Good governance, comprehensive land policies, and sound land administration institutions are essential components for addressing the problems related to land management and land information infrastructures. Both an efficient land market and an effective means of land-use control must be developed as the basic tools for achieving a sustainable approach. However, in many countries, and especially in developing countries and countries in transition, the national capacity to manage land rights, restrictions and responsibilities is not well developed in terms of mature institutions and the necessary human resources and skills. In this regard, the capacity building concept offers some guidance for analysing and assessing the capacity needs and for identifying an adequate response to these needs at societal, organisational and individual levels. The paper analyses the various means of capacity building for institutional development within surveying and land management. Finally the paper discusses the role of FIG in pursuing the motto: “Building the Capacity”.

INTRODUCTION

The capacity building concept is often used within a narrow meaning such as focusing on staff development through formal education and training programmes to meet the lack of qualified personnel in a project in the short term. This paper argues that capacity building measures should be seen in a wider context of developing and maintaining institutional infrastructures in a sustainable way.

Land administration systems (LAS) provide a country’s infrastructure for implementation of its land-related policies and land management strategies. Land in modern administration includes resources, marine environment, buildings and all things attached to and under the land. LAS are concerned with the social, legal, economic and technical framework within which land managers and administrators must operate. These systems support efficient land markets and are, at the same time, concerned with the administration of land as a natural resource to ensure its sustainable development. However, in many developing and transition countries, there is a lack of institutional capacity to undertake land administration action activities in an adequate and sustainable way. In this regard, the capacity building concept offers some guidance for assessing the capacity needs and for identifying an adequate response to these needs at societal, organisational and individual levels.
CAPACITY BUILDING

The term capacity building is relatively new, emerging in the 1980s. It has many different meanings and interpretations depending upon who uses it and in what context. It is generally accepted that capacity building as a concept is closely related to education, training and human resource development (HRD). However, this conventional understanding has changed over recent years towards a broader and more holistic view, covering social, organisational and educational aspects.

UNDP (1998) offers this basic definition: “Capacity can be defined as the ability of individuals and organizations or organizational units to perform functions effectively, efficiently and sustainable.” This definition has three important aspects: (i) it indicates that capacity is not a passive state but part of a continuing process; (ii) it ensures that human resources and the way in which they are utilised are central to capacity development; and (iii) it requires that the overall context within which organisations undertake their functions will also be a key consideration in strategies for capacity development. Capacity is seen as two dimensional: capacity assessment and capacity development.

*Capacity Assessment* or diagnosis is an essential basis for the formulation of coherent strategies for capacity development. This is a structured and analytical process whereby the various dimensions of capacity are assessed within a broader systems context, as well as being evaluated for specific entities and individuals within the system. Capacity assessment may be carried out in relation to donor projects e.g. in land administration, or it may be carried out as an in-country activity of self-assessment.

*Capacity Development* is a concept that is broader than HRD since it includes an emphasis on the overall system, environment and context within which individuals, organisations and societies operate and interact. Even if the focus of concern is on a specific capacity with an organization to perform a particular function, there must nevertheless always be a consideration of the overall policy environment and the coherence of specific actions with macro-level conditions. Capacity development does not, of course, imply that there is no capacity in existence; it also includes retaining and strengthening existing capacities of people and organisations to perform their tasks. The more complete definition offered by the UNDP and also the OECD for capacity development is:

| “… the process by which individuals, groups, organisations, institutions and societies increase their abilities to: perform core functions, solve problems, and define and achieve objectives; and to understand and deal with their development needs in a broader context and in a sustainable manner.” |

Capacity development in society can, in this regard, be addressed at three levels as outlined by UNDP and summarised in (Enemark and Williamson, 2003):
• **The societal level:** The dimensions of capacity at a societal level may include areas such as policies, legal/regulatory framework, management and accountability perspectives, and the resources available.

• **The organisational level:** At this level, successful approaches to capacity building include the role of the entity within the system, and the interaction with other entities, stakeholders, and clients. The dimensions of capacity may include areas such as mission and strategy, culture and competencies, processes, institutional infrastructures, ITC, and professional institutions.

• **The individual level:** This level addresses the need for individuals and groups of people to function efficiently and effectively within the entity and within the broader system. The dimensions of capacity should include the design of educational and training programmes and courses to meet the identified gaps within the skills base and to provide the appropriate number of qualified staff to operate the systems.

Strategies for capacity assessment and development can be focused on any level, but it is crucial that strategies are formulated on a basis of a sound analysis of all relevant dimensions. Often capacity issues are first addressed at the organisational level. Organisational capacity – such as the capacity of the national cadastral agency or the cadastral infrastructure and processes – is influenced by not only the internal structures, and procedures of the agency, but also by the collective capabilities of the staff on the one hand and a number of external factors on the other. Such external factors may be political, economic or cultural issues that may constrain or support performance, efficiency, and legitimacy as well as the whole level of awareness of the values of land administration systems. By taking this approach, capacity measures can be addressed in a more comprehensive societal context.

Capacity development takes place not just in individuals, but also between them, in the institutions and the network they create – through what has been termed the “social capital” that holds societies together and sets the terms of these relationships. Most technical cooperation projects, however, stop at the individual skills and institution building – they do not consider the societal level (UNDP, 2002).

It should also be noted that capacity building is not a linear process. Whatever the entry point is and whatever the issue currently in focus is, there may be a need to zoom in or out in order to look at the conditions and consequences at the upper or lower level(s). Capacity building should be seen as a comprehensive methodology aimed at providing a sustainable outcome through assessing and addressing a whole range of relevant issues and their interrelationships.

Taking the above approach, capacity is seen as a development outcome in itself and distinct from other program outcomes such as building technical and professional competence in certain fields through HRD activities (Enemark and Williamson, 2004).

**A NEW PARADIGM FOR CAPACITY DEVELOPMENT**

Arguably, many donor projects in land administration over the last decade have a rather narrow focus on access to land and security of land tenure. The focus has been on doing the project, including mapping, adjudication, and registration, and on developing the necessary
capacity for managing the processes within system. The focus has not usually been on the wider land administration infrastructure or land policy issues. Institutional issues have been addressed mainly as a response to this more narrow perspective.

Many projects have therefore failed to meet the more overall objective of building a sustainable national land administration infrastructure. To a large extent this is because of the complexity in addressing national land administration issues. This is not a criticism of these projects since the economic driver has a high priority in developing countries and that it is only through recent years that the capacity building aspect have developed into a more overall methodology. To address these problems, there is a need to establish an equal partnership between doing the project and building the capacity to sustain the project. The lesson learnt is:

Where a donor project is established to create land administration infrastructures in developing or transition countries, it is critical that capacity building is a main steam component that is addressed up front, not as an add-on.

Capacity development is arguably one of the central development challenges of today, as much of the rest of social and economic progress will depend on it.

Donors, in general, will often have a long term vision of what they want to achieve. At the same time however, they will have to account to their constituencies and superiors at home for the progress of the project. This tends to shape the project in a “manageable” way by using accountable deliverables for short term achievements (such as the number of parcels registered, number of training courses provided etc) while the long terms goals (such as building the institutional capacity, designing and implementing tertiary educational programmes, etc) are more difficult to turn into visible and accountable activities. This kind of accounting management will work as a self-justifying system that pumps huge amounts of money to developing countries. At the same time, the consultants have a strong interest in maintaining status quo and have little incentive to criticise the basic system since, if they do, they will risk to be replaced by more compliant staff. Donors have certainly addressed these problems to some extend. However, many of the fundamental issues still remain. This is reflected in the new paradigm presented below.

The new paradigm for capacity development is also influenced by today’s globalised way of knowledge transfer. In developing countries there are often two systems of knowledge and production that exist in parallel: indigenous and modern. When new knowledge is not integrated into indigenous knowledge and production systems, it fails to be useful, despite its potential.

Capacity development is arguably one of the central development challenges of the day, as much of the rest of social and economic progress will depend on it. UNDP (2003) offers this understanding of the new capacity building paradigm:
<table>
<thead>
<tr>
<th></th>
<th>Current paradigm</th>
<th>New paradigm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nature of development</strong></td>
<td>Improvements in economic and social conditions</td>
<td>Societal transformation, including building of “right capacities”</td>
</tr>
<tr>
<td><strong>Conditions for effective development cooperation</strong></td>
<td>Good policies that can be externally prescribed</td>
<td>Good policies that have to be home-grown</td>
</tr>
<tr>
<td><strong>The asymmetric donor-recipient relationship</strong></td>
<td>Should be countered generally through a spirit of partnership and mutual respect</td>
<td>Should be specifically addressed as a problem by taking countervailing measures</td>
</tr>
<tr>
<td><strong>Capacity development</strong></td>
<td>Human resource development combined with stronger institutions</td>
<td>Three cross-linked layers of capacity: societal, institutional and individual</td>
</tr>
<tr>
<td><strong>Acquisition of knowledge</strong></td>
<td>Knowledge can be transferred</td>
<td>Knowledge can be acquired</td>
</tr>
<tr>
<td><strong>Most important forms of knowledge</strong></td>
<td>Knowledge developed in the North for export to the South</td>
<td>Local knowledge combined with knowledge acquired from other countries – in the South or the North.</td>
</tr>
</tbody>
</table>

*The New Capacity Building Paradigm (UNDP 2002).*

An example of good practice in this regard is the project in Malawi on capacity building for implementing land management (Enemark and Ahene, 2003). Land policy reform requires a long-term vision and commitment for implementation. In the case of Malawi the process was estimated to take fifteen to twenty years to complete. The process was initiated in 1995 by the World Bank in providing support for guiding a land policy reform process and strategic action plan towards creating a modern environment for protection of property rights, to facilitate equitable access to land for all and to encourage land based investment. Implementation of this land policy included institutional reform and capacity building as key components. The project included a number of projects such as drafting a new land law and formalization of customary land law, pilot district land registration including mapping and demarcation, rural/urban land use planning and development controls, and land resettlement project etc. Furthermore, the deficit in terms of qualified personnel was addressed through developing an integrated curriculum at certificate, diploma and bachelor levels. The implementation was initiated in 2001 by placing the issue of capacity building right up front. Unfortunately, the project was not fully realized due to some changed priorities within one of the donor countries.

The importance of capacity development in surveying and land administration at the organisational level was usefully quantified in Great Britain (OXERA, 1999) by research that found that approximately £100 billion of Great Britain’s GDP (12.5% of total national GDP, and one thousand times the turnover of OSGB) relied on the activity of the Ordnance Survey
of Great Britain. Less exhaustive studies in other European countries have pointed to similar figures. The importance of geographic information continues to grow, with a range of SDI initiatives at local, national, regional and global level, so there is reason to believe that the figures would be increased rather than reduced if the GB study were to be repeated today. With these very significant numbers, as well as the central importance of sound land management, the importance of solid, sustainable organisations in the field of surveying and land administration is clear (Enemark and Greenway, 2006).

CAPACITY BUILDING IN LAND ADMINISTRATION

Land administration is part of the infrastructure that supports good land management. The term Land Administration refers to the processes of recording and disseminating information about the ownership, value and use of land and its associated resources. Such processes include the determination of property rights and other attributes of the land that relate to its value and use, the survey and general description of these, their detailed documentation and the provision of relevant information in support of land markets. Land administration is concerned with four principal and interdependent commodities – the tenure, value, use, and development of the land – within the overall context of land resource management.

![A Global Land Administration Perspective](image)

The day to day operation and management of the four land administration elements includes national agencies, regional and local authorities, as well as the private sector in terms of e.g. surveying and mapping companies. The functions include:
• the allocation and security of rights in lands; the geodetic surveys and topographic mapping; the legal surveys to determine parcel boundaries; the transfer of property or use from one party to another through sale or lease;
• the assessment of the value of land and properties; the gathering of revenues through taxation;
• the control of land use through adoption of planning policies and land use regulations at national, regional and local levels;
• the building of new physical infrastructure; the implementation of construction planning and change of land use through planning permission and granting of permits.

Land administration is a cross sectoral and multidisciplinary area that includes technical, legal, managerial, political, economical and institutional dimensions. An adequate response in terms of capacity building measures must reflect this basic characteristic that includes assessment and development at all three levels: societal, organisational and individual. In this regard, a conceptual analytical framework is developed (Enemark and Williamson, 2004) that identifies and analyse the relevant dimensions and options to be considered for building sustainable land administration infrastructures in support of a broader land policy agenda. The framework is shown in the diagram below:

<table>
<thead>
<tr>
<th>Capacity Building in Land Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level</strong></td>
</tr>
<tr>
<td>Societal Level</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Organisational Level</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Individual Level</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**GUIDELINES FOR SELF-ASSESSMENT OF CAPACITY NEEDS**

The framework presented above relates to donor projects on land reform and the design and implementation of a land administration system to secure rights in land, facilitate an efficient land market, and ensure effective control of the use of land. However, there is also a demand for a framework or some guidelines that will enable the countries themselves to assess the capacity of their systems and identify specific needs for capacity development. These needs may then – within the limited financial resources available – be met by measures of capacity development.
FAO, the Land Tenure Service have initiated a project to develop such guidelines for self-assessment of capacity needs (Enemark and van der Molen, 2003). The guidelines should serve as a logical framework for addressing each step from land policy, policy instruments, and legal framework; over mandates, business objectives, and work processes; to needed human resources and training programs. The guidelines should for each step pose a number of questions to be considered based on some comments reflecting a best practice approach. For each step the capacity of the system can be assessed and possible or needed improvement can be identified.

Such guidelines are mainly aiming at developing countries as a basis for in-country self-assessment of the capacity needs in land administration. The government may form a group of experts to carry out the analysis, as a basis for political decisions with regard to any organisational or educational measures to be implemented for meeting the capacity needs. It is of course recognised that individual countries are facing specific problems that may not be addressed in these guidelines at all. Hence, the guidelines are meant as a tool for undertaking structured and logical analysis of the capacity needs by posing the right questions rather then providing all the right answers.

INSTITUTIONAL AND ORGANISATION DEVELOPMENT

Institutional and organisational development is about capacity development at the organisational level. Such development measures cannot, however, ignore the societal and individual levels.

Institutional development relates to the enhancement of the capacity of national surveying and mapping agencies and private organisations to perform their key functions effectively, efficiently and sustainable. This requires clear, stable remits for the organisations being provided by government and other stakeholders; these remits being enshrined in appropriate legislation or regulation; and appropriate mechanisms for dealing with shortcomings in fulfilling the remits (due to individual or organisational failure). Putting these elements in place requires agreement between a wide range of stakeholders, in both the public and private sectors, and is a non-trivial task.

Organisational development relates to the enhancement of organisational structures and responsibilities, and the interaction with other entities, stakeholders, and clients, to meet the agreed remits. This requires adequate, suitable resourcing (in staffing and cash terms); a clear and appropriate organisational focus (to meet the agreed remit of the organisation); and suitable mechanisms to turn the focus into delivery in practice (these mechanisms including organisational structures, definition of individual roles, and instructions for completing the various activities).

One useful and succinct model for putting in place suitable measures to enable and underpin organisational success is that developed by the UK Public Services Productivity Panel (HMT, 2000). This recognises five key elements which need to be in place:
• **Aspirations** – to stretch and motivate the organisation
• **A coherent set of performance measures and targets** – to translate the aspiration into a set of specific metrics against which performance and progress can be measured
• **Ownership and accountability** – to ensure that individuals who are best placed to ensure delivery of targets have real ownership for doing so
• **Rigorous performance review** – to ensure that continuously improving performance is being delivered in line with expectations
• **Reinforcement** – to motivate individuals to deliver the targeted performance.

Of course, defining and implementing the detail in any one of the above items is a significant task, and all must be in place if the organisation is to succeed. By putting the appropriate mechanisms and measures in place, and continuously challenging and improving them, organisations can ensure that they effectively turn inputs into outputs and, more importantly, the required outcomes (certainty of land tenure etc).

All organisations need continuously to develop and improve if they are to meet, and continue to meet, the needs of their customers and stakeholders. In the land administration field, there are many examples of under-resourced organisations unable to respond effectively to stakeholder requirements, thereby leading to a lack of access to official surveys and land titling (leading to unofficial mechanisms being used, or a total breakdown in efficient land titling). There is a need to provide appropriate assistance to enable the necessary capacity to be built and sustained by such organisations (once the need for such capacity has been accepted by the funding bodies), given the key role of their operations in underpinning national development. A range of methods exist, including releasing internal resources for this work (if suitable resources exist), or external support.

**THE ROLE OF FIG**

FIG can facilitate support capacity development in three ways:

• **Professional development**: FIG provides a global forum for discussion and exchange of experiences and new developments between member countries and between individual professionals in the broad areas of surveying and mapping, spatial information management, and land management. This relates to the FIG annual conferences, the FIG regional conferences, and the work of the ten technical commissions within their working groups and commission seminars. This global forum offers opportunities to take part in the development of many aspects of surveying practice and the various disciplines including ethics, standards, education and training, and a whole range of professional areas.
• **Institutional development**: FIG provides institutional support to individual member countries or regions with regard to developing the basic capacity in terms of educational programs and professional organisations. The educational basis must include programs at minimum Bachelor level that include the combination of Surveying and Mapping, Spatial Information Management, and Land Management. Such programs combine the land administration/cadastre/land registration function with the topographic mapping function within a holistic land management perspective. The professional organisations must include
the basic mechanisms for professional development including standards, ethics and professional code of conduct for serving the clients.

- **Global development**: FIG also provides a global forum for institutional development through cooperation with international NGO’s such as the United Nations Agencies (UNDP, UNEP, FAO, HABITAT), the World Bank, and sister organisations (GSDI, IAG, ICA, IHO, and ISPRS). The cooperation includes a whole range of activities such as joint projects (e.g. The Bathurst Declaration, The Aguascalientes Statement), and joint policy making e.g. through round tables. This should lead to joint efforts of addressing topical issues on the international political agenda, such as reduction of poverty and enforcement of sustainable development.

FIG, this way, plays a strong role in improving the capacity to design, build and manage surveying and land administration systems that incorporate sustainable land policies and efficient spatial data infrastructures.

**FINAL REMARKS**

The objective of the paper is to build an overall understanding of the Capacity Building Concept and its relevance for institutional development in the areas of surveying and land management. The paper initially develops a conceptual framework recognising the capacity building comprises capacity assessment and capacity development. It is accepted that the capacity building concept is complex and having different interpretation. But even if the concept may be unclear to many, it is recognised that capacity building for institutional development is crucial especially in the context of developing countries. In this regard, a new paradigm for capacity development is presented for consideration that establish capacity development as not merely a stepping stone but as an end in itself.

This paper provides a conceptual understanding covering the area of institutional and organisational development, and outlines some of the key tools and techniques to be used in the institutional reform process. This process will normally include four steps: Where are we now (assessment of the current situation and needs); Where do we want to be (design of vision and mission); How do we get there (strategies and actions); How do we stay there (sustainability). It is argued that FIG has a key role to play in this area.
REFERENCES


BIOGRAPHICAL NOTES

Stig Enemark is President of the International Federation of Surveyors, FIG. He is Professor in Land Management and Problem Based Learning at Aalborg University, Denmark, where he was Head of the School of Surveying and Planning 1991-2005. He is Master of Science in Surveying, Planning and Land Management and he obtained his license for cadastral surveying in 1970. He worked for ten years as a consultant surveyor in private practice. He was President of the Danish Association of Chartered Surveyors 2003-2006. He was Chairman of Commission 2 (Professional Education) of the International Federation of Surveyors (FIG) 1994-98, and he is an Honorary Member of FIG. He has undertaken consultancies for the World Bank and the European Union especially in Eastern Europe and Sub Saharan Africa. He has more than 250 publications to his credit, and he has presented invited papers to more than 60 international conferences. For further information see http://www.land.aau.dk/~enemark

CONTACTS

Stig Enemark
Professor in Land Management
Aalborg University, 11 Fibigerstrede
9220 Aalborg, DENMARK
Tel. + 45 9635 8344, Fax: + 45 9815 6541
Email: enemark@land.aau.dk
Website: www.land.aau.dk/~enemark