

# **ASSESSING NATIONAL INTERNET GOVERNANCE ARRANGEMENTS**

**A framework for comparative assessment**

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## INTRODUCTION

This report is the first of two pieces of work by *ict* Development Associates (*ictDA*) for the Internet Society (ISOC). It proposes a framework for the assessment of national Internet governance arrangements, which can be used for comparative purposes between countries and over time, as a basis for identifying priorities for national Internet governance stakeholders, and to help ISOC's global work to raise awareness and build capacity. A separate report from *ictDA* sets out findings and conclusions from a pilot study of national Internet governance arrangements in Kenya. The Kenya report provides an example of national assessments which can be undertaken using this framework, and has been used to test the methodology outlined below.

### Background and context to the report

This report was commissioned by the Internet Society in response to the growing complexity and significance of the Internet governance environment as the Internet becomes increasingly widely available, enabling more services and applications to be delivered through more technologies and devices, and becoming central to the ways in which societies and economies evolve. In the six years since the end of the World Summit for the Information Society (WSIS), for example:

- the number of Internet connections worldwide is estimated to have grown from one to well over two billion, from less than 15% to more than 30% of global population;<sup>1</sup>
- the number of IP addresses worldwide has surged to around 3.5 billion;<sup>2</sup>
- the number of domain names in use has grown by some 8% p.a. and has reached over 200 million;<sup>3</sup>
- the speed of Internet connections has accelerated as broadband networks, offering continuing growth in capacity, have been deployed globally, at national level and to end-users;
- the World Wide Web experience has been radically changed by the advent of Web 2.0 services, particularly social networking and micro-blogging applications which have shifted the emphasis of Internet use from information towards interaction;
- mobile devices have become increasingly capable of Internet access and have become predominant in extending access opportunities in developing countries;
- innovations such as cloud computing have changed the modalities for data management in ways that have potentially wide-ranging impacts on the Internet's future development.

Growth and continual change in the Internet itself and in its economic, social and political significance have affected and continue to affect issues of Internet governance. This was defined at WSIS as:

*the development and application by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures and programmes that shape the evolution and use of the Internet.*<sup>4</sup>

So defined, Internet governance includes:

- a. issues concerned with the Internet itself – critical Internet resources such as the root server and domain name systems, the protocols and standards which govern the Internet and applications running over it, and coordination and relationships between different entities involved in making the Internet available to its users;

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<sup>1</sup> <http://www.internetworldstats.com/pr/edi014.htm>; <http://www.internetworldstats.com/stats.htm> (accessed 26 March 2012)

<sup>2</sup> <http://www.domaintools.com/internet-statistics/country-ip-counts.html> (accessed 17 April 2012)

<sup>3</sup> <http://www.daniweb.com/web-development/web-design/news/380974/how-many-internet-domain-names-are-there> (accessed 17 April 2012)

<sup>4</sup> WSIS, *Tunis Agenda for the Information Society*, 2005, para. 34, <http://www.itu.int/wsis/docs2/tunis/off/6rev1.html>

- b. the relationship between the Internet and its underlying infrastructure (in particular telecommunications networks and the regulatory and other governance processes that are concerned with them); and
- c. issues concerned with the use of the Internet – the ways in which it impacts on society, economy, politics, culture and individual lives.

In practice, few issues fall solely within one or other of these areas.

Just as Internet governance encompasses both technical and public policy issues, it includes governance processes and structures at global, regional and national levels. While the Internet is often described as global rather than national in character, national entities such as ccTLD registrars and IXPs feature prominently in how it is made available at national level. The ISPs and other businesses that deliver Internet access and services to end-users, and the businesses and other organisations that use the Internet to interface with the general population, are usually national rather than global and subject to national laws and regulations. Infrastructure operators are licensed nationally, though they often form part of global corporations. Governments increasingly use the Internet to deliver public services to their citizens and are concerned to understand, influence and sometimes direct the impact of the Internet on public and even private life.

One important distinction between Internet governance and most other areas of technical and public policy governance lies in the roles played by intergovernmental, governmental and non-governmental stakeholders. The development of the Internet has not been overseen by intergovernmental agencies and national governments in the same ways as, for example, telecommunications. Instead, its development has been facilitated by entities in which Internet technical professionals, private sector businesses and other non-governmental stakeholders have been at least as prominent as governments. The interaction between the Internet's modalities of governance and more usual forms of governance varies in different national contexts.

One outcome of the World Summit on the Information Society was the establishment of an annual global Internet Governance Forum (IGF), a discussion space on Internet issues without decision-making powers. In the years since the Summit ended in 2005, a significant number of regional and national IGFs have emerged, providing similar discussion spaces at their geographic levels and an opportunity for national stakeholders to feed into the global IGF. These have been generally welcomed, but there has not yet been any systematic assessment of their role and performance.

### **Objectives of the study**

All of the factors described above illustrate the significance of national Internet governance arrangements in influencing how the Internet serves end-users and interacts with national economic, social, cultural and political development. Different countries have different Internet governance arrangements. Those arrangements intersect differently with other aspects of government and governance. ISOC believes that there is much to be gained from understanding the different ways in which national Internet governance arrangements have developed and from assessing their effectiveness in enabling Internet access, their ability to serve the needs of users and their influence on the impact which the Internet has on public policy and public life.

This report is in four main sections.

- Section 1 describes the major elements of an assessment of national Internet governance arrangements – the issues, stakeholders and decision-making fora that are involved.
- Section 2 proposes a framework for mapping national Internet governance environments, including these issues, stakeholders and decision-making institutions.
- Section 3 proposes a methodology for national assessment studies which can be undertaken by ISOC and/or others, and also considers assessment of the role and performance of national IGFs.

- Section 4 summarises the approach and makes a number of recommendations to ISOC.

The report draws on four main sources:

- a) assessment of existing Internet governance arrangements at national and international level;
- b) discussions with ISOC personnel and other international Internet governance actors;
- c) analytical mapping work on the Internet governance and public policy environment previously undertaken by the author and further developed for this report;
- d) experience gained during a pilot implementation of the methodology in Kenya, which is the subject of a separate report.

### Research questions

The assessment framework described in this report is intended for use by ISOC and by other organisations that wish to make use of it (with due acknowledgement), including national actors.<sup>5</sup> It is hoped that it will enable them to address the need for a more systematic understanding of Internet governance arrangements and experience.

The national assessments proposed in this report seek to answer the following research questions:

- a. What is the general level of understanding and participation in Internet governance in the country in question?
- b. What are the principal issues of Internet governance in that country, and how are these changing over time?
- c. Who are the principal stakeholders in Internet governance at national level, and how do they interact with one another?
- d. What are the decision-making processes and fora that influence the evolution and use of the Internet within the country?
- e. How do these issues, stakeholders and decision-making processes interact?
- f. How effective is this national Internet governance environment perceived to be by stakeholders, what challenges arise from it, and how might they be addressed by national stakeholders and ISOC?

National assessments should help stakeholders in a country to identify current or future problem areas, where improvements can and should be made. Successive assessments – for example, every three years or so – would make it easier to assess changes in the structure and performance of national Internet governance arrangements, helping national stakeholders to develop or initiate governance arrangements in good time, before being forced to do so by changing circumstances.<sup>6</sup> A systematic approach across a number of countries will make it much easier to draw comparisons between different national environments, identifying ways of doing things which have proved more or less successful in particular contexts and assessing the potential for adopting or adapting these elsewhere. This raises two further research questions that follow from those above:

- g. What benchmarks could be used for international comparison of Internet governance environments?
- h. How does the national Internet governance environment compare with those in comparable countries, and are there lessons to be learnt from this (including comparison of national IGF initiatives)?

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<sup>5</sup> Third party users of the frameworks should acknowledge that it was developed by ISOC for use by ISOC and other stakeholders with permission. Users of the mapping techniques described in Section 2 should acknowledge that they were developed by APC for use by APC and other stakeholders under a Creative Commons licence. See footnote 9 for details of the applicable Creative Commons licence.

<sup>6</sup> Planning ahead for IPv6 provides a good example of this.

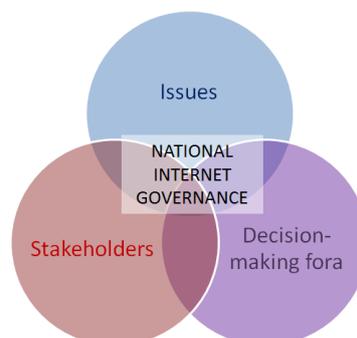
## SECTION 1 – ISSUES, STAKEHOLDERS AND DECISION-MAKING IN NATIONAL INTERNET GOVERNANCE

The model for describing and analysing national Internet governance frameworks which is proposed in this report is built around three elements. These are:

- the **issues** with which Internet governance is concerned;
- the **stakeholders** that participate in discussion of those issues and in governance entities, and/or are affected by their outcomes;
- the **decision-making processes** and fora whose outcomes affect the way in which the Internet works and develops in the country.

Analysing these three elements and the relationships between them is at the heart of understanding the nature of a national Internet governance environment or ecosystem. This ecosystem is illustrated in the Ven n diagram in Figure 1.

Figure 1: An assessment model for national Internet governance environments



This section of the report describes the main issues that arise in the assessment of these three elements and in their conjunction. It is intended to provide an overview which is of use to those who are primarily interested in the Internet as an instance of governance as well as to Internet specialists.

### Defining Internet governance

The starting point for any assessment of national Internet governance must be a definition of 'Internet governance' itself. As indicated in the introduction, the WSIS outcome documents included a definition which has been widely adopted elsewhere – particularly within the United Nations system and in the Internet Governance Forum. This is:

*the development and application by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures and programmes that shape the evolution and use of the Internet.*<sup>7</sup>

The Internet Society has described Internet governance as:

*a broad term used in many different contexts, [which] applies to activities as diverse as the coordination of technical standards, the operation of critical infrastructure, development, regulation, legislation, and more.*<sup>8</sup>

<sup>7</sup> WSIS, *Tunis Agenda for the Information Society*, 2005, para. 34, <http://www.itu.int/wsis/docs2/tunis/off/6rev1.html>

<sup>8</sup> <http://www.internetsociety.org/internet-governance>

Three points in particular are notable about the WSIS definition:

- It includes both the ‘evolution’ or technical development of the Internet and its ‘use’, *i.e.* the applications that run over the Internet and the ways in which it thereby affects economy, society, politics and culture.
- It includes a more diverse range of stakeholders – ‘Governments, the private sector and civil society’ – than is the norm in many sectors.
- It includes a wider range of instruments – ‘shared principles, norms, rules, decision-making procedures and programmes’, to which the ISOC description adds ‘technical standards, the operation of critical infrastructure, development, regulation, legislation, and more.’

These three factors significantly shape the range of issues, stakeholders and decision-making fora that need to be included in an assessment of national Internet governance arrangements.

### **Internet governance issues**

The paragraphs in this subsection outline the issues which need to be included in an assessment of national Internet governance arrangements. They are concerned firstly with three structural issues:

- the relationship between technical governance and public policy;
- the relationship between global, regional and national governance; and
- changes in issues of governance over time.

The second part of this subsection proposes a taxonomy of issues for assessing national Internet governance arrangements, which will be used as a basis for the mapping exercise in Section 2 and the reporting structure that is proposed for national assessments.

#### *Technical governance and public policy*

A number of different terms have been used in discussions of Internet governance to distinguish between issues that are concerned primarily with the Internet itself and issues which are concerned primarily with the impact of the Internet on other policy domains. One relatively common way of describing this distinction has been to refer to these, respectively, as ‘narrow’ and ‘broad’ Internet governance. Another way of doing so would be to distinguish between ‘internal’ and ‘external’ issues. Both of these distinctions are useful but also have detractors. No terminology here is going to be perfect. This report uses the terms ‘technical governance’ and ‘public policy’ to refer to this distinction.

Very few issues of Internet governance, however, are in practice entirely technical or entirely concerned with public policy, particularly as the Internet has become much more important in economies and societies, politics and culture.

- Issues which appear at first sight to be primarily technical (for example, agreements on standards and protocols, the structure of the domain name system, or the exchange of traffic between ISPs) have wide-ranging public policy ramifications (for example, on trademarks and intellectual property, competition in telecommunications markets, and the affordability of access).
- Challenges that range across public policy on economic, social and cultural issues – on development, rights and the environment; in the implementation of e-commerce and e-government; concerning taxation, cybersecurity or child protection – are profoundly affected by the development of Internet standards and applications, the structure of the Internet as a communications medium, and the ways in which the Internet is coordinated globally.
- Old problems such as spam and malware, recent developments such as social networking and Web 2.0, and innovations such as cloud computing have major implications in both technical and public policy spheres.

Rather than thinking of technical governance and public policy as binary opposites, therefore, it is more appropriate to think of the relationship between them as a continuum. Most issues of Internet governance have both technical and public policy dimensions.

Technical governance of the Internet can be divided into two main categories:

- Standardisation includes the development of protocols, standards and related instruments.
- Coordination includes the governance of critical Internet resources such as the root server and domain name systems.

The relationship between the Internet and its underlying infrastructure – the communications networks which act as its delivery systems – is a specific area of governance which is, in some respects, highly technical but in which historic public policy and regulatory arrangements are very important. It should therefore be treated as a distinct area of governance.

The resulting continuum of Internet governance issues is illustrated conceptually in Figure 2. This will be used as a starting point for developing the mapping framework described in Section 2 of the report.

*Figure 2: Technical governance and public policy*



#### *Global, regional and national governance*

Two other underlying factors affect assessment of Internet governance issues at a national level. The first is the relationship between global, regional and national governance.

The Internet is often described as a global medium which is substantially or largely independent of national governance. The routing of Internet traffic, which in principle takes no account of national jurisdictions, is at the heart of this perception. Internet protocols and standards have also been developed by entities which are independent and not representative of nation-states. Coordination requires Internet identities to be globally, as well as nationally, unique, and much of the Internet's coordination system is therefore global and regional rather than national. Much of the infrastructure on which the Internet depends is situated between countries rather than within them. Some of the public policy challenges that arise from the Internet – for example, the challenge which it poses to intellectual property rules or content norms, and many of the risks associated with fraud and cybercrime – do so partly or largely because it enables individuals and organisations to bypass national legal and regulatory structures.

The implication of this is that significant aspects of Internet governance fall outside national governance frameworks and cannot be effectively influenced by national governments or other stakeholders, in a way that is not the case with other communications media (such as newspapers, broadcasting and telecommunications) or other major infrastructure sectors (such as power, transport and water). While the Internet is more global

in its governance than these other media and sectors, however, national entities nevertheless play a significant part. The domain name system, for example, includes (national) ccTLDs, their registries and registrars as well as (global) gTLDs and theirs. National communications regulators have powerful roles in determining the development of infrastructure, access and affordability within their jurisdictions. ISPs within a national territory often exchange traffic through a national Internet Exchange Point (IXP). Although the Internet may make enforcement of some legislation more difficult, national governments and parliaments still determine law and public policy at national level. National governments, individuals and Internet businesses also participate in global and regional Internet governance entities. National Internet governance arrangements are therefore highly significant.

### *Changes over time*

The third underlying factor affecting assessment of Internet governance issues is the rapid pace of change. Some examples of the speed of change since the World Summit on the Information Society ended some six and a half years ago were mentioned in the introduction. They include the rapid growth of broadband access and mobile Internet, the advent and spread of social networking and other Web 2.0 applications, the introduction of cloud computing and the development of the 'Internet of things'. These innovations have had a far more rapid impact on the nature of the Internet than changes taking place in other communications and infrastructure sectors.

The issues which are priorities in Internet governance in any national environment change rapidly in line with the pace of innovation in technology and markets. As a result, static pictures of Internet governance issues – snapshots of one particular moment in time – will have limited, short-term value; trends are as important. The issues that are at the heart of Internet governance at national level need to be reviewed regularly, to ensure that the responses made to them are informed by what matters now rather than what used to be important.

### *A taxonomy of Internet governance issues*

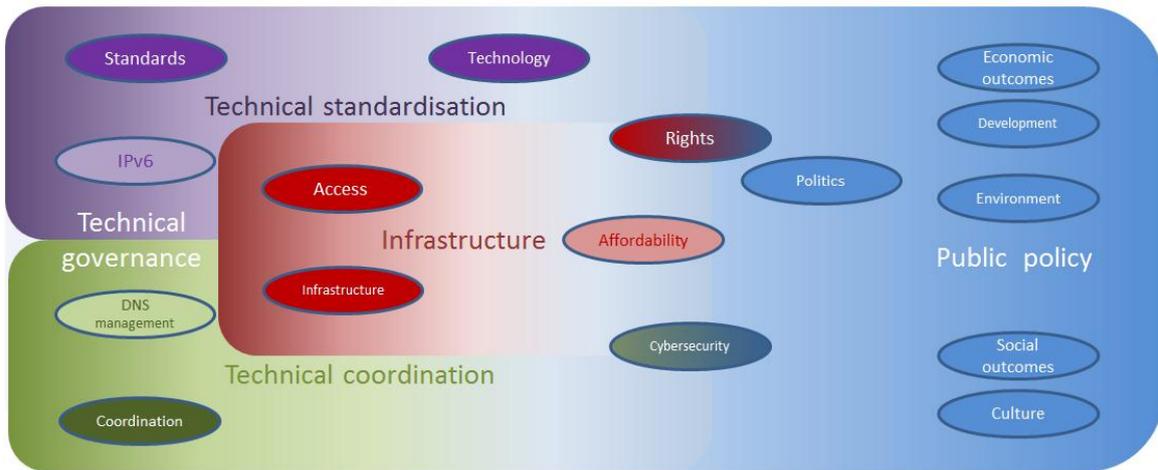
The remainder of this subsection outlines, in broad terms, the range of issues which are likely to be significant within national Internet governance environments at present. It builds on earlier mapping work which the author undertook for the Association for Progressive Communications in 2010, which has been published under a Creative Commons Attribution-NonCommercial-ShareAlike licence.<sup>9</sup> The taxonomy of issues included in that mapping work drew on discussions that took place in 2010 in the IGF, ICANN and other Internet governance contexts, including discussion lists. It was intended to be more comprehensive than the present exercise, its principal aim being to illustrate how the range of issues under discussion could be structured analytically. For reasons just discussed, the range of specific issues will vary between countries and over time, while the purpose of mapping environments for national assessments in the present work is concerned more with identifying significance than with ensuring comprehensiveness. The application of this taxonomy in mapping national Internet governance environments is discussed more fully in Section 2.

Figure 3, which builds on Figure 2 above, illustrates broad thematic categories into which Internet governance issues can be divided. These thematic categories may change over time, although those illustrated here are examples which are relatively stable. Some of these naturally overlap, and readers of this report are invited to add categories of their own: like other illustrations in this report, this is intended as a framework which can be adapted by different users for different purposes. The position of markers on the diagram illustrates, in very broad brush terms, where most aspects of the categories indicated by those markers are located in the continuum between technical governance and public policy. Other ways of incorporating more information (size of indicator, depth of colour, etc.) are discussed in Section 2.

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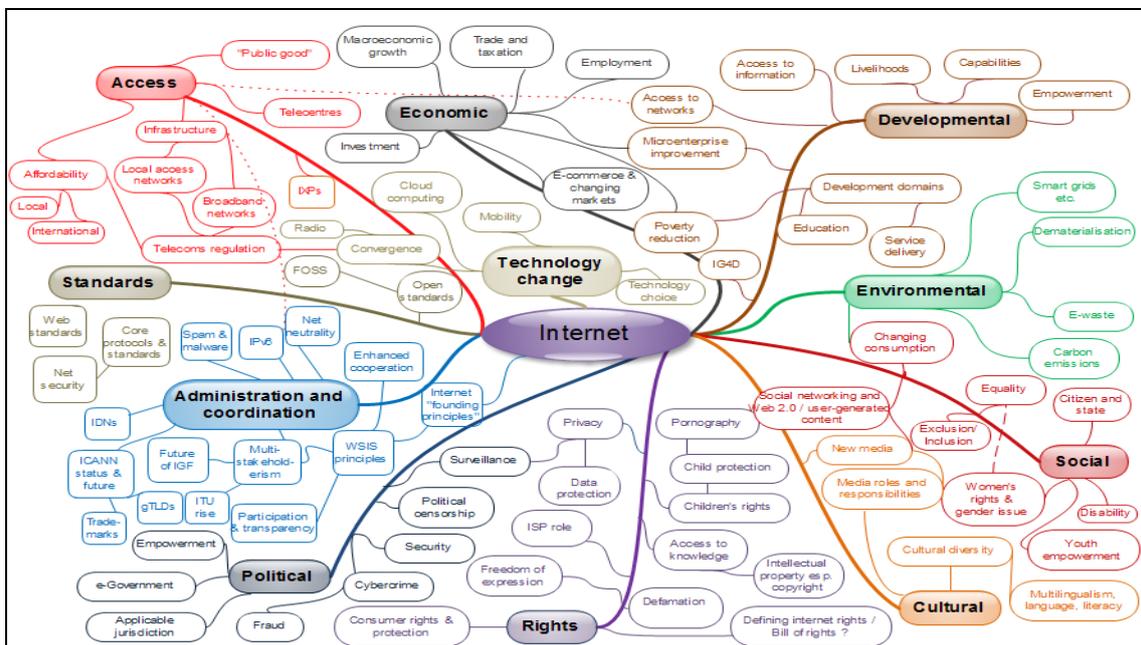
<sup>9</sup> The relevant licence is the Attribution-NonCommercial-ShareAlike 3.0 Unported (CC BY-NC-SA 3.0) licence, available at <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Figure 3: A taxonomy of broad Internet governance themes



Each of the thematic indicators in this diagram can be subdivided into a number of more precise issues, including issues which may be of particular importance at a particular time in a particular country but not of general relevance (for example, corruption in the allocation of Internet resources). It is not the purpose of this report to explore the issues that might be included in any detail. However, Figure 4, which is taken from an APC presentation on Internet issue mapping, illustrates how mind-mapping techniques can also be used to draw out the different issues within each thematic category.

Figure 4: Mindmapping Internet governance issues  
Source – APC, Mapping Internet Public Policy, 2010<sup>10</sup>



It is not possible, in a national assessment on the scale envisaged by the framework in this report, to explore all of the issues in a national Internet governance environment in depth. Instead, assessments should focus on identifying the most important issues in the national environment. It will also be useful to consider a small number of particular issues which have relevance to all national environments, for comparative purposes.

<sup>10</sup> available at [http://www.apc.org/en/system/files/APCMappingInternetPublicPolicy\\_Presentation.pdf](http://www.apc.org/en/system/files/APCMappingInternetPublicPolicy_Presentation.pdf)

## Stakeholders in Internet governance

The second main element in describing and mapping national Internet governance environments is that concerned with stakeholders. Internet governance differs from international and national governance models in most sectors, including communications and infrastructure. Intergovernmental organisations and national governments have played a much less significant role to date than they have in other sectors. Technical governance entities concerned with standardisation and coordination which emerged during the Internet's early days evolved a non-governmental or multi-stakeholder character, which remains strongly evident in global governance entities including ISOC, ICANN and the IGF. This multi-stakeholder ethos was reinforced by the outcome documents of the World Summit on the Information Society in 2005 which agreed that:

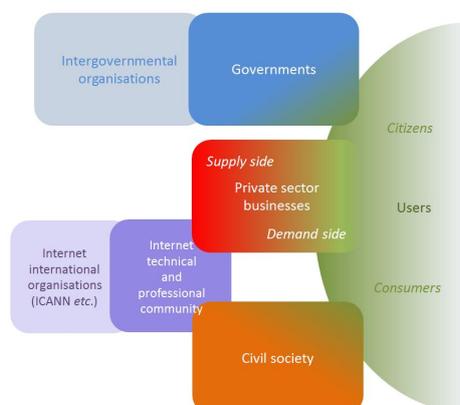
*The international management of the Internet should be multilateral, transparent and democratic, with the full involvement of governments, the private sector, civil society and international organizations,*<sup>11</sup>

commended a multi-stakeholder approach 'as far as possible, at all levels,'<sup>12</sup> and summarised the roles of differing stakeholder communities as follows:<sup>13</sup>

- a. *Policy authority for Internet-related public policy issues is the sovereign right of States. They have rights and responsibilities for international Internet-related public policy issues;*
- b. *The private sector has had and should continue to have an important role in the development of the Internet, both in the technical and economic fields;*
- c. *Civil society has also played an important role on Internet matters, especially at community level, and should continue to play such a role;*
- d. *Intergovernmental organizations have had and should continue to have a facilitating role in the coordination of Internet-related public policy issues;*
- e. *International organizations have also had and should continue to have an important role in the development of Internet-related technical standards and relevant policies.*

In practice, many observers of Internet governance would also distinguish 'the Internet technical and professional community' as a distinct stakeholder group (as this report will do). Nor does the taxonomy in the WSIS *Declaration* explicitly include 'users' of the Internet (as this report believes it should). The resulting classification of stakeholder communities including these additional categories, is illustrated in Figure 5.

Figure 5: Stakeholder communities in Internet governance



<sup>11</sup> Geneva Declaration of Principles, 2003, para. 48.

<sup>12</sup> Tunis Agenda for the Information Society, 2005, para. 37.

<sup>13</sup> Geneva Declaration, para. 49.

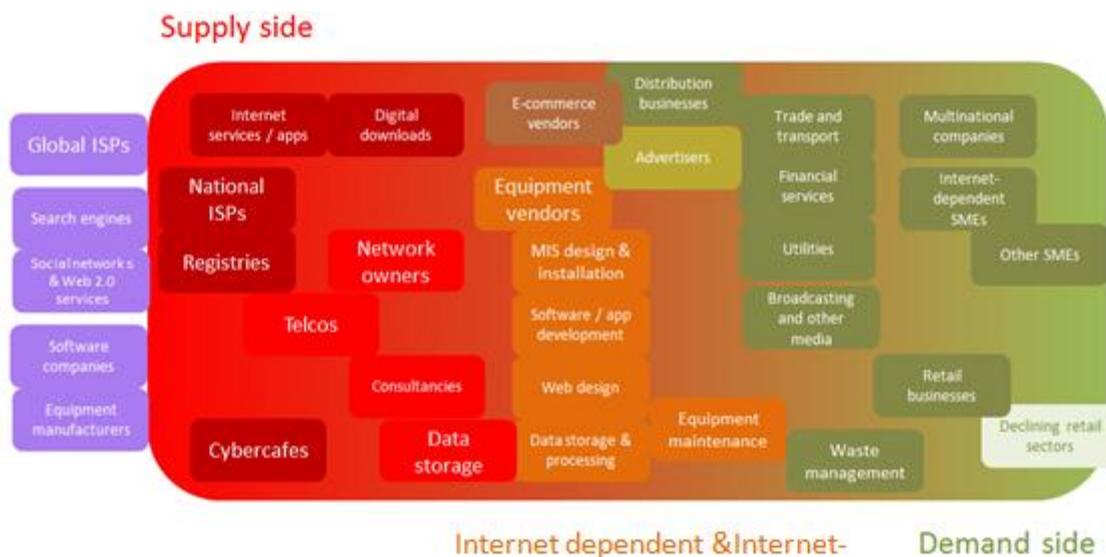
Like Figures 2 and 3 above, this provides part of the framework for the mapping exercise described in Section 2. As with Internet governance issues, too, the broad stakeholder categories illustrated in Figure 5 provide a framework which can and should be broken down into more precise stakeholder groups. Again, as with issues, this report is not the place to attempt that breakdown, but it is worth illustrating the diversity by looking more deeply at one particular stakeholder group, in this case the private sector.

Private sector stakeholders in the Internet include both:

- the supply side of the Internet – companies such as infrastructure networks, telecommunications service companies, Internet Service Providers, online businesses (browsers and search engines, social networks, suppliers of e-commerce business support, etc.), web design and other Internet service businesses, cybercafés and so forth; and
- the demand side of the Internet – companies which use the Internet to provide services to others, at varying levels of intensity. Some of these have become highly dependent on the Internet, or have changed or are changing their business models to adapt to it – for example advertising and media businesses, many businesses in financial services, and retail businesses that are supplementing or replacing physical outlets with online alternatives. Others merely use the Internet for email and business management, for example comparing the price of office supplies.

As with technical and public policy issues, there is a continuum here between supply and demand side private sector stakeholders. In addition, as well as businesses that gain, there are others that are losing market opportunities as the Internet becomes more important in national economic life. This diversity within the private sector is illustrated (selectively rather than comprehensively) in Figure 6.

Figure 6: Private sector stakeholders



Similar diagrams could be developed for other stakeholder communities, including government agencies and civil society, and for users. A national assessment needs to be aware of this diversity even where particular groups of stakeholders make very little use of the Internet and/or play no real part in Internet governance. Their absence from decision-making on the Internet may have significant impact on its development or the overall performance of Internet governance arrangements in a country. It should not be ignored.

Understanding the diversity of Internet users is particularly important, given the rapid growth of Internet, in developing countries. Users in this context include government departments, businesses (large and small, some of them highly dependent on the Internet or on accurate communications), other organisations and

individuals. Users come in different ages, genders and interest groups; make use of different modes of access (broadband, dial-up, mobile) in different locations (work, college, home, cybercafé and on the move); and different kinds of services (email, websites of many different kinds, social networking, e-commerce and e-government). Non-users and future users of the Internet are also affected by it and by decisions concerning Internet governance. Representing all these groups in Internet governance has proved challenging, but they also need to be included in national assessments.

Participation by civil society in Internet governance has differed from civil society participation in most international governance contexts, particularly those within the UN system. Large international civil society organisations – such as mainstream development, environment and rights agencies, faith groups and trades unions – have played a significant role in most of these other contexts but have been largely absent from Internet governance. Civil society in Internet governance, by contrast, has been largely composed of specialist agencies concerned with the Internet or ICTs, and of interested individuals such as academics, consultants and activists. Identifying the ‘missing stakeholders’ in all stakeholder groups is an important part of understanding the multistakeholder environment.

There is, lastly, significant admixture between the ‘Internet technical and professional community’ and other stakeholder groups. That community – made up of those with specialist knowledge of the Internet and how it works – includes people who work for government agencies and businesses, individual entrepreneurs and academics, and others who regard themselves as members of civil society. Many people participate as technical experts in multi- or non-stakeholder contexts like the IETF while also working for government agencies or Internet businesses. Freelance technical specialists may work simultaneously for numerous clients in different stakeholder categories. The Internet technical and professional community therefore overlaps with all three other main stakeholder groups, its members distinguished by their knowledge and expertise in technical aspects of the Internet.

### **Decision-making processes and fora**

The third element in the Venn diagram at Figure 1, which represents the national Internet governance ecosystem, is concerned with decision-making processes and fora.

The Internet is a global medium. Many of the decisions which affect its development take place in global fora which are concerned with standardisation (such as the IETF and W3C) and coordination (such as ICANN). The IGF provides a global discussion space in which issues of Internet governance can be explored without actual decisions resulting from them. Significant technical and policy outcomes concerning the relationship between the Internet and its underlying communications infrastructure, including spectrum management, result from discussions and decisions in the International Telecommunication Union (ITU). Aspects of the Internet’s impact on economic and social, political and cultural life have strong global dimensions and are increasingly discussed in global fora within and beyond the United Nations group of agencies, as well as being of interest to multilateral and bilateral donors. ISOC itself provides a forum for discussion and capacity-building within the Internet professional community. A few international business and civil society organisations, such as the International Chamber of Commerce’s BASIS initiative, the Association for Progressive Communications and the Open Society Initiative, have also had influence in multistakeholder environments such as WSIS and the IGF.

Alongside these global fora, there are also significant regional entities. Regional Internet Registries (RIRs) play an essential part in coordinating the domain name and number system. Recent years have seen the development of a number of regional IGFs. Telecommunications regulation and spectrum management are supported by regional and subregional entities with varying degrees of decision-making power, from the European Union to the East African Communications Organisation. Policy frameworks that seek to exploit Internet services and applications in economic and social development have been agreed by many regional

intergovernmental agencies such as the African Development Bank and the UN Economic Commission for Latin America and the Caribbean. Regional and quasi-regional associations like the Council of Europe (notably in cybercrime) and the Organisation for Economic Cooperation and Development (for example on the relationship between ICTs and the environment) have played important roles in developing international policies concerned with specific aspects of the Internet's global impact.

The importance of Internet governance at national level, however, should not be underestimated. While the technical standards for Internet governance are inherently global, what can actually be achieved in individual countries depends on many factors which are country-specific, such as the quality of available national infrastructure and its international connectedness. National communications policies and regulations are important factors in determining how infrastructure, access and affordability evolve. National communications ministries and regulatory agencies are therefore important decision-making fora. Country-level domains – which are more or less important in different countries – are managed by national entities of varying kinds (some governmental, some private sector, some non-profit or civil society). ISPs may be national or international, may work together in ISP Associations and may exchange traffic through IXPs. Governments in many countries have agreed national strategies to exploit ICTs and the Internet to meet development objectives and to deliver services through e-government. Legislation and social norms differ from one country to another, particularly in areas such as content regulation. A growing number of national IGFs has been established to provide spaces for discussion about the Internet at national level and feed into regional and global IGFs.

These national tiers, which are the primary focus of this report, are arguably becoming more important as the impact of the Internet grows on all aspects of society, increasingly juxtaposing Internet governance with that of other policy domains. As well as understanding the issues and stakeholders involved in Internet governance, a national assessment must locate the decision-making processes and fora in which those issues are discussed and those stakeholders seek to influence technical and public policy outcomes. Three specific points should be borne in mind while doing this.

- Firstly, assessments of governance at national level must be concerned with reality as least as much as they are with formal institutional structures: with where decision-making power actually lies rather than where the constitutional or legal framework locates it. In many countries, for example, a great deal of power over Internet and Internet governance outcomes lies with telecommunications businesses and ISPs, but this influence arises because of their position within the national communications market rather than because of any formal institutional role. In addition, the relative importance of different stakeholders and different decision-making bodies often depends on the influence of individuals within them. A national assessment needs to ask about perceptions of where power actually lies and where decisions are actually made within the national environment.
- Secondly, national Internet governance arrangements do not exist in isolation, but are (or should be) integrated with global and regional tiers of governance (including corporate governance). A national assessment needs to consider how and how effectively national arrangements interact with these other tiers. This will help to judge how far the development of the Internet at national level is being determined by national decision-making processes and fora and how far it is being determined by decisions taken in processes and fora that are outside the country.
- Thirdly, governance mechanisms (particularly those which are formal or institutional) may struggle to keep pace with the rapid change which is occurring in Internet technology and markets. The relative importance of different decision-making processes and fora may well be changing quickly. New businesses, for example, may be acquiring much more real decision-making power because their market presence has been growing (rather as that of social networking service providers has grown globally).

Processes and fora that are constrained by strict procedures are likely to find that they are bypassed. New alternatives are often established to deal with high-profile issues such as child protection and cybercrime. There is increasing interest in some countries in ‘adaptive policymaking’ (based around principles rather than fixed rules) which, it is felt, can enable more rapid shifts in policy and regulations to meet changing technological and market circumstances. A national assessment needs to address changes such as these in the decision-making ecosystem over time.

Figure 7 suggests a framework for exploring national decision-making fora, based on the broad areas of Internet governance activity identified in Figure 2, which links together national, regional and global tiers of governance. Processes and fora included in the diagram are merely illustrative of some of the more formal institutional arrangements involved.

*Figure 7: Decision-making processes and fora – an illustrative outline framework*

| Tier of governance     | Global   | Regional  | National                                      |
|------------------------|--|---|---|
| Technical standards    | IETF, W3C and other global standards bodies  | Interaction between global Internet standards and standards set by regional and national agencies for equipment, etc. |   |
| Technical coordination | ICANN  | RIRs  | ccTLDs  |
| Infrastructure         | ITU  | European Commission   | National communications regulators (NRAs)     |
| Public policy          | Global agreements (e.g. UDHR) and discussions (e.g. on cybersecurity), UN agencies, etc. | Regional treaty organisations   | Government ministries, self-regulatory bodies |
| Discussion fora        | IGF, ISOC  | Regional IGFs   | National IGFs, national ISOC chapters         |

#### **The relationships between issues, stakeholders and decision-making fora**

Although these three elements of a national Internet governance environment – issues, stakeholders and decision-making processes – can be considered separately, they are also intimately interlinked. At the end of a national assessment process of the kind recommended in this report, it should be possible to identify not just which issues, which stakeholders and which decision-making processes are important, but, for example, which stakeholders are interested in which issues, which stakeholders are active in (and which are missing from) which processes, and which processes are important in determining outcomes in which issue areas. The most useful mapping exercise will therefore be one in which the outcomes of national assessments of issues, stakeholders and decision-making processes can be overlaid on one another, showing the formal and informal structures of Internet governance that are in play. An approach to this is described in Section 2.

## SECTION 2 – MAPPING NATIONAL INTERNET GOVERNANCE

Geographical maps are ways of representing complex inter-related information, of different kinds and from different sources, graphically in one image. This enables their users to visualise the natural and human landscape in more detail, including the relationships between different aspects of that landscape and its connections with what lies beyond.

The aim of mapping a sphere of activity is, likewise, to bring clarity to complexity:

- to illustrate and understand the underlying structure and patterns in what is taking place;
- to show the links between issues, actors and decision-making fora;
- to identify gaps and weaknesses within the structure; and
- to suggest areas in which interventions could lead to improvements in decision-making processes and their outcomes.

Mapping exercises of this kind can take a variety of presentational forms, including plain text as well as data (spreadsheets and databases) and graphic images. Their purpose, however, should always be as just described: to clarify, to aid understanding, to enable users to make decisions with more confidence.

Internet governance, as described in Section 1, is a highly complex field:

- It involves a large number of issues, some of which are predominantly internal to the Internet but most of which intersect with other technical and public policy domains. The rapid pace of technological and market change results in rapid change, too, in the range and number of these issues, and their relative importance in different countries.
- As it grows, spreads and becomes more diverse, most people have become stakeholders in the Internet and its outcomes for economies and societies. Some stakeholders are intensely concerned with the Internet, but its impact even reaches those who make no direct use of it themselves.
- The Internet is 'governed' differently from most other important economic sectors and social formations. Governments and intergovernmental agencies have played less of a role in the Internet than in other sectors, and there is a strong preference within the Internet community for multistakeholder engagement. Most developments in the Internet have been the result of unplanned innovation rather than of planned decisions. Decision-making is therefore located differently, and more diversely, than is usual in other economic sectors and public policy domains.

This section of the report draws on the framework described in Section 1 to suggest ways of mapping this complex Internet governance environment which will facilitate understanding and thereby help ISOC and others to improve both governance and outcomes. Significant work has already been done in this field. This section draws substantially on approaches to mapping Internet issues which the report's author originally designed for the Association for Progressive Communications (APC) in 2009. These approaches have been reported in a number of contexts, including the 2011 IGF, and have been made available for use by third parties through a Creative Commons Acknowledgement-NonCommercial-ShareAlike licence. Their further development in this report, and any use by ISOC and third parties, is therefore governed by the provisions of that licence.<sup>14</sup>

As indicated in Section 1, there are three dimensions of Internet governance whose mapping is essential in a national assessment. These are:

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<sup>14</sup> The original mapping presentation and explanatory notes published by APC are available at <http://www.apc.org/en/pubs/books/mapping-internet-public-policy>. These two documents should be read in conjunction with one another. The Creative Commons licence that applies to this work is the Attribution - NonCommercial-ShareAlike 3.0 Unported (CC BY-NC-SA 3.0) licence which can be found at <https://creativecommons.org/licenses/by-nc-sa/3.0/>.

- the issues which are important at a national level;
- the stakeholder groups which are involved in or affected by Internet governance (not ignoring those which, though affected by the Internet, do not participate in governance activities); and
- the decision-making processes and fora which are significant within the country, plus their relationship with international processes and fora.

Understanding a governance environment means much more than listing issues, stakeholders and decision-making processes. It also requires understanding the relative significance of specific issues, stakeholders and decision-making processes compared with others of their kind – which issues matter most, which stakeholders are most influential, where decision-making power really resides. The most useful approach to mapping Internet governance environments will be one that is capable of presenting issues, stakeholders and decision-making processes within a single representational model – one, moreover, which is capable of illustrating the relationships between these elements (which decision-making processes are relevant to which issues, which stakeholders are most influential on those issues, *etc.*) and their relative importance. The easiest way to achieve this is a graphical mapping framework which allows maps of issues, stakeholders and decision-making fora to be overlaid on one another.

Clarity is also crucial. Maps can be overcomplicated. The purpose of the present exercise is to gain a strong, clear understanding of what is happening in a particular national Internet governance environment, using that to identify trends, deficiencies and gaps in governance which might be addressed by ISOC and/or national stakeholders. The mapping approach which is suggested below is capable of incorporating much more detail than is required for the kind of national assessments which are proposed in this report. Actual national assessments along the lines described in Section 3 should concentrate on the main issues which arise from the research that is undertaken for them, and any other specific points which the researchers consider significant (for example because there is strong feeling on – or insufficient attention to – them in the national Internet governance community). Maps prepared for these national assessments should not attempt to be comprehensive, though the approach that is suggested here could be used more comprehensively if so desired.

Lastly, the maps which are developed for national assessments should enable comparisons to be made between different Internet governance environments. A common approach to mapping will allow comparisons between different countries. Maps should also be capable of illustrating changes in the issues, stakeholders and decision-making fora in a single country over time, enabling longitudinal as well as geographical comparisons.

### **Assembling evidence for mapping purposes**

Section 3 of this report proposes a framework for undertaking assessments of national Internet governance environments based on evidence derived from desk research, interviews with and other evidence from key informants, and participation observation of the national IGF where one has been established. This evidence base should allow the research team to assemble a simple matrix of issues, stakeholders and decision-making fora which can be used to organise information for a mapping exercise. Such a matrix would be the best starting point for analysing the range of issues and themes involved. It should be used to identify issues of significance within the national Internet governance environment that emerge from the research which has been undertaken.

A suitable outline format, including examples of possible issues, is illustrated in Figure 8. As this suggests, these can be organised in a rough continuum from technical governance to public policy, depending on the extent to which the governance challenges that arise are technical in nature and/or susceptible to technical solutions. The actual issues identified will, of course, vary from country to country: those in Figure 8 are merely illustrative. The stakeholders and decision-making processes/fora will also vary between different

national environments. Identifying relevant international governance entities or fora in each case will help to place these in their wider global context: issues such as domain name management and cybercrime, for example, have obvious global and regional dimensions as well as those within the nation-state. Illustrative tables summarising national Internet governance environments along these lines will be useful, alongside the maps suggested below, in comparing Internet governance environments between countries and over time.

Figure 8: A matrix of issues, stakeholders and decision-making processes

| Governance area           | Issue                                      | Principal stakeholders | Decision-making processes | Related international fora |
|---------------------------|--|------------------------|---------------------------|----------------------------|
| Technical governance      | Deployment of IPv6                         |                        |                           |                            |
|                           | Deployment of DNSSEC                       |                        |                           |                            |
|                           | Cloud computing                            |                        |                           |                            |
|                           | Management and marketing of the .ke domain |                        |                           |                            |
| Access and infrastructure | National broadband infrastructure          |                        |                           |                            |
|                           | Network quality and reliability            |                        |                           |                            |
|                           | Affordability, including termination rates |                        |                           |                            |
|                           | Competition in telecoms markets            |                        |                           |                            |
| Public policy             | E-government                               |                        |                           |                            |
|                           | Cybersecurity                              |                        |                           |                            |
|                           | Local content                              |                        |                           |                            |
|                           | Capacity-building                          |                        |                           |                            |
| Governance arrangements   | Technical discussion spaces                |                        |                           |                            |
|                           | Role of national IGF                       |                        |                           |                            |

The following subsections develop the discussion in Section 1 by looking in turn at ways of mapping Internet governance issues, stakeholders and decision-making processes/fora. These maps are intended not as substitutes for textual analysis but as aids for clarifying, understanding and exploring the findings in national assessments. The final subsection below describes how the maps that are proposed can be drawn together to give a more comprehensive picture of the national Internet governance environment, changes in that environment over time, and comparisons between it and those of other countries.<sup>15</sup> The use of these mapping techniques in practice is demonstrated in the associated national assessment report of Kenya.

#### Mapping Internet governance issues

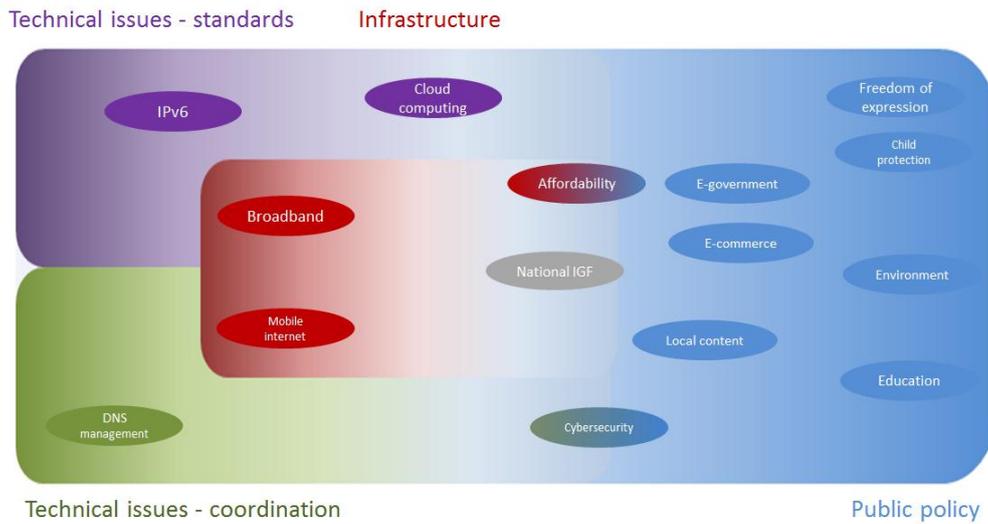
Of the three elements of the Internet governance environment, it is issues that provide the best starting point for translating the information in a matrix such as that in Figure 8 into a mapping framework.

The list of issues identified from research in a particular country and included in a matrix could be quite extensive. In its work to map Internet governance issues in general, APC adopted a mindmapping approach, which is illustrated in Figure 4 above. This approach has many uses, and is particularly good at illustrating individual stakeholders' interests (see Figure 14 below). However, it is more complex and detailed than necessary for the national assessments proposed here, which should concentrate on the most significant issues rather than seeking to be comprehensive.

The approach proposed here, and used in the pilot Kenya assessment, is also derived from earlier work for APC. It builds on the mapping approach which was illustrated in Figure 3 and which is repeated in slightly modified form in Figure 9. It uses colour coding to distinguish between different types of issue, consistent with the colour coding used in the table at Figure 8.

<sup>15</sup> As already noted, the mapping framework proposed in this Section draws on prior work undertaken for APC, and attention is again drawn to the intellectual property arrangements for that prior work.

Figure 9: Mapping Internet governance issues at a national level



A national assessment needs to do more than list these issues. It also needs to clarify:

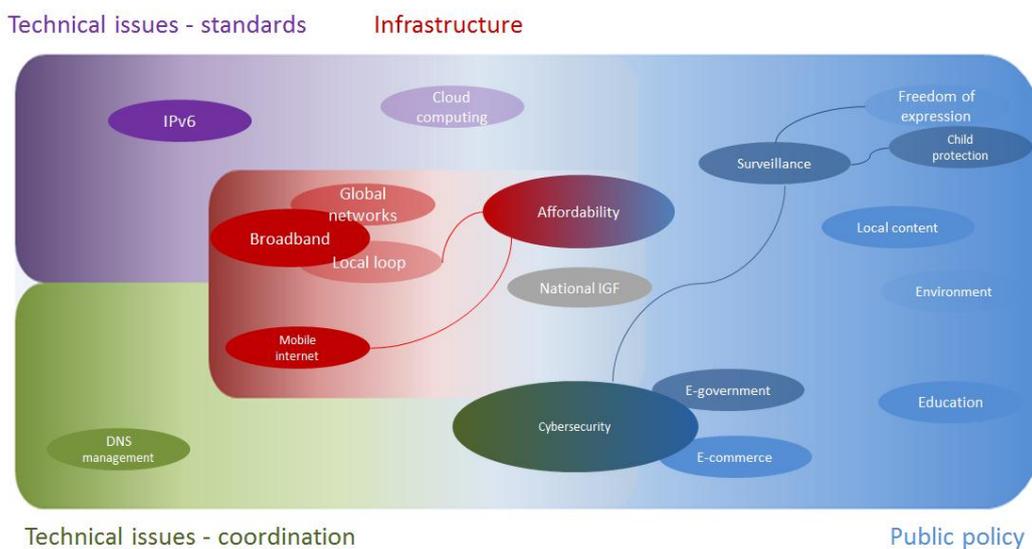
- which issues are most significant, both in general and for particular stakeholders;
- the relationships between different issues; and
- the breadth of their impact on Internet governance and society as a whole.

There are a number of ways in which the mapping in Figure 9 can be developed to convey more information along these lines.

- The significance of issues can be illustrated by the depth of colour of the markers that represent them.
- Relationships between issues can be illustrated as satellites of the main issues illustrated on the map or otherwise linked with one another.
- The breadth of impact can be illustrated by the size of markers.

These nuances are illustrated in Figure 10.

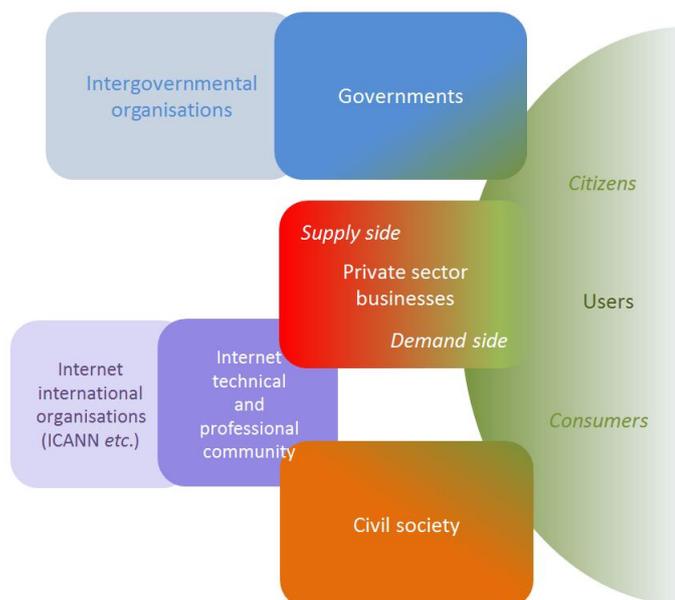
Figure 10: Mapping Internet governance issues at a national level: adding nuance



## Mapping stakeholder communities

A similar approach can be taken to mapping Internet governance stakeholders. A taxonomy for categorising stakeholders in Internet governance was described in Section 1. These are conventionally grouped into government agencies, the private sector, civil society and the Internet technical and professional community. The discussion in Section 1 elaborated this framework slightly by relating national to international stakeholders, distinguishing the supply and demand sides of the private sector, and adding users of the Internet as an additional category. This taxonomy was illustrated in Figure 5, and is repeated here as Figure 11.

Figure 11: Stakeholder communities in Internet governance



Within each of these stakeholder groups there are many different subsidiary interests. The private sector, for example, as discussed in Section 1, includes both businesses which supply the Internet (such as telecommunications companies, ISPs and cybercafés) and those which make use of it. These can be characterised as the supply and demand sides of the private sector so far as the Internet is concerned. Government agencies and civil society organisations likewise include both those which are primarily or substantially concerned with promoting and enabling ICTs (such as the telecommunications regulators and agencies responsible for e-government) and those whose involvement is primarily as users. Individuals interact with the Internet both as citizens and as consumers.

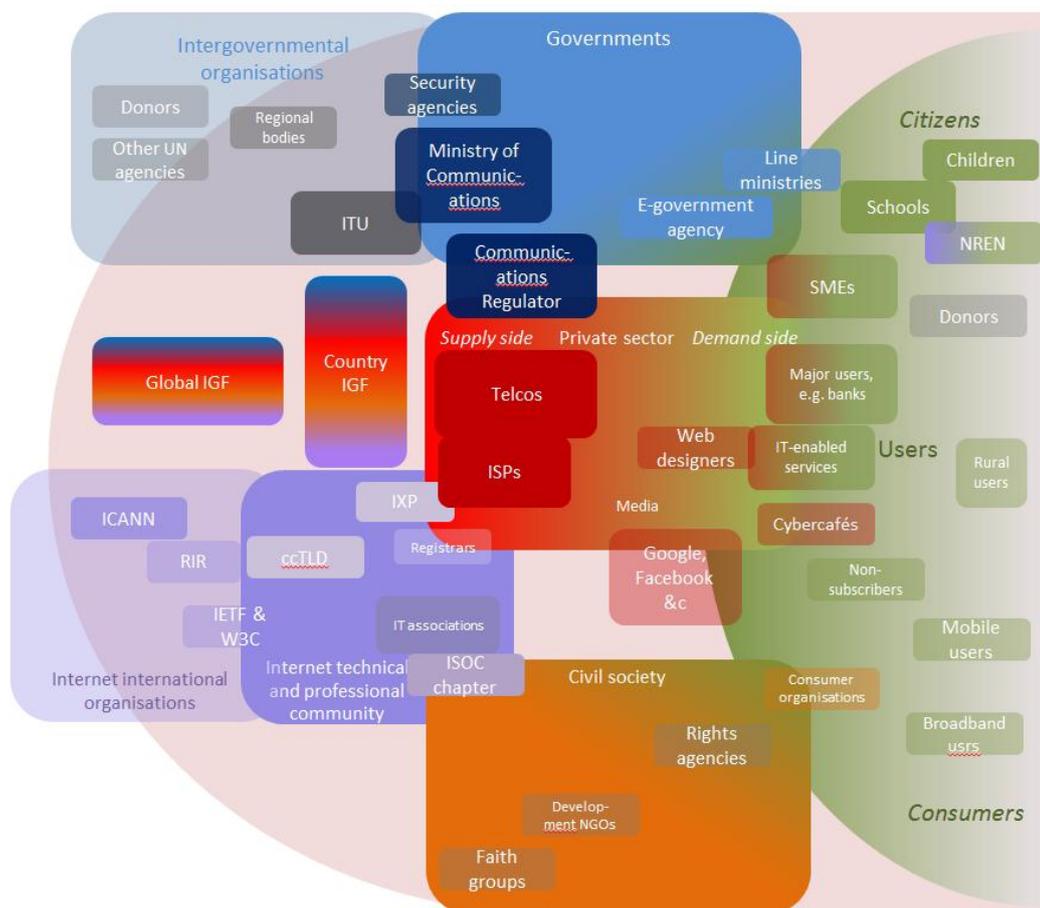
Stakeholders have a variety of different interests within the Internet governance environment. Some have wide-ranging concerns, for example Ministries of Communications and Internet Service Providers. Others have much narrower or more precise concerns – including some that are primarily engaged with technical aspects of the Internet, such as domain name registries, and some that are primarily engaged with the impact of the Internet on other policy domains, such as child protection agencies. In some cases, stakeholders will have strong concerns about a number of different issues that are located across different areas of an issues map. National Research and Education Networks (NRENs), for example, will be highly concerned both with infrastructure provision (especially broadband) and with the use of the Internet in education.

In all categories, some individuals and organisations are intensively engaged with Internet governance, some play a partial role, while others have little or no engagement and show little or no interest. The last of these include individuals and organisations whose lives, work and livelihoods are substantially affected by the

Internet and Internet governance decisions. Their interests should not be ignored in an assessment of the national Internet governance environment. Instead, that assessment should try to identify why they do not engage with Internet governance, the impact of their lack of engagement, and how they might be more effectively involved.

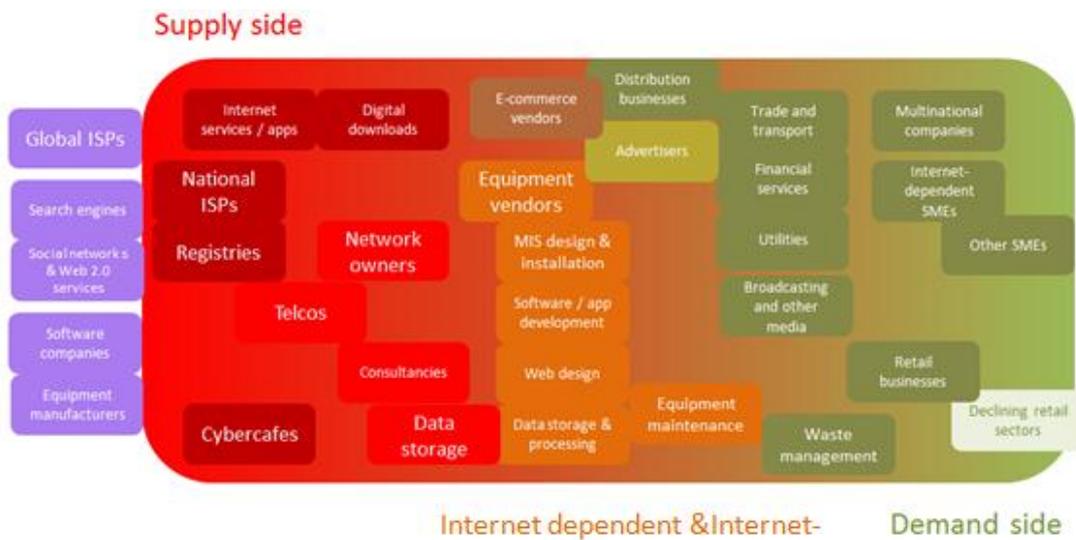
Figure 12, below, illustrates how the framework of broad stakeholder communities in Figure 11 can be used to map stakeholder participation in Internet governance in greater depth. As with the mapping of Internet governance issues above, this approach to mapping is developed from a framework which the author previously designed for APC and which is available for use elsewhere in accordance with its Creative Commons licence. As with the mapping of issues in Figure 10, the scale and colouring of boxes representing particular stakeholders can be used to represent the breadth and intensity of their engagement within the national Internet governance environment.

Figure 12: Mapping stakeholder communities



Any of the broad stakeholder categories within this diagram can be isolated and further developed to map the individuals and groups within it. Figure 13, which repeats Figure 6 from earlier in the report, illustrates an example of this second stage of stakeholder analysis, which is recommended for the national assessments proposed in this report. This map of private sector stakeholders illustrates the continuum between those that supply the Internet, through those that are highly dependent on it or enabled by it, to those businesses which are primarily users of the Internet.

Figure 13: Mapping private sector stakeholders



There are a number of ways in which stakeholders’ engagement can be mapped against the issues with which they are concerned. The starting point for national assessments within this framework should be the addition of principal stakeholders to the matrix of issues, stakeholders and decision-making processes that was illustrated in Figure 8. Figure 14 shows how this might work out in practice with the small range of issues that were used as examples in Figure 8. Entries in this table are merely illustrative and do not represent a considered judgement of the relationships in each case.

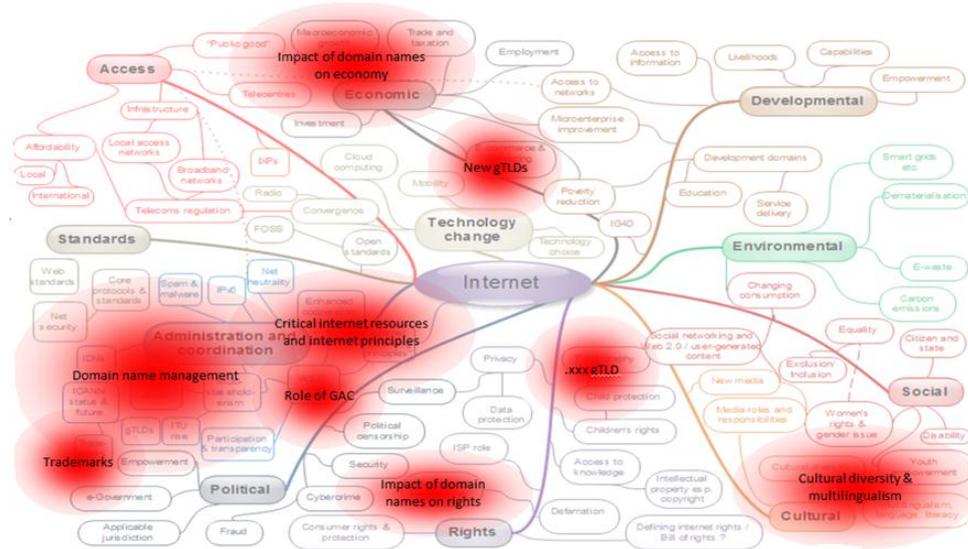
Figure 14: A matrix of issues, stakeholders and decision-making processes

| Governance area           | Issue                                      | Principal stakeholders  | Decision-making processes | Related international fora |
|---------------------------|--|---|---------------------------|----------------------------|
| Technical governance      | Deployment of IPv6                         | Telcos, ISPs, designers & users of Internet systems           |                           |                            |
|                           | Deployment of DNSSEC                       | Internet professionals, IT managers, telcos, ISPs             |                           |                            |
|                           | Cloud computing                            | Google & other major operators, large data users              |                           |                            |
|                           | Management and marketing of the .ke domain | ccTLD, registrars, users of .ke domains                       |                           |                            |
| Access and infrastructure | National broadband infrastructure          | Government, regulator, telcos, high volume users, other users |                           |                            |
|                           | Network quality and reliability            | Users, telcos, ISPs, regulator                                |                           |                            |
|                           | Affordability, including termination rates | Users, low-income users, regulator, telcos, ISPs, cybercafes  |                           |                            |
| Public policy             | Competition in telecoms markets            | Regulator, telcos.  |                           |                            |
|                           | E-government                               | Government agency, line ministries, service users             |                           |                            |
|                           | Cybersecurity                              | Security agencies, ISPs, banks and targeted businesses, users |                           |                            |
| Governance arrangements   | Local content                              | Users, content providers, web designers                       |                           |                            |
|                           | Capacity-building                          | Schools & universities, education & other ministries, NREN    |                           |                            |
| Governance arrangements   | Technical discussion spaces                | Internet professionals,                                       |                           |                            |
|                           | Role of national IGF                       | All stakeholders  |                           |                            |

APC’s work in this area builds on the mindmap illustrated in Figure 4 by exploring the areas in which an individual organisation is concerned with Internet governance issues. Figure 15, which is taken from an article in APC’s 2011 *Global Information Society Watch* publication, illustrates this by indicating areas of ICANN’s engagement during 2011.<sup>16</sup> This is a useful way of reviewing the main work areas of an individual organisation which has wide-ranging responsibilities within the Internet environment, and could provide a valuable supplementary tool for those making use of national assessments of the kind proposed in this report.

<sup>16</sup> APC, *Global Information Society Watch 2011*, p. 59, available at [http://giswatch.org/sites/default/files/gisw2011\\_en.pdf](http://giswatch.org/sites/default/files/gisw2011_en.pdf)

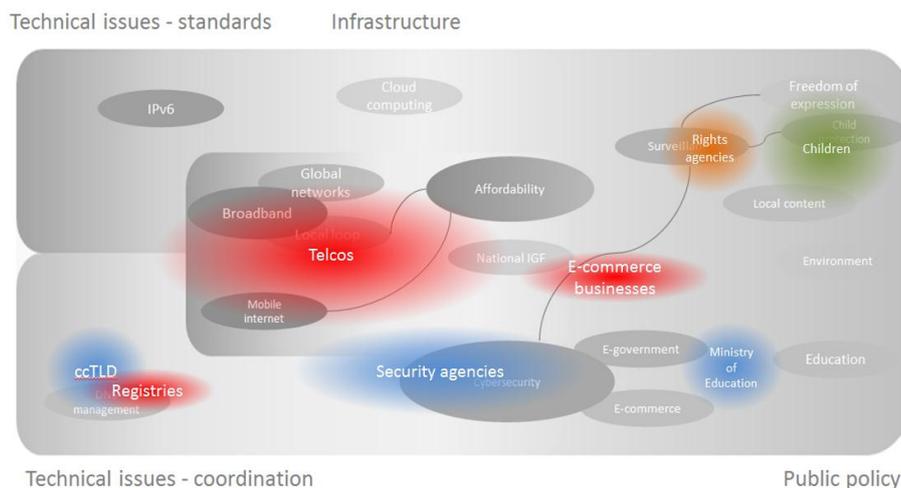
Figure 15: Mapping stakeholder interests against Internet issues in general: APC perception of ICANN, 2011



The main purpose of these national assessments, however, is to look at the Internet governance environment in general, rather than at specific actors' roles within it. For that purpose, different tools are needed, which translate the primary areas of interest of the different stakeholder groups that have been identified onto the issue-mapping framework used earlier in this Section, and so provide a snapshot illustration of the juxtaposition of stakeholders with issues.

A similar overlay technique to that used by APC is appropriate for this purpose, but one which overlays stakeholders or groups of stakeholders identified through the mapping exercise in Figure 12 onto the framework of issues identified in Figure 10. Figure 16 illustrates how this can be done, with one selection of stakeholders, using a greyscale version of the issues map. It is important not to over-complicate a map of this kind, but to treat it as a tool which helps to elucidate and build understanding of the relationships between issues and stakeholders.

Figure 16: Mapping stakeholders against Internet governance issues



Mapping decision-making processes and fora

A similar exercise can be undertaken in order to map decision-making processes and fora. The starting point for this should be the completion of the matrix of issues and stakeholders in Figure 13 to include national decision-making processes and fora, and those international Internet governance entities which play a

significant part in determining outcomes at a national level. There will be significant overlaps here between this mapping exercise and that concerned with stakeholders. This is illustrated in Figure 17. As before, entries in this table are illustrative only, and not intended as a considered view of any particular Internet governance environment.

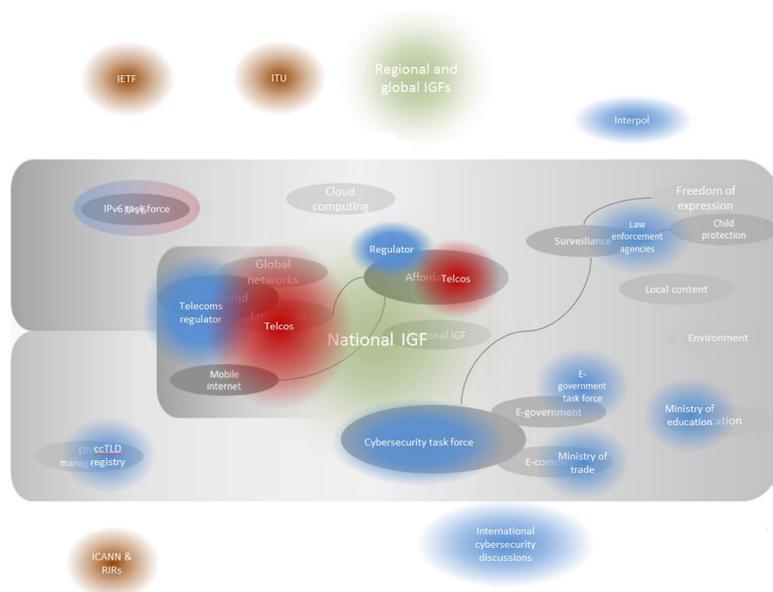
Figure 17: A matrix of issues, stakeholders and decision-making processes

| Governance area           | Issue                                      | Principal stakeholders  | Decision-making processes                                       | Related international fora                                    |
|---------------------------|--|---|---|---|
| Technical governance      | Deployment of IPv6                         | Telcos, ISPs, designers & users of Internet systems           | National IPv6 task force; telcos, ISPs and major Internet users | RIR   |
|                           | Deployment of DNSSEC                       | Internet professionals, IT managers, telcos, ISPs             | Ministry/regulator; telcos and ISPs                             | RIR   |
|                           | Cloud computing                            | Google & other major operators, large data users              | ISPs; major data users in government and business               | Global data businesses, ITU                                   |
|                           | Management and marketing of the .ke domain | ccTLD, registrars, users of .ke domains                       | ccTLD   | ICANN, RIR  |
| Access and infrastructure | National broadband infrastructure          | Government, regulator, telcos, high volume users, other users | Ministry, telcos, regulator                                     | ITU, Regional economic development & regulatory organisations |
|                           | Network quality and reliability            | Users, telcos, ISPs, regulator                                | Telcos, regulator   | ITU, international telcos                                     |
|                           | Affordability, including termination rates | Users, low-income users, regulator, telcos, ISPs, cybercafes  | Telcos, regulator   | ITU, international telcos                                     |
|                           | Competition in telecoms markets            | Regulator, telcos   | Regulator, telcos   | ITU, WTO, international investors                             |
| Public policy             | E-government                               | Government agency, line ministries, service users             | Government and any specialist agency, line ministries           | UNDESA  |
|                           | Cybersecurity                              | Security agencies, ISPs, banks and targeted businesses, users | Government, security agencies, telcos and ISPs                  | ITU, Interpol, Council of Europe                              |
|                           | Local content                              | Users, content providers, web designers                       | Government agencies, local content providers (businesses etc)   | Global content platforms                                      |
|                           | Capacity-building                          | Schools & universities, education & other ministries, NREN    | Education ministry, schools, NGOs, IT associations and ISOC     | Donors, ISOC  |
| Governance arrangements   | Technical discussion spaces                | Internet professionals  | IT associations including ISOC chapter                          | IETF, W3C, other specialist Internet professional bodies      |
|                           | Role of national IGF                       | All stakeholders  | National IGF  | Global and regional IGFs                                      |

As with stakeholders, this table can be translated into a map which overlays decision-making processes and fora onto the issues map illustrated in Figure 10. In mapping decision-making processes and fora, it is important to include not just formal processes, fora and institutions (such as the communications regulator or the domain name registration process) but also the decision-making significance of individual stakeholders and stakeholder groups. Telecommunications network operators, for example, have a great deal of power within the national Internet environment because they control the underlying infrastructure on which it depends. The decisions that they make about infrastructure investment, tariffs and other issues have significance which reaches far beyond the infrastructure itself. Where one telco is highly dominant, its influence will be much greater than that of its peers. Factors such as these need to be recognised when assessing decision-making processes and fora.

As with the other maps discussed in this section, the range and authority of a particular decision-making process or forum can be illustrated by the size of its marker. Links to external (regional and global) decision-making fora can also be shown. This is illustrated, as before with a small range of sample examples of national and international processes and fora, in Figure 18.

Figure 18: Mapping decision-making processes against Internet governance issues



The mapping approaches discussed in this section provide a set of tools which can be useful in elucidating national Internet governance environments. They also provide a framework for illustrating different national environments – or the same national environment as it changes over time – so that these can be more easily compared. Their use within a national assessment is demonstrated in the separate pilot report concerned with the national Internet governance environment in Kenya.

## **SECTION 3 – A FRAMEWORK AND METHODOLOGY FOR NATIONAL INTERNET GOVERNANCE ASSESSMENTS**

This third section of the report proposes a framework and methodology for national Internet governance assessments, which makes use of the issue analysis and mapping approaches outlined in Sections 1 and 2.

The proposed methodology has been designed to enable national reports to be assembled from a combination of existing sources and primary research, in a way which will allow easy comparison between assessments of different countries and between assessments of the same country at different times. Enabling comparisons to be made between countries and over time by using a standard methodology and reporting structure will add considerably to the value of any work which is undertaken as a result of this report.

The following paragraphs describe the methodology, and issues arising from it, in broad terms. The methodology described here has been tested in a pilot study of Internet governance arrangements in Kenya, which is reported separately. The challenges raised by this pilot study and their implications for other countries are discussed in the final part of this section.

### **Objectives of national assessments**

The starting point for any assessment should be a clear understanding of the objectives which it is meant to serve. These need to be clear to the researchers involved, their clients and those from whom evidence is sought.

In this case, there are three main objectives based around the research questions in Section 1:

- a. To develop a clear understanding of the issues, decision-making fora and stakeholder groups concerned with the Internet, its technical and public policy governance within the country that is being assessed.
- b. To enable comparisons of the country concerned with other countries that are being assessed, and (if/when an assessment is repeated) to enable assessment of how a country's Internet governance has changed over time.
- c. To help national stakeholders (and ISOC) to improve national Internet governance arrangements, raise awareness of Internet governance issues, improve the capacity of stakeholders to address those issues, and so improve the contribution which the Internet makes to its users and their societies.

The researchers and client involved should agree a brief statement of objectives and methodology for any national assessment, which they use as a reference point and share with those from whom they seek views or information. It should include any specific national requirements that supplement these core objectives.

### **Research team**

It is desirable, in a national assessment of this kind, to draw on both global and national experience and expertise. In this case, a team of two researchers is recommended:

- One team member should come from within the country/region concerned, in order to provide expertise and knowledge of the country, including its Internet and wider political and economic environment, and to manage local contacts and research.
- One team member should come from outside the country/region concerned, in order to provide a global perspective on the issues, drawing on the findings of assessments in other countries and other international research sources.

The two team members should work closely together throughout the assessment, and should jointly prepare and agree the assessment report (identifying differences of view if necessary).

A two-member team of this kind is preferable even where a local researcher has wide-ranging international experience. It is important for the credibility of an assessment that it should be both neutral and seen to be neutral. The identity of the team member from within the country/region concerned is, therefore, sensitive. It is important that the person concerned has a strong understanding of the Internet environment in the country/region concerned and strong research skills, but equally important that s/he does not personally have strong links with or interest in any major stakeholder, or strong/contentious views about how the national Internet governance environment should evolve that may influence how informants respond to her/him. Bringing together the perspectives of two researchers will help to avoid this, and should also lead to a richer overall assessment.

Where it is difficult to identify a local team member within country with the necessary expertise and neutrality, it would be preferable to select someone from a neighbouring country who has considerable regional experience where the Internet is concerned. This is also the case where the political context of a country is such that the government or another stakeholder will seek to influence the outcome of the assessment or where it would be difficult for a citizen to publish some of the findings of the study.

The methodology described here relies significantly on obtaining access to and responses from senior personnel in government and businesses which are involved with the Internet. It is important, therefore, that the members of the research team have the credibility to gain this level of access. At the same time, it has to be recognised that securing this level of response can be difficult and in some cases impossible. There is no point in aiming for a level of perfection which cannot be achieved. The research team will need to exercise judgement about the extent to which they can secure input from different categories of informant, and to build a picture from the evidence that is available in the real world rather than the evidence that might be available in a perfect one. The aim should be to secure as accurate and comprehensive an assessment as is possible within the parameters of the methodology, timeframe and funding available.

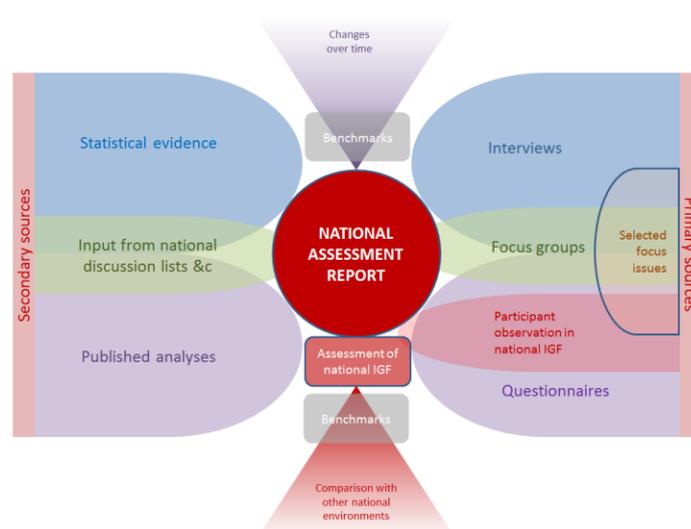
The methodology also requires a fair degree of secretarial work, which should (one way or another) be built into a national assessment's budget and implementation plan. If an assessment is undertaken in conjunction with a national partner organisation, it may be able to provide this secretarial support. Budgeting for the assessment should be based on the proposed framework below including the costs of a mission to the country by the research team (at least one of whose members will be based outside the country).

### **Sources of evidence**

The methodology proposed here draws on the following sources of evidence, which are illustrated in Figure 19:

- A. Desk research into quantitative data on the state of the Internet in the country concerned.
- B. Desk research into qualitative materials from national Internet governance entities (including online list discussions) and other published material on the national Internet environment.
- C. The selection of three or four exemplar issues for special assessment.
- D. Interviews and focus group discussions with a range of informants from the national Internet governance community, undertaken during a mission to the country by both members of the research team (supplemented by telephone interviews where necessary).
- E. In countries where a national IGF process has been established, a participant observer review of that process.
- F. A perception questionnaire administered to participants in the national IGF process. If no such process exists, a questionnaire could be issued to members of the national ISOC chapter or an equivalent group of those interested in Internet governance.

Figure 19: Structure of evidence and report



The approach below also suggests appraising the national Internet governance environment against a small group of benchmarks which can be applied to all countries that are assessed using this framework.

These sources of evidence and assessment issues are discussed in turn in the following subsections.

#### A. Desk research into quantitative data on the national Internet

Although the national assessment is concerned with the Internet governance environment, that environment needs to be fully contextualised if it is to be properly understood. To compare one country's experience against another's, it is essential to understand the status of the Internet within that country – the basic facts about access and infrastructure, connectivity and usage, and trends in those indicators both nationally and worldwide.

A critical starting point for assessing the national environment is, therefore, the collection and review of data on Internet access and use. These data are likely to come from a variety of sources, the quality and availability of which will vary from country to country. In some countries, including Kenya, quite detailed data on telecommunications and Internet density, including historic trends, are published by the communications regulator CCK.<sup>17</sup> In many developing countries, both historic and present data will be more difficult to obtain, and will need to be sought from ministries, regulators and communications businesses (telecoms operators, ISPs, ccTLD registry, IXP, etc.). Some additional data may be available from intergovernmental agencies, but these should be treated with considerable caution – they are usually out-of-date and often based on unreliable methodologies (e.g. projections of the number of Internet users based on the number of cybercafés).

Other sources of data for access and usage include data aggregation sites such as Internet World Statistics,<sup>18</sup> business newsletters and press releases, and, in some countries, household and other surveys. Google has recently published extensive data from surveys in six African countries, taken in 2010-2011 but still giving valuable insights into Internet behaviour.<sup>19</sup> The household surveys of ICT use which Research ICT Africa conducted in a substantial number of African countries during 2011 will be particularly useful when they

<sup>17</sup> Quarterly reports including Internet data are published by CCK at <http://www.cck.go.ke/resc/statcs.html>.

<sup>18</sup> <http://www.internetworldstats.com/>

<sup>19</sup> <http://www.insightsafrica.com/#!place=home>

become fully available later in 2012 or early 2013.<sup>20</sup> Preliminary findings from this survey are reported in the Kenya national assessment, where they also provide a useful foundation for cross-country comparisons of Internet access and usage. Other valuable information about Internet usage (such as website access) at national level can be obtained from sources such as alexa.com<sup>21</sup> and the *State of the Mobile Web* reports published by Opera which report on website usage through the browser Opera Mini.<sup>22</sup>

The aim of this data collection exercise is not to gain a perfect picture of national Internet experience, which will be impossible to achieve – the data will usually be insufficient, and Internet usage is changing too fast – but to clarify the background pattern and trends of Internet access and usage in the country. The evidence concerning this should be summarised at the start of the assessment report, where it could be compared in broad terms with that of comparable countries in its region and beyond, and of other national assessments that have been undertaken using the same methodology.

#### *B. Desk research into qualitative sources on Internet governance and public policy issues*

The second basic group of sources for a national assessment consists of more qualitative material which is published by government agencies, telecommunications and Internet businesses, and other sources such as newspapers, consultancies, academics and national Internet governance groups themselves. These materials include, for example:

- government policy documents (such as national ICT policies);
- formal reports (such as the annual company reports of telecommunications operating companies);
- newspaper and business information sources concerning Internet trends and attitudes towards the Internet;
- academic and consultancy studies;
- contributions by national Internet stakeholders in international Internet fora;
- content from organisations which are concerned with the Internet and Internet developments (such as a national ISOC chapter, ISP Association or Computer Society), and discussions in national online lists concerned with Internet issues;
- outputs from a national Internet Governance Forum, where one has been established.

This material has two main values for the purpose of a national assessment. Firstly, it should flesh out the understanding of quantitative information derived from statistical sources – for example, giving more of a feel for the real experience of Internet users. Secondly, it should help to identify issues, stakeholders and decision-making fora of significance within the national environment. As with the quantitative data described at A, the kind and quality of material available will vary from country to country, and in many cases may prove more limited than the list above implies. As with quantitative data, too, the aim should not be to try to build a perfect picture of the national Internet, but to clarify the background, identify the issues that matter, and provide a sound basis for the primary research that will form the next part of the assessment.

#### *C. Selection of exemplar issues for special assessment*

The assessment should cover all significant aspects of Internet governance within the country under review. The broad range of significant issues should emerge from desk research and preliminary interviews with key informants.

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<sup>20</sup> <http://www.researchictafrica.net/docs/HH%20survey%20methodology%20brief.pdf>. For an example of a survey undertaken by a non-academic actor, see <http://webtrendsng.com/blog/results-for-internet-usage-in-nigeria-survey/>. The preliminary findings are at <http://www.researchictafrica.net/docs/RIA%202011%20ICT%20survey.pdf>

<sup>21</sup> <http://www.alexa.com/topsites>

<sup>22</sup> <http://www.opera.com/smw/>

It is suggested that four particular issues should be included in assessment across a range of countries, based on current global priorities within the Internet. Although these global priorities will change over time, this will facilitate comparative assessment in the short term. The issues suggested for inclusion in all assessments as things stand today are:

- a) one technical issue – the implementation of IPv6;
- b) one issue concerned with the coordination of the internet – management of the national ccTLD;
- c) one issue concerned with infrastructure and access – broadband policy and deployment; and
- d) one public policy issue – cybersecurity.

These should be used as examples of Internet governance experience which are broadly comparable: their purpose is to elucidate wider experience, not stand as proxies for it. In particular, they should not obscure important underlying trends such as the impacts of mobile Internet and social networking.

In addition, it is likely that desk research will indicate a number of other issues that are particularly important in individual countries or regions. Where this is the case, it would be sensible to include a focus on them in primary research. Examples of issues which may be relevant in larger regions or a wide range of countries might include the level of competition and/or government ownership of critical infrastructure and the incidence of content filtering and website blocking.

#### *D. Interviews and focus groups with key stakeholders*

Primary research for national assessments should be built around a systematic programme of interviews and focus groups with key informants in the national Internet environment.

The core of this programme of interviews should be a week-long ‘mission’ in-country, undertaken jointly by the two members of the research team, during which they meet as many of the most important stakeholders as possible. The aim should be to include those who are most influential in Internet governance and public policy, together with influential figures in areas which are strongly affected by the Internet. It is important to ensure that the range of views which is sought through interviews is inclusive of different stakeholder groups and different opinions, including views and experiences from outside the capital and the political/Internet establishment. This programme needs to be carefully prepared beforehand, though in practice there is likely to be a good deal of rearrangement of meetings during the week itself. The reputation and contact list of the national/regional member of the research team, and the availability of secretarial support, will be important in making the most of this part of the research.

Exactly who should be interviewed will vary from country to country, and the programme of interviews will need to be designed accordingly by the national/regional member of the research team, building on her/his local knowledge. As with secondary research, it should be recognised that the aim is not to secure a perfect set of interviews or focus groups, but to build up a body of evidence from those who are willing to make themselves available and whom it is possible to meet within the timescale.

Interviewees should therefore be selected from people in the following categories:

- Government agencies, such as the Ministry of Communications (or equivalent), the communications regulatory authority, and any other agencies with prominent roles related to the Internet such as those responsible for the development of e-government services.
- Private sector stakeholders involved in the supply of the Internet, such as major telcos and ISPs, and their collective associations.
- National Internet governance entities, such as the national ccTLD registry, the national IXP (if any), and any major Internet-specific task forces or self-regulatory bodies (for example, a task force working on cybersecurity issues or on the implementation of IPv6).

- The organisers of the national Internet Governance Forum (if any).
- Significant Internet user groups, such as banks, or their representative associations, such as a national chamber of commerce, and universities (or, where one has been established, the National Research and Education Network).
- Influential members of the Internet technical and professional community within the country, including the coordinators of significant groups or discussion lists, and of the national chapter of the Internet Society (where one has been established).
- Civil society organisations which represent the broad user community, such as consumer associations, and/or have participated in Internet governance debates at national level.

As well as people who are independently influential, the researchers should try to reach groups of users who have a particular perspective or share a common relation with the Internet, but who do not play a prominent role in Internet governance. Including people in these categories will help to ensure that the survey reflects wider perspectives about Internet governance and public policy issues, rather than focusing only on those who see them as important. Where significant stakeholder or user groups are not engaged with Internet governance, it is important to recognise and reflect this in the assessment.

Focus groups or group discussions are likely to prove better ways to gather evidence from groups of this kind than individual interviews. Examples of groups that it would be useful for the research team to address in this way include:

- members of an Internet technical and professional community grouping such as the national ISOC chapter or a national IT association;
- Internet entrepreneurs, such as website and application designers;
- cybercafé managers;
- participants in a civil society organisation focused on Internet issues;
- participants from the country in the global IGF; and
- cybercafé and mobile Internet users from among the general population.

It is important that interviews are well-planned, incisive and include evidence on any core themes selected for the national assessment. The research team should take care to ensure that they are scheduled with people who will make a substantive contribution: an in-depth discussion with the deputy permanent secretary at the Ministry of Communications, for example, will be much more useful than an exchange of pleasantries with the Minister, though the latter may also be helpful in establishing the credentials of the assessment with other stakeholders.

Where it is not possible to include important interviews within the 'mission' week, these could be undertaken subsequently, either face-to-face by the national/regional researcher alone, or by telephone. As noted above, however, the purpose is not to be comprehensive but to obtain sufficient inputs from sufficiently diverse sources to give a satisfactory qualitative impression of perspectives in the country.

The researchers may choose to record interviews for reference when preparing their report. If so, interviewees should always be asked for their consent beforehand, and it is usually better not to make a recording if they are hesitant about agreeing (even if they do consent) as it may inhibit what they say. Interviewees should be advised that they will not be quoted personally in the report, or at least not without the opportunity to agree to the use of a quotation before the report is made public. Where interviews are not recorded, careful notes should be taken by both members of the research team.

The ideal time for interviews is between 30 and 45 minutes, and for focus groups and group discussions between an hour and 90 minutes. In both cases, the research team should seek, through dialogue, to gain as much information as it can about:

- the issues, concerns and priorities of those interviewed and of the wider community that they represent;
- their perceptions of how the Internet is governed in their country;
- their views of the quality and performance of the Internet and Internet governance; and
- their expectations for the future of the Internet, and the changes which they think would be desirable.

They should specifically include questions concerning the core themes which have been selected for analysis in line with point C above (*i.e.* IPv6, ccTLD management, broadband deployment, cybersecurity and any other themes selected at a national/regional level).

#### *E. Assessing the national Internet Governance Forum*

Some, but far from most, countries have a national Internet Governance Forum or similar national Internet governance conference which provides a space for awareness-raising, capacity-building, the exchange of views on Internet-related issues and (in some cases) the development of policy initiatives. Some national IGFs appear to focus primarily on issues that are local to the country concerned; others to act as pre-meetings before the global IGF, identifying or clarifying the issues that national stakeholders should engage with in that larger forum; some a mixture of the two. There has been a general perception within the IGF and Internet governance communities that national IGFs are desirable, but there has been no systematic assessment of their role, performance, value or inclusiveness. A programme of national assessments of this kind would also give ISOC an opportunity to assess the experience of some national IGFs, to gain a better picture of their diversity and of the contribution which they are making (or failing to make), and of ways in which ISOC itself can interact more effectively with them.

There are advantages and disadvantages in coinciding a national assessment with a national IGF in those countries where one has been established. The main advantages of doing so are that it would make it easier for the research team to assess the IGF itself and may make it easier to meet with a wide range of stakeholders who are interested in the Internet in the country in question, perhaps including those from outside the capital. It would provide an opportunity to arrange interviews and discussions in the margins of the Forum, and would facilitate the administration of a questionnaire along the lines proposed in section F.

However, there are also disadvantages. Holding the study mission during the week of a national IGF would mean holding it at a time when the attention of stakeholders is more fixed on Internet governance issues than is normally the case, with the result that findings may record a short period of heightened engagement with Internet governance rather than the norm. It would be difficult to avoid paying more attention to those stakeholders who think it useful to attend the IGF than to those that think attendance is not useful, and paying more attention to those issues which have been chosen for the IGF agenda (which, as the Kenyan pilot study shows, are not necessarily those that emerge as priorities during stakeholder interviews). It might also distort comparisons between countries which have a national IGF and countries which do not. Care will need to be taken to compensate for all these possible distortions.

Either option is therefore feasible, and the choice should depend on what is judged most likely to be satisfactory in each case. Logistical and budget factors may well have a bearing on this judgement.

Whenever the main research mission is undertaken, however, participant observation in the national IGF, and the review of relevant documentation should form the fifth part of the overall research framework. It should include:

- a) observation of any consultation processes, online list discussions, *etc.* that take place before the meeting;

- b) circulation of a brief 'prior expectations' question at registration, for completion before the meeting starts, or informal discussions with participants about their expectations during the registration period;
- c) observation of the meeting itself, and interviews with participants; and
- d) circulation of a questionnaire along the lines set out in subsection F below.

It will be necessary for the research team to work with national IGF organisers to achieve these objectives.

#### *F. Questionnaire survey of national IGF participants*

The final part of the methodology for national assessments should be a questionnaire to participants in the national IGF meeting, seeking their perceptions on a range of Internet governance issues. It will be much easier and more cost-effective to secure a satisfactory number of responses from a group such as national IGF participants, who are located at one place and time, than it will be to use online or face-to-face questionnaire techniques outside such a meeting. While they are not a perfect group of informants, national IGF participants will provide a range of opinion from people with varying priorities and backgrounds.

Questionnaires should be issued in meeting packs, their completion should be encouraged during the meeting, and they should be collected at its end. The response rate will be improved if a short period of time is allowed for completion and collection during the meeting and if respondents are told that their views will be taken into account during the development of the next national IGF. If there is sufficient time, preliminary findings on one or two points could even be reported during the meeting's closing session. If necessary, recalcitrant participants who take their questionnaires away with them could be followed up by phone or email. All of this will require the cooperation of the organisers of the national IGF.

Where a national IGF has not been established, a comparable questionnaire should be issued online to members of the local ISOC chapter, to other organisations whose members participate in Internet governance discussions, or to a representative group of individuals selected by the researchers. If other methods seem unlikely to succeed, then questionnaires could be issued to interviewees and focus group participants approached by the research team.

An example of the kind of questionnaire that would be appropriate is attached at Annex 1. This is based on one that was issued online to a selected group of individuals as part of the Kenyan pilot study, where it was unfortunately not possible to administer a questionnaire effectively during the national IGF. It includes questions in four groups:

- Part 1 of the questionnaire asks for personal information about the informant.
- Part 2 seeks informants' general views on the Internet in Kenya, including the value of the Internet to the country and the technical and public policy opportunities and challenges arising from it. It also asks informants about their basic understanding of Internet governance.
- Part 3 asks about nine specific issues of Internet governance in Kenya, including the national IGF, inviting informants to rate performance against a five-point Likert scale but also offering space in which they can add further comments. It also invites them to say what other issues they consider of particular importance.
- Part 4 of the questionnaire asks them about their personal involvement in Internet governance bodies.

The use of Likert scale questions is derived from the TRE methodology pioneered by LIRNEasia and used by Research ICT Africa.<sup>23</sup> The snapshot responses which it provides make it easy to compare perceptions:

- between different aspects of the Internet governance environment, included in the survey itself;

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<sup>23</sup> The TRE methodology, which LIRNEasia has made available for use by other research organisations, is described at <http://lirneasia.net/projects/2008-2010/indicators-continued/telecom-regulatory-environment/>.

- between the same aspects of the Internet governance environment in different countries; and
- between the same aspects of the environment in the same country over time.

The range of issues proposed in the example questionnaire – for both Likert-scale and free-text responses – is concerned with the following aspects of the Internet governance environment:

Figure 20: Perceptions of Internet governance performance

| Overall Internet environment | Specific issues | Participation in Internet governance |
|------------------------------|-----------------|--------------------------------------|
| Access                       | Broadband       | Multistakeholder participation       |
| Affordability                | Cybersecurity   |                                      |
| Local content                | DNS management  | National IGF                         |
| Government policymaking      | IPv6            |                                      |

#### Comparing Internet governance environments

One of ISOC’s objectives in proposing a framework for national assessments is to enable comparisons to be made between national Internet governance environments in different countries (and also in the same country over time). Although the national assessments that will result from this framework are, to a large extent, qualitative, it is possible to include in them some quantification to facilitate cross-country comparisons in two areas. These concern, firstly, the performance of the Internet environment as a whole, notably in access and usage; and, secondly, perceptions of the performance of Internet governance arrangements by those who participate in them.

As discussed above, the quality of data available for quantifying national Internet environments is highly variable. In some countries, including Kenya where this methodology was piloted, governments and regulators collect and publish quite detailed and up-to-date statistics, but this is not commonly the case in developing countries. Internet indicators – for network density, access and usage – also change so rapidly that cross-country comparisons require data that have been collected contemporaneously or near-contemporaneously and to common standards. It may be possible to develop a small range of basic comparative indicators around data which are relatively commonly available, though this will require further assessment of what data are in fact available in different countries. Suitable indicators might include, for example, Internet subscription density as a proportion of the adult population, and its rate of growth; available bandwidth and actual bandwidth used in relation to the adult population; and the cost of an Internet-enabled phone and/or of one day’s flat-rate Internet access as a proportion of GDP *p.c.* It would be useful to assess the viability of indicators along these lines in several countries, as national assessments are undertaken, though it will always be necessary to bear in mind the very rapid pace of change in Internet markets, especially where adoption rates are growing quickly as they are in most developing countries.

Where Africa is concerned, an alternative data source which may substitute for these indicators is now becoming available. Preliminary findings from a household survey of twelve sub-Saharan African countries, undertaken in 2011 by Research ICT Africa,<sup>24</sup> have recently been published, and more detailed findings will be published shortly. For the countries concerned, which would be suitable candidates for national assessments

<sup>24</sup> <http://www.researchictafrica.net/docs/HH%20survey%20methodology%20brief.pdf>

using this framework, this survey will provide near-contemporaneous findings across a range of potential Internet indicators, including mobile phone, computer and Internet access and usage. Although they have a short lifetime, given the pace of change in Internet markets, they should have significant background value for up to the next two years concerning the status of and trends in Internet markets in the countries concerned. Comments on the preliminary findings for Kenya and comparisons between Kenya and other surveyed countries are included in the pilot national assessment of that country.

A second set of comparative indicators, concerned with perceptions of the Internet governance environment, could be derived from responses to the questionnaire survey described at F above. This asks participants in the national IGF (or their equivalents) for evaluations of performance of ten different aspects of Internet governance, using a five-point Likert scale. Comparable surveys have been used by LIRNEasia and its partner organisations to compare the performance of telecommunications regulators in Asia, Africa and Latin America against a similar set of performance assessments by telecoms professionals. The questionnaire responses proposed for Internet national assessments are concerned with perceptions of quality/performance in:

1. Access
2. Affordability
3. Local content
4. Government policy-making
5. Broadband policy and deployment
6. IPv6
7. Domain name management
8. Cybersecurity
9. Multistakeholder participation
10. The national IGF (where this exists)

Whether this approach proves feasible will depend on whether sufficient responses can be obtained from those to whom questionnaires are administered (see commentary on the experience in Kenya below). In any event, these indicators should be seen as supplementing the written assessment of the research team, which will make its own judgement of the performance of the national Internet governance environment based on the full range of research inputs available to it, identifying trends within the country and comparing performance with other countries as and when they are assessed.

#### *Reporting structure for national assessments*

The structure of Internet governance is broadly similar in most countries, and susceptible to assessment along the lines proposed in this report. It should be fairly straightforward to report assessments within a common framework. This will make it much easier to compare one country with another, to identify aspects of the experience of one country which might be considered good practice or replicable elsewhere, and to identify gaps or problems in a country's Internet governance environment. It should also make it much easier to consider changes over time where an assessment is repeated in a single country.

The reporting framework proposed for national assessments is set out in Figure 21 on the following page. The pilot assessment of the Kenyan Internet governance environment has been written to this framework and provides an example of how a completed report would appear.

Figure 21: Reporting framework for national assessments

| Chapter  | Heading  | Purpose  | Methodology   |
|----------|--|--|---|
| <b>1</b> | <b>Introduction</b>  |  |   |
| A        | Background and objectives                                  | Outline purpose of national study and ISOC framework   |   |
| B        | Methodology  | Outline study methodology  |   |
| <b>2</b> | <b>The Internet in [country]: origins and trends</b>       |  |   |
| A        | The national context                                       | Outline description of the country under review – geography, political status, economy, development status and objectives  | Desk research   |
| B        | The Internet in [country]: a brief history                 | Brief history of the Internet's development in country   | Desk research   |
| C        | The Internet in [country] in [current year]                | Quantitative and qualitative summary of the state of the Internet at the time of the study   |   |
| a        | Infrastructure and access                                  | ... concerning available infrastructure  |   |
| b        | The communications market                                  | ... concerning the structure of the market, licensing, market shares etc.  | Desk research; quantitative and qualitative reports from government agencies and other sources                        |
| c        | Access and usage of the Internet                           | ... concerning Internet subscribers and users, pricing, patterns of Internet and website use   |   |
| d        | Government policy towards the Internet                     | ... concerning government policy towards ICTs and the Internet and their relationship with national development strategy   |   |
| <b>3</b> | <b>Mapping Internet governance in [country]</b>            |  |   |
| A        | Overview   | Outline structure of chapter   |   |
| B        | Internet governance issues in [country]                    | Identification and assessment of the most important Internet governance issues in [country] at time of study, and of trends in issue priorities  | Desk research; interviews, discussions and questionnaire findings   |
| a        | Overview   |  |   |
| b        | Issues of technical governance                             |  |   |
| c        | Issues concerning infrastructure and access                |  |   |
| d        | Public policy issues                                       |  |   |
| e        | Mapping Internet governance issues in [country]            |  | Mapping tools derived from this report  |
| C        | Stakeholder in Internet governance in [country]            | Identification and assessment of the most important stakeholders in Internet governance issues in [country] at time of study, including those not participating in Internet governance activity    |   |
| a        | Overview   |  |   |
| b        | Government stakeholders                                    | ... including political bodies; ICT/Internet-specific agencies, task forces etc.; mainstream and other ministries and agencies   |   |
| c        | Private sector stakeholders                                | ... including supply side businesses; Internet-enabled and Internet-dependent businesses; demand side businesses (users); business   | Desk research; interviews, discussions and questionnaire findings; mapping tools derived from this report             |
| d        | The Internet technical and professional community          | ... including technical entities, individuals and technical associations   |   |
| e        | Internet users and civil society                           | ... including Internet users (as citizens and consumers) and civil society organisations   |   |
| f        | Mapping Internet governance stakeholders in [country]      | ... including joint mapping of issues and stakeholders   | Mapping tools derived from this report  |
| D        | Decision-making processes and fora                         | Identification and assessment of the most important decision-making processes concerned with Internet governance in [country] at time of study, including both formal and informal decision-making |   |
| a        | Overview   |  |   |
| b        | Technical decision-making                                  |  |   |
| c        | Decision-making concerned with infrastructure and access   |  | Desk research; interviews, discussions and questionnaire findings; mapping tools derived from this report             |
| d        | Decision-making on public policy issues                    |  |   |
| e        | The national Internet Governance Forum (where this exists) |  |   |
| f        | Mapping Internet governance decision-making processes      | ... including joint mapping of issues and decision-making processes  | Mapping tools derived from this report  |
| E        | Perceptions of Internet governance in Kenya                | Summary and assessment of views of stakeholders on current Internet governance issues and processes  | Questionnaire responses, supplemented by desk research into e.g. online discussion lists, interviews and focus groups |
| a        | Questionnaire responses                                    |  |   |
| b        | Authorial assessment                                       |  |   |
| <b>4</b> | <b>Summary, conclusions and recommendations</b>            |  |   |
| A        | Summary  | Summary of findings in Chapter 3   |   |
| B        | Comparisons with other countries                           | Comparison with other countries studied in ISOC assessments  | Other ISOC reports; comparison of core indicators   |
| C        | Recommendations  | Recommendations to national stakeholders and to ISOC   |   |

## SECTION 4: SUMMARY AND RECOMMENDATIONS

This final section summarises the methodology for assessments of national Internet governance environments outlined in this document, reports on experience of a pilot assessment undertaken in Kenya, and makes recommendations to ISOC on how it might proceed.

### *Summary*

This document has set out a framework for assessments of national Internet governance environments which can be undertaken by ISOC and other organisations, either in partnership with ISOC or on their own initiative. The purpose of these assessments is to elucidate national Internet governance environments, identify aspects which are working well and others where review or adjustment of arrangements would be beneficial, and enable comparisons to be made over time and between countries.

Internet governance as a whole was defined for this report along the lines agreed at the World Summit on the Information Society, *i.e.* that it concerns:

*the development and application by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures and programmes that shape the evolution and use of the Internet.*

The first section of the report outlined an overall framework for assessing national Internet governance environments, built around three key elements:

- the issues with which Internet governance is concerned;
- the stakeholders that participate in discussion of those issues and in governance entities, and/or are affected by their outcomes;
- the decision-making processes and fora whose outcomes affect the ways in which the Internet works and develops in the country.

Issues of Internet governance were identified along a continuum between:

- issues of technical governance, including standardisation and coordination, which are largely contained within the Internet;
- issues concerned with the Internet's underlying enabling infrastructure; and
- issues of public policy, where the Internet intersects with mainstream public policy domains.

Stakeholder communities were described in five broad categories, building on those established in the WSIS outcome documents, as follows:

- government agencies;
- private sector stakeholders, including those that supply the Internet, those that are enabled by or dependent on it, and those that make use of it;
- the Internet technical and professional community;
- civil society; and
- users, including individuals as both citizens and consumers.

The second section of the report described approaches to mapping Internet governance issues, stakeholders and decision-making processes and fora, which build on work previously published by the Association for Progressive Communications (APC). The aim of this section was to provide a mapping framework which would

help to illustrate and thereby clarify each of these elements of Internet governance and, especially, the relationships between them.

The third section of the report sets out a proposed methodology for national assessments which can be undertaken by ISOC and/or other parties. This methodology is built around:

- desk research;
- interviews and discussions with stakeholders; and
- a questionnaire addressed to specified groups of key informants.

This section also considers approaches to cross-country comparisons and outlines a reporting framework for national assessments.

#### *Experience from the Kenya pilot study*

The methodology described in this report was tested in a pilot assessment of Kenya undertaken by the author and a Kenyan colleague in the first quarter of 2012. This was extremely helpful in identifying the issues and personnel that should be covered in an assessment, developing the mapping framework described in Section 2, establishing the reporting framework outlined in Section 3, and identifying which aspects of the proposed methodology would be most difficult to achieve. The Kenyan assessment is the subject of a separate report. The following paragraphs comment on some of the challenges identified in that pilot and their implications for future assessments.

Desk research on the ICT sector in Kenya proved relatively straightforward. A considerable amount of data is published, including up-to-date figures for the communications market published by the regulator CCK. Most significant stakeholders in the Kenyan Internet environment have websites which provide useful information, though these are of variable quality and some are less useful than might have been hoped. There has been a significant amount of research published on the Internet in Kenya because the country's more dynamic ICT and development context has attracted the interest of IFIs, donors and external researchers as well as academics and researchers within the country.

The quantity and quality of published data and other sources available for Kenya are, therefore, a good deal better than will be the case for most African and other low-income developing countries. It will be more difficult in most other countries to obtain information from desk research, and this should be borne in mind when planning future assessments. Initially, it might be better to concentrate on countries where published information will be more extensive (for example, in Africa, on countries such as Egypt, South Africa, Nigeria, Ghana and Senegal).

The ease with which interviews, discussions and focus groups can be organised within a week-long mission will vary from country to country. In the case of the Kenyan pilot study, it was possible to interview and meet with a wide range of different informants, partly because of the extensive personal contacts of the internal member of the research team. However, discussions for this research were not high-priority commitments for most informants, and a good deal of rearranging of interviews and discussions was needed during the course of the week. This required flexibility, and it would have been helpful to have secretarial support. The research team needs to manage the calendar of meetings carefully, and this may prove easier in other countries.

It is not possible to be comprehensive within a week-long interview programme. Some important informants will be unavailable while, in a country such as Kenya, there are too many potentially valuable informants to fit into a week-long programme. The research team should therefore not attempt to be comprehensive but should be selective about interview informants – ensuring that all important stakeholder groups are represented, and allowing sufficient time for individual interviews to reveal as much as possible. Meetings

with merely protocol value can be useful in opening doors, but this is primarily a research exercise and productive interviews should be prioritised.

It proved difficult to arrange focus group discussions in Kenya, but this methodology may be more successful in other countries. Focus groups would be particularly useful when seeking views from stakeholder groups such as Internet technical professionals, or people who are not Internet specialists but have attended the national IGF. Group discussions such as these are probably best organised in conjunction with an established organisation or organisations such as a national ISOC chapter. A focus group of cybercafé managers would add an interesting perspective on concerns among those whose businesses are deeply affected by Internet governance but who are unengaged in it.

The bulk of work for the Kenya pilot assessment did not coincide with the national IGF. As discussed in Section 3, there are advantages and disadvantages in coinciding an assessment with a national IGF meeting where one takes place. Doing so may help to expand the pool of interviewees, but there is also a risk that it will distort the findings by focusing attention disproportionately on those issues which have been chosen for discussion at the IGF meeting and on the views of those who choose to attend it rather than those (who may be just as significant in national Internet development) who do not do so. The Kenya IGF in 2012, for example, addressed a number of issues which did not emerge as significant during interview research, but concerning which the event organisers felt it was important to raise awareness or build understanding. These included issues of the moment, such as forthcoming discussions on the ITU's International Telecommunication Regulations and the recent ICANN process inviting applications for new gTLDs. There is a risk that an assessment undertaken alongside a national IGF would have given too much weight to issues of this kind which emerged from awareness-raising rather than the current perceptions of the national Internet community.

Assessing the national IGF itself is, however, an important part of a national assessment. Researchers in each case should make a judgement as to whether to coincide the research mission with the national IGF, bearing cost considerations also in mind. Where they do coincide, the points raised in the previous paragraph should be borne in mind.

Some supplementary research was undertaken for the Kenyan pilot study at the time of the 2012 Kenyan IGF, though it did not prove possible to secure responses at that meeting to a systematic questionnaire of the kind proposed in the previous Section and set out in Annex 1. A pilot questionnaire was, however, administered online to a selected group of informants during the main period of research earlier in the year. This contributed useful supplementary findings, though extensive follow-up was required in order to secure responses. Experience with this demonstrated that the questionnaire approach is valuable, particularly if it enables comparative indicators of the kind described in the previous Section, but that significant secretarial effort is required whether it is administered at a national IGF or otherwise. If delivered at a national IGF, close cooperation with the event's organisers will be essential for success.

### *Recommendations*

The following recommendations are made to ISOC as a result of this report and the experience in Kenya.

1. ISOC should review the methodology proposed in this report and consider how best to make use of it in its future work. It would be useful to involve regional directors in this review. An informal discussion around its potential use could be held during the global IGF meeting in Azerbaijan which is scheduled for November 2012.
2. In particular, ISOC should consider how the outcomes of assessments might be used in its work to provide information, training and other capacity-building for the Internet community, and in the establishment and work of national ISOC chapters.

3. Subject to this review, and to the availability of financial resources, ISOC could implement a series of comparable national assessments in Africa. These should focus, at least initially, on substantial countries, mostly but not only those which have strong Internet sectors and participate in international governance activities. Suggested countries are:
  - one in North Africa (perhaps Egypt or Tunisia);
  - one or two in West Africa (Ghana, Nigeria and/or Senegal);
  - one additional country in East Africa (Ethiopia, Rwanda, Tanzania or Uganda); and
  - one country in Southern Africa (probably South Africa).

Of these suggested countries, all but Egypt, Tunisia and Senegal were included in the 2011 Research ICT Africa household survey of ICT access and usage.

4. It would be particularly useful, in this context, to compare the experience and performance of national IGFs, where these exist. It would also be useful to plan ahead for second assessments to be made in countries which form part of this series, around three years after the first assessments. This would provide evidence of trends in Internet governance, which are at least as important as the snapshots provided by one-off studies.
5. As well as Africa, ISOC could consider the implementation of similar series of national assessments in other world regions – for example in West Asia, Central Asia, East Asia or Latin America.
6. The cooperation of national stakeholders is essential for effective assessments along these lines. However, assessments which are undertaken by or for particular national stakeholders – for example, government agencies or the national IGF – run the risk of focusing on the interests of those stakeholders or fora, and so losing objectivity. Assessments should therefore be independent of individual stakeholders and have the broad consent of diverse stakeholder communities.
7. ISOC should actively encourage other organisations to undertake assessments of other countries, using the same methodology, indicators and reporting structure, either in collaboration with ISOC or on their own behalf. This would help to build up a broader picture of Internet governance in different regions and worldwide, and to build collaboration around improvements to the effectiveness of different Internet governance environments. Collaboration with other organisations would also increase the financial resources available for assessments to be undertaken.

## ANNEX 1 – DRAFT QUESTIONNAIRE FOR NATIONAL IGF PARTICIPANTS

Dear Colleague:

We are writing to ask for your views on Internet governance and Internet public policy in [COUNTRY X] to help us to develop work on Internet governance and ensure that future IGFs meet the needs of all stakeholders.

It would be very helpful if you could spare a few moments to complete the attached questionnaire and return this to us at the end of the meeting. This should take no more than ten minutes of your time, and your input will be invaluable.

Your responses will of course be confidential, but it would be helpful to us if you could complete the personal information section at the start of the questionnaire.

Many thanks for your time. Please don't hesitate to ask if you would like any further information about the study.

Kind regards,

[NAMES AND AFFILIATIONS OF BOTH MEMBERS OF THE RESEARCH TEAM AND/OR ORGANISERS OF THE NATIONAL IGF]

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### SECTION 1 - PERSONAL INFORMATION

It would be helpful to us if you could complete this section, particularly so that we can come back to you if we would like to follow up any of your comments. Personal information will, of course, be confidential.

Name

Organisation

Role in Organisation

Gender

Age Group

<25   25-34   35-44   45-54   >55

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**SECTION 2 - THE INTERNET IN [COUNTRY X]** [each question to be followed by numbered response boxes (questions 1, 3, 4 and 5) and/or a box for free text comment]

1. Why, in your opinion, is the Internet important for [COUNTRY X] as a country? Please give up to three reasons. [Numbered response box.]
2. What does the term 'Internet governance' mean to you? [Box for free text comment.]
3. What do you think are the most important technical challenges concerned with how the Internet is working in [COUNTRY X], now and in the future? Please list them in order of importance, and use the box to say why you think them to be particularly important. [Numbered response box and box for free text comment.]
4. What do you think are the most important opportunities and challenges for [COUNTRY X]'s government and [COUNTRY X] society arising from the Internet. Please list them in order of importance, and use the box to say why you think them to be particularly important. [Numbered response box and box for free text comment.]

5. If you think about Internet governance in [COUNTRY X], which organisations or individuals do you think are most important and/or influential? Please list them in order of importance, and use the box to make any further comments that you wish to make. [Numbered response box and box for free text comment.]

**SECTION 3 - SPECIFIC ISSUES** [some additional questions may be asked in particular countries, but a common set of questions is important for comparative purposes]

In this section, we would like you to comment on how you think [COUNTRY X] is performing in a number of different areas of the Internet and Internet governance. In each case we would like you to assess the country's performance on a five-point scale, and would welcome any additional comments that you would like to make on the particular issue concerned. [Questions should include Likert scale options and free-text box for comments – only the Likert scale is shown below.]

6. How would you assess access to the Internet in [COUNTRY X]?

|        | Very Poor             | Poor                  | Satisfactory          | Good                  | Very Good             |
|--------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Rating | <input type="radio"/> |

7. How would you assess the affordability of the Internet in [COUNTRY X]?

|        | Very Poor             | Poor                  | Satisfactory          | Good                  | Very Good             |
|--------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Rating | <input type="radio"/> |

8. How would you assess the availability of local Internet content in [COUNTRY X]?

|        | Very Poor             | Poor                  | Satisfactory          | Good                  | Very Good             |
|--------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Rating | <input type="radio"/> |

9. How would you assess the performance of policymaking in [COUNTRY X] by government agencies?

|        | Very Poor             | Poor                  | Satisfactory          | Good                  | Very Good             |
|--------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Rating | <input type="radio"/> |

10. How would you assess broadband policy in [COUNTRY X]?

|        | Very Poor             | Poor                  | Satisfactory          | Good                  | Very Good             |
|--------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Rating | <input type="radio"/> |

11. How would you assess the attention paid to cybersecurity in [COUNTRY X]?

|        | Very Poor             | Poor                  | Satisfactory          | Good                  | Very Good             |
|--------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Rating | <input type="radio"/> |

12. How would you assess domain name management in [COUNTRY X]?

|        | Very Poor             | Poor                  | Satisfactory          | Good                  | Very Good             |
|--------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Rating | <input type="radio"/> |

13. How would you assess the attention paid to IPv6 in [COUNTRY X]?

|        | Very Poor             | Poor                  | Satisfactory          | Good                  | Very Good             |
|--------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Rating | <input type="radio"/> |

14. How easy is it for people from different stakeholder groups to participate in Internet policy and governance in [COUNTRY X]?

|        | Very Poor             | Poor                  | Satisfactory          | Good                  | Very Good             |
|--------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Rating | <input type="radio"/> |

15. What other issues of Internet governance would you like to raise or say more about? Please give us your thoughts (followed by free text box)

16. How do you assess the value of the [COUNTRY X] Internet Governance Forum as a source of information?

|        | Not at all useful     | Not useful            | Satisfactory          | Useful                | Very useful           |
|--------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Rating | <input type="radio"/> |

17. How do you assess the value of the [COUNTRY X] Internet Governance Forum as a way of influencing government and other policymaking on the Internet?

|        | Not at all useful     | Not useful            | Satisfactory          | Useful                | Very useful           |
|--------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Rating | <input type="radio"/> |

**SECTION 4 - YOUR INVOLVEMENT IN INTERNET GOVERNANCE** [each question followed by free text response box]

18. Which Internet governance bodies, if any, are you personally involved in?

19. Do you hold any official positions in any of these? If so, what?

20. Are you a member of any mailing lists about the Internet and Internet governance? If so, which lists?

21. Have you attended any of the following: Check if your answer is Yes

- a. the [COUNTRY X] IGF in previous years
- b. the [REGIONX] IGF
- c. the global IGF
- d. a meeting of ICANN

22. Are you a member of the Internet Society (tick either or both boxes)

Globally

[COUNTRY X] chapter

Many thanks for your help.