainability that the cities are called to lead, promote and manage through city models according to their biodiversity.



Colombia megadiverse? urban? rural?

Generational ecological amnesia

Colombian biodiverse cities



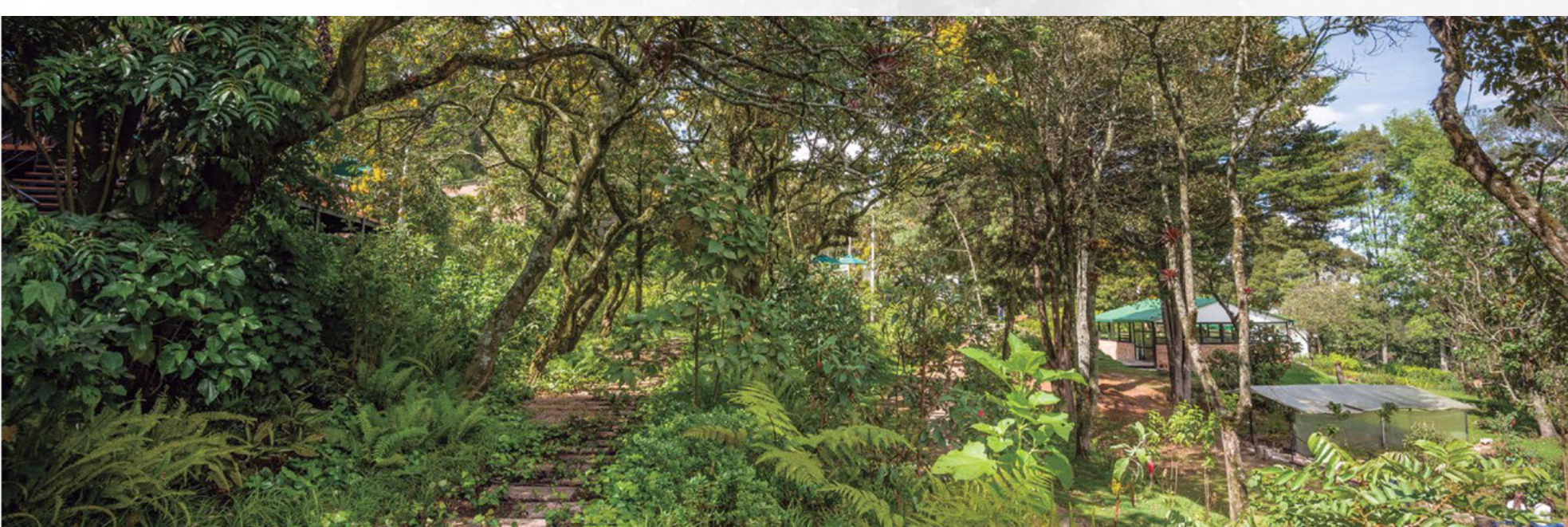
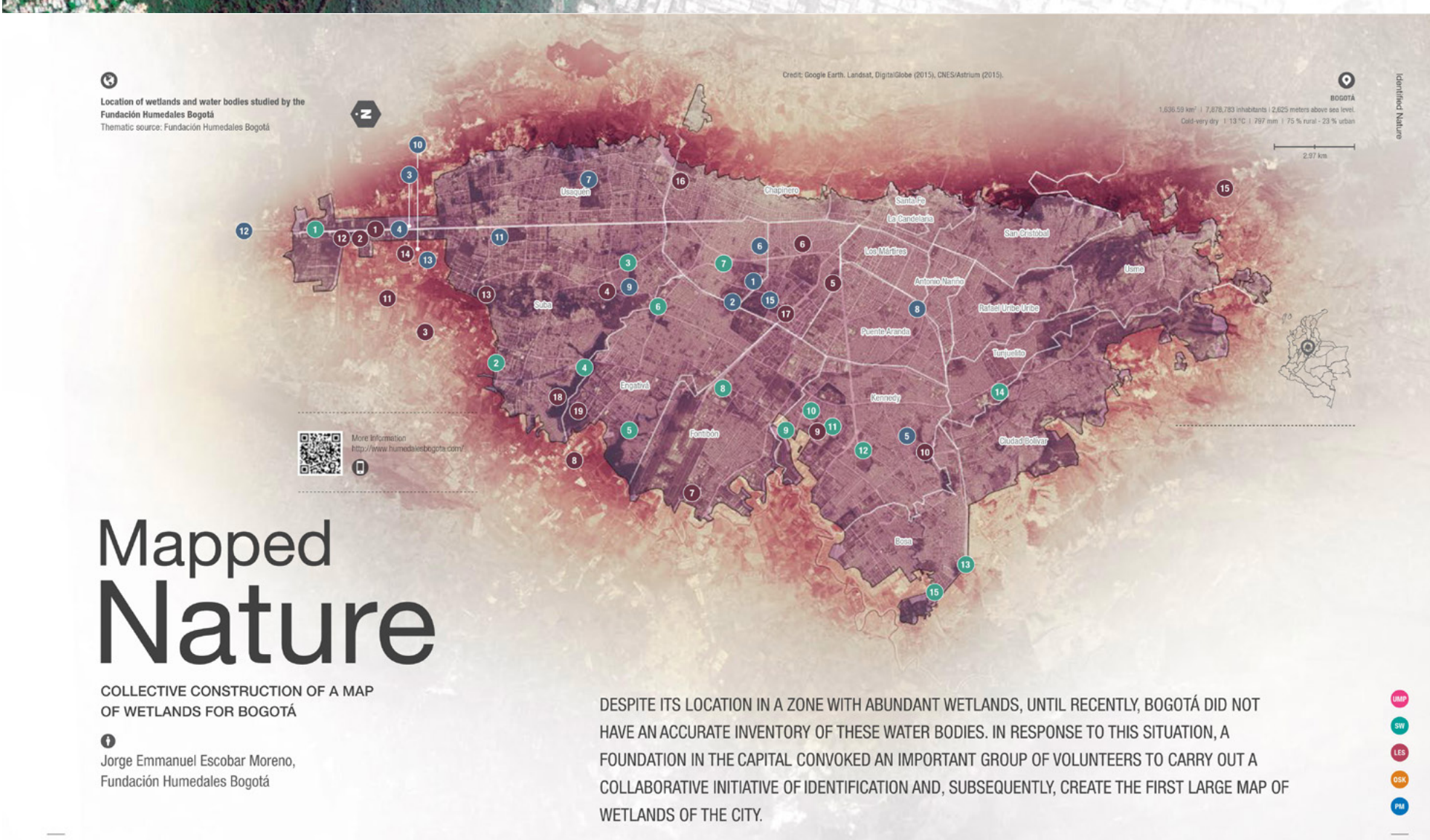
In a megadiverse country ...
We have a great
**diversity of urban
systems**
Connected to different scales

Wetlands, urban forests, parks, green roofs, gardens and other elements that make "green" in cities... contribute to an environment capable of resist the impacts of global environmental change.

Biodiversity management is part of the innovation that cities need to rebuild their development model.

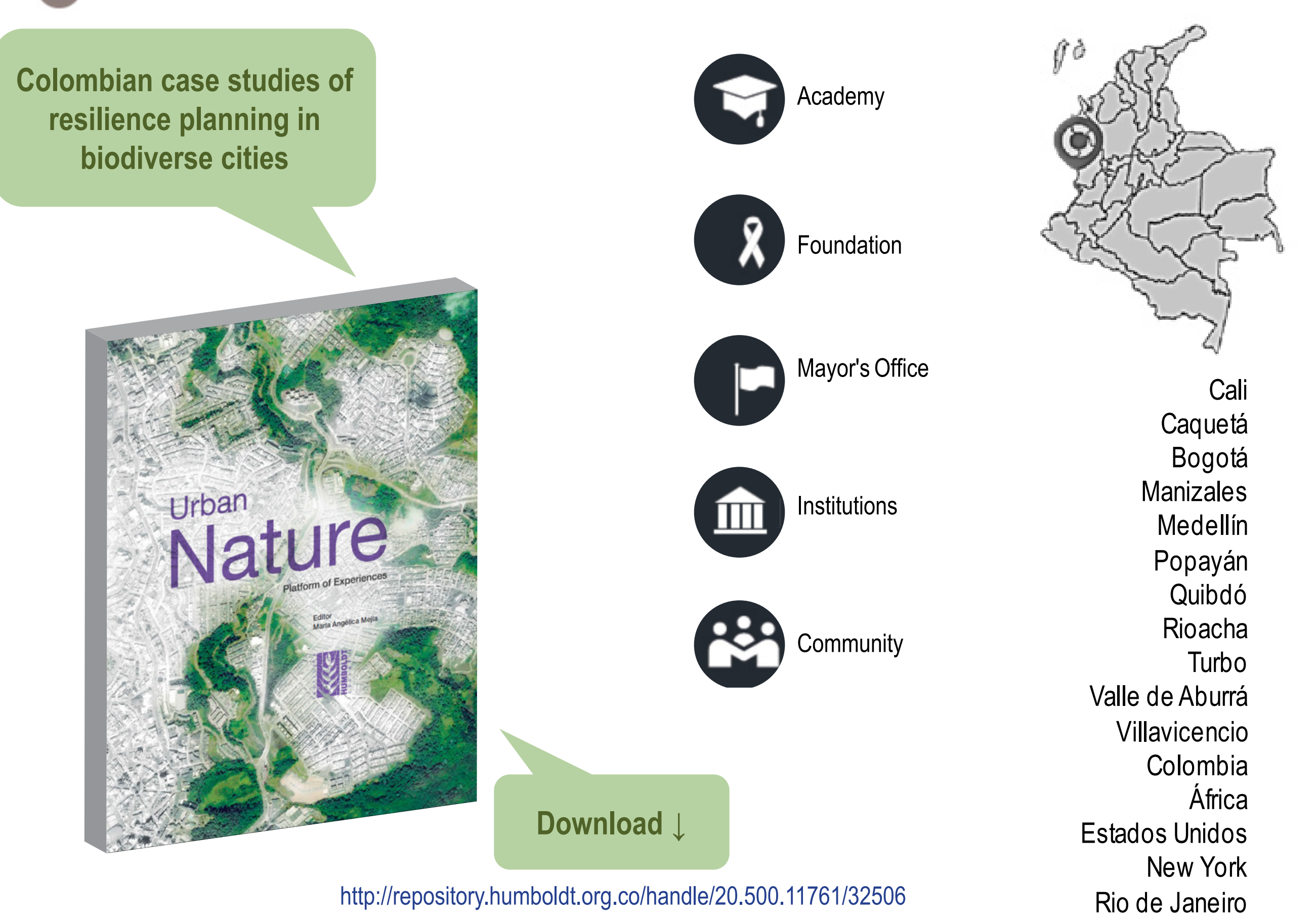
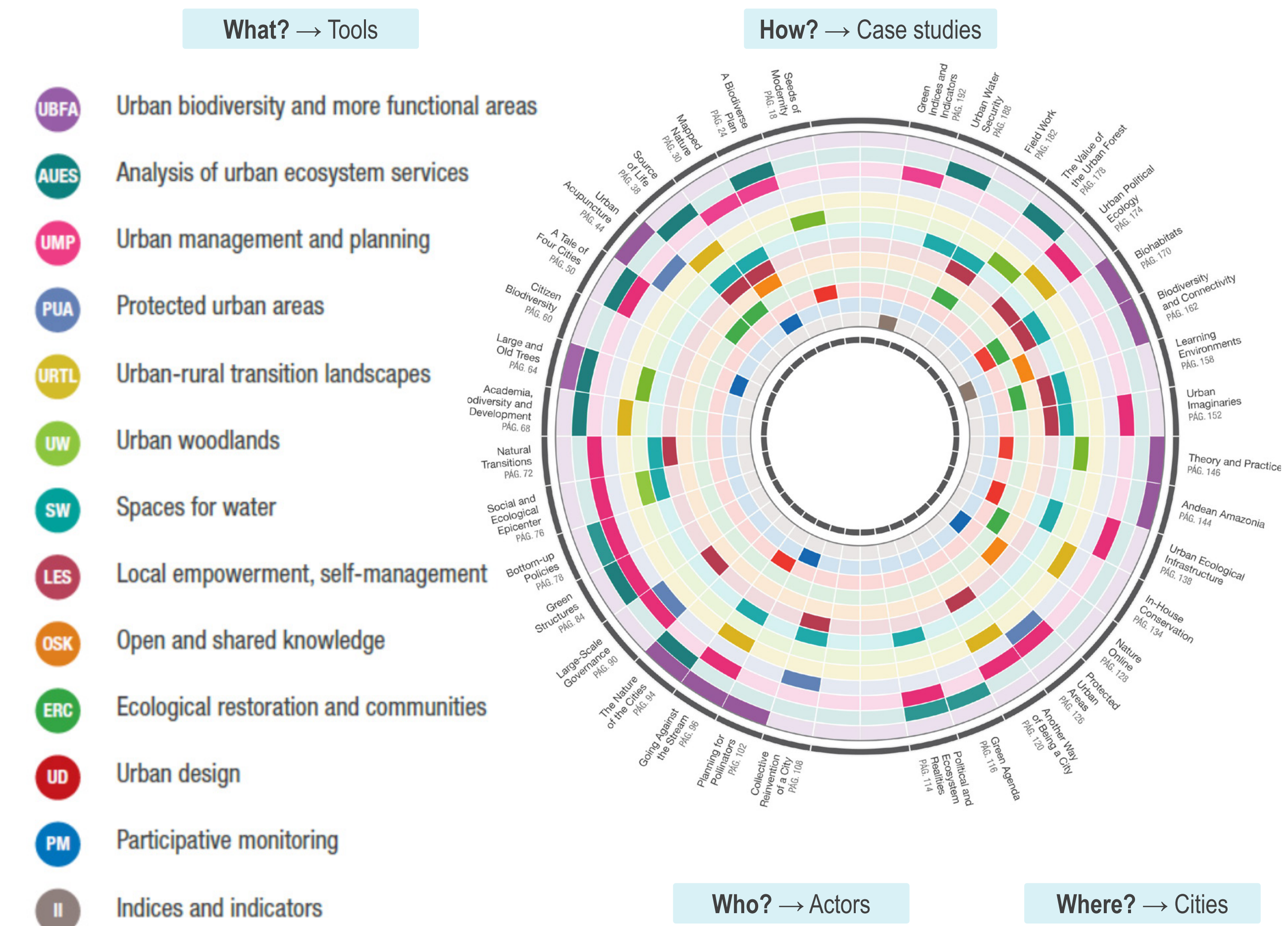
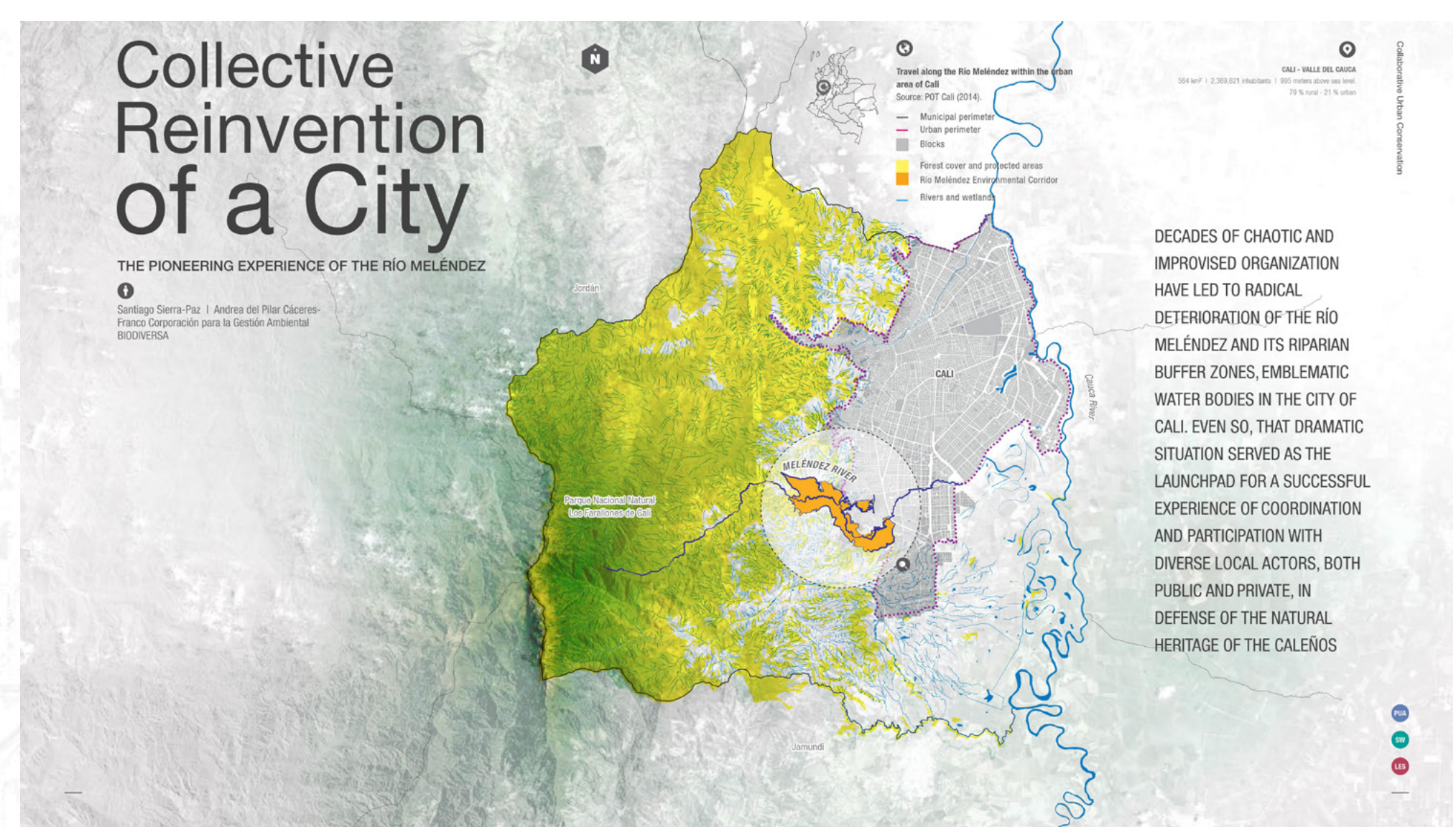
Critical decisions are being made in **cities** for human development and social equity.

RESULTS
In 2016, the National Research Institute of Biodiversity of Colombia 'Alexander von Humboldt' promoted an action-oriented research – a book project, *Naturaleza Urbana: Plataforma de Experiencias* aims to develop a toolkit to manage biodiversity and ecosystem services in urban areas in Colombia. This book highlights the importance of promoting new discussions on what communities, stakeholders, researches understand by biodiversity management in urban environments; for instance, how to jointly approach biodiversity as an opportunity to encourage social justice, climate change adaptation, urban planning and urban design in cities? Taking this into account, the Humboldt Institute will present some of the insights and conclusions of *Naturaleza Urbana*, expecting contributions, proposals and questions to help us rethink the role of nature in this new urban age



In-House Conservation

HISTORICALLY THE EASTERN HILLS (CERROS ORIENTALES) OF BOGOTÁ HAVE BEEN THE SITE OF NUMEROUS PROCESSES OF TRANSFORMATION IN TERMS OF BIODIVERSITY. SINCE ONE OF ITS LOCATIONS WAS INAUGURATED ON THIS URBAN-RURAL BORDER, THE INSTITUTO HUMBERTO HAS MADE AN EFFORT TO RESTORE THE SURROUNDINGS, IN ORDER TO SHARE KNOWLEDGE, SHED LIGHT ON THE ECOSYSTEM SERVICES OFFERED BY THE HILLS, FACILITATE A VENUE FOR PEOPLE TO ENCOUNTER BIODIVERSITY AND, ABOVE ALL, TRANSMIT ITS MISSION AND REASON FOR BEING TO THE COUNTRY WITH GREATER FORCEFULNESS.



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