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BÀI GIẢNG

ANH VĂN CHUYÊN NGÀNH

QUẢN LÝ ĐẤT ĐAI VÀ BẤT ĐỘNG SẢN

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UNIT 1: LAND EVALUATION

I. READING COMPREHENSION

When populations were far smaller than today most societies were able to live in balance with their natural environment. As numbers expanded, man had a greater impact on the land through clearance for farming and in order to obtain fuel and construction material. In most places, this was a gradual process, and social groups were able to develop often complex systems for exploiting natural resources on a sustainable basis.

More recently, human populations have increased very rapidly, especially in developing countries, and demand for food and fuel has grown alarmingly. At the same time, changing economic and social conditions have undermined or destroyed traditional systems of land resource management. Thus, not only is the land being cropped and grazed more intensively, with rest or fallow periods being drastically reduced or eliminated, but effective systems for maintaining fertility are no longer being applied. The result has been massive soil degradation on a world scale, through loss of plant nutrients and organic matter, erosion, build up of salinity, and damage to soil structure. Increasing demand for food, plus the fact that parts of the land most suited to crop production have been damaged or destroyed, has led to the expansion of cultivation and grazing into areas less suited to such uses, and ecologically more fragile. This has upset or destroyed natural ecosystems and modified or eliminated natural populations of flora and fauna.

Much of the damage is irreversible, as when fertile topsoil has been stripped off to expose infertile subsoil or bare rock, or where plant or animal species have been wiped out. In other cases, the damage can be economically irreversible, such as when millions of hectares become infertile due to the build-up of salinity. There is an urgent need for a new approach. Traditional systems must be preserved and strengthened wherever possible, but it is clear that they alone are far from sufficient in view of the magnitude of the problem and the rate of destruction of the world's land resources.

How people or nations use their land depends on complex, interrelated factors which include the characteristics of the land itself, economic factors, social, legal, and political constraints, and the needs and objectives of the land user. In order to make rational decisions it is necessary to collect the right information about the physical, social, and economic aspects of the land area in question; and assess the land's relative suitability for different uses in the light of the needs and objectives of the land user and the community. This process is known technically as land suitability evaluation, or simply as

land evaluation, and the basic methodology was set out in the 1976 FAO (Food and Agriculture Organization) publication - *Framework For Land evaluation* (Soil Bulletin 32).

Land evaluation is part of the process of land-use planning. Successful land evaluation is necessarily a multi-disciplinary process and therefore the use of a standardized framework is essential to ensure logical, and, as far as possible, quantitative analysis of the suitability of the land for a wide range of possible land uses

How land is evaluated

The essence of land evaluation is then to compare or match the requirements of each potential land use with the characteristics of each kind of land. The result is a measure of the suitability of each kind of land use for each kind of land. These suitability assessments are then examined in the light of economic, social and environmental considerations in order to develop an actual plan for the use of land in the area. When this has been done, development can begin.

Land evaluation, strictly speaking, is only that part of the procedure that lies between stages two and six on the diagram below. Stage seven is a transitional step between land evaluation and land-use planning. The powerful interactions that occur between all the stages mean that the planning process must be approached as a whole. The requirements of the different kinds of use that are to be evaluated, for example, largely determine the range of basic data that must be collected before evaluation can begin. Later, the identification of suitable forms of land use provides the building blocks for land-use planning

Ideas on how the land should be used are likely to exist before the formal planning process begins. Those ideas, which often reflect the wishes of the local people, are usually included among the possible uses to be assessed in the evaluation and will thus influence the range of basic data that needs to be collected.

As the study proceeds, new ideas on the way the different types of land could be used will emerge. Not only will these need to be evaluated but, conceivably, additional basic data will need to be collected. The original objectives of the study may even need revising.

Thus, the overall procedure requires more than a simple passage through the flow chart. It is the norm rather than the exception that the procedure cycles backwards and forwards through the stages of the chart until the planners are satisfied that all important

possible uses *have* been evaluated. A wide range of specialist knowledge is needed to collect and analyze all the data relevant to land evaluation. The work is best undertaken by a multidisciplinary team that includes social and economic expertise as well as biophysical scientists. Ideally, such a team should work together throughout the study so that each member can influence the others with his or her special knowledge and viewpoint

In practice it is not always possible to field the whole team at once. In this case, the physical aspects of land are usually studied and mapped first to provide a geographical framework into which the socio-economic dimensions are inserted later. A two stage approach *is* obviously less well integrated and will take longer to complete.

The reliability of a land evaluation can be no greater than that of the data on which it is based. Ideally, fresh data should be obtained to answer all questions raised by the study, although time and expense usually prevent this being one as thoroughly as is possible. The one really important requirement is that the reliability of each data source is checked.

In order to be objective and, as far as possible, quantitative, land evaluation follows certain established procedures based on the concept of land 'qualities' and 'characteristics'. Land characteristics are single factors such as annual rainfall or soil texture, which can be measured or estimated. Land qualities, on the other hand, are complex properties of the land such as moisture availability or fertility, produced by combination groups of land characteristics. Land suitability is rated for a given use by comparing the requirements of that use, which must of course first be identified; with the qualities of the land unit

The evaluation process can be 'automated' and carried out quite rapidly once all the necessary data are available, by setting up a computerized data bank or geographical information system, and establishing rules or decision trees to carry out the matching process which produces the evaluation.

II. VOCABULARY

1. population: dân số, mật độ dân số
2. society : xã hội
3. live in balance with: sống một cách cân bằng
4. natural environment: môi trường tự nhiên
5. clearance: chặt phá rừng
6. fuel (n): nhiêu liệu, chất đốt
7. construction material: vật liệu xây dựng
8. social group: nhóm xã hội
9. exploit (v): khai thác
10. natural resource: tài nguyên thiên nhiên
11. sustainable (a) bền vững
12. developing countries: các quốc gia đang phát triển
13. alarmingly (ab) đáng lo ngại, đáng báo động

14. economic and social conditions: các điều kiện kinh tế xã hội
15. undermine (v) làm suy yếu, làm yếu dần
16. destroy (v): phá hoại, phá hủy, tiêu diệt
17. land resource management: quản lý tài nguyên đất đai
18. crop (v): gieo trồng
19. graze (v) chăn thả gia súc
20. intensively (adv): mạnh mẽ, sâu sắc
21. eliminate (v): loại ra, loại trừ, loại bỏ
22. maintain (v): duy trì
23. fertility (n) độ màu mỡ
24. apply (n): áo dụng ứng dụng
25. degradation (n): sự suy thoái, sự thóai hóa
26. plant nutrient (n): dinh dưỡng cây trồng
27. organic matter (n): chất hữu cơ
28. erosion (n) sự xói mòn
29. to build up (v): tích tụ, tích lũy
30. salinity (n): tính mặn, độ mặn
31. soil structure: kết cấu đất
32. cultivation (n) sự trồng trọt, canh tác
33. fragile (a): mỏng manh, dễ vỡ
34. flora (n): quần thể thực vật
35. fauna (n): quần thể động vật
36. irreversible (a): không thể thay đổi, không thể đảo ngược được
37. topsoil (n): tầng đất mặt
38. plant or animal species (n): các lòai động thực vật
39. wipe out (v) phá hủy hoàn toàn
40. magnitude (n): độ lớn, tầm quan trọng
41. destruction (n) sự phát hủy, sự phá hoại
42. land's relative suitability (n) tính thích hợp tương đối của đất đai
43. land suitability evaluation (n) đánh giá tính thích hợp của đất đai
44. land evaluation (n) đánh giá đất đai
45. land-use planning: quy hoạch sử dụng đất đai
46. multi-disciplinary (a): đa ngành
47. quantitative analysis: phân tích định lượng
48. essence (n) bản chất, thực chất
49. reliability (n) sự đáng tin cậy, tính đáng tin cậy

UNIT 2: LAND-USE PLANNING

I. READING COMPREHENSION

There is bound to be conflict over land use. The demands for arable land, grazing, forestry, wildlife, and tourism and urban development are greater than the land resources available. In the developing countries, these demands become more pressing every year. The population dependent on the land for food, fuel and employment will double within the next 25 to 50 years. Even where land is still plentiful, many people may have inadequate access to land or to the benefits from its use. In the face of scarcity, the degradation of farmland, forest or water resources may be clear for all to see but individual land users lack the incentive or resources to stop it.

Land-use planning is the systematic assessment of land and water potential, alternatives for land use and economic and social conditions in order to select and adopt the best land-use options. Its purpose is to select and put into practice those land uses that will best meet the needs of the people while safeguarding resources for the future. The driving force in planning is the need for change, the need for improved management or the need for a quite different pattern of land use dictated by changing circumstances.

All kinds of rural land use are involved: agriculture, pastoralism, forestry, wildlife conservation and tourism. Planning also provides guidance in cases of conflict between rural land use and urban or industrial expansion, by indicating which areas of land are most valuable under rural use.

WHEN IS LAND-USE PLANNING USEFUL?

Two conditions must be met if planning is to be useful: The need for changes in land use, or action to prevent some unwanted change must be accepted by the people involved; there must be the political will and ability to put the plan into effect. Where these conditions are not met, and yet problems are pressing, it may be appropriate to mount an awareness campaign or set up demonstration areas with the aim of creating the conditions necessary for effective planning.

Making the best use of limited resources

Our basic needs of food, water, fuel, clothing and shelter must be met from the land, which is in limited supply. As population and aspirations increase, so land becomes an increasingly scarce resource. Land must change to meet new demands yet change brings new conflicts between competing uses of the land and between the interests of individual

land users and the common good. Land taken for towns and industry is no longer available for farming; likewise, the development of new farmland competes with forestry, water supplies and wildlife. Planning to make the best use of land is not a new idea. Over the years, farmers have made plans season after season, deciding what to grow and where to grow it. Their decisions have been made according to their own needs, their knowledge of the land and the technology, labor and capital available. As the size of the area, the number of people involved and the complexity of the problems increase, so does the need for information and rigorous methods of analysis and planning. However, land-use planning is not just farm planning on a different scale; it has a further dimension, namely the interest of the whole community.

Planning involves anticipation of the need for change as well as reactions to it. Its objectives are set by social or political imperatives and must take account of the existing situation. In many places, the existing situation cannot continue because the land itself is being degraded (Plate 2). Examples of unwise land use include: the clearance of forest on steeplands or on poor soils for which sustainable systems of farming have not been developed; overgrazing of pastures; and industrial, agricultural and urban activities that produce pollution. Degradation of land resources may be attributed to greed, ignorance, uncertainty or lack of an alternative but, essentially, it is a consequence of using land today without investing in tomorrow.

Land-use planning aims to make the best use of limited resources by:

- Assessing present and future needs and systematically evaluating the land's ability to supply them; identifying and resolving conflicts between competing uses, between the needs of individuals and those of the community, and between the needs of the present generation and those of future generations;
- Seeking sustainable options and choosing those that best meet identified needs;
- Planning to bring about desired changes;
- Learning from experience. There can be no blueprint for change. The whole process of planning is iterative and continuous. At every stage, as better information is obtained, a plan may have to be changed to take account of it.

Goals

Goals define what is meant by the "best" use of the land. They should be specified at the outset of a particular planning project. Goals may be grouped under the three headings of efficiency, equity and acceptability and sustainability.

Efficiency: Land use must be economically viable, so one goal of development planning is to make efficient and productive use of the land. For any particular land use, certain areas are better suited than others. Efficiency is achieved by matching different land uses with the areas that will yield the greatest benefits at the least cost. Efficiency means different things to different people, however. To the individual land user, it means the greatest return on capital and labor invested or the greatest benefit from the area available. Government objectives are more complex: they may include improving the foreign exchange situation by producing for export or for import substitution.

Equity and acceptability: Land use must also be socially acceptable. Goals include food security, employment and security of income in rural areas. Land improvements and redistribution of land may be undertaken to reduce inequality or, alternatively, to attack absolute poverty. One way of doing this is to set a threshold standard of living to which those of target groups should be raised. Living standards may include levels of income, nutrition, food security and housing. Planning to achieve these standards then involves the allocation of land for specific uses as well as the allocation of financial and other resources.

Sustainability: Sustainable land use is that which meets the needs of the present while, at the same time, conserving resources for future generations. This requires a combination of production and conservation: the production of the goods needed by people now, combined with the conservation of the natural resources on which that production depends so as to ensure continued production in the future. A community that destroys its land forfeits its future. Land use has to be planned for the community as a whole because the conservation of soil, water and other land resources is often beyond the means of individual land users.

Trade-offs between conflicting goals

Clearly, there are conflicts between these goals. More equity may mean less efficiency. In the short term, it may not be possible to meet the needs of the present without consuming re sources, for example by burning oil or clearing areas of natural forest. Decision-makers have to consider the trade-off between different goals but, if the

system as a whole is to survive, the use of natural assets must be compensated by the development of human or physical assets of equal or greater worth.

Good information is essential; that is, information about the needs of the people, about land resources and about the economic, social and environmental consequences of alternative decisions. The job of the land-use planner is to ensure that decisions are made on the basis of consensus or, failing that, informed disagreement. In many cases, planning can reduce the costs in trade-off, for example by introducing appropriate new technology. It can also help to re solve conflict by involving the community in the planning process and by revealing the rationale and information on which decisions are based.

II. VOCABULARY

1. bound (n): gia tăng, nhảy vọt
2. conflict (v), (n) mâu thuẫn, xung đột
3. arable (a): trồng trọt được
4. dependent on (a): dựa vào, ăn theo
5. plentiful (a) dồi dào, phong phú
6. inadequate (a) không đầy đủ, không công bằng
7. access (n) tiếp cận
8. scarcity (n) sự khan hiếm, sự khó tìm
9. farmland (n): đất trồng trọt
10. lack (v): thiếu, không có
11. incentive (n): động cơ
12. assessment (n): sự đánh giá
13. safeguard (v): che chở, bảo vệ, giữ gìn
14. driving force (n) động lực
15. circumstances (n) hòan cảnh, trường hợp, tình huống
16. will (n): ý chí, ý định
17. demonstration areas (n) khu vực trình diễn
18. aspirations (n): nguyện vọng, khát vọng
19. common good (n) lợi ích chung
20. capital (n): vốn
21. complexity (n): sự phức tạp, sự rắc rối
22. imperatives (n): mệnh lệnh, nhu cầu
23. unwise (a): không khôn ngoan, không thận trọng
24. steepland (n): đất dốc
25. greed (n): tính tham lam.
26. sustainable option (n) chọn lựa bền vững
27. iterative (a) lặp đi lặp lại
28. Goal (n): mục đích, mục tiêu
29. efficiency (n): hiệu quả, hiệu suất
30. equity (n): tính công bằng, tính hợp lý
31. acceptability (n) tính chất có thể chấp nhận
32. sustainability (n) tính bền vững
33. yield (v) mang lại
34. redistribution of land (n): phân phối lại đất đai
35. inequality (n): bất bình đẳng
36. threshold (n): ngưỡng
37. target group (n) nhóm mục tiêu
38. Decision-maker (n) nhà hoạch định
39. natural asset (n) tài nguyên tự nhiên
40. essential (n): cần thiết
41. land-use planner (n) nhà quy hoạch

Suggested reading 1:

THE FOCUS OF LAND-USE PLANNING

I. Reading comprehension

Planning is for people

People's needs drive the planning process. Local farmers, other land users and the wider community who depend on the land must accept the need for a change in land use, as they will have to live with its results.

Land-use planning must be positive. The planning team must find out about people's needs and also the local knowledge, skills, labor and capital that they can contribute. It must study the problems of existing land-use practices and seek alternatives while drawing the public's attention to the hazards of continuing with present practices and to the opportunities for change.

Regulations to prevent people doing what they now do for pressing reasons are bound to fail. Local acceptability is most readily achieved by local participation in planning. The support of local leaders is essential while the participation of agencies that have the resources to implement the plan is also important.

Land is not the same everywhere.

Land is, self-evidently, the other focus of land use planning. Capital, labor, management skills and technology can be moved to where they are needed. Land cannot be moved, and different areas present different opportunities and different management problems. Nor are land resources unchanging: this is obvious in the case of climate and vegetation, but examples such as the depletion of water resources or the loss of soil by erosion or salinity are reminders that resources can be degraded, in some cases irreversibly. Good information about land resources is thus essential to land-use planning.

Technology

A third element in planning is knowledge of land-use technologies: agronomy, silviculture, livestock husbandry and other means by which land is used. The technologies recommended must be those for which users have the capital, skills and other necessary resources; that is, appropriate technology. New technologies may have social and environmental implications that should be addressed by the planner.

Integration

A mistake in early attempts at land-use planning was to focus too narrowly on land resources without enough thought given to how they might be used. Good agricultural land is usually also suitable for other competing uses. Land-use decisions are not made just on the basis of land suitability but also according to the demand for products and the extent to which the use of a particular area is critical for a particular purpose. Planning has to integrate information about the suitability of the land, the demands for alternative products or uses and the opportunities for satisfying those demands on the available land, now and in the future. Therefore, land-use planning is not sectoral. Even where a particular plan is focused on one sector, e.g. smallholder tea development or irrigation, an integrated approach has to be carried down the line from strategic planning at the national level to the details of individual projects and programmes at district and local levels.

PLANNING AT DIFFERENT LEVELS

Land-use planning can be applied at three broad levels: national, district and local. These are not necessarily sequential but correspond to the levels of government at which decisions about land use are taken. Different kinds of decision are taken at each level, where the methods of planning and kinds of plan also differ. However, at each level there is need for a land-use strategy, policies that indicate planning priorities, projects that tackle these priorities and operational planning to get the work done.

The greater the interaction between the three levels of planning, the better. The flow of information should be in both directions (Fig. 1). At each successive level of planning, the degree of detail needed increases, and so too should the direct participation of the local people.

National level

At the national level, planning is concerned with national goals and the allocation of re sources. In many cases, national land-use planning does not involve the actual allocation of land for different uses, but the establishment of priorities for district-level projects. A national land-use plan may cover:

- Land-use policy: balancing the competing demands for land among different sectors of the economy — food production, export crops, tourism, wildlife conservation, housing and public amenities, roads, industry;
- National development plans and budget:

- Project identification and the allocation of resources for development; coordination of sectoral agencies involved in land use;
- Legislation on such subjects as land tenure, forest clearance and water rights.

National goals are complex while policy decisions, legislation and fiscal measures affect many people and wide areas. Decision-makers cannot possibly be specialists in all facets of land use, so the planners' responsibility is to present the relevant information in terms that the decision-makers can both comprehend and act on.

District level

District level refers not necessarily to administrative districts but also to land areas that fall between national and local levels. Development projects are often at this level, where planning first comes to grips with the diversity of the land and its suitability to meet project goals. When planning is initiated nationally, national priorities have to be translated into local plans. Conflicts between national and lo cal interests will have to be resolved. The kinds of issues tackled at this stage include:

- The siting of developments such as new settlements, forest plantations and irrigation schemes;
- The need for improved infrastructure such as water supply, roads and marketing facilities;
- The development of management guide lines for improved kinds of land use on each type of land.

Local level

The local planning unit may be the village, a group of villages or a small water catchment. At this level, it is easiest to fit the plan to the people, making use of local people's knowledge and contributions. Where planning is initiated at the district level, the programme of work to implement changes in land use or management has to be carried out locally. Alternatively, this may be the first level of planning, with its priorities drawn up by the local people. Local level planning is about getting things done on particular areas of land -what shall be done where and when, and who will be responsible. Examples are:

- The layout of drainage, irrigation and soil conservation works;
- The design of infrastructure -road alignment and the siting of crop marketing, fer-tilizer distribution, milk collection or veterinary facilities;

- The siting of specific crops on suitable land.

Requests at the local level, e.g. for suitable areas to introduce tobacco or coffee, must be met with firm recommendations. For instance, "this land is suitable, this is not; these management practices are needed; it will cost so much and the expected returns are so much".

Planning at these different levels needs information at different scales and levels of generalization. Much of this information may be found on maps. The most suitable map scale for national planning is one by which the whole country fits on to one map sheet, which may call for a scale from 1:5 million to 1:1 million or larger. District planning requires details to be mapped at about 1:50 000, although some information may be summarized at smaller scales, down to 1:250 000.

For local planning, maps of between 1 :20 000 and 1:5000 are best. Reproductions of air photographs can be used as base maps at the local level, since field workers and experience show that local people can recognize where they are on the photos.

Overview of the planning process

Every land-use planning project is different. Objectives and local circumstances are extremely varied, so each plan will require a different treatment. However, a sequence of ten steps has been found useful as a guide. Each step represents a specific activity, or set of activities, and their outputs provide information for subsequent steps.

Following is an outline of the steps in land-use planning:

Step 1. Establish goals and terms of reference. Ascertain the present situation; find out the needs of the people and of the government; decide on the land area to be covered; agree on the broad goals and specific objectives of the plan; settle the terms of reference for the plan.

Step 2. Organize the work. Decide what needs to be done; identify the activities needed and select the planning team; draw up a schedule of activities and outputs; ensure that everyone who may be affected by the plan, or will con tribute to it, is consulted.

Step 3. Analyze the problems. Study the existing land-use situation, including in the field; talk to the land users and find out their needs and views; identify the problems and analyse their causes; identify constraints to change.

Step 4. Identify opportunities for change. Identify and draft a design for a range of land-use types that might achieve the goals of the plan; present these options for public discussion.

Step 5. Evaluate land suitability. For each promising land-use type, establish the land requirements and match these with the properties of the land to establish physical land suitability.

Step 6. Appraise the alternatives: environmental, economic and social analysis. For each physically suitable combination of land use and land, assess the environmental, economic and social impacts, for the land users and for the community as a whole. List the consequences, favorable and unfavorable, of alternative courses of action.

Step 7. Choose the best option. Hold public and executive discussions of the viable options and their consequences. Based on these discussions and the above appraisal, decide which changes in land use should be made or worked towards.

Step 8. Prepare the land-use plan. Make allocations or recommendations of the selected land uses for the chosen areas of land; make plans for appropriate land management; plan how the selected improvements are to be brought about and how the plan is to be put into practice; draw up policy guidelines, prepare a budget and draft any necessary legislation; involve decision-makers, sectoral agencies and land users.

Step 9. Implement the plan. Either directly within the planning process or, more likely, as a separate development project, put the plan into action; the planning team should work in con junction with the implementing agencies.

Step 10. Monitor and revise the plan. Monitor the progress of the plan towards its goals; modify or revise the plan in the light of experience.

UNIT 3: GEOGRAPHICAL INFORMATION SYSTEM

I. READING COMPREHENSION

The collection of data about the spatial distribution of significant properties of the earth's surface has long been an important part of the activities of organized societies. From the earliest civilizations to modern times, spatial data have been collected by navigators, geographers, and surveyors and rendered into pictorial form by the map makers or cartographers. Originally, maps were used to describe far-off places, as an aid for navigation and for military strategists. In Roman times, the agrimensores, or land surveyors, were an important part of the government and the results of their work may still be seen in vestigial form in the landscapes of Europe today (Duke 1971). The decline of the Roman Empire led to the decline of surveying and map making. Only in the eighteenth century did European civilization once again reach a state of organization such that many governments realized the value of systematic mapping of their lands. National government bodies were commissioned to produce topographical maps of whole countries. These highly disciplined institutes have continued to this day to render the spatial distribution of the features of the earth's surface, or topography, into map form. During the last 200 years many individual styles of map have been developed, but there has been a long, unbroken tradition of high cartographic standards that has continued until the present.

As the European powers increased their influence over the globe, they spread their ideas and methods of map making to the countries that fell under their sway. As scientific study of the earth advanced, so new material needed to be mapped. The developments in the assessment and understanding of natural resources— geology, geomorphology, soil science, ecology, and land --that begun in the nineteenth century and have continued to this day, provided new material to be mapped. Whereas topographical maps can be regarded as general purpose because they do not set out to fulfill any specific aim (i.e. they can be interpreted for many different purposes), maps of the distribution of rock types, soil series or land use are made for more limited purposes. These specific-purpose maps are often referred to as 'thematic' maps because they contain information about a single subject or theme. To make the thematic data easy to understand, thematic maps are commonly drawn over a simplified topographic base by which users can orient themselves.

The term 'thematic map' is very widely and loosely applied (see for example, Fisher 1978; Ilodgkiss 1981) and is used not only for maps showing a general purpose

theme such as ‘soil’ or ‘landform’, but for much more specific properties such as the distribution of the value of the soil pH over an experimental field, the variation of the incidence of a given disease in a city, or the variation of air pressure shown on a meteorological chart. The theme may be qualitative (as in the case of land-use classes) or quantitative (as in the case of the variation of the depth to the phreatic zone). Both quantitative and qualitative information can be expressed as a choropleth map-—that is, areas of equal value separated by boundaries—and typical examples are soil maps, land-use maps or maps showing time results of censuses. Quantitative data can also be mapped by assuming that the data can be modeled by a continuous surface that is capable of mathematical description. The variations are then shown by isolines or contours—that is, lines connecting points of equal value. Typical examples are the elevation contours on a topographic map, lines of equal groundwater level, and the isobars on a weather Chart .

In the twentieth century, the demand for maps of the topography and specific themes of the earth’s surface, such as natural resources, has accelerated greatly. Stereo aerial photography and, remotely sensed imagery have allowed photogrammetrists to map large areas with great accuracy. The same technology has also given the earth resource scientists—the geologist, the soil scientist, the ecologist, the land-use specialist- enormous advantages for reconnaissance and semi-detailed mapping. The resulting thematic maps have been a source of useful information for resource exploitation and management. The study of land evaluation arose through the need to match the land requirements for producing food and supporting populations to the re sources of climate, soil, water, and available technology.

The study of the spatial distribution of rocks or soil, of plant communities or people, started in a qualitative way. As in many new sciences, the first aim of many surveys was inventory—to observe, classify, and record. Qualitative methods of classification and mapping were unavoidable given the huge quantity of complex data that most environmental surveys generate. Quantitative description was hindered not only by data volume but also by the lack of quantitative observation. Further, there was a lack of appropriate mathematical tools for describing spatial variation quantitatively. The first developments in appropriate mathematics for spatial problems began to be developed in the 1930s and 1940s in parallel with developments in statistical methods and time series analysis. Effective practical progress was completely blocked, however, by the lack of suitable computing tools. It is only since the l960s, with the availability of the digital

computer, that both, the, conceptual methods for spatial analysts and the actual possibilities for quantitative thematic mapping and spatial analysis have been able to blossom.

The need for spatial data and spatial analysis has not been restricted to earth scientists. Urban planners and cadastral agencies need detailed information about the distribution of land and resources in towns and cities. Civil engineers need to plan the routes of roads and canals and to estimate construction costs, including those of cutting away hillsides and filling in valleys. Police departments need to know the spatial distribution of various kinds of crime, medical organizations the distribution of sickness and diseases, commercial interests the distribution of sales & potential markets. The enormous infrastructure of what are collectively known as utilities i.e. water, gas, electricity, telephone lines, systems —all need to be recorded and manipulated in map form.

Until computers were applied to mapping, all kinds of mapping had one point in common. The spatial database was a drawing on a piece of paper or film. The information was encoded in the form of points, lines or areas. These basic geographical entities were displayed using various visual artifices such as diverse symbolism or color or text codes, the meaning of which is explained in a legend; where more information was available than could be printed in the legend on the map, then it was given in an accompanying memoir.

Because the paper map, and its accompanying memoir, was the database, there were several very important consequences for the collection, coding, and use of the information it contained. First, the original data had to be greatly reduced in volume, or classified, in order to make them understandable; consequently, many local details were often filtered away and lost. Second, the map had to be drawn extremely accurately and the presentation, particularly of complex themes, had to be very clear. Third, the sheer volume of information meant that areas that are large with respect to the map scale could only be represented by a number of map sheets. It is a common experience that one's area of interest is frequently near the junction of two, if not more, map sheets. Fourth, once data had been put into a map, it was not cheap or easy to retrieve them in order to combine them with other spatial data. Fifth, the printed map is a static, qualitative document. It is extremely difficult to attempt quantitative spatial analysis within the units on a thematic map without resorting to collecting new information for the specific purpose in hand.

The collection and compilation of data and the publication of a printed map is a costly and time-consuming business. Consequently, the extraction of single themes from a general purpose map can be prohibitively expensive if the map must be redrawn by hand. It was not important that initial mapping costs were large when a map could be thought of as being relevant for a period of 20 years or more. But there is now such a need for information about how the earth's surface is changing that conventional map making techniques are totally inadequate. For example, for some kinds of mapping, such as weather charts or the distribution net of a telephone company, there can be a daily or even hourly need for the spatial database to be brought up to date, which is just simply not possible by hand.

Essentially, the hand-drawn map or the map in a resource inventory is a snapshot of the situation seen through the particular filter of a given surveyor in a given discipline at a certain moment in time. More recently, the aerial photograph, but more especially the satellite image, have made it possible to see how landscapes change over time, to follow the slow march of desertification or erosion or the swifter progress of forest fires, floods, locust swarms or weather systems. But the products of airborne and space sensors are not maps, in the original meaning of the word, but photographic images or streams of data on magnetic tapes. The digital data are not in the familiar form of points, lines and areas representing the already recognized and classified features of the earth's surface, but are coded in picture elements-pixels-cells in a two-dimensional matrix that contain merely a number indicating the strength of reflected electromagnetic radiation in a given band. New tools were needed to turn these streams of numbers into pictures and to identify meaningful patterns. The cartographers, initially, did not possess the skills to use these new tool and so the fledgling sciences of remote sensing, image analysis, and pattern recognition were nursed into being, not by the traditional custodians of spatial data, but by mathematicians, physicists, and computer scientists (with, it must be said, much support from military authorities). These new practitioners of the art of making images of the earth have taken a very different approach to that of the conventional field scientists, surveyors, and the beginning; they often made exaggerated claims about the abilities of remote sensing and image analysis to recognize and map the properties of the earth's surface without expensive ground surveys. Gradually it has become to be realized that the often very striking images produced from remotely sensed data only have a real value if they can be linked to ground truth—a certain amount of field survey is essential for proper interpretation. And to facilitate calibration, the images have to be located properly with

respect to a proper geodetic grid, otherwise the information cannot be related to a definite place. The need for a marriage between remote sensing, earthbound survey, and cartography arose, which has been made possible by the class of mapping tools known as Geographical Information Systems, or GIS.

Suggested reading: What is GIS?

I. Reading comprehension

Definition of GIS

Like the field of geography, the term Geographic Information System (GIS) is hard to define. It represents the integration of many subject areas. Accordingly there is no absolutely agreed upon definition of a GIS (deMers, 1997). A broadly accepted definition of GIS is the one provided by the National Centre of Geographic Information and Analysis:

a GIS is a system of hardware, software and procedures to facilitate the management, manipulation, analysis, modelling, representation and display of georeferenced data to solve complex problems regarding planning and management of resources (NCGIA, 1990)

Geographic information systems have emerged in the last decade as an essential tool for urban and resource planning and management. Their capacity to store, retrieve, analyse, model and map large areas with huge volumes of spatial data has led to an extraordinary proliferation of applications. Geographic information systems are now used for land use planning, utilities management, ecosystems modelling, landscape assessment and planning, transportation and infrastructure planning, market analysis, visual impact analysis, facilities management, tax assessment, real estate analysis and many other applications.

Functions of GIS include:

- Data entry
- Data display
- Data management
- Information retrieval and analysis

GIS applications

Mapping locations

GIS can be used to map locations. GIS allows the creation of maps through automated mapping, data capture, and surveying analysis tools.

Mapping quantities

People map quantities, like where the most and least are, to find places that meet their criteria and take action, or to see the relationships between places. This gives an additional level of information beyond simply mapping the locations of features.

Mapping densities

While you can see concentrations by simply mapping the locations of features, in areas with many features it may be difficult to see which areas have a higher concentration than others. A density map lets you measure the number of features using a uniform area unit, such as acres or square miles, so you can clearly see the distribution.

Finding distances
GIS can be used to find out what's occurring within a set distance of a feature.

Mapping and monitoring change

GIS can be used to map the change in an area to anticipate future conditions, decide on a course of action, or to evaluate the results of an action or policy.

Raster representation of data

Raster is a method for the storage, processing and display of spatial data. Each area is divided into rows and columns, which form a regular grid structure. Each cell must be rectangular in shape, but not necessarily square. Each cell within this matrix contains location co-ordinates as well as an attribute value. The spatial location of each cell is implicitly contained within the ordering of the matrix, unlike a vector structure which stores topology explicitly. Areas containing the same attribute value are recognised as such, however, raster structures cannot identify the boundaries of such areas as polygons.

Raster data is an abstraction of the real world where spatial data is expressed as a matrix of cells or pixels, with spatial position implicit in the ordering of the pixels. With the raster data model, spatial data is not continuous but divided into discrete units. This makes raster data particularly suitable for certain types of spatial operation, for example overlays or area calculations.

Raster structures may lead to increased storage in certain situations, since they store each cell in the matrix regardless of whether it is a feature or simply 'empty' space.

Vector representation of data

Vector is a data structure, used to store spatial data. Vector data is comprised of lines or arcs, defined by beginning and end points, which meet at nodes. The locations of these nodes and the topological structure are usually stored explicitly. Features are defined by their boundaries only and curved lines are represented as a series of connecting arcs. Vector storage involves the storage of explicit topology, which raises overheads, however it only stores those points which define a feature and all space outside these features is 'non-existent'.

A vector based GIS is defined by the vectorial representation of its geographic data. According with the characteristics of this data model, geographic objects are explicitly represented and, within the spatial characteristics, the thematic aspects are associated.

There are different ways of organizing this double data base (spatial and thematic). Usually, vectorial systems are composed of two components: the one that manages spatial data and the one that manages thematic data. This is the named hybrid organization system, as it links a relational data base for the attributes with a topological one for the spatial data. A key element in these kind of systems is the **identifier** of every object. This identifier is unique and different for each object and allows the system to connect both data bases.

In the vector based model, geospatial data is represented in the form of co-ordinates. In vector data, the basic units of spatial information are points, lines (arcs) and polygons. Each of these units is composed simply as a series of one or more co-ordinate points, for example, a line is a collection of related points, and a polygon is a collection of related lines.

Co-ordinate
Pairs of numbers expressing horizontal distances along orthogonal axes, or triplets of numbers measuring horizontal and vertical distances, or n-numbers along n-axes expressing a precise location in n-dimensional space. Co-ordinates generally represent locations on the earth's surface relative to other locations

Point
A zero-dimensional abstraction of an object represented by a single X,Y co-ordinate. A point normally represents a geographic feature too small to be displayed as a line or area; for example, the location of a building location on a small-scale map, or the location of a service cover on a medium scale map.

Line
A set of ordered co-ordinates that represent the shape of geographic features too narrow to be displayed as an area at the given scale (contours, street centerlines, or streams), or linear features with no area (county boundary lines). A lines is synonymous with an arc.

Arc
An ARC/INFO term that is used synonymously with line.

Polygon
A feature used to represent areas. A polygon is defined by the lines that make up its boundary and a point inside its boundary for identification. Polygons have attributes that describe the geographic feature they represent.

UNIT 4: REAL ESTATE

I. READING COMPREHENSION

Lay persons frequently do not understand the difference between real estate and personal property. The unskilled practitioner may fail to distinguish between the physic aspects of real estate and the property rights associated with real estate ownership. Others confuse the economic characteristics of real estate with its physical characteristics. In addition, most persons would agree that the transfer of real estate involves a series of exceedingly complicated steps which are not widely known.

Accordingly, the terms associated with real estate, real property, land, personal property, and fixtures should be defined before the unique features of real estate are covered. This leads to a discussion of real estate as a scarce resource to be allocated among competing uses.

Real and personal property

The laws and customs relating to real estate depart markedly from the laws affecting the ownership of personal property. To convey personal property from Mary Smith to John Jones, only a properly executed bill of sale is required. In real estate, however, special legal documents, procedures unique to real estate, and strict rules prevail. In part, these procedures arise from the difficulty of transferring real estate ownership. That is, you cannot physically hand over a 1,500-square-foot house and lot to a buyer. Instead, a highly formal procedure and a set of legal documents are necessary in the transfer of real estate interests.

Real Estate: In practice, the terms land, real estate, and really are interchangeable. Real estate refers to the physical property, technically defined as land and its attachments. For example, a house permanently affixed to the land becomes part of the land and is conveyed with the land— the land and building are viewed as real estate. The distinction is important where the building may be constructed by a tenant on leased land. A default on the lease may mean that the tenant forfeits interest in the building, since the land owner acquires full use, possession, and rights to the land and its attachments in the event of a default by the tenant.

In other instances property not attached to the land is not part of the real estate—for example, a mobile home trailer -on wheels and not affixed to the land. If, however, the

mobile home is permanently connected to sewer, water, gas, and electricity and is supported by a permanent foundation (even though the wheels are present), the mobile home is considered part of the land in most jurisdictions. Conveyance of the land would include the mobile home.

Legally the term land refers to the surface, the subsurface, and the space above the land. A land parcel, which is described as a flat plane, creates certain rights of ownership, theoretically from the center of the earth to the point above the service where public rights permit. It will be recognized that space above the land may reach a height where public rights prevail over private rights—for example, the right of the public to fly airplanes over the land. International rights begin at some point above the earth, allowing nations to launch satellites that travel high above the earth's surface.

Real property refers to the legal rights associated with landownership. The term has been defined as "the interests, benefits, and rights inherent in the ownership of the physical real estate." Real property rights are highly divisible. Legally the ownership of property rights consists of a bundle of rights like a bundle of sticks that may be conveyed individually or in groups, according to the owner's wish. Thus, real property refers to interests held in land and its attachments. Absolute ownership—the full bundle of rights—gives the owner exclusive rights of possession, use, and enjoyment. In addition, absolute ownership includes the right to dispose of the property by sale, will, or gift. Some of the more common ways to divide property rights include the conveyance of:

Subsurface rights independent of surface rights.

The airspace above the surface.

Possession for a limited time (a lease).

Use rights for a limited purpose (a right-of- way easement).

A mortgage that pledges an interest in real estate as security for a loan.

Many other means of dividing property rights give real estate owners considerable flexibility in acquiring, financing, and disposing of property interests. In some instances the conveyance of these partial interests may be combined to serve the special needs of parties to a real estate transaction.

The Concept of Land. A developer looks at land as capital, whereas the planner views land more in terms of space. Others refer to land only in the physical sense, such as a farmer who considers the physical characteristics and productivity of the soil. For the

present purpose it is convenient to emphasize (1) the economic concept of land, (2) land as space, and (3) land as a capital resource.

1. The Economic Concept. In this sense land is defined broadly to include the surface with all its characteristics—water, soil, mineral deposits, and other natural phenomena, including climate, that is, the wind, rainfall, ice, and snow. Besides referring to these natural characteristics, the economic concept refers to all man-made improvements. such as irrigation ditches, waterways, highways, and streets. In other words, land is considered to be a part of nature that is identified with the geography of an area: mountains, lakes, forests, soil, and other resources. In sum, the economic concept views land as all natural and man-made structures subject to use, possession, and control.

2. Land as Space. Ownership of property gives possession and control to a limited space. Some view the characteristics of space as the controlling element in landownership. In analyzing the feasibility of a subdivision, judgments must be made with respect to the space proposed for conversion from, say, agricultural to residential purposes.

The essential problem in considering land as space is to provide for a system of harmonious, mutually attractive land uses. Owners and planners attempt to separate incompatible uses of space, for example, commercial districts and single-family dwellings. At the same time, land must be allocated to the less desirable uses, for example, sanitary landfills. In still other cases there is an economic advantage in grouping land uses according to their mutual attraction. Apartment house neighborhoods, industrial parks, and medical-hospital areas are cases in point. Much of our legislation regulating and controlling land use leads to the most acceptable, efficient use of space.

3. Land as a Resource. The real estate economist views land as a scarce resource that should be maximized and allocated to the most efficient use. In considering a multiple-family housing project, questions arise as to the number of the apartments that would ideally be placed on a given tract. If population density is too high, traffic congestion and the utility of multiple- family space would be lowered by overcrowded facilities, which decrease the enjoyment of property. On the other hand, if too few units are allowed, land is not utilized in its most efficient manner. Low-density land use on sites in which high-density land use would be preferred increases housing costs per unit, raises per unit utility expenses, lowers the local property tax base, and thus represents economic waste.

In another sense, developers add capital to land in order to produce an income property. There is some optimum land investment appropriate to an office building, a new

apartment project, or a residential subdivision. “Over investment” in land may lead to uneconomic operation and an eventual mortgage foreclosure. Even farmers and timber companies view land as an economic resource necessary for the production of income.

Personal Property

Personal property, legally known as chattel, is sold by a bill of sale. If the price is less than $500, the sale of a chattel does not need to be in writing. Under our concept of ownership, property is either real estate or personal property. As a rule, personal property refers to movable items that are not permanently affixed to land or buildings. For example, lumber delivered to a site remains personal property until it is incorporated into the building and is permanently attached to the land. In some cases items that would normally be regarded as personal property may be conveyed with the land like other real estate. In these cases, the items in question are classified as fixtures.

Fixtures

An article that was originally personal property is classified as a fixture if it is installed or attached to the land or building in a permanent way so that it becomes part of the real estate. Chandeliers adapted to a dining room ordinarily are considered fixtures. Even a stereo high-fidelity music system or a television set may be a fixture if it is specially fitted into wall cabinets or attached to the building so as to be inseparable and permanently affixed. The legal determination of a fixture rests on four tests:

1. The way in which the item is attached to the building.

2. The character of the item.

3. The intent of the parties.

4. The relation of the parties.

In the first case, if the article is attached and cannot be removed without damage or without limiting the utility of the building, it would be regarded as a fixture. Built-in ovens and ranges and built-in furniture are cases in point. Custom-made windows and air-conditioner units especially fitted to the house fall into the second category. If the parties act as if their intent were to make items of personal property, a permanent part of the building, most courts would hold that the intent of the parties governs the definition of such personal property as fixtures, On the other hand, refrigerators, washing machines, and dryers, which are normally taken by the owner to the next residence, are not generally intended to serve as fixtures.

ECONOMIC CHARACTERISTICS

Land serves as both consumption and an investment good. In this regard land is subject to the laws of supply and demand, as are other consumers or producer goods. However, the unique economic characteristics of land complicate the allocation of land resources to the best possible use. The uniqueness of land governs land use controls and the complex manner in which land is conveyed, modified, and adapted to the needs of the population.

Immobility

Because land is fixed in place, a shortage of land in one location may not be compensated by a surplus in another area. A subdivision of single-family dwellings in St. Petersburg, Florida, does not satisfy a shortage of houses in Palm Springs, California. In contrast, personal property, for example, machinery and raw materials may be easily transferred to areas with short supplies.

Consider the consequences of immobility, a builder who has overestimated the demand for housing in St. Petersburg, Florida, faces a substantial loss if the dwellings are not sold within a reasonable time. On the other hand, a land owner holding land for subdivision development in an area of extreme housing shortages may experience unusual capital gains. The immobility of land and buildings places a premium on feasibility studies and analytic techniques that suggest the ideal land use given the local demand.

Durability

Land and buildings are relatively long-lasting assets. It is claimed that a building may last virtually indefinitely if it is properly maintained and protected from wear and tear and action of the elements. The durability of buildings is both an advantage and a disadvantage. The ad vantage lies in the fact that the relatively long durability of building encourages relatively long-term credit, which may extend up to 50 years. Thus a lender who believes that an asset has an estimated economic life of 50 years may be inclined to advance funds over, say, 30 years.

However, the durability of buildings is also partly to blame for slum and blight. As areas decline in importance because of shifts in population or the loss of economic opportunity, poorly maintained properties tend to create neighborhoods of dilapidated structures that in themselves are relatively long lasting. If properties had a shorter economic life, neighborhoods would be less affected by substandard buildings that are beyond their economic usefulness but remain physically usable.

Divisibility

Because the physical asset, land and building, is not transferred physically from one buyer to another, the rights to possession, use, and enjoyment may be divisible into rights that meet special needs of consumers and investors. In some circumstances, the right to use real estate under a lease is more economically feasible than absolute ownership. In other instances, it is not necessary to acquire absolute ownership but only the right to use the property for a limited and special purpose. This latter device is used by power companies, for example, in acquiring an easement for electric transmission lines over private property. Rather than acquire the absolute ownership of land under the transmission lines, these companies acquire only the right to use the property for transmission lines. Owners may continue to use land covered by such an easement if the use is not incompatible with the electric transmission lines, for example, grazing, farming, and recreation. The divisibility of real estate enables owners to adapt real estate to special needs of the public.

Land Modification

While land is a relatively scarce resource, it is equally true that land may be modified considerably. In fact, such modification permits alternative uses of land as economic conditions change. Thus a low-rise retail building gives way to a high-rise office building, land used for pasture assumes greater importance as a shopping center, or, more dramatically, as population expands, low-density residences are re placed by ‘multiple-family structures. In the last illustration, note that although the land is relatively fixed, it is modified in such a way that the land space per dwelling unit decreases. While a single-family dwelling may support one residential unit per 10,000 square feet, succession to multiple-family use may change this ratio to one apartment unit per 1,000 square feet of land use.

So while it is true that the supply of land is fixed, land modification effectively increases the relative supply of land. The same principle holds true for a change in access. Land that was formerly suited only for agricultural use may succeed to dwelling use with the construction of a new limited-access highway. Such high ways tend to increase the availability of space for urban purposes. Limited-access highways may decrease driving time to the point that out lying locations are demanded for residential use. Again the modification of land, in this instance by improved access, effectively increases the supply of subdivision property.

High Capital Value

The high value of land accounts for other market imperfections. Buyers and sellers are not as free to enter and leave the real estate market as they are markets for other goods. The high cost of housing, which is probably the most expensive single purchase of the typical family, restricts the number of families entering the buyer's market. Though new housing may he urgently demanded, buyers in the market for real estate are highly dependent not only on the cost of credit but also on its availability. Consequently real estate sales vary with the cost of credit and the availability of mortgage money. In short, the marketability of real estate and its efficient use may be adversely affected by monetary conditions, since buyers are de pendent on long-term credit.

PHYSICAL CHARACTERISTICS

The utility of land depends not only on economic characteristics but also on physical attributes. The question of the best land use may turn on the importance attached to physical characteristics versus economic characteristics. For example, certain types of land are ideally suited to the raising of specialized crops. Thus the availability of irrigation water makes the desert sands near lndio, California, one of the few areas in the United States that have the combination of soil, water, and temperature required for commercial date production. Yet some date groves have been converted to single- family dwellings. Economically, the area is suit able for residential subdivisions; physically, the land is especially well adapted to a particular crop.

Because of such conflicts, it is appropriate to review the physical characteristics of land in their relation to land use. For the present purpose, the physical characteristics may be classified according to the main land use types: (1) agriculture, (2) residential, (3) commercial, (4) industrial, and (5) recreational.

Agricultural Land

Probably few land areas are not adapted to some form of agriculture. The main determinants of agricultural use relate to the soil and its features, topography, temperature, rainfall, and location. The physical characteristics of agricultural land vary by type of crop production.

Irrigated Land. Irrigation calls for relatively intensive production. Besides the required physical characteristics of irrigated land, its location must be within economical transportation distance for the crops under production. Given this requirement, the physical characteristics relate primarily to the soil. A highly sandy soil is unsuitable for irrigation

because of the loss of water. Sprinkler irrigation does not require the strictly level land necessary for ditch irrigation, but the topography must not be unusually steep. Moreover, the quality of the water used to irrigate land must not be toxic to commercial crop production. Because of the high cost of production, irrigated land is generally intensively developed for row crops, though pasture, rice, and other crops are irrigated on a more extensive basis.

Dry-Land Farms. The vast corn, wheat, oats, and barley acreage of the Middle West is largely devoted to cereal grains. Such land is usually equally adapted to grazing purposes. The more productive soils with favorable rainfall (and more accessibility) tend to succeed to dry-land farming as a more profitable endeavor. Like irrigated land, dry-land farms require suitable soil, drainage, temperature, and rainfall.

Grazing Lands. Grazing lands range from marginal property in desert or mountainous areas to subirrigated land of high production, for example, in central Florida and Kiamath, Oregon. For the most part, grazing represents an extensive type of land use, covering land which is remote or unproductive because of limited soils, unfavorable topography, and limited rain fall. The intensity of the grazing depends on the carrying capacity of the soil, that is, the quality of pasture grasses.

Timber Production. Timberland must be physically adapted to timber reproduction, and it must be accessible. The more productive timber areas have combinations of soil and moisture that produce a high annual volume of new timber growth. The less costly the access to growing timber, the more suitable the land is for timber production. Foresters are inclined to view timber as a crop which may take 20 or more years to mature. Soil, climate, and location must be favorable for commercial timber operations.

II. VOCABULARY

1. Lay person (n): người không chuyên môn
2. real estate (n): bất động sản
3. personal property (n) tài sản riêng, tài sản cá nhân (không phải là nhà cửa, đất đai
4. practitioner (n) chuyên viên
5. distinguish (v): phân biệt
6. physic aspects: khía cạnh tự nhiên, mặt tự nhiên
7. rights (n): các quyền
8. ownership (n) quyền sở hữu
9. confuse (v): nhầm lẫn
10. characteristic (n): đặc điểm
11. transfer (n): chuyển nhượng
12. exceedingly (adv): quá chừng, cực kỳ
13. complicate (v) phức tạp, rắc rối
14. term (n): thuật ngữ
15. define (v): định nghĩa
16. feature (n) đặc trưng
17. scarce (a) khan hiếm
18. allocate (v): phân phối, phân phát, phân chia
19. custom (n): phong tục, tục lệ
20. depart (v): bắt nguồn, khởi đầu
21. convey (v): chuyển nhượng, sang tên (tài sản)

22. procedure (n): thủ tục
23. prevail (v): thịnh hành, phổ biến
24. legal document (n) tài liệu pháp lý
25. interchangeable (a) có thể thay thế cho nhau
26. affix (v): thêm vào, gắn vào
27. distinction (n) sự khác biệt
28. default (n) sự vỡ nợ, sự vắng mặt
29. tenant (n) người thuê (nhà, đất)
30. mobile home (n) xe ,mooc dùng làm nhà ở, nhà di động
31. sewer (n) cống rãnh
32. jurisdictions: các đạo luật
33. prevail (over, against) (v) thắng thế, chiếm ưu thế
34. satellite (n): vệ tinh nhân tạo
35. phenomenon, phenomena (số nhiều): hiện tượng
36. possession (n): sự chiếm hữu, sở hữu
37. feasibility (n): tính khả thi
38. judgments (n): phán quyết, quyết định
39. conversion (n): sự chuyển đổi
40. harmonious (a) hòa thuận, hài hòa, cân đối
41. incompatible (a) không tương thích, không hợp nhay, không thích hợp
42. legislation (n): pháp luật, pháp chế
43. economist (n) nhà kinh tế học
44. chattel (n): động sản
45. bill of sale (n) văn bản ghi nhận việc mua bán tài sản cá nhân
46. fixtures (n): vật cố định, bất động sản do dụng đích
47. article (n): vật phẩm , hàng hóa
48. Chandeliers (n) đèn chùm
49. high-fidelity (n) HI-FI
50. consumption (n) sự tiêu thụ, sự tiêu dùng
51. laws of supply and demand: quy luật cung cầu
52. Durability (n) tính lâu bền
53. Modification (n) sự thay đổi, sự biến cải
54. sewer (n) cống rãnh
55. jurisdictions: các đạo luật
56. prevail (over, against) (v) thắng thế, chiếm ưu thế
57. satellite (n): vệ tinh nhân tạo
58. phenomenon, phenomena (số nhiều): hiện tượng
59. possession (n): sự chiếm hữu, sở hữu
60. feasibility (n): tính khả thi
61. judgments (n): phán quyết, quyết định
62. conversion (n): sự chuyển đổi
63. harmonious (a) hòa thuận, hài hòa, cân đối
64. incompatible (a) không tương thích, không hợp nhay, không thích hợp
65. legislation (n): pháp luật, pháp chế
66. economist (n) nhà kinh tế học
67. chattel (n): động sản
68. bill of sale (n) văn bản ghi nhận việc mua bán tài sản cá nhân
69. fixtures (n): vật cố định, bất động sản do dụng đích
70. article (n): vật phẩm , hàng hóa
71. Chandeliers (n) đèn chùm

UNIT 5: LAND LAW 2003

Article 4: Interpretation of terminologies

In this Law, the following terminologies shall be construed as follows:

- Land allocation by the State means the State assigns the land use rights by way of administrative decisions to entities having land use demand.
- Land lease by the State means the State assigns the land use rights by way of contracts with entities having land use demand.
- The State's recognition of the land use rights for land users who are stably using land means the State grants the initial land tenure certificate to them.
- Reception of transferred land use rights means the establishment of the land use rights transferred by other persons in accordance with legal provisions by way of exchange, transfer, inheritance, donation of land use rights or capital contribution with land use rights, which accordingly forms new legal entities.
- Land recovery means the State recovers, by way of an administrative decision in accordance with the provisions of this Law, land use rights or land which was allocated to organizations, People's Committees of Communes, Wards, or District towns.
- Compensation upon hind recovery by the State means the State returns the value of the land use rights of the recovered land area to person whose land is recovered.
- Support upon land recovery by the State means the State provides its assistance to person whose land is recovered by way of new career training, arranging new jobs, and extending funds for them to move to new resettlement places.
- Administrative boundary record means the documentation for State management on administrative boundaries.
- Administrative boundary map means a map that indicates administrative boundary landmarks, physical and terrain factors in relation to the administrative boundary landmarks.
- Administrative map means a map that indicates boundaries of administrative units, including place names and main natural, economic and social factors.
- Land parcel means the land area delimited by boundaries determined at site or described in records.
- Cadastral record means the documentation for State management on the use of land.

- Cadastral map means a map that indicates land parcels and related geographical factors; made in accordance with the administrative units at the communal, ward, district town level, and certified by authorised State bodies.
- Cadastral book means a book that is made for each communal, ward, district town administrative unit to record the land users' details and information on their use of the land
- Land index book means a book that is made for each communal, ward, district town administrative unit to record land parcels' indexes and other information.
- Land-change register means a book for recording any change in the use of land including sizes and shapes of the land parcel, land users, land use purposes, land use terms, rights and obligations of land users.
- Current land use map means a map corresponding to an administrative unit that indicates the disposition of various types of land at a certain time.
- Land use planning map means a map that is made at the beginning of the planning period to indicate the disposition of various types of land at the end of the planning period.
- Registration of land use rights means the recognition of the legitimate land use rights in the cadastral records with respect to a definite land parcel in order to establish the rights and obligations of the land users.
- Land tenure certificate (Land use right certificate) means a certificate that is granted by authorised State bodies to land users in order to protect their legitimate rights and obligations.
- Land statistics means the State, based on the cadastral records, collects and appraises land use status at the time the statistics is made and the land changes between two statistical periods.
- Land inventory means the State, based on the cadastral records and actual field findings, collects and appraises land use status at the time the inventory is made and the land changes between the two inventory periods.
- Price of land use rights (hereinafter referred to as "Land Price") means an amount of money per a land area unit as regulated by the State or formed in a land use right transaction.
- Value of land use rights means the monetary value of the land use rights regarding a determined land site during its determined land use term.
- Land use fee means an amount payable by the land user in cases where a

determined land parcel is allocated by the State with land use fee required.

- Land dispute means a dispute regarding the rights and obligations of land users between two or more parties in relation to land.
- Land destruction means actions that cause the land deformed, land quality decreased, land polluted, land use ability lost or decreased with regards to the pre-determined land use purpose.
- Public service delivery organisation means those established by authorised State bodies, political organizations, socio-political organizations, rendering public services with expenses covered by the State budget.

Article 5. Land ownership

1. Land is the property of the whole people, and the State is the representative owner.
2. The State shall implement the following determinative powers with respect to land:

a) To decide land use purposes via decisions on, consideration and approval of land use planning, land use plans (hereinafter referred to as land use planning and plans);

b) To stipulate land allocation limits and land use terms;

c) To make decisions On land allocation, land lease, land recovery, to permit changes of land use purposes.

d) To determine land price.

3. The State shall exercise the regulation of land-related benefits through financial policies on land as follows:

a) Collection of land use fees and land rentals;

b) Collection of land use tax, income tax imposed on income from land use right transfers;

c) Regulation of the added value of land not resulting from investment by the land user.

4. The State shall grant land use rights to land users in the form of land allocation, land lease, recognition of land use rights for current .;table land users, and shall stipulate rights and obligations of land users.

Article 10. Guarantees for land users

1. The State shall issue land tenure certificates to land users.'
2. The State shall not recognize the reclaim of land, which was allocated to other land users in accordance with State regulations while implementing the land policies of the Democratic Republic State of Vietnam, the provisional Revolutionary Government of the Republic of South Vietnam, and the Socialist Republic of Vietnam.

3. The State shall promulgate policies to arrange production land for persons who directly do business in agriculture, forestry, aquaculture and salt production; and shall promulgate policies on investment incentives, career training, career development, job creation for rural labours in consistency with the process of land use pattern conversion and rural economic structure conversion in line with the national industrialisation and modernisation.

Article 11. Land use principles

The use of land shall comply with the following principles:

1. To be in accordance with land use planning and plans and for the right land use purposes;

2. To be economical, effective, environmentally protective and not to damage other neighbouring land users' legitimate benefits;

3. Land users exercise their rights and obligations during the land use term in accordance with provisions of this Law and provisions of other relevant legislation.

Article 12. Encouraging investment in land

The State shall promulgate policies to encourage land users to invest labour, materials, capital, and apply scientific and technological achievements to the following:

1. Land protection, improvement, and fertilization;

2. Reclamation of waste and unused land, sea encroachment, use of unused land, bare hills, and unused land with surface water;

3. Development of infrastructures to create added value for land.

Article 13. Land classification

Depending on land use purposes, land can be classified into the following categories:

1. Agricultural land including:

a) Land for cultivation of annual crops, including: paddy land, grass land for livestock husbandry, land for other annual crop cultivation;

b) Land for cultivation of perennial crops;

c) Land for production forests;

d) Land for protection forests;

dd) Land for special-use forests;

e) Land for aquatic farming;

g) Land for salt production;

h) Other agricultural land as determined by the Government;

2. Non-agricultural land, including:

a) Residential land, including rural rejdential land and urban residential land;

b) Land for construction of offices, public service delivery institutions;

c) Land for national security and defence purposes;

d) Land for non-agricultural production and business, including land for construction of industrial zones; land for production, business establishments; land for mineral activities; land for production of construction materials, land for production of ceramic products;

dd) Land for public use, including land for transportation and irrigation; land for construction of cultural, health, training and educational, sport and physical training works for public service; land with historical and cultural relics and places of interest; and land for the construction of other public utilities as determined by the Government;

e) Land used by religious establishments;

g) Land with communal houses, temples, shrines, hermitages, worship halls, ancestral temples;

h) Land used for cemeteries and graveyards;

i) Land with rivers, canals, streams and specialised water surface;

k) Other non-agricultural land as determined by the Government;

3. Unused land, including any land whose use purpose is not determined yet.

Article 19. Cadastral maps

1. Cadastral map is part of cadastral records for unified State management on land.

2. Ministry of Natural Resources and Environment shall provide directions on survey work, establishing and managing cadastral maps nationwide.

3. The People's Committees of provinces and centrally- managed cities shall organise the implementation of survey work, establishing and managing cadastral maps in their respective localities.

4. Cadastral maps shall be managed and archived at land administration agencies of provinces and centrally-managed cities; of urban and rural districts, towns and provincial cities; and at People's Committee of communes, wards and district towns.

Article 20. Current land use maps and land use planning maps

1. Current land use maps shall be periodically established every five years in connection with land inventories as stipulated in Article 53 of this Law in order to serve the management of land use planning and plans.

2. Land use planning maps shall be established every ten years in connection with land use planning periods as stipulated in Article 24 of this Law.

Land use planning maps of the communal, ward, district town level which are established on the basis of cadastral maps shall be called detailed land use planning maps.

3. Ministry of Natural Resources and Environment shall provide directions on survey, mapping and management of current land use maps, land use planning maps in the whole country, and organise the establishment of national current land use maps and land use planning maps.

4. The People's Committee responsible for conducting land inventories in a locality shall be responsible for organising the development of current land use maps for such locality.

The People's Committee responsible for preparation of land use planning in a locality shall be responsible for the establishment of land use planning maps for such locality.

Article 21. Principles for development of land use planning and plans

The development of land use planning and plans shall comply with the following principles:

1. In compliance with strategies, master plans, plans of socio-economic development, national defence and security;

2. To be established from comprehensive to details; land use planning and plans of subordinate level shall be in line with the land use planning and plans of superior level; land use plans shall be in line with any land use planning that has been decided or approved by authorised State bodies;

3. Land use planning and plans of superior level shall include the land use demand of its subordinate level;

4. Economical and efficient use of land;

5. Reasonable exploitation of natural resources, and environmental protection;

6. Protection and renovation of cultural-historical relics and landscape;

7. Democracy and publicity;

8. Land use planning and plans for a period shall be decided and approved in the final year of the previous period.

Article 22. Bases for development of land use planning and plans

1. Bases for development of land use planning include:

a) National strategy, master plans of socio-economic development, national defence, and security; sectoral and regional development planning;

b) Socio-economic development plan of the State;

c) Natural, economic, social conditions and market demands;

d) Current land use and land use demand;

dd) Land use norms;

e) Scientific and technological achievements relating to land use;

g) Results of implementing land use planning of the previous period.

2. Bases for development of land use plans include:

a) Land use planning which has been approved by authorised State bodies;

b) Five year and annual socio-economic development plans of the State;

c) Land use demands of organizations, households, individuals and population communities;

d) Results of implementing land use plans of the previous period;

dd) Investment capability to implement projects and works which require land use.

Article 23. Contents of land use planning and plans

1. The contents of land use planning include:

a) Surveys, researches, analyses and synthesis of natural and socio-economic conditions and land use situation; and assessment of land potentials;

b) Identification of land use orientations and objectives in the planning period;

c) Identification of land areas to be allocated for the socioeconomic development, national defence and security demands;

d) Determination of land areas to be recovered for works, projects;

dd) Determination of methods for using, protecting, rehabilitating land and protecting the environment;

e) Solutions for organising the implementation of land use planning

2. Contents of land use plans include:

a) Analysis and evaluation of the implementation of land use plan of the previous period;

b) Plans to recover land under different categories to reallocated for infrastructure construction; industrial, service development; urban development, rural residential development; national defence and security;

c) Plans to change paddy land and forestland to other use purposes; and plans to change agricultural land use patterns;

d) Land reclamation plans to expand land area to be used for various purposes;

dd) Concretisation of five year land use plans to yearly segments;

e) Solution for organising the implementation of land use plans.

Article 24. Periods of land use planning and plans

1. The period of land use planning for the whole country, provinces, centrally-managed cities, rural and urban districts, provincial towns, provincial cities, communes, wards and district towns is ten years.

2.The period of land use plan for the whole country, provinces, centrally-managed cities, rural and urban districts, provincial towns, provincial cities, communes, wards and district towns is five years.

Article 25. Establishment of land use planning and plans

1.The Government shall organise the establishment of land use planning .-ind plans for the whole country.

2.The People's Committees of provinces and centrally- managed cities shall organise the establishment of land use planning and plans in their respective localities.

3. The People's Committees of rural districts of provinces shall organise the establishment of land use planning and plans for their districts and land use planning and plans for the district towns.

The People's Committees of rural and urban districts of centrally-managed cities, the People's Committees of provincial towns and provincial cities shall organise the establishment of land use planning and plans in their respective localities and land use planning and plans for subordinate administrative units, exclusive of those being stipulated in clause 4 of this Article.

4. The People's Committees of communes which are not in the area planned for urban development in the period of land use planning shall organise the establishement of land use planning and plans in their respective localities.

5. Land use planning of the communal, ward, district town level shall be made detailed on a parcel basis (hereinafter referred to as "detailed land use planning"); during the process of making detailed land use planning, agencies that organise the establishment of land use zoning shall organize public hearing to collect comments from the people.

Land use plans of the communal, ward, district town levels shall be made detailed on a parcel basis (hereinafter referred to as "detailed land use plans").

6. The People's Committees at all levels are responsible for organising the establishment of land use planning and plans and submit such land use planning and plans to the People's Councils at the same level for approval before submission to authorised State bodies for approval.

7. Land use planning and plans shall be submitted together with the socio-economic development plan.

Article 36. Change of land use purposes

Change of land use purposes between land categories stipulated in Article 13 of this Law shall be implemented as follows:

1. Cases where land use purpose changes shall require permission by authorised State bodies:

a) Change of paddy land to land for cultivation of perennial crops, for forestry farming, for aquaculture farming;

b) Change of land for special-use forests and protection forests to land for other purposes;

c) Change of agricultural land to non-agricultural land;

d) Change of non-agricultural land which was allocated by the State free of land use fees to non-agricultural land which is allocated by the State with land use fees payable;

dd) Change of non-agricultural land which is not residential land to residential land.

2. In cases where the change of land use purposes is not stipulated in clause 1 of this Article, the land user shall not have to apply for permission by authorised State bodies, but must have the change registered at the office of the organisation which has the authority for registration of land use rights (hereinafter referred to as land registration office/land title office) or at the People's Committee of commune where the land is located.

3. In cases where the change of land use purposes is made in accordance with clause 1 and clause 2 of this Article, land use regime, rights and obligations of the land user for the new land type shall apply; the land use term shall be in accordance with Article 68 of this Law.

4. In cases where the change of land use purposes is made in accordance to points c, d and dd of Clause 1 of this Article, land users shall have to fulfil financial obligations as follows:

a) Paying land use fees applicable to the new land category if the change is from protection forest land, special-use forest land, non-agricultural land free of land use fee to nonagricultural land with land use fee payable;

b) Paying land use fees applicable to the new land category minus the value of land use rights of such land under the former category, which is calculated based on the land price set by the State at the time the change is permitted, if the change is from land for annual crop cultivation, perennial crop cultivation, production forests, aquaculture farming, salt production to nonagricultural land with land use fees payable;

c) Paying land use fees applicable to the new land category minus land use fees applicable to the former land category if the change is from non-agricultural non-residential land to residential land;

d) Paying land rental applicable to the new land category if the land user chooses to lease land;

dd) Regulations on exemption and reduction of land use fees stipulated by the Government shall apply to the calculation of value of land use rights.

Article 37. Authority to allocate, lease land, approve changes of land use purposes

1. The People's Committees of provinces, centrally-managed cities shall make decisions on allocation, lease of land, and approval of changes of land use purposes to organisations; allocation of land to religious organisations; lease of land to overseas Vietnamese; lease of land to foreign organisations and individuals.

2. The People's Committees of districts, provincial towns, and provincial cities shall make decisions on allocation, lease of land, and approval of changes of land use purposes to households, individuals; and allocation of land to population communities.

3. The People's Committees of communes, wards, and district towns shall lease land from the agricultural land reserved source for their respective local public benefits.

4. Delegation by those authorised State bodies stipulated in clauses 1, 2 and 3 of this Article of the power to make decision on allocation, lease of land, approval of changes of land use purposes shall not be permitted.

Article 38. Land recovery cases

The State shall recover land in the following cases:

1. The State needs to use the land for the purposes of national defence, security, national benefits, public benefits, or economic development;

2. Organisations to which land is allocated free of land use fees or organisations to which land is allocated with land use fee payable and the land use fee is originated from the State budget, or organisations leasing land with rental paid annually, are dissolved, go bankrupt, remove, or have lower or no land use demands;

3. Land is used for wrong purposes or inefficiently;

4. Land users intentionally destroyed land;

5. Land is not allocated to the right persons or under incorrect authority;

6. Land is encroached, appropriated in the following cases:

a) Unused land is encroached, appropriated;

b) Land, whose land use rights are not allowed to be transferred as prescribed in this Law, is encroached, appropriated due to the irresponsibility of the land user;

7. Individual land users died without inheritors;

8. Land users return the land voluntarily;

9. Land users do not fulfil obligations to the State intentionally;

10. Land is allocated or leased by the State for definite periods and such periods expire without extension allowed;

11. Land for annual crop cultivation is not used for a period of 12 consecutive months; land for perennial crop cultivation is not used for a period of 18 consecutive months; forestry land is not used for a period of 24 consecutive months;

12. Land which is allocated or leased by the State to implement investment projects is not used for a period of 12 consecutive months or the land use progress is 24 months behind the schedule stated in the investment project document counting from the date of handing over the land in practice and such delay is not permitted by authorised State bodies which decided such land lease or allocation;

Article 46. Registration of land use rights

Registration of land use rights shall be conducted at land registration offices in the following cases :

1. The current land user has not been granted with a land tenure certificate;

2. The land user exercises the right to exchange, transfer, inherit, donate, lease, sublease, mortgage land use rights; provide guarantee, make capital contribution with land use rights as stipulated in this Law;

3. Land use right transferees;

4. The land user holding a land tenure certificate is permitted by authorised State bodies to rename the certificate holder, change the land use purposes, change the land use term or there are changes in the boundaries of the land parcel;

5. The land user uses land in accordance with judgements or decisions of the People's Court, decisions by court-decision executing authorities on execution of court decisions; decisions by authorised State bodies on land dispute settlement, which have already been executed.

Article 47. Establishment and management of cadastral records

1. Cadastral records include:

a) Cadastral map;

b) Cadastral book;

c) Land index book;

d) Land-change follow-up book;

2. Cadastral records shall contain the following contents of the land parcel:

a) Identification number, size, shape, area, location;

b) The user of the land parcel;

c) Land origin, land use purpose, land use term;

d) Land price, properties attached to land, land related financial obligations fulfilled and unfulfilled;

dd) Land tenure certificate, rights and limits of rights of the land user;

e) Changes in the land use process and other relevant information.

3. Ministry of Natural Resources and Environment shall stipulate regulations on cadastral records, provide guidelines for the establishment, adjustment and edition, and management of cadastral records.

Article 48. Land tenure certificates

1. Land tenure certificates shall be issued to land users in one uniform format for all types of land in the whole country.

Where there are properties attached to land, such properties shall be recorded on the land tenure certificate; the owner of the properties shall have his ownership of the properties registered in accordance with the regulations on real estate registration.

2. The land tenure certificate shall be published by the Ministry of Natural Resources and Environment.

3. The land tenure certificate shall be issued by land parcel.

Where the land use right is the common property of the husband and the wife, the land tenure certificate must include full names of both the husband and the wife.

Where a land parcel is used by a number of individuals, households, organisations, the land tenure certificate shall be issued to each individual, household, organisation as co-users.

Where the land parcel is subject to common use by a whole population community, the land tenure certificate shall be issued for the community as a whole and handed over to the representative of the community.

Where the land parcel is subject to shared use by a religious establishment, the land tenure certificate shall be issued for the religious establishment and handed over to the highest ranking person of the establishment.

The Government shall stipulate detailed regulations on the issuance of land tenure certificates for apartments, living condominium.

4. Where a land user has been issued with a land tenure certificate, a certificate for residential building ownership and residential land use rights in urban areas, it shall not be required to change such certificates to the land tenure certificate as prescribed in this Law. Upon transfers of land use rights, the transferee shall be issued with the land tenure certificate as prescribed in this Law.

Article 49. Cases where land tenure certificates are issued

The State shall issue a land tenure certificate in the following cases:

1. Person to whom the State allocates or leases land, except for the case of leasing agriculture land which is reserved for public interests of communes, wards and district towns;

2. Person to whom the State allocates or leases land during the period from 15 October 1993 until prior to the effective date of this Law, who has not been granted with a land tenure certificate.

3. Land users using land as stipulated in Articles 50 and 51 of this Law and having not been issued with a land tenure certificate;

4. Persons exchanging land use rights, being transferred with land use rights, inheritors of land use rights, persons receiving donation of land use rights, persons obtaining land use rights when land-use-right-based mortgage contracts or guarantees are settled for debt collection; organisation land users newly set up with the parties' capital contribution under the form of land use rights;

5. Persons using land in accordance with judgements or decisions of the People's Court; decisions by court-decision executing authority on execution of court decisions, or decisions by authorised State bodies on settlement of land disputes, which have already been executed;

6. Winners in land use right auctions, winners in biddings for projects where land is required;

7. Land users as stipulated in Article 90, 91 and 92 of this Law;

8. Persons who buy residential buildings associated with residential land;

9. Persons who are allowed to buy rented State-owned residential buildings associated with residential land.

Article 50. Issuance of land tenure certificates to households, individuals, population communities who are using land

1. Households, individuals who are stably using land with certification by People's Committees of communes, wards and district towns to have no land disputes and have one of the following documents shall be issued with a land tenure certificate free of land use fee:

a) Documents on land use rights issued by authorised State bodies before 15 October 1993 during the implementation of land policies of the Republic Democratic of Vietnam, the Provisional Revolutionary Government of the Republic of South Vietnam and the Socialist Republic of Vietnam;

b) Temporary land tenure certificates issued by authorised State bodies or the land users have their names listed in land registration books, cadastral books;

c) Valid documents on inheritance, donation of land use rights or assets attached to land; documents on hand-over of gratitude buildings together with land;

d) Documents on land use right transfer, on purchases of residential buildings together with land dated before 15 October 1993 and the People's Committee of communes, wards, district towns certify that the land has been used since before 15 October 1993.

dd) Documents on purchases of (rented State-owned) residential buildings associated with land in accordance with provisions of law.

e) Documents issued by authorised bodies of the old regime to the land user.

2. Land users who have one of the documents as stipulated in Clause 1 of this Article on which there is a name of another person together with documents on land use right transfer signed by the relevant parties but the procedures on transfer of land use rights have not been completed as prescribed by the laws before the effective date of this Law and the People's Committee of communes, wards, district towns certifies that the land is not disputed shall be issued with a land tenure certificate free of land use fee.

3. Land users whose residency are locally registered on a permanent basis, who directly carry out agricultural production, forestry, aqua-culture, salt production in the poor socio-economic conditions in mountainous areas and islands, with certification by the People's Committee of the communes where the land is located that the land user has stably used the land without any dispute shall be issued with a land tenure certificate free of land use fee.

4. Households, individuals who are using land without any of the documents stipulated in Clause 1 of this Article but the land has been stably used since before 15 October 1993, with certification by the People's Committees of communes, wards, district towns that the land is not disputed and is in conformity with approved land use planning for areas where land use planning is available shall be issued a land tenure certificate free of land use fee.

5. Households, individuals using land in accordance with judgements or decisions of the People's court, decision by court-decision executing authority on execution of court-decisions, decisions by authorised State bodies on settlement of land disputes, which have already executed shall be issued with a land tenure certificate after completing all financial obligations in accordance with provisions of law.

6. Households, individuals who are using land without any of the documents stipulated in Clause 1 of this Article but the land has been used for the period from 15 October 1993 to prior to the effective date of this Law, with the certification by the People's Committee of communes, wards, district towns that the land is not disputed and is in conformity with the

approved land use planning for the areas where land use planning is available shall be issued with a land tenure certificate with land use fee payable as regulated by the Government.

7. Households, individuals who are using the land allocated, leased by the State from 15 October 1993 to prior to the effective date of this Law and have not been issued with a land tenure certificate shall be issued with the certificate; if they have not completed their financial obligations, they shall have to fulfill their obligations as provisions of law.

8. Population communities using land with communal houses, temples, shrines, hermitages, worship halls, ancestral temples shall be issued with a land tenure certificate on the following conditions:

a) Application for land tenure certificate submitted;

b) Certification by the People's Committees of communes, wards, district towns where the land is located that the land is for common use by the community and free of dispute.

Article 55. Land prices

Land price shall be formulated in the following ways:

1. By the People's Committee of provinces, centrally- managed cities in accordance with Clause 3 and Clause 4 of Article 56 of this Law;

2. In land use right auctions or biddings of projects where land is required;

3. As agreed upon between the land user and relevant parties when exercising the land use rights to transfer, lease, sub-lease land use rights or make capital contributions with land use rights.

Article 56. Land prices stipulated by the State

1. The land valuation by the State shall follow the following principles:

a) Close to the actual market price of land use right transfers in normal conditions. If there is a big difference from the actual market price of land use right transfers, appropriate adjustment will then be needed;

b) Adjacent land parcels in similar natural and socioeconomic conditions, with similar infrastructures, similar current land use purposes and planned land use purposes shall be equally priced;

c) Lands at bordering locations between provinces, centrally- managed cities, in similar natural conditions, with similar infrastructure and similar current land use purposes and planned land use purposes shall be equally priced.

2. The government shall provide land valuation methods, price frames for various categories of land for different areas and different periods; cases where the land price

should be adjusted and the settlement of difference in price for lands in bordering locations between provinces, centrally-managed cities.

3. Based on the land valuation principles prescribed in Clause 1 of this Article, the land valuation methods and price frames for different categories of land stipulated by the Government, the People's Committees of provinces and centrally-managed cities shall develop detailed land prices for their respective locality and submit them to the People's Council at the same level for their opinion before making a decision.

4. The land price stipulated by the People's Committees of provinces and centrally-managed cities publicised on 01 January every year shall be used as the foundation for determining land use tax, income tax on land use right transfers, land use fee and land rental for land allocation, for leasing land not through land use right auctions or biddings of investment projects where land is required; for determining the value of land use rights upon allocation of land free of land use fee, stamp duty, compensation upon land recoveries by the State, for determining indemnification for damage resulting frombreaches of land legislation.

Article 122. Procedures, formalities on land allocation, land lease, issuance of land tenure certificates to people to vs hom land is allocated, leased

1. The submission procedure for land allocation, land ease shall be as follows:

a) Organizations, overseas Vietnamese, foreign organizations, individuals shall submit two sets of application for land allocation, land lease to the land administration agencies of provinces, centrally-managed cities where the land is located.

Households, individuals shall submit two sets of application for land allocation, land lease to the land administration agencies of rural and urban districts, provincial towns, provincial cities where the land is located;

b)Application documents for land allocation, land lease shall consist of the application form for land allocation, land lease; investment project document of organizations in accordance to legal provisions on investment; for overseas Vietnamese, foreign organizations, individuals, there shall also be the investment project document and the copies notarized by the State notary authority of the investment license in accordance with legal provisions on investment.

2. Land allocation, land lease where site clearance has been completed shall be stipulated as follows:

a) Within no more than ten working days since the date of receipt of the proper application, the receiving agency shall be responsibility for making index maps

based on cadastral maps or conducting a survey of the land parcel to be allocated, leased; determining the rate of land use fees, land rental; performing the procedures on land allocation, land lease, land tenure certificate issuance in accordance with the regulations and handing over the decision on land allocation or land lease to the people to whom the land is allocated, leased;

b) Within no more than ten working days since the date when the people to whom the land is allocated, leased, have completed their financial obligations in accordance with legal provisions, the land administration bodies shall sign a land leasing contract with the lessee, hand over the actual land and the land tenure certificate to the people allocated, leased with the land.

3. Land allocation, land lease where site clearance has not been done shall be stipulated as follows:

a) Within no more than thirty working days since the date of receipt of the proper application, the receiving agency shall be responsible for completing the introduction of the place; making an index map based on cadastral maps or conducting a survey of the land parcel to be allocated, leased; determining the rate of land use fees, land rental; carrying out the procedures on land allocation, land lease, land tenure certificate issuance in accordance with the regulations and handing over the decision on land allocation or land lease to the people to whom the land is allocated, leased;

b) Pursuant to the decision on land allocation, land lease of the authorised State bodies, the People's Committees of rural districts, urban districts, provincial towns, provincial cities shall organise the implementation of compensation, site clearance;

c) Within no more than ten working days since the date when the site clearance is completed and the financial obligations of the people to whom the land is allocated, leased, are fulfilled in accordance with provisions of law, the land administration body shall sign a land leasing contract with the lessee, hand over the actual land and land tenure certificates to the people to whom the land is allocated, leased.

Article 123. Procedures, formalities of issuing land certificates to land users

1. The application for land tenure certificates stipulated as follows:

a) Applicants shall hand in applications at the Land Registration Office; with respect to the households, individuals in rural areas applying for land tenure certificates, they shall submit applications to the People's Committee of the commune where the land is located who shall, in turn, forward the applications to the Land Registration Office;

b) The application for land tenure certificates shall consist of an application form for land tenure certificate, documents certifying land use rights as stipulated in clauses 1, 2 and 5 of Article 50 of this Law (if any), authorisation letter for land tenure certificate application (if any).

2. Within no more than fifty working days since the date of receipt of the proper application, the Land Registration Office shall be responsible for forwarding the application to the land administration bodies of the People's Committees that are authorised to issue land tenure certificates in order to perform the procedures on issuing land tenure certificates; if financial obligations must be carried out and they are determined based on cadastral data, the Land Registration Office shall provide cadastral data for the tax authority to determine the level of financial obligation in accordance with provisions of law; inform the applicant of the need to fulfil the financial obligations; in cases where it is ineligible to issue a certificate, the application shall be returned and the reasons be informed to the applicant.

3. Within no more five working days since the date when financial obligations are fulfilled, the applicant shall come to the office where the application was submitted to receive the land tenure certificate.

Article124. Procedures, formalities for registration of changes of land use purpose in cases where permission is not required

1. Persons having the need to change land use purposes shall submit the completed application form for registration of changes of land use purposes and the land tenure certificate to the Land Registration Office; for households, individuals in rural areas, the application shall be submitted to the People's Committee of the commune where the land is located who shall, in turn, forward the application to the Land Registration Office.

2. Within no more than seven working days since the date of receipt of the documents as stipulated in clause 1 of this Article, the Land Registration Office shall be responsible for examining the application form, transferring the land tenure certificate to the land administration bodies of the People's Committees that are authorised to issue land tenure certificates for updating work to be done and return the updated land tenure certificate to the place where the application was submitted in order to return it to the applicant.

Article 125. Procedures, formalities for changes of land use purposes in cases where permission is required

1. The submission of application for changes of land use purposes in cases where permission is required shall be stipulated as follows:

a) Organizations, overseas Vietnamese, foreign organizations, individuals who need to change land use purposes shall submit the application to the land administration bodies of provinces, centrally-managed cities where the land is located.

Households, individuals who need to change land use purposes shall submit the application to land administration bodies of rural districts, urban districts, provincial towns, provincial cities where the land is located;

b) Application for changes of land use purposes shall consist of the application form for changing land use purposes, the land tenure certificate, the investment project document of organizations in accordance with provisions of law on investment.

2. Within no more than twenty working days since the date of receipt of the proper application, the receiving agency shall be responsible for carrying out administrative procedures to give permission to the change of land use purposes; determining the level of land use fee for cases where land use fee is required, informing the applicant to fulfil the financial obligations in accordance to provisions of law; in cases where the requested change is ineligible, the application shall be returned and the reasons be informed to the applicant.

3. Within no more than five working days since the date when the financial obligations are fulfilled by the applicant in accordance with provisions of law, the application receiving agency shall present the updated land tenure certificate to the applicant.

Article 126. Procedures, formalities for exchanging land use rights of households, individuals

1. The submission of application for exchanging land use rights shall be stipulated as follows:

a) Applications for exchanges of land use rights shall be submitted to the People's Committees of communes, wards, district towns where the land is located who shall, in turn, forward them to the Land Registration Office;

b) Applications for exchanges of land use rights shall consist of the contract on exchange of land use rights and the land tenure certificate.

The contract on exchange of land use rights of households, individuals must be certified either by the People's Committee of communes, wards, district towns where the land is located or be notarized by the State notary authority.

2. Within no more than ten working days since the date of receipt of the proper application, the Land Registration Office shall forward the application to the land administration body

of rural districts, urban districts, provincial towns, provincial cities to carry out the procedures on issuing the land tenure certificate.

If the exchanging parties are subject to financial obligations which are determined based on cadastral data, the Land Registration Office shall provide the cadastral data for the tax authority to determine the financial obligations in accordance with provisions of law; the Land Registration Office shall inform the exchanging parties of the need to fulfil the financial obligations.

Within five working days since the date of completion of the financial obligations, the exchanging parties shall be given the land tenure certificate at the place where the application was submitted.

Suggested reading:

The Land Law 1993 and the Land Law 1988

The Land Law of 1993 was promulgated right after the Constitution of 1992. The regulation for use of different types of land is one of the important aspects of the Land Law, reflecting the on-going reform of different land policies by the Government and the Party.

To reflect the political and economic structure as well as the economic policy of the Constitution of 1992, the first article of the Land Law 1993 regulates that the land belongs to the entire population and is managed by the State (Article 1). This regulation clearly indicates the socialist system of Vietnam. At the same time, the Land Law institutionalises the new line of the Party towards economic development with a multi-sectoral market economy under State management. Compared with the Land Law of 1988, regulations and rules for land use in the Land Law of 1993 have been added and amended to fit the Constitution of 1992. The following changes were made:

- To ensure sustainable development, the new Land Law defines that those who use the land in a sustainable way, in accordance with Law and without disputes will receive land use certificates (Red Book). The State does not recognise the withdrawal of land which has already been allocated to other users. The State policy is to ensure those who engage in agriculture and forestry to obtain land for production (Article 3).
- The State protects the legal rights and benefits of the land user. Family households and individuals with land allocated by the State have the right to transfer, exchange, lease, inherit the land use right and use it as a collateral in accordance with the regulations of the Law (Article 3).
- The State encourages land users to invest labour, material, capital and to apply scientific and technical methods aiming at effective use of land (Article 5). On the other hand, the State strictly forbids encroachment, illegal transfer, misuse and deterioration of the land (Article 6).

While in 1988 the Land Law explicitely listed "agricultural and forest enterprises, co-operatives, agricultural production teams, people's armed forces, State bodies, social organisations and individuals" as land users, the Land Law of 1993 defined only three

types of land users: organisations, family households and individuals. By doing so it indicates each entity in a more generalised and clear way, avoiding duplication or missing. and making the definition more suitable for the dynamic character of the market economy. For the first time in Vietnam the concept of "family household" was put into the Law as an entity of land users, reflecting the views and approach of the State of Vietnam to regard the family household as an independent economic unit.

The Land Law of 1988 defined three forms of land allocation: land allocation for long term and permanent use, land allocation for time-fixed term use, and land allocation for temporary use. The Land Law of 1993 retains only one form of land allocation, i.e. land allocation for long term and permanent use. At the same time, the State allowed land lease as a new form under which land can be leased by organisations and individuals, including foreign organisations and individuals.

Thus, the Land Law of 1993 has paved the way for forming two kinds of land: land for allocation and land for lease. While land for allocation is essential to create permanent use of land, land for lease aims at regulating land use to suit each period and to encourage investment from domestic resources and from abroad.

Under the Land Law of 1993, for the first time, the land user has five rights: the right to exchange, transfer, lease, inherit, and to use land use certificates as collateral. However, with each type of soil and each kind of land user, these principles may be applied in a different way.

Also for the first time in the Land Law of 1993, the State defines different soil types as a basis for tax and other charges, for transfer of land use rights, for allocation or lease of land, for assessing the land value for compensation of damages or for withdrawal of land. The Government regulates the price frame for all kind of soils, for each region and each period of time (Article 12).

Thus, the Government concretized the fact that "land has its own price". It allows the change of land use thus making land management suitable for conditions of the market economy. The price of land is an economic instrument for the land managers and users to get access to the market, while it also is the basis for assessing the equity of land distribution according to planning and the Law. The land price is also a means to assess the value. of land use rights for exchange, transfer, lease, heritage and use as collateral.