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Practitioner's Guide:

Spatial Diagram





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Brief Description



The spatial diagram illustrates the future spatial development of a district or region. It is a policy document which reflects the political will of the opinion leaders and the decision makers. In order to obtain an official status for the public decisions and investments, it is approved by the relevant authority probably after having been discussed with members of public and the sectoral line agencies.

The transformation of a development concept into a physical spatial structure is conducive to the design of development strategies and policies required for the implementation of the development activities. It shows how district or regional interactions are shaped in the future by, for example, extending road networks. It indicates the highest priority areas that should be developed. Furthermore, decisions on the settlement pattern development in the future are depicted in the spatial diagram. The spatial diagram depicts all physical structures within the district or region that are designed to enhance locational advantages for development.

A spatial diagram does not require a time horizon. It is a flexible model that is designed to guide decision makers in optimising investment decisions, mainly in infrastructure, that will in turn encourage and foster economic and social development to take place. The spatial plan is usually implemented successively through time. In addition, an approximate scale is used for the diagram in order to avoid too much detail. Once a decision has been taken to implement elements of the spatial diagram more detailed land use plans are developed.

Proposed Main Users

Purpose of the Method



District planners, Provincial planners, Sectoral planners



The model of spatial concentration can be used a guide for investment decisions, possibly in the rural or urban centres. Functional specialisation may also be introduced in order to avoid too much competition and duplication taking place, since this may lead to the collapse of markets or services being provided.

The spatial diagram contains information on the settlement pattern, the road network, the land use system and on future development areas, conservation areas or areas where development is to be restricted or controlled.

With regard to the settlement pattern, the spatial diagram will indicate issues such as whether or not the economies of the main urban centres are to be further developed or consolidated, where functional deficiencies are to be reduced, reasons why urban specialisation should be either maintained or encouraged. Proposals are to be made by focusing on whether investments should be made in the rural centres, in the villages or larger urban centres. In addition, whether or not settlements should be upgraded to higher order service centres will also be denoted in the spatial diagram.

The spatial diagram will denote roads that are to be developed or upgraded, based upon decision to improve market access or access to goods and services. Areas maybe delineated for protection, control or special development programmes.

Advantages



- Spatial diagram is a useful method for studying functional interrelations between "space" and proposed development policies.
- It provides a framework for guiding development in the district or region.
- It is a useful method in order to coordinate development activities being undertaken by different planning institutions, organisations or sectoral line departments.
- Spatial diagrams helps to guide regional and district level decision makers in making strategically relevant investment decisions.

Limitations



- The spatial diagram does not contain a time line. In other words, the time required to develop the area according to the spatial "Leitbild" is not indicated in the diagram.
- Furthermore, the costs involved and the mobilization of resources required to undertake the work is also not depicted in the spatial diagram. While it is based on many other analytical steps which precede the development of a spatial diagram (e.g. demographic projections, delineation of the hinterland, locational evaluation) the information presented in the spatial diagram can be misleading unless the previous analytical steps have been fully understood and the results of the analysis is agreed upon by all relevant decision makers
- Spatial diagrams are often interpreted as being "master-plans", they are used in a deterministic manner rather than being used to generally "guide" development decisions.
- The development of spatial diagrams requires a certain degree of imaginative and innovative ideas. Scanning the results of numerous other district or regional analysis methods is often the source of "inspiration" for the development of a spatial diagram. This is particularly true when relevant data of infrastructure and settlement patterns are not available.

Principles & General Procedures



Using pre-printed maps, the information derived from previous analytical steps is gradually transferred on to the maps and presented for discussions amongst decision makers. Since the level of precision in terms of mapping standards is not strictly necessary for the spatial diagram, the zones of influence of the various proposed measures can be delineated in very broad terms. Greater level of precision of the information can be derived in the other analytical steps.

Map 1: Example of spatial diagram



The spatial diagram illustrates the future spatial development of the district or region. It is a policy document that reflects the political will of the people and the politicians. Designed to guide the future development of the district or region, the expectation is that the spatial diagram is translated into specific programmes and projects.

Principles & General Map 2: Example of spatial diagram indicating spatial concentration in a district or region **Procedures** Population inflow S. Contraction of the second s BOEUNG REING thermal and external up thermal and external up investments to build up investments to build up the social infrastructure Population inflow Main district corridor that links the district with the national market. Improvement of agriculture and road extension winthin the main district development corridors. Map 3: Example of spatial diagram indicating spatial dispersion within the district or region BOEUNG REING Village development to fulfill basic needs in combination with feeder roads and agricultural development

Served area by the village development programme

ODAR

References and Sources Used



- Jenssen, B.;(ed), **Planning as a Dialogue**, District Development Planning and Management in Developing Countries, SPRING Research Series Nr. 2, Dortmund, 1992
- Jenssen, B.; Towards a Quantification of Agglomeration Disadvantages in Metroploitan Areas of Developing Countries, University of Dortmund, IRPUD, 1984
- Rondinelli, Dennis, A.: **Applied Methods of Regional Planning: The Urban Functions in Rural Development Approach**, Clark University: Rural Marketing Centers Working Group (USAID), 1983a
- Thimm, Hr.R., Green, D.A.G., Leupolt, M. (Eds); Plannning and Operating Rural Centres in Developing Countries, Studien zur Ländlichen Entwicklung. No. 18, 1986