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LAND USE PLANNING AND IT'S IMPORTANCE

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Typically, the term "land" refers to a portion of the earth's surface that contains all of the physical, chemical, and biological characteristics that affect how the resource is used. It speaks of soil, spatial variation, landscape, climate, hydrology, vegetation, and wildlife, as well as any land improvements, drainage plans, terraces, and other agrobiological and mechanical management techniques measures. The phrase "land usage" refers to more than only forestry and agricultural use; however, the use of the land for habitations, businesses, roadways, and other human activities. Land use can only be considered sustainable in this sense if it is accomplished in such a spatial distribution or arrangement of the various uses so as to ensure biodiversity and protect the eco-balance throughout the system. For this process to work, rational land use planning is essential. According to Bunting (1987), sustainable soil management preserves the soil's inherent fertility and enables the long-term cultivation of supplies of food, fibre and other natural resources. It suggests that the natural environment should be maintained and managed in a way that takes into account, preserves, or restores the energy flows between the soil, water bodies, and atmosphere. In this regard, "sustainable land use" is a broader phrase than "sustainable soil use."

It is anticipated that by 2050, there will be at least 9 billion people on earth and 8 billion at the very least by 2025 (FAO 1995). Therefore, it is evident that achieving food security and the quality of life will continue to present significant obstacles to maintaining the environment in the upcoming years for technicians, scientists, and decision-makers. The primary endeavour of food is produced via agriculture; hence advancing sustainable agricultural development and the way in which we respond to these difficulties will be critical. Since ancient times, agricultural engineering has used scientific concepts to the best

possible use and management of natural resources, and as the new century approaches, its significance is growing.

This significance is increasing for at least two reasons. First, the prudent utilisation of land resources will play a crucial part in the food supply for upcoming generations. Second, there is a growing demand for various land uses dramatically rising, particularly in the industrialised world. The land needs to be farmed, forestry, wildlife, infrastructure, outdoor leisure, landscaping and industrial activities, as well as greater land resources, are needed for urban growth. To achieve this, sensible land use Planning will help to ensure agricultural sustainability by finding a balance between these various demands while protecting the environment and increasing production (Hamdy *et al.*, 1999).

Principles of Land Use Planning (FAO 1993)

On the basis of the central idea, land use planning should be based on the following principles:

- a) Both the process and the substance of land use planning are adapted to the local conditions. Due to the frequently failure of planning methods, implementation tactics and global models, these land use planning methods are automatically applied and taken over without consideration. LUP, however, is not a standardised. a process that is used consistently over the world. The material is based on a preliminary study of the local or regional situation.
- b) Rural communities or organisations can frequently offer intricate indigenous knowledge of the environment. If this is the case, such local expertise need to serve as a foundation for preparing a sustainable land use and putting it into action.
- c) Traditional rural societies have unique approaches to tackling and resolving issues, disputes about land use. Such strategies are used in the land use planning process to must be acknowledged, comprehended and taken into consideration.
- d) The populace should actively engage in the LUP process. The outcomes of only when plans are created can planning and the implementation of measures be sustained, not behind or even against the people, but with and for the people. Thus, planning is not just a subject for professionals, but it ought to be done in collaboration with those who will be impacted. To ensuring that those touched by self-help initiatives have a sense of ownership must participate in the planning process from the start.

e) The primary duty of LUP is to begin a process of cooperation and communication that "all participants the opportunity to establish their goals and interests in the discussion ". The participation-oriented LUP includes the following key components: identification of the different participant groups and a comparison of their access to and utilisation of land resources. Additionally, their standing in the social hierarchy (gender approach) and their abilities as participants or members, there must be a consideration for authorities and other organisations.

Research and Development

National and international research must now be more effectively concentrated than in the past issues with managing and planning for land usage in the past. The only method to provide land in this way is utilising users and planners with the most appropriate and tested technology for focused actions to enhance the output of agriculture while preserving the environment. Lack of study and application access to new and cutting-edge technology, as well as research discoveries, is regarded as one of the sector's issues are primarily caused by inefficient land utilisation, degradation of the environment, excessive costs, and poor beneficiary response. Successful research thrust on sustainable land use planning should include the following actions:

- Data base improvement
- Adaptive research
- Institutional strengthening
- Socio-economic analysis
- Environmental protection and conservation
- Technology transfer and infrastructure

Strategic Action Programme

The above-described themes and principles strike at the root of the major problems encountered in the land use planning process. To be effective, they have to be translated into actions through the formulation of programs which have to take into account the actual conditions of the environment where they are expected to be implemented. These programs have to include:

- The adoption of a thorough strategy that integrates environmental management, land use and water use
- The encouragement of regional collaboration to make sure that all parties' concerns are taken into consideration when making decisions
- An understanding of the connections between various land uses
- Promoting engagement from a wide range of groups, including governments, academic and research institutions, and non-governmental organisations
- The national and local levels of government endorsing an action plan in phases

The body of a Strategic Action Program is made up of and delineated by this regional strategy is a crucial step in putting prioritised initiatives into practise at the local and national levels.

Conclusions

- Sustainable land use planning is a process that aims to integrate ecological with socio-economic, and political with ethical principles in the management of land, for productive and other functions, to achieve intra and intergenerational equity.
- For formulating and implementing policies and strategies for land use planning, it is essential to collect, process and disseminate timely and reliable information and utilise modern land assessment and evaluation technologies to create sound scientific knowledge for proper decision support.
- The creation of a successful networking system can significantly boost and accelerate information gathering, selection and exchange to avoid overlapping and duplication.
- No comprehensive strategy for sustainable land use can be created for an area as a whole. At most, a regional strategy can provide a rough overview of what has to be accomplished at the national level. Therefore, each nation will need to customise its sustainable development in light of its unique issues, limitations, and comparative advantages.
- Regional plans must establish priorities, pinpoint pertinent initiatives, evaluate the environmental effects of legislation, look into resource mobilisation methods, and improve and promote the involvement of all parties involved
- Projects for land use planning will not be promoted or carried out without cost. Therefore, a lot of attention should be given to finding new sources of funding for the national financial allotment with additional funding. Measures are the most important

of these methods that aim to raise money locally, especially using the "user pays" basis

- The lessons discovered demonstrate the need for a clear rupture with the past policies to adopt a new, holistic method of managing and planning land use, that is comprehensive, participatory, and sustainable in terms of the environment.
- There is an immediate need for individuals with the necessary training to work in the integrated management of natural resources in a multi-sectoral environment.
- Finally, in order to realise sustainable land use planning development, aims and objectives, regulations, and rules should be based on local customs, traditions, and environmental strategies for managing resources.

References

Bunting, A. H. (1987). *Agricultural environments. Characterisation, classification and mapping.* Wallingford, UK.

FAO (1993). *Guidelines for land use planning.* Rome, Italy.

FAO (1995). *Planning for a sustainable use of land resources. Towards a new approach.* Rome, Italy.

Hamdy, A., & De Wrachien, D. (1999). *New policies and strategies on land and water development in the Mediterranean region.* In *Proceeding of the 2 nd International Conference on Environment Water.* Lausanne, Switzerland.