

Land Valuer-Surveyor: Towards Acknowledged Professional and Comprehensive Land Valuer-Surveyor

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Key words: valuation of land and land resource economics, land valuer-surveyor standards and practices, sustainable land management.

SUMMARY

In many places in this planet, the professions of land surveyor and land valuer are conducted by one hand. A land surveyor, who has then an academic background or a certificate of land valuation course, is afterward a land valuer as well. But, in many countries moreover, the professions of land surveyor and land appraiser are separated distinctively in terms of organizational structures and line of works.

The land appraiser works primarily in the real property valuation based on the Accounting Standards, and runs mainly for the business of the real estates and the taxes. For the land institution, and as the consequence for the global land management notion, it is not enough. Land is not only measured or valued on the parcel basis but also on the area basis, too. The zone-based lands certainly have value. It is not the market value, but it is the non-market economic value.

The land administration will need what so-called “the land valuer-surveyor”. It is a professional and comprehensive land valuer-surveyor who has the competencies of not only the land surveyor and the land/real property valuation, but also the eco-natural resource economics valuation as well. This paper will discuss “valuers-surveyors key role in accelerated development”, to use the smart theme of this FIG Working Week 2009, to perceive what would the world get without the existence of surveyors.

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1. INTRODUCTION

The evolution of land surveyor profession has shifted decade to decade, century to century. It developed from parcel maker to map maker, and then to (spatial) information manager. It evolved from land surveyor to land valuer-surveyor and spatial planner and then to land resource manager. In many chances, it shifted from manager to policy maker.

In line with the surveyor, the evolution of land policy, the cadastre, land administration and land management has altered as well. The land policy developed from land tenure to social equity issues. It then evolved from land economics and land use towards land and eco-natural resources concerns. The cadastre shifted from land parcel identification to land registration system, and then to multi purpose cadastre. The land administration developed from the system to administrate land tenure, land value, and land use towards embracing the land development system also. The land management moved from land use and land data policies toward the natural resource and environment policies as well.

Those developments mentioned above will need a modified conceptual approach, and this tailored approach will need the professional and comprehensive land valuer-surveyor to comply with.

2. LAND ADMINISTRATION: A MODIFIED CONCEPTUAL APPROACH

The play grounds of the surveyors are in the fields of the cadastre, land administration and land management where the land policy is the “foundation stone”, if they may be separated with distinguishing boundaries. In the 2nd FIG Regional Conference, Marrakech, Morocco, December 2-5, 2003, Enemark suggested a conceptual approach of those notions. In the field of land administration, he proposed a conceptual approach as it is seen in the following table:

| Level | Objective | Context | Tool Box |
|---------------------|--|---|--|
| Land Administration | 1. System for administration of: <ul style="list-style-type: none"> a. Land Tenure b. Land Value c. Land Use 2. Basis for sound land management | 1. Land Tenure Systems 2. Land Value Systems 3. Land Use Control Systems 4. Land Development Systems | 1. Institutional frameworks 2. Spatial data systems and infrastructures |

Table 1. A Conceptual Approach of a Land Administration (Enemark, 2003: p. 12)

This conceptual approach is to be modified by completing with the forgotten agenda. It is not new concept refers to Agenda 21: Chapter 10 of the UN Department of Economic and Social Affairs, the Division of Sustainable Development. It is even neither new at all refer to the Land Management concept. It has simply been disregarded.

What shall be completed with? Well, there are two key issues, firstly the natural resources and environment values, and secondly the human kinds and environmental sustainability. The first key issue needs to elaborate context with eco-natural resources systems and valuations. It then requires standards (methodologies, standard operational procedures, academic and or professional trainings, *etc.*) and practices (licenses, valuer-surveyor code of conducts, networking, *etc.*). The second key issue calls for not only basis for economic, but also social welfare, justice, living in harmony, and environmental sustainability as well as the prerequisites for the sustainability of human kinds. Then we need not only institutional but also legal frameworks (see Table 2).

| Level | Objective | Context | Tool Box |
|---------------------|--|---|--|
| Land Administration | <ol style="list-style-type: none"> 1. System for administration of: <ol style="list-style-type: none"> a. Land Tenure b. Land and Eco-Natural Resources Values c. Land Use 2. Basis for sound land management that pledges the strong basis for economic, social welfare, justice, living in harmony, environmental sustainability | <ol style="list-style-type: none"> 1. Land tenure Systems 2. Land and Eco-Natural Resources Value Systems 3. Land Use Control Systems 4. Land Development Systems | <ol style="list-style-type: none"> 1. Legal and Institutional frameworks 2. Standards and Practices (Licenses, <i>etc.</i>) 3. Spatial data systems and infrastructures |

Table 2. A Modified Conceptual Approach of a Land Administration

Why so? First of all, it is because of the definition of land itself. According to Agenda 21, land is defined as a physical entity in terms of its topography and spatial nature, and with a broader integrative view, it also includes natural resources: the soils, the minerals, water and biota that the land comprises. This description has accomplished the definition of land that we have commonly used in valuation; land *“includes not only the ground, or soil, but everything that attached to the earth, whether by course of nature, as are tree and herbage, or by the hand of man, as are houses and other buildings. It includes not only the surface of the earth but everything under it and over it”* (Foss, 2005). Or as it is stated in the International Valuation Standard (IVS), land is also referred to as real estate, *“is defined as the physical land and those human-made items, which attached to the land. It is the physical, tangible ‘thing’ which can be seen and touch, together with all additions on, above, or below the ground”* (IVSC, 2005). The valuation of land or real estate is on the parcel basis.

Second reason, since the land management approach defines the meaning of land comprehensively comprises legal, economics, social, political, physical and natural resources and environmental substances, then the concept of its valuation shall be holistically contained those essences. In this standpoint, the valuation of land is then on the area or zonal basis.

The land or real estate valuation is fairly familiar to surveyors. But, it is apparently believed that the skill in the valuation of zone-based functional lands (i.e. parks, eco-tourism sites, *etc.*), natural resources and the environment (renewable and non-renewable, tropical forests, sanctuary zones, botanical gardens, mangrove areas, catchments areas, *etc.*) is not commonly possessed by the surveyor. Those above reasons make it necessary to the need of professional and comprehensive land valuer-surveyor for the shake of the holistic concept of the land management.

3. THE NEED FOR COMPREHENSIVE LAND VALUERS-SURVEYORS

When speaking about these needs then it addresses to the holistic concept of land resource value and its valuation standard.

3.1 The Holistic Concept of Land Resource Value

The value of the land resource shall be seen from every substance. Essentially every piece of land resource (land as though vacant or property as improved) has three values embedded: (a) its market value, (b) its non-market value, and (c) its eco-natural resource economic value. For small size parcel, it is likely that the first two values are more prevailing ones. Nevertheless, for the zonal basis land resource, especially for the functional zone, its eco-natural resource economic value should be taken into contemplation (see Fig. 1).

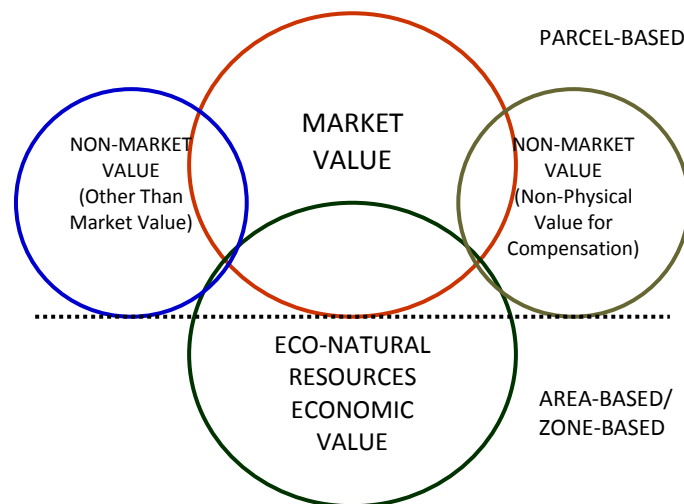


Figure 1. The Holistic Concept of Land Resource Value

In implementing this holistic concept of land resource value, one should have the standard for doing so. The standard is supposed to encompass legal, academic, and professional contents.

A valuation standard is at least comprising of five main cores, i.e.: general valuation concepts and principles, code of conducts, valuation standards, valuation applications, and guidance notes and methodologies.

The International Valuation Standard Committee, London, UK, has enacted the International Valuation Standard (IVS). The three principal objectives of IVS are:

- (a) to facilitate cross-border transactions and contribute to the viability of international property markets by promoting transparency in financial reporting as well as the reliability of valuation performed to secure loans and mortgages, for transactions involving transfer of ownership, and for settlements in litigating or tax matters;*
- (b) to serve as professional benchmark, or beacon, for valuers around the world, thereby enabling them to respond to the demands of international property markets for reliable valuations and to meet the financing reporting requirements of the global business community; and*
- (c) to provide standards of valuation and financial reporting those meet the needs of emerging and newly industrialized countries. (IVS, 2005)*

Viitanen has proposed that the IVS are undoubtedly advantageous in valuation, but are necessary not adequate to cover the special needs of land management. In such cases, FIG may have something to offer. (Viitanen, 2005)

It is certainly true that the land management wants more that IVS can give. It desires to have standards of: (a) the valuation of land expropriation or compulsory acquisition, *i.e.* upon the private owned lands, leased lands, informal settlements, *etc.*, and (b) the valuation of zonal basis land resources, *i.e.* the valuation of functional zones, natural resources and the environments.

3.2 The Core Competencies of the Comprehensive Land Valuers-Surveyors

The holistic land management concept necessitates certain expertise of the professional and comprehensive land valuers-surveyors, those are skills in (please refer back to Fig. 1):

- (1) Conducting the market valuation of land/real property,
- (2) Performing the non-market valuation of land/real property, and
- (3) Carrying out the economic valuation of functional zone of land and eco-natural resources.

For the land appraisers, the valuation of land/real property is their expertise. They have been graduated or trained in this subject. The standards on this valuation are some. The European valuers community, especially initiated by the International Valuation Standards Committee (IVSC), London, U.K, has passed an International Valuation Standard (IVS) that has been widely used by the world valuers society. Meanwhile, in the USA there are many appraiser organizations like the American Society of Appraisers (ASA), American Institute of Real Estate Appraisers (AIREA), the American Society of Appraisers Real Property Committee (ASA-RP), *etc.* As it is in the UK, the US Appraisal Standards Board of the Appraisal

Foundation has promulgated the Uniform Standards of Professional Appraisal Practice (USPAP), and right now it comes up with the 2008 – 2009 editions.

The scopes, types, and methodologies of land/real property values and valuations are described in Figure 2.

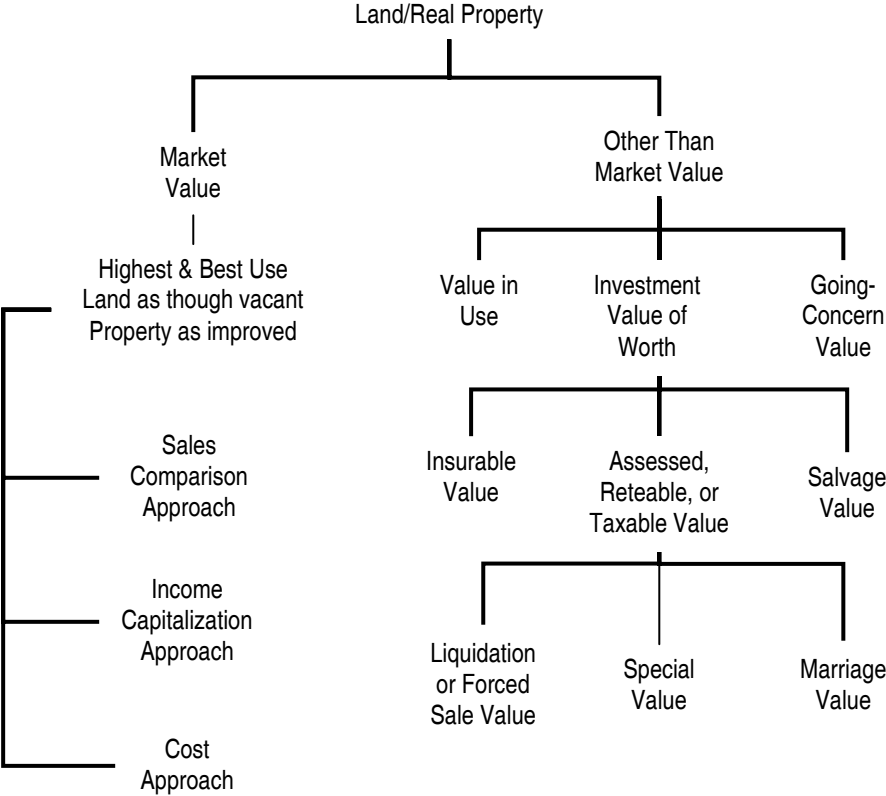


Figure 2. Land/Real Property Values and Valuations (excerpt from the *International Valuation Standard*, Seventh Edition, 2005)

For special purpose, *i.e.* the compensation for the land expropriation or compulsory acquisition, surveyors shall also be able to assess non-physical value(s) in addition to market value of the related land/real property. Belong to these values, for examples: (a) the value of the suffer a financial loss caused by the decrease value of the land/real property that taken partly (larger parcel); (b) the value of the loss of on-going business/income; (c) the value of tax burden caused by the expropriation; and (d) the value of the relocation cost when one shall move to another city/town. This kind of valuation is usually ordered in different law in each different State or Country.

As the references, the methodology of compulsory purchase valuation could be found in some text books and journals. To mention among others are books written by R.O Rost and H.G. Collins (1990) and James H. Boykin and Alfred A. Ring (1993).

Beyond those valuations as mentioned above, the skill on performing the assessment of economic value of the functional zonal basis of land and resources has also been mastered by the land valuers-surveyors.

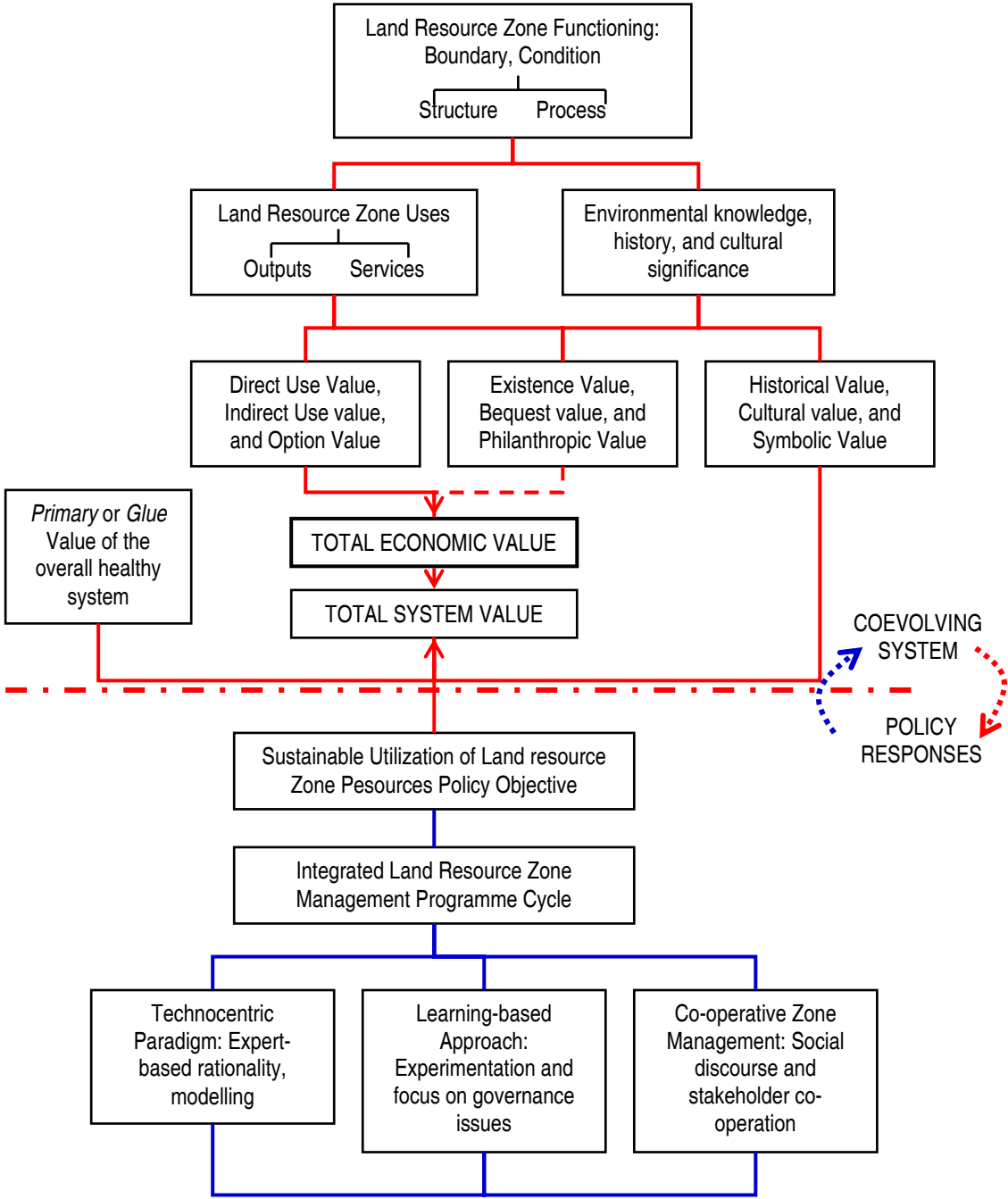


Figure 3. Relationships between the economic valuation and the management of the sustainable functional land resource zones (modified to general context from Ledoux and Turner, 2002)

It was only since the 1960s, this relatively new economics notion of natural resources and the environment has been developed. Fundamental critic to what occurs in those periods was the *market failure* of the economic systems. That is the failure to allocate resources efficiently. Hanley *et. al.* (2007) argue that: “a market failure occurs when the market does not allocate scarce resources to generate the greatest social welfare. A wedge exists between what a private person does given market prices and what society might want him or her to do to protect the environment. Such a wedge implies wastefulness or economic inefficiency; resources can be reallocated to make at least one person better off without making anyone else worse off.”

By understanding the structure and process of functional land resource and the environmental zones, ones could recognize its outputs and services, as well as its environmental knowledge, history, and cultural significance (see Figure 3). There have been developed some efforts to standardize the concept and methodology of functional land resource zones valuation. In a certain instance, it has been agreed to use the term of Total Economic Value (TEV) to represent the values (*i.e.* David W. Pearce and R. Kelly Turner, 1990; J.P.G. Spurgeon, 1992 and 2003; Barton, 1994) (see Figure 4).

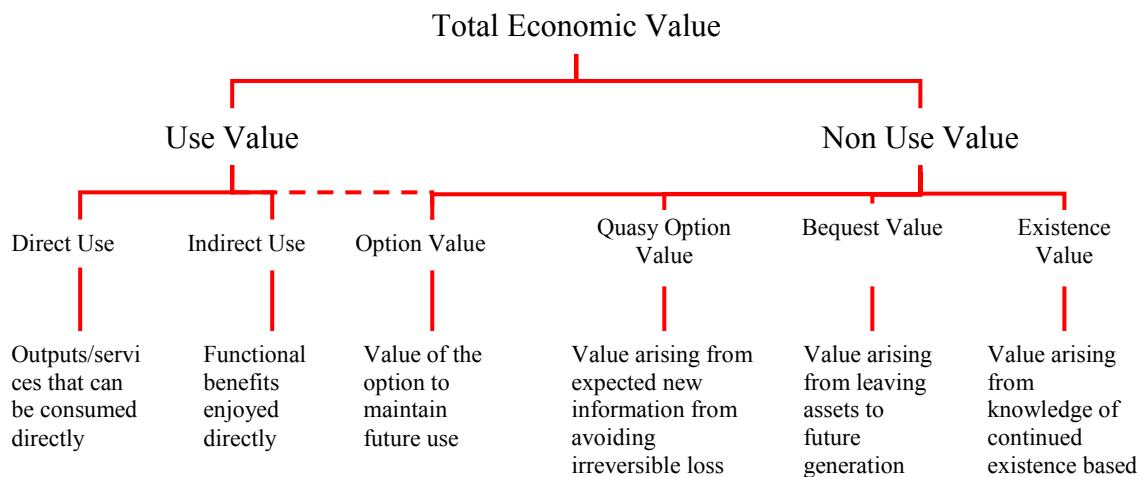


Figure 4. Total Economic Value (source: Spurgeon, 2003)

Notes:

- It has to be extra careful when estimating the TEV, especially the Direct Use Value (DUV), in the sense that it cannot be double counted or overlapped with the concept of “highest and best use” of the land/property value. DUV may use market data as an indicator but it is not within the concept of property value.
- The rest of the values constructing the TEV are all non-market values in nature. There some techniques in estimating the non-market values, where the Contingency Valuation Method (CVM) is among others to mention.

- CVM is a direct approach in measuring the willingness to pay (WTP) of the people for a benefit, and the willingness to accept (WTA) by way of compensation to tolerate a cost of a natural resource or an environment (Pearce and Turner, 1990).

4. THE VALUERS-SURVEYORS KEY ROLE IN TODAY AND FUTURE ACCELERATED DEVELOPMENTS

It is not an exaggerated avowal saying that the valuers-surveyors play key role in today and future accelerated sustainable developments.

4.1. The Key Role

Why? Because the surveyor knows better about lands/real properties and other land resources, the policies (land management and spatial planning policy), the parcels and the maps (the cadastre and land administration), the transactions, the taxes, *etc.* Those better known issues are the basis of all the development conducts. Land is the primary matrix of an area. Land and aggregate of lands in a region are the fundamental stones of the development activities. Most human activities are made upon the surface of land, at the land, and below the surface of the land. Only few are done in the air. These make the valuers-surveyors play everlasting key role in human kind developments.

What would the world get without the surveyors and or the valuers-surveyors?

- No certainty of parcels, real properties, personal, public, country/state, international boundaries, assets, locations, maps, and the spatial information. These uncertainties could lead to disputes, conflicts, wars, property and asset losses, *etc.*
- No guarantee in the land and real property mortgages. This will cause the economic fails. The US financial crisis lately was derived by, among other things, the failures of the sub-prime mortgages.
- No certainty and guarantee in the land expropriation or mandatory acquisition. This could lead to the stoppage of the developments for the public purposes, or to the violation of the human rights.
- No guarantee in the legal, physical, and financial-economical spatial information for land policies and legislations, land registrations, land tenure securities, land information systems, land redistributions and land reforms, land consolidations, agrarian and housing reforms, land use planning, informal settlements, property valuations and taxations, urban and rural developments, environmental monitoring, *etc.* These failures will bring about the mess of the world.
- No guarantee in the legal, physical, and financial-economical spatial information for the sustainable development policies and regulations. These will lead to the *market failure* of the economic systems and the natural resources and environmental deteriorations.

These are simply a part of the lists of the world risks without the roles of the valuers-surveyors. Some may perhaps add more and more their key roles to the world.

4.2. The Implications for the Higher-Education and Continuing Education

In performing the notion of the professional and comprehensive land valuer-surveyor, it will definitely have implications to the need of higher and continuing educations. For those the surveyors who are to be that one may choose either one of these choices:

- (a) Academic graduate programs on: (1) land asset/property valuation within the Faculty of Economics, and (2) natural resource and environment valuation within the Department of Natural Resources Economic.
- (b) Professional trainings: (1) land asset/property valuation conducted by a professional association in this field, and (2) natural resource and environment valuation arranged by a professional association in this field.

5. FINAL REMARKS

In the demanded land valuer-surveyor profession of a holistic land administration system, the land valuers-surveyors shall meet all the core competencies as they are required. Even in the separate profession of land surveyor (land administration system) and land valuer (tax and finance system), the land valuer shall have comprehensive skills towards the holistic concept of land valuation. Nevertheless, the notion of land valuer-surveyor is always demanded as it is explained before. This will need a shifting paradigm and the capacity building should become a key component. In addition, it has also to enhance the educational, professional and institutional qualities. In these ways then the valuers-surveyors could play everlasting key role in today and future accelerated developments.

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BIOGRAPHICAL NOTES

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