

University of Oum El Bouaghi
Institute of Management of the Urban Techniques

Teaching Module: Spatial planning 1

Axes: 01 +02

First year: Management of the Urban Techniques

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Introduction to Spatial planning 01

1– Concepts and terminologie :

1–1– Space concept:

The space that envelops individuals and communities is regarded as the milieu in which they reside. It is impossible to encounter a society living in isolation devoid of a distinct domain that is intricately connected to it. These spaces exert a direct or indirect influence on their social, economic, and cultural facets of life.

The foremost challenge confronting humanity pertains to the geographical location of their presence on the Earth's surface. Hence, space is intimately associated with the discipline of geography, rendering it the appellation 'geographical space'.

In its abstract sense, space is considered merely a conceptual framework. However, when it becomes associated with geography, space acquires substance, necessitating its organization for the benefit of the communities residing within it (Belhedi, 2010).

1–2– The concept of space and geographic space:

Space is a conceptual framework that allows for the description and distribution of phenomena within it. It serves as the cognitive container for spatial dimensions. In and of itself, space does not represent a phenomenon, and the same applies to time; both are abstract concepts with no physical existence in reality.

Space and time are closely linked to human sensory perception. An individual or a person can only perceive things within a spatial context and as events occurring in succession over time. A phenomenon is essentially a specific quantity or composite within both space and time because every occurrence in space also happens over time.

By combining the concepts of space and time into one, we can derive a new concept referred to as 'Espace–Temps' (Space–Time), consisting of four (04) dimensions symbolized by four variables : length, width, depth/height, and time (Belhedi, 2010).

These dimensions are essential for defining every natural phenomenon because phenomena do not occur in space alone ; they occur in both space and time simultaneously. Space, in itself, is associated with the phenomena it contains, and this connection arises from the containment of these phenomena, allowing for their spatial localization.

On the other hand, space is considered the headquarters of a "system of relations," where the environment and humanity converge. The civilization that has been established within it, constructed throughout history, is regarded as its fabric and has evolved over time. Consequently, space constitutes a system of relationships between energy and matter.

1-3- Characteristics of space:

The characteristics of space can be broadly divided into two main categories : natural characteristics and human characteristics.

Natural Characteristics : These encompass the features of the environment that are not directly influenced by human activities. They include the nature of the terrain, climate, soil composition, water bodies, vegetation, and wildlife, among others.

Human Characteristics : These refer to the aspects of space that are influenced or shaped by human activities. They encompass population dynamics, settlement patterns, and the utilization of resources in various forms.

These two categories of characteristics together contribute to the overall understanding of a given space, its ecological dynamics, and its interaction with human societies.

As for relationships, we mean the connections between different phenomena and the linking of these phenomena. They serve as the backbone of spatial studies by establishing connections between prevalent phenomena within a given space.

Hence, we find that geography is the appropriate science for studying space. In this regard, it has been referred to as "Spatial Engineering" or the "Study of Spatial Structures," emphasizing its role in examining and understanding the dynamics and structures of space.

This concept is derived from two words: "geometry" and "space." The term "space" has become clear in its meaning, while "geometry" literally means "measuring the Earth." The field of geometry is a branch of mathematics that studies the properties of space and the relationships between elements within that space (Belhedi, 2010).

If spatial engineering means organizing and arranging space, as in "Aménagement de l'espace," then the field of engineering is concerned with the structure of space.

2– The region :

2-1- The concept of the region:

A region is a segment of the Earth's surface distinguished by particular geographic attributes that set it apart from other areas. These geographic traits are predominant within that specific segment.

Regions (the plural form of region) denote expanses of land that have originally emerged as a result of distinctive geographic characteristics, which have subsequently become defining characteristics of these regions (Azouka, 1990).

2–2– Types of regions:

Regions vary based on the factors used in their classification, as follows:

*– **Natural Region:** One of the elements of the natural environment is used to define the natural region. Therefore, a region can be a mountain range, a plain, a plateau, a river valley, a climatic zone, or a natural vegetation region.

*– **Human Region:** The determination of this region relies on the human element, such as the distribution of the population based on ethnic or religious affiliations, as seen in regions like Punjab and Sindh in Pakistan, or Arabistan in Iran. Additionally, defining the human region can be based on criteria such as population density, their occupations, economic or living standards, and various social aspects. Human regions can also be delineated by the human-made boundaries, whether they are international borders or internal administrative boundaries.

*– **Administrative Region:** The determination of this region is made through administrative decisions at a central level by the higher authorities in a given country. This process designates a specific geographic area on the Earth's surface as an administrative region with its own administrative leadership responsible for its management to achieve specific objectives. Examples of administrative regions include the states with clearly defined boundaries in Algeria.

*– **Metropolitan Region:** The metropolitan region is one of the recent classifications when categorizing regions based on their characteristics and dimensions. Major cities, surrounded by their functional spatial relationships, are classified within the metropolitan region. The boundaries and extent of this region expand as functional relationships extend. Examples of metropolitan regions include Greater London, Greater Paris, Greater Cairo, or Greater Casablanca.

*– **Special Region:** A special region is one that is defined by a political decision to achieve a specific objective and utilize it for a particular purpose by harnessing all available natural,

human, and economic resources. In a special region, a primary function dominates over other functions, and it serves primarily as a place to achieve that function. Examples of special regions include industrial or agricultural regions, where the land within that region is allocated for specific uses to achieve specific goals.

*– **Other Regions:** Their delineation is based on the resemblance in a set of general characteristics, such as having a group of provinces or states within a single mountain range.

It is worth mentioning that there are regions whose boundaries cannot be easily discerned. Instead, they rely on specific features that distinguish these areas from others to form regions based on characteristics such as cultural traits or unique architectural features that differentiate their buildings and structures. This also includes major global regions like the European region, Australia, or the American region (Alani, 2011).

Furthermore, it is possible to distinguish distinct regions based on the presence of a specific feature or a particular element, or the relationship between two elements. Consequently, the following types of regions can be identified:

*– **Homogeneous Regions:** This type of region is defined by the spatial distribution of its environmental phenomena, whether they are natural, human, or social. In other words, these are regions that can be defined based on a single phenomenon or a single element that extends uniformly over a specific land area, forming the identity of that region. Homogeneous regions can also be distinguished by two or more elements, provided that there is a variable causal relationship between these elements. This type of region includes natural regions, cultural regions, and various types of economic regions.

*– **Functional Regions:** The emergence of this type of region is associated with the theory of "Central Places" by the German geographer Christaller. This theory classifies regions into different sizes based on the function or functions of the central place within each region. Functional regions are characterized by their lack of homogeneity, except in some cases when a group of them is served by a single central place (Ghanem, 2009).

The concept of functional regions evolved from the earlier concept of "nodal regions," expanding to encompass areas with economic and social organization. This concept now examines the functional relationships between places. Consequently, nodal regions have become known as functional regions. Thus, a functional region extends beyond being

merely a geographical region; each one is distinguished by a unique set of functional phenomena not shared by another region (Alani, 2011).

*– **Planning Regions:** A planning region is a specific area of the land characterized by one or more distinct attributes. By manipulating these attributes, the planning region can perform one or more functions. A leadership decision is made to consider this part as a planning region.

Planning regions represent the first tangible outcome of geography's involvement in practical aspects in general and regional planning in particular.

In general, there are two types of planning regions:

*– **Administrative Regions:** Many planners and decision-makers consider administrative units (provinces, states) as planning regions. In this context, provinces and states are treated as major or principal planning regions, and smaller administrative units (municipalities, districts) are treated as sub-regional development areas or minor development units. Each of these smaller units may consist of rural and urban population clusters.

Administrative units facilitate the process of preparing and implementing development plans. Government agencies and institutions, as well as branches of government ministries, are established in the centers of administrative regions at various levels. They work on implementing and monitoring regional development plans without a pressing need for new institutions and entities. Additionally, administrative units provide the necessary data, information, and various studies for the preparation of development plans. Thus, administrative units help save time, effort, and money in the field of regional development.

*– **Newly Established Planning Regions:** The process of establishing regions for planning and regional development purposes is known as "Regionalisation," distinguishing it from the concept of "Regionalism."

"Regionalisation" refers to identifying areas that are either larger or smaller than the regions within the national or local government administrative structure. This is done to make planning in these regions more effective and efficient. In contrast, the term "Regionalism" is used to describe the existing administrative system within a country, including the mechanisms through which decisions are made within that system and the channels through which it operates. Specific foundations and criteria are used in the process of establishing

planning regions for regional development purposes after determining the goals, programs, and projects of regional development to be implemented. This helps to determine the appropriate location and size of these regions based on factors such as population and area.

3– Spatial planning:

3–1– Spatial planning concept:

Spatial planning requires the presence of a region, a community with a strong expression or authority that directs the process of transformation and ensures necessary arbitration. Urban planning refers to the "voluntary and deliberate actions of a community within its territory, whether at the local level (rural, urban, local planning), at the regional level (regional planning), or at the national level (regional–urban planning)." It is also a "result of these actions."

Planning is a logical act by the community within its territory. It involves restructuring a specific area by utilizing its potential, reducing constraints, and minimizing waste through the rational use of space and resources. This is done to ensure the well-being of the social group and regional fairness. Waste can manifest itself economically, spatially, and in human terms. The goal is to achieve balance at the level of individuals, citizens, producers, and consumers (Belhedi, 2010).

3–2– Spatial Planning Dimensions:

Several dimensions emerge to complete the full meaning of development and coexist within its complexities. These dimensions include:

- **Economic Dimension:** This dimension pertains to the utilization of resources in favor of strong points, growth in place, and the prevention of disruptions in the ongoing process. It involves considerations related to growth, development, and efficiency. Within this context, planning, design, and practice are crucial. The space encompasses an area and increasingly scarce resources, which raises the question of how to ensure rational and effective utilization without waste or depletion. Planning is about using space and resources rationally by seeking optimal distribution of the population, cities, activities, and infrastructure throughout the region while harnessing potential and minimizing obstacles.
- **Social Dimension:** Social dimension in regional planning often revolves around ensuring regional equality, justice, and equal distribution of development. This might sometimes lead to the inefficient use of resources. Regional planning is essentially a

political endeavor aimed at coordinating regional development, addressing economic or cultural imbalances and inequalities. It involves establishing a harmonious and, at the very least, an acceptable relationship between people and their surroundings.

- **Environmental Dimension:** The environmental dimension of regional planning focuses on the conservation of the environment and resources to achieve sustainable development and the well-being of the affected population. Until the 1980s, the environment was a weak link in the relationship between development and planning, and it wasn't considered until the early 1970s. Indeed, the environment itself became a scarce resource requiring rational preservation and utilization.
- **Spatial Dimension:** The spatial dimension of spatial planning is about recognizing space itself as a scarce resource. It is essential to use it wisely in conjunction with the first three dimensions. Moreover, the goal is to provide the affected region with a viable spatial structure by improving spatial distributions.
- **Strategic Dimension:** Spatial planning is, above all, a concept that looks toward the future with a strategic vision for the community. It involves projecting the society of tomorrow onto the spatial realm. This is done to ensure progress, provide a decent quality of life, and sustainable activity in the long term, built on short-term decisions.

Spatial planning is a long-term beacon guiding all spatial activities of society in the short and medium term. It is a matter of defining policy (goals and ends) to be able to set up the practical measures and the means that should be mobilized within a strategic framework (Belhedi, 2010).

3-3- Spatial Planning objectives :

The objectives of spatial planning revolve around the following:

1. Distributing the population and activities more efficiently within the region.
2. Reducing spatial disparities.
3. Enhancing overall performance or the performance of specific sectors.

These three objectives should be integrated with one another to ensure cohesion, solidarity, and coherence. In liberal systems, these objectives are applied to mitigate negative impacts and to reflect the genuine and earnest goals of urban planning policies, which support sustainable regional development while reducing spatial inequality economically, socially, and environmentally. All these objectives are consolidated to formulate balanced regional development.

Accordingly, four (04) complementary objectives for spatial planning can be distinguished, namely:

- **First, “development”**: which is the search for harmonious and comprehensive development of the fields according to the available capabilities and special data.
- **Secondly, “fairness”**: It is a matter of ensuring that each individual has a respectful, harmonious and integrated living environment, and this is achieved by the participation of the population (human being, citizen, producer or consumer) in development projects.
- **Third, “Project Programming”**: It is long-term to justify the decisions and actions that must be taken in the short and medium term. Fourth: “Improving the living conditions of citizens” in terms of housing, work, transportation...

3-4- Spatial Planning levels :

Spatial planning takes place at various spatial levels to achieve these objectives, which leads to the integration of different administrative measures.

Spatial planning primarily encompasses a multi-scalar approach that affects multiple dimensions simultaneously. It raises the issue of the size of action and the interplay of various dimensions.

Spatial planning can be multi-scalar, covering small, medium, and large scales. It influences a variety of dimensions at once, such as the neighborhood, city, region (metropolitan area), state, and even continental levels.

The differences and similarities in the levels and dimensions of planning pose a dual problem:

- The efficiency problem: This relates to the power of planners and various stakeholders.
- The competition problem: When the development of a highway system, for instance, conflicts with the community or regional preference, it requires a common will and ongoing arbitration between various interested parties and interests.

As a result, spatial planning is practiced at different levels:

- Local level: Covering a residential neighborhood, an urban sector of a city, or even the entire city.
- Regional level: Encompassing a group of cities, whether small, medium, or large, located within one region. These cities are interconnected through economic, social, and functional relationships, supported by a network of road connections.

- National level: Addressing all the regions of a country within a comprehensive and coordinated framework.
- Supra-National level: Encompassing a group of countries linked by common interests and destiny, such as the European Union.
- Sub-National level: Practicing spatial planning as one of the fields regulating relationships between regional groups in partnership with the state.

The smaller the scale at which planning projects are carried out, the more it tends towards urban planning. In other words, urban planning projects are implemented at the city level. However, the problems that cities face are not always confined to the city itself; they often originate from external factors, primarily from rural areas or at the regional or even national level.

These issues can be related to economic challenges and regional disparities. Therefore, effective spatial planning involves identifying the appropriate spatial level to address urban problems. This can mean addressing issues within the city itself, in the countryside, or potentially both simultaneously. As a result, successful planning is one that seeks the right spatial level to address urban challenges.

Small and medium-sized towns located within daily commuting distances play a vital role in this context. They offer the potential for rural renewal and urban restructuring as part of an integrated spatial planning approach.

3-5- Spatial Planning actors:

***- The State and Regional Blocs:**

Since World War II, the state has played a major role in urban planning by formulating key policies for spatial planning with the aim of rebalancing regions. These policies include various aspects, such as tourism facilities, balanced cities, new urban developments, and transportation network enhancements. The state continuously sets the broad guidelines at the national level.

With the new emphasis on sustainable development in urban planning, urban planning policies have started to take into account regional attractiveness within the context of

international and regional alliances. This aims to enhance the competitive ability of regions in various fields, such as digital development, economic growth, and urban policies.

***– Local Communities:**

The adoption of decentralization systems by many countries, along with the enactment of various "decentralization laws," has transferred a significant number of powers from the central state to local authorities. This facilitates the completion of numerous projects within the framework of state–region contracts and fosters partnerships and cooperation among municipalities that are based on geographic, cultural, economic, and social cohesion. This allows for the transfer of new skills to population clusters.

***– Population and Civil Society Institutions:**

The population participates in shaping public policy for urban planning as voters, thereby being involved in the selection of their representatives, whether at the local or regional levels. The involvement of the population in urban planning is increasing through their participation in associations, neighborhood councils, and public discussions. This is often referred to as "local democracy," although it can sometimes resemble interest groups advocating for the public's interests. Private companies also participate in urban planning, collaborating with other public and private stakeholders. This applies to both large companies negotiating with local authorities and very small businesses and small-to-medium enterprises working in partnership with competitive capacity groups.

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