LOUDER VOICES

A study by the Commonwealth Telecommunications Organisation and Panos London

Strengthening Developing Country Participation in International ICT Decision-Making

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This report has been prepared for DFID and the G8 Dot Force Implementation Team by the Commonwealth Telecommunications Organisation and the Panos Institute at the behest of the Government of the United Kingdom. The views of the consultants are not necessarily shared by the British Government.

The Commonwealth Telecommunications Organisation
The Commonwealth Telecommunications Organisation (CTO) is an international partnership between governments, businesses and civil society organisations focused on ICT and development. Its mission is to extend the provision and use of ICT to meet the needs of citizens and consumers, to facilitate the successful development of telecommunications and other businesses and to support the social and economic development objectives of governments and civil society.

The Panos Institute London
The Panos Institute is an international non-governmental organisation working with partners in Africa and Asia to stimulate informed public debate, particularly by working with the media and building media capacities. Its mission is to help ensure that development agendas are shaped and driven from within developing countries and reflect the perspectives of the poor and marginalised. Panos is a network of centres in London, Kampala, Kathmandu, Lusaka, Dakar, Paris and Washington.

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Summary

International decisions about information and communications technologies (ICTs) have far-reaching implications for developing countries. Yet developing countries are poorly represented when agendas are set and decisions made.

At its Genoa Summit in 2001, the G8 asked its Digital Opportunities Task Force (DOT Force) to draw up proposals to promote more effective universal participation in international ICT decision-making.

This summary outlines the results and recommendations of a study commissioned by the United Kingdom Department for International Development in support of this DOT Force objective. The study, undertaken for DFID by the Commonwealth Telecommunications Organisation (CTO) and Panos London in the first half of 2002, had three main objectives:

- to map the international ICT decision-making world;
- to assess current developing country participation and identify obstacles to effective engagement; and
- to recommend actions to be taken by developing countries, international agencies and DOT Force members.

It included detailed studies of three international institutions and the involvement of six developing countries.

The recommendations contained in this brochure set out six practical initiatives for action that would give a louder voice to developing countries in international ICT decision-making. They were presented to the DOT Force in May 2002 and to the G8 Summit in Kananaskis, Canada in June 2002.

In its report to the July 2001 G8 Genoa Summit, the Digital Opportunity Task Force recognised that decisions about information and communications technology made by international bodies frequently have major implications for developing countries. However, these bodies do not always consider developing country needs and take them into account. Sometimes this is because developing country representatives are not present when agendas are set and decisions made. Often it is because developing countries – although present at meetings – lack the capacity to analyse issues, prepare positions, and advance their interests. For all these reasons, the DOT Force therefore recommended that members of the development community should work together to establish and support effective universal participation in international ICT decision-making fora.

The G8 accepted this recommendation of the DOT Force and directed it to begin following it through as part of the Genoa Plan of Action. To help with this task, the U.K. Department for International Development commissioned the Commonwealth Telecommunications Organisation and Panos London to undertake a scoping study to:

- map international ICT decision-making issues, processes and fora;
- assess the effectiveness of current developing country participation;
- identify obstacles facing developing countries at the national, regional and international levels;
- recommend actions that could be taken by developing countries themselves, international organisations, and DOT Force members to overcome these obstacles.

The CTO/Panos study team did extensive research on a wide range of international ICT fora and issues; carried out detailed reviews of developing country participation in three important institutions – ITU, WTO and ICANN; and engaged local experts to study the experience of six developing countries – Brazil, India, Nepal, South Africa, Tanzania, and Zambia.

i. Mapping the Challenges

In mapping the international ICT decision-making universe, four challenges stand out in the CTO/Panos study:

First, most many developing countries are members of established intergovernmental organisations with ICT responsibilities, such as the ITU and WTO, and are usually represented at their meetings. However, there is not as yet an effective connection between the agendas of these organisations, their decisions, and the international development goals set out in the UN Millennium Declaration. In spite of considerable effort, there is still a "missing link" between ICT and development at the international policy level.

Second, developing countries have very little presence or influence in the many voluntary, private, and not-for-profit decision-making fora that have been set up in recent years to standardise and manage the Internet and other new ICTs. They have none at all in areas where standards are determined de facto by market power. Although the results of some of this work are fed into traditional international fora – and although some of the new fora, such as ICANN, are attempting to include developing countries in their decision-making processes – it is clear that developing countries are increasingly excluded from international decision-making at the technical level.

Third, the experience of many developed and some developing countries shows that technical and policy capacity go hand in hand, so that it is difficult to develop one without the other. Given present asymmetries in technical capacity, it is essential for developing countries to set priorities among international ICT issues and concentrate their limited resources on building technical and policy capacity in the areas that are most critical to their development goals.

Fourth, it is important to emphasise that effective participation is not limited to what happens before and during meetings. The goal of inclusion means that developing countries must also have the capacity to assess the effect of decisions made by international ICT fora on their own development objectives, and to participate in the implementation of these decisions in their own countries, whether or not they were present when they were made.

So what are the obstacles and what can be done to overcome them?

ii. Building Developing Country ICT Policy Capacity

There was consensus among those consulted for the study that it is not possible to strengthen participation by developing countries in international ICT decision-making fora without first strengthening their capacity to make and implement ICT policy at the national and regional levels.

1. Creating ICT policy awareness

Lack of policy awareness was frequently cited as the most significant barrier to developing country participation in international ICT decision-making.

The basic problem, in the opinion of many, is lack of awareness of the role that ICTs can play in development. This exists at all levels in many developing countries, where people simply have no experience with ICT and its potential benefits. In the longer term, this problem will gradually disappear as people gain access to ICT, see it applied in their daily lives, and begin to use it.

More immediately, there is lack of awareness among policy-makers of the importance of international decisions for national ICT policies and regulations.

To help address this immediate problem, we recommend that:

- international ICT fora should promote awareness of the role that ICTs can (and can not) play in development by providing comprehensive, publicly-accessible, non-technical information on the relevance of their activities to the development agenda, illustrated by stories of both success and failure;
- eStrategies for achieving development goals formulated by developing countries (for example with the assistance of the DOT Force International eDevelopment Resource Network) should include actions to address international ICT policy and regulatory issues in line with national development priorities.

2. Building technical and policy capacity

Lack of technical and policy capacity on ICT issues is viewed as a fundamental obstacle to effective participation by developing countries, particularly with respect to emerging issues such as the migration from circuit-switched to IP-based networks, the implementation of third generation mobile communication systems, and e-commerce.

Since technical and policy capacity can only be developed through years of education and work experience, we recognise that there is no quick and easy way to overcome barriers in this area. It is also clear that the technical assistance activities of many international organisations make only a modest contribution to this long-term objective, and that new approaches are needed.

To help developing countries build policy and technical capacity, we recommend that:

- international ICT fora should provide independent, authoritative technical/policy research and analysis of major issues to be decided;
- the DOT Force Implementation Network should:
  - support the establishment, operation and maintenance of a global network of independent institutes for public and policy research on international ICT policy and regulatory issues, with nodes in all developing regions.
  - establish a fund to support small-scale research activities, including country case studies, by southern institutions on issues relevant to international ICT decision-making.

3. Strengthening national policy institutions and processes

Weaknesses in national and regional ICT policy processes and institutions drew more comment to the study than any of the other barriers to effective participation. At the national level, reported weaknesses included:

- lack of political leadership;
- absence of national ICT strategies;
- ineffective coordination between different government departments and agencies with ICT responsibilities;
- inadequate preparation for international meetings; and
- ineffective use of financial and human resources.

The absence in many developing countries of ICT policy processes that are open to participation by all stakeholders and based on informed public discussion was repeatedly identified as a fundamental weakness, as was the absence of effective regional policy fora.

To help strengthen policy institutions and processes in developing countries in the longer term, we recommend that:

- developing countries should take action to:
  - improve information flows and policy coordination between different government departments and agencies with ICT responsibilities;

- promote informed public discussion and debate through both general and specialised media;
- include all relevant stakeholders in policy-making on an issue-by-issue basis;
- encourage participation of experts from the private sector and civil society in national delegations to international decision-making fora;
- share information, expertise and experience on a sub-regional and regional basis;
- implement knowledge management techniques to ensure that information gained through participation in international ICT decision-making fora is captured, disseminated to relevant stakeholders, and made accessible to other interested parties through the media.

To begin immediately the work of fostering and catalysing policy processes of this kind, we recommend that:

- The DOT Force Implementation Network should support the development and application of model national ICT policy processes in relation to key international issues of concern to developing countries, such as the World Summit on the Information Society, work in the ITU on IP telephony and 3rd generation mobile systems, negotiations in the WTO on e-commerce, and the development in ICANN of ccTLD dispute resolution mechanisms.

iii. Levelling the International ICT Policy Playing Field

There was also consensus among those consulted for the study that action to strengthen the ICT policy capacity of developing countries must be accompanied by action to level the policy playing field so as to ensure that the needs of developing countries are on the agenda of international ICT fora and that they are included in decision-making processes.

4. Providing access to information about the international ICT policy agenda

Lack of easy, affordable and timely access to information about ICT-related issues, decision-making fora and processes was consistently mentioned as an important barrier to developing country participation by government and other stakeholders. The rapid increase that has taken place both in the range of issues on the international ICT policy agenda and in the number of organisations involved in ICT policy-making has made it very difficult for developing countries to keep track of what is going on, to anticipate key events, and to plan strategies for successful outcomes.

To help ensure that all relevant stakeholders have easy, affordable and timely access to information about items on the international agenda, we recommend that:

- the DOT Force Implementation Network should develop and implement a programme to provide authoritative, web-based information on international ICT decision-making to developing countries – for example by building on experience gained in the pilot phase of the CTO/Panos ictdevagenda web site, and through the creation of a "one-click" electronic library of documents related to international ICT policy and regulatory issues.

5. Improving the structure, functioning and working methods of international ICT policy fora

Some of the fora examined in the study have made efforts to include developing countries in decision-making processes, for example by ensuring that management bodies include developing country representatives, sponsoring regional preparatory meetings, and providing fellowships to LDC participants in international events.

There is a general view that such measures will not result in effective participation until underlying weaknesses in developing country technical and policy capacity are addressed. In the short term, however, the study identified a number of improvements that could be made by international fora to make it easier for developing countries to participate in their activities.

To facilitate developing country participation, we recommend that:

- international ICT decision-making fora should:
  - hold meetings in developing regions in a way that minimises travel costs for developing country participants;
  - avoid simultaneously scheduling important events;
  - ensure that their procedures allow all sources of developing country policy and technical capacity to participate in decision-making, whether they come from government, the private sector or not-for-profit organisations.

As well as improving existing operations, there is clearly a need for the international community to re-think the basis of ICT global governance in light of the dramatic changes that have taken place in the ICT sector in recent years, and to make the connection between ICT and sustainable development.

To lay the foundations for improvements to the international ICT governance regime, we recommend that:

- the DOT Force Implementation Network should:
  - promote joined-up thinking among G8 governments with the aim of making links between technology, trade and development issues, and of encouraging analysis and assessment of the impact of commercial decisions on developing countries;
  - encourage international ICT fora to permit and facilitate NGO participation in their activities, if they do not already do so;
  - launch a programme to study, discuss and develop new global ICT governance models that would provide greater coherence between different policy and regulatory domains, link ICT decision-making with development goals, and provide for effective participation by government, the private sector and civil society from both developed and developing countries.

6. Making effective use of financial resources

Financial barriers were not generally cited as a major obstacle to developing country participation. Instead, concern was very frequently expressed that financial resources currently allocated to support developing country participation by international fora and other bodies are not always used effectively. It appears that some fellowship programmes result in "the wrong people attending meetings for the wrong reasons".

To make more effective use of financial resources intended to support developing country participation, we recommend that:

- developing countries should review their current practices with respect to meeting preparation, delegate selection, participation, accountability and follow-up, with a view to ensuring that these practices result in the most effective use of financial resources through the optimum deployment and development of technical and policy capacity.

To assist in this process, we recommend that:

- the DOT Force Implementation Network, under the leadership of its developing country members, should develop a code of practice for programmes intended to develop and engage technical and policy capacity in international ICT decision-making (e.g. by supporting education and training, exchanges and detachments, participation in meeting) to ensure that access to these programmes is based on qualifications, and that performance is evaluated.

Introduction

A Background

In their July 2001 report *Digital Opportunities for All: Meeting the Challenge*, the members of the DOT Force:

- affirmed that the basic right of access to knowledge and information is a prerequisite for modern human development;
- called attention to the increasing role information and communication technologies play in providing such access; and
- concluded that ICT must be embraced wholeheartedly by the broad development community – including governments, the private sector, the not-for-profit sector and international organisations.

This statement echoed the central messages of three important international policy declarations that had been adopted the previous year – the G8 *Okinawa Charter on the Information Society*, which established the DOT Force; the ECOSOC *Ministerial Declaration on the Role of Information Technology in the Context of a Knowledge-Based Global Economy*; and the United Nations *Millennium Declaration*. These declarations foreshadowed the decision taken in January 2002 to convene a two-phase World Summit on the Information Society in 2003 and 2005.

As a result of these initiatives, it is clear that ICT has moved from the fringes of the international development agenda to its centre.

As well as recommending a series of actions to create digital opportunities within developing countries, the DOT Force underlined the need to address the international ICT governance framework. Decisions about ICT made by international bodies frequently have major implications for developing countries. However, these bodies do not always consider developing country needs and take them into account. Sometimes this is because developing country representatives are not present when agendas are set and decisions made. Often it is because developing countries – although present at meetings – lack the capacity to analyse issues, prepare positions, and advance their interests.

It is also important to recognise that effective participation is not limited to what happens during meetings. The goal of inclusion means that developing countries must have the capacity to assess the effect of decisions made by international ICT fora on their own development objectives, and to participate in the implementation of these decisions, and in their own nations and regions as well as globally, whether or not they were present when they were made.

As part of its overall action plan, the DOT Force therefore recommended that its members work together to establish and support universal participation in fora addressing new international policy and technical issues raised by the Internet and ICT.

Following acceptance of the DOT Force report at the July 2001 G8 Genoa Summit, the task of implementing this recommendation was assigned to DOT Force Implementation Team 5, which included the United Kingdom Department for International Development (DFID) among its members. To help with this task, DFID commissioned the Commonwealth Telecommunications Organisation and Panos London to undertake a study that would:

- map international ICT decision-making issues, processes and fora;
- assess the effectiveness of current developing country participation;
- identify obstacles facing developing countries at the international, national and regional levels;
- recommend actions that could be taken by developing countries themselves, international organisations and DOT Force members to overcome these obstacles.

The main findings, conclusions and recommendations of this study were presented to the final meeting of the DOT Force, which took place in Calgary in May 2002. These results were incorporated in the DOT Force's report to the G8 Kananaskis Summit in June 2002.

At the Calgary meeting, the DOT Force Implementation Teams agreed to continue their activities as autonomous, results-oriented teams focused on Action Points of the Genoa Plan of Action. Each team will determine its work plans and affiliations with other groups, including the Working Groups established under the UN ICT Task Force. They will coordinate their work through the formation of a DOT Force Implementation Network.

B Key Terms

1. ICT

The study is primarily focused on international fora that make decisions related to the development, deployment and application of communication and information technologies, networks, products and services designed to capture, process,

store and transmit information of any kind in electronic form. It does not deal in any depth with fora that make decisions about the development of content services, such as broadcasting and other forms of entertainment, with vertical ICT applications (*e.g.* e-commerce, e-learning, e-government), with intellectual property rights, or with issues such as privacy and security.

2 International decision-making

The study deals with two main kinds of international decision-making fora:

- Traditional international governance arrangements, in which decisions are made by inter-governmental organisations generally founded on the principle of national sovereignty, in which each country has one vote, and in which the role of private sector and civil society representatives in formal decision-making is highly restricted.
- Newer governance arrangements, which in some cases are purely voluntary (*e.g.* most Internet governance structures), in some other cases are based on partnership arrangements between government and the private sector (*e.g.* the GSM MoU Association), and in other cases are private, not-for-profit ventures (*e.g.* the many private fora that have been set up by the ICT industry to standardise new technologies).

Although they do not make ICT decisions strictly in the senses listed above, informal policy fora such as the World Economic Forum, the Global Business Dialogue on e-Commerce, the DOT Force and the UN ICT Task Force itself are beginning to have an important influence on international ICT policy. Those like the DOT Force that are more inclusive of the wider range of relevant stakeholders from developed and developing countries may carry the seeds of future global ICT governance arrangements.

3 Developing countries

There are two important points to be made in connection with the use of the term "developing countries" in this report.

First, although the study will speak of developing countries in general, it is important to remember that there are tremendous differences among countries that are considered "developing" and no single definition of the term.

- The United Nations Development Program publishes an annual *Human Development Report* that ranks countries according to their score on a Human Development Index. The 2001 HDR lists 162 developing countries of which 49 are officially defined by the United Nations as Least Developed Countries (LDCs), a designation that carries special rights and privileges within the UN system.
- As well as listing developing countries, the HDR list two other "major aggregates": the 30 countries that are members of the OECD; and 25 countries in Eastern Europe and the Commonwealth of Independent States. While everyone would be likely to agree that no OECD country should be classed as developing, other international bodies such as the ITU include the "emerging economies" of eastern Europe and the CIS in this category.
- The World Bank classifies countries according to whether their inhabitants have high, middle or low income, measured in terms of GNP *per capita*, and generally defines low and middle-income countries as developing. On this ranking, however, there are countries whose high average income clearly belies their developing status. This is particularly the case for some resource-rich countries and small island nations, which suffer from major inequalities in income distribution.

Second, given the increasing role that non-governmental fora are playing in international ICT decision-making – and the desire of some intergovernmental organisations to include representatives of the private sector and civil society in their decision-making processes – the study examines the role of all developing country stakeholders, not just governments.

As a practical matter, it is important to consider that the international development policy agenda is currently focused on Africa, the continent that ranks lowest whatever definition of development is used and is home to the majority of the LDCs. Although Africa may represent the most important development challenge in ICT and other sectors, its needs should not completely overshadow those of other regions, and this study and report addresses the requirements of all developing regions.

4 Participation

The 'participation' considered in this study is not mere membership or simple attendance at meetings. It is active engagement in the whole decision-making process – which includes identifying issues, setting agendas, conducting policy research and analysis, formulating positions, building coalitions, negotiating with other stakeholders, implementing results and applying them within national ICT and development contexts. In another study undertaken for DOT Force IT 5, Nii Quaynor and Clement Dzidonu present a very useful framework for evaluating developing country participation in international ICT decision-making by measuring the size of the policy "footprint" created in the forum itself, and at the national, regional and global levels.

C Methodology

The study methodology had three main components.

- The first step in the project was to construct a map of international ICT decision-making in order to get a sense of the range of issues on the international ICT policy agenda, the main fora where decisions are made, what kinds of actors participate in these fora, and what different kinds of decision-making processes are used.

- This was followed by in-depth institutional studies of ITU, WTO and ICANN – three very different organisations, each of which has a major impact on developing countries in ICT-related matters. These institutional studies included:
  - desk research on current levels of developing country participation in these fora;
  - interviews with participants in three key decision-making processes – the March 2002 ICANN Meetings in Accra, the 2002 ITU World Telecommunications Development Conference that took place in Istanbul during the same month, and the WTO negotiations on trade in telecommunication services that took place from 1994-97;
  - case studies on developing country participation in emerging policy issues of high importance to developing countries – IP telephony at ITU, trade in telecommunication services at WTO, and resolution of disputes involving country code Top Level Domain Names, or ccTLDs, at ICANN.
- In parallel, local experts working in-country carried out case studies of ICT policy processes in six developing countries. Three of these countries – Brazil, India and South Africa – have participated significantly in international decision-making. The other three – Nepal, Tanzania and Zambia – have not participated as significantly.

In addition, a general questionnaire was sent to government ministries, regulatory authorities, NGOs and academics in other developing countries, to supplement the information gained from the institutional and country case studies.

An Advisory Group of international experts representing government, the private sector and civil society advised the research team throughout the study.

D Organisation of the report

This report presents an overview of the findings that emerged from the study, including the mapping exercise (Part II), institutional and country case studies (Part III), and conclusions and recommendations (Part IV).

An executive summary of the report is presented at the front of this publication, and is also available in brochure form. The text of this report is also available in a fuller publication incorporating country case studies and other relevant documents.

Mapping the International ICT Decision-Making Universe: Issues, Processes and Fora

A International ICT Policy Issues and Decision-Making Processes

The international ICT decision-making universe is vast, as a result of the "big bang" that took place in ICT during the 1990s, and is still expanding rapidly in spite of the collapse of the dot.coms and the contraction of other ICT industry sectors that has taken place in the last two years. It is highly differentiated in its institutional features and complex in its decision-making structures. It even contains "black holes" into which technologies, corporate ventures and policy issues occasionally disappear.

To help conceptualise this universe and visualise its parts, a matrix was constructed that arrayed the main kinds of issues on which international decisions are made on one axis, and the main types of decision-making process on the other. The general form of this matrix and some of the ICT policy-related questions it helps organise are presented in Figure 1.

As the horizontal axis of Figure 1 illustrates, decisions are made about four main kinds of ICT-related issues at the international level.

- Historically, the most basic of these decisions have concerned the fundamental laws, principles, policies and practices that govern the exchange of ICT products and services between countries, as well as those that govern ICT-related investments in infrastructure, human capital, intellectual property, etc.
- Other basic decisions concern the sharing and use of common ICT resources, such as radio frequency spectrum, satellite orbital positions, telephone numbers, and Internet domain names and addresses.
- Within the legal and regulatory environment created by these choices, decisions are made on a continuous basis with regard to the development of ICT

Figure 1: Mapping International ICT-Decision making: Issues Matrix and Some Sample Questions

Results of International ICT Decision-Making	Exchange of ICT services & products between soveriegn nations	Use of common ICT resources	Development of ICT technology, networks, services in all countries	Application of ICTs for equitable, sustainable global development
"Soft" ↑ **Development Assistance**	• *How can developing countries be more effectively engaged in trade negotiations?*	• *How can developing countries be more effectively engaged in the management of common ICT resources?*	• *What can be done to help developing countries provide universal service to modern ICT networks?*	• *What can be done to help developing countries implement eCommerce, tele-health and education, etc?*
Policy Coordination	• *Does participation in trade agreements require all countries to adopt the same regulatory policies?*	• *Can national sovereignty, public security and cultural identity be reconciled wth open access?*	• *How should developing countries deal with the policy and regulatroy implications of convergence?*	• *Does eCommerce require harmonised apporaches to taxation?*
Standards	• *How should revenues from inernational telecom and Internet services be shared?*	• *How can the interests of established users of common resources and newcomers be reconciled?*	• *Should developing countries expend resources on ICT standardisation? If so, in what areas?*	*Are standards needed to ensure electronic privacy and security or to guarantee the quality of eServices?*
Laws and Regulations ↓ "Hard"	• *What principles should govern ICT relations between developed and developing countries?*	• *Should international law and regulation always be based on "'first come first served" principles?*	• *Should "the right to communicate" be recognised in international law and regulation?*	• *is there a need for new international law and regulation on such matters as privacy?*

Narrow ← Scope of Internatonal ICT Decision-Making → Broad

technology, equipment, facilities, networks, services, applications, software and content.

- At a more general level, there has been increasing discussion in recent years about the impact of ICT on the economic, social, cultural, and political structures of developed and developing countries, on relations between them, and on the kinds of decisions that are needed to ensure that ICT supports sustainable global development and benefits people everywhere.

As the vertical axis of Figure 1 illustrates, a number of basic types of decision are made with respect to these core issues, each of which involves a different decision-making process.

- Decisions about the fundamental legal principles governing international ICT relations and related regulatory institutions, procedures and practices have traditionally been made by representatives of nation states and embodied in treaties. This is still the case, but in some areas (*e.g.* Internet) regulatory arrangements have been established under private law.
- Decisions about international ICT technical, operational and revenue-sharing standards are made through a variety of processes running the gamut from traditional mechanisms of intergovernmental cooperation to purely private ventures.
- Decisions about ICT policy coordination are made in various ways. Some are formal and carry the full weight of treaty obligations (*e.g.* commitments to the WTO regulatory principles). Others are informal and carry no such obligation (*e.g.* the Opinions of the ITU World Telecom Policy Fora, the Resolutions of the World Telecommunication Development Conference).
- Decisions by international organisations about providing assistance to developing countries are usually made by the staff of the organisations themselves, following general policies, priorities and guidelines established by their governing bodies.

As the questions contained within the individual cells of the matrix presented in Figure 1 illustrate, a wide range of general policy issues are now on the international agenda, each one of which could be broken down into sets and subsets of more specific issues. To complicate matters further, many of these questions are interrelated and interdependent in ways that are sometimes obvious and sometimes not.

In addition, the international ICT agenda is highly dynamic. New questions are always arising, often driven by technological innovation, sometimes in response to shifts in societal perceptions of what is useful or just. To be helpful, any attempt to map the overall contours of the international ICT policy universe, or to lay out a road that will lead to stronger, more meaningful participation by developing countries, must also be dynamic and responsive to change.

B International ICT Policy Fora

The international ICT decision-making universe is populated by a rapidly expanding number of policy-making institutions, processes and venues. Some are long-established. Others are newly invented, or newly involved in ICT decision-making. Some are primarily focused on the development of ICT technologies, products or services. Others are mainly concerned with access to and the use of ICT for economic, social or cultural development. Some ICT decision-making venues restrict participation to government representatives, some are purely private ventures, and some are mixed, open to participation by government, the private sector and civil society.

For purposes of this study, it is useful to divide international ICT fora into three main groups:

- Members of the United Nations (UN) family;
- International trade and finance organisations;
- Private bodies.

1 Members of the UN Family

There is only one member of the UN family whose sole purpose is to make decisions about ICT in the sense defined for the purposes of this study – the International Telecommunication Union (ITU).

- The **ITU** traces its origins back to 1865, has 190 Member States and some 650 non-governmental Sector Members. It has the widest decision-making scope among international ICT organisations, in terms both of issues addressed and types of decisions made. The ITU treaties provide an international legal framework for cooperation between governments, the private sector, and other actors. They also lay down the legal and regulatory principles that govern the international exchange of telecom services, as well as the allocation and use of radio frequencies and satellite orbital positions. Within this framework, the ITU's main responsibilities include coordination and registry of frequency and orbital assignments and telecom numbering plans; development of technical, operational, tariff and revenue-sharing standards; providing policy, regulatory, technical and capacity-building assistance to developing countries; and providing a forum for coordinating national approaches to global telecommunications policy and regulatory issues.

In addition, there are two other UN Specialised Agencies whose decisions affect the development of information and knowledge in general, and which in some cases relate directly to electronic access to information and knowledge via ICT.

- The decisions of the **World Intellectual Property Organisation (WIPO)**, which has 177 member countries, help to protect intellectual property rights (IPRs) in ICT technologies, products, software, applications and services, as well as to resolve disputes about these rights. In something of a departure from its

"self-regulatory" tradition, the Internet community uses WIPO to resolve disputes about the ownership of some Internet domain names. The international protection for IPRs traditionally provided by WIPO has been enhanced by the provisions of the 1994 WTO agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), and by a formal cooperation agreement between the two organisations.

- **The United Nations Educational, Scientific and Cultural Organisation (UNESCO)** supports the development of ICT-based content services (e.g. broadcasting) in developing countries and has long championed the adoption of content-oriented perspectives on international ICT decision-making.

Finally, there are two programmes of the United Nations itself with mandates which include the use of ICT to help achieve development goals.

- **The United Nations Development Program (UNDP)** helps developing countries apply ICT in support of UN development goals and has become a partner in the Global Digital Opportunities Initiative (GDOI) that was launched in January 2002 in response to the work of the DOT Force.
- **The United Nations Conference on Trade and Development (UNCTAD)** helps developing countries take part in the international trading system.

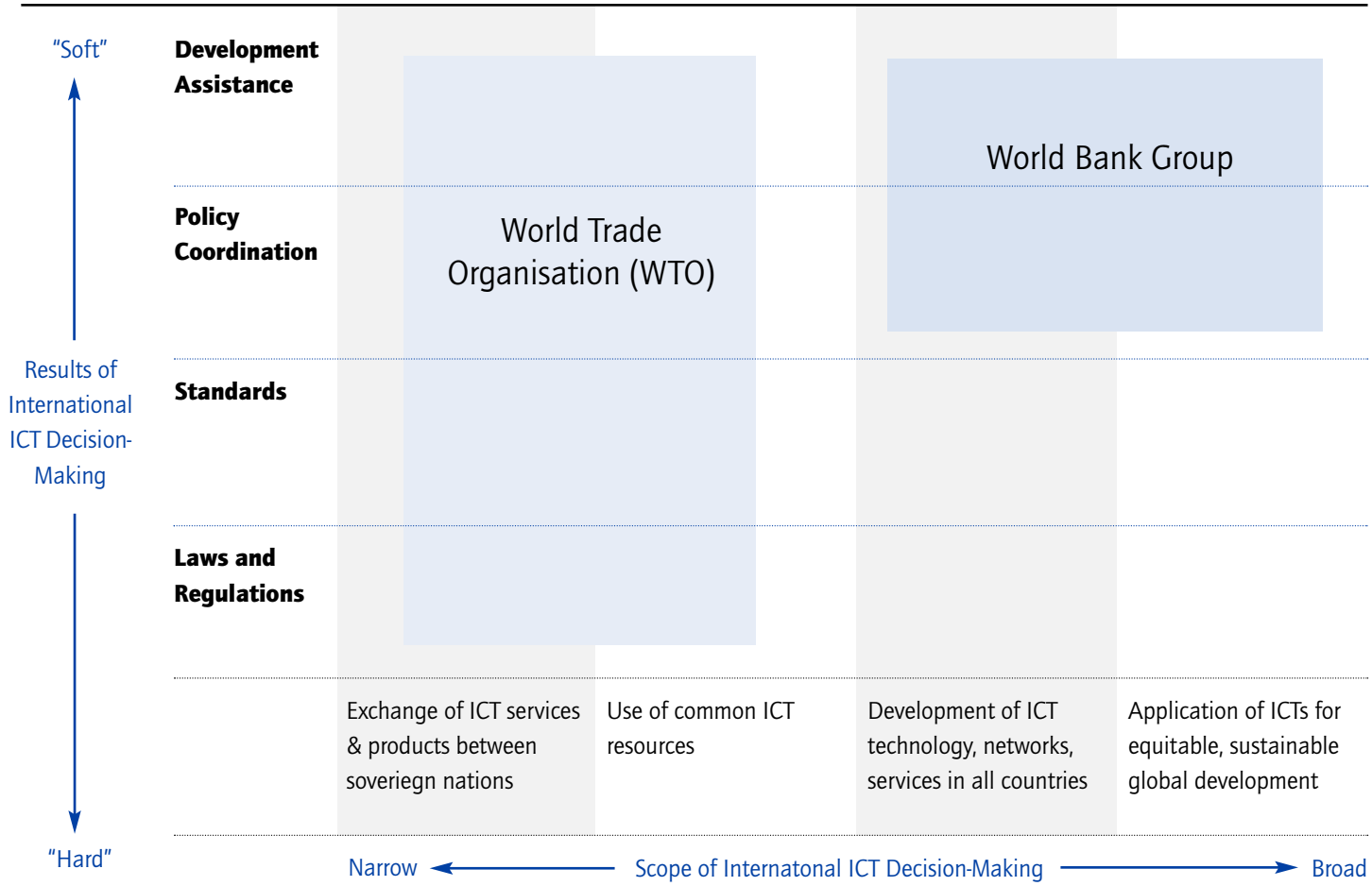
The roles of these organisations within the matrix of issues and outcomes are illustrated in Figure 2.

2 International trade and finance organisations

Although ICT is only one among very many items on the agendas of each of the following organisations, their decisions arguably have had and will continue to have the greatest practical impact on the development of ICT and the use of ICT for development, among international organisations.

- The **World Trade Organisation (WTO)**, which was established in 1994 as the successor to the General Agreement on Tariffs and Trade (GATT), has 144 member countries. In the past decade, the WTO has become a very important player in international ICT decision-making as a result of the 1994 General Agreement on Trade in Services (GATS) and the 1997 Fourth Protocol to GATS on trade in basic telecommunications services. The principles embodied in the GATS treaty provide a new legal framework for governing the exchange of ICT services between countries. This framework is designed to facilitate

Figure 3: Mapping International ICT-Decision making: International Trade and Finance Organisations



foreign access to domestic ICT markets and is based on trade principles, such as transparency and non-discrimination. The WTO and GATS treaties also provide a legally-binding mechanism for resolving disputes between countries, including disputes that might arise about ICT services, products or investments. No such mechanism existed previously. Currently, 84 countries, including many developing countries, have made commitments to open their domestic markets to foreign investment in and/or foreign supply of basic and value-added telecommunications services. In addition, a substantial majority of these countries have made commitments to apply a common set of principles to the regulation of telecommunications in their jurisdictions.

- The **World Bank Group (WBG)**, which has 183 member countries, has had an important influence on ICT development in a number of ways. The five financial institutions that make up the WBG provide loans, equity capital, investment guarantees, and development assistance to governments, private investors and foreign investors in developing countries. The WBG has used these tools to encourage market-oriented policy and regulatory reforms, particularly in the telecommunications sector, and has provided an extensive programme of research, training and technical assistance in these areas. In recent years, the WBG has broadened its focus to include the role that ICT plays in reducing poverty and creating the conditions for sustainable development, by facilitating access to knowledge (e.g. the Global Knowledge Partnership, the Development Gateway).

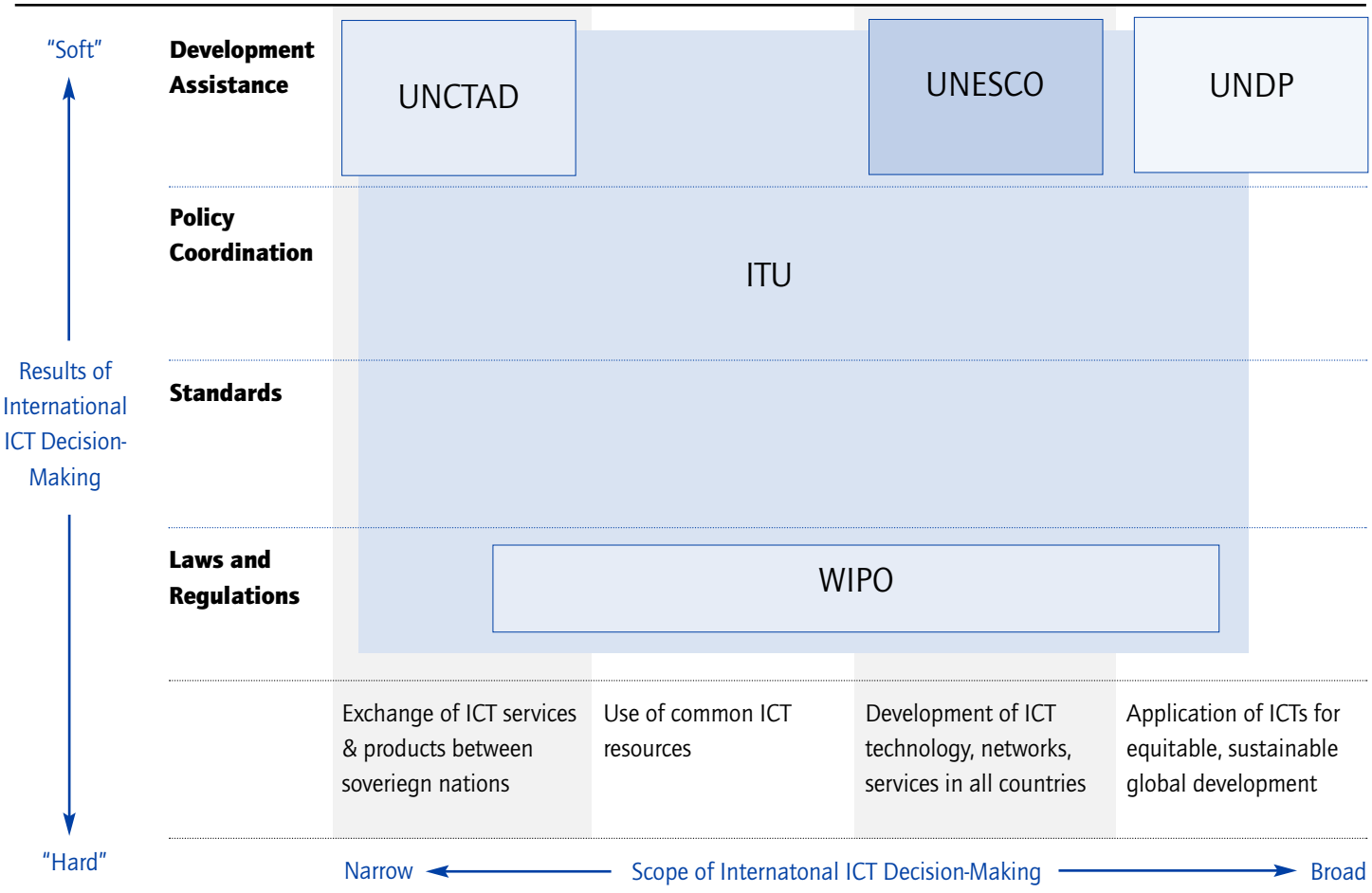
The roles of these organisations are mapped in Figure 3.

3 Private sector bodies

ICT has never fitted easily into the traditional intergovernmental decision-making template. Telecommunications is the only ICT area in which government has ever played a significant policy and regulatory role, but even in this area the private sector has participated in international decision-making since the days of the telegraph. Other ICT sectors –components, computer hardware, software, and networking – have always been private enterprises, governed (if at all) at the international level through non-governmental bodies such as the International Standards Organisation.

ICT developments over the past couple of decades have created new needs for international governance arrangements tailored to a sector which is increasingly characterised by private ownership and globally competitive markets, and which is driven by technological push and commercial pull rather than public policy and long-term planning. In general,

Figure 2: Mapping International ICT-Decision making: The UN Family



these arrangements are being created outside the traditional international governance framework.

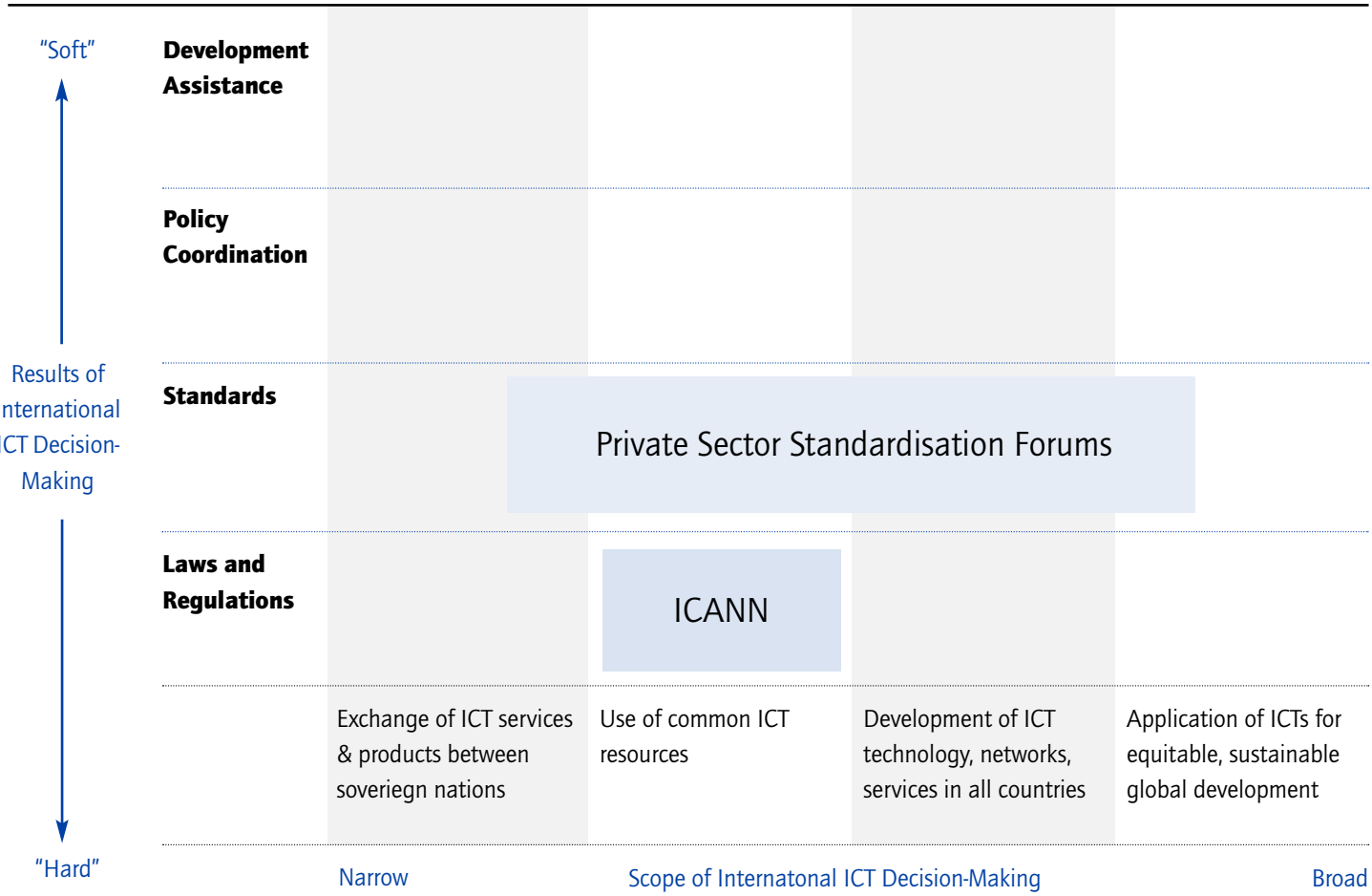
Initially they were limited to technical issues such as standardisation. The rapid technological development of ICT in the 1990s, combined with the opening of global ICT markets, triggered two different and somewhat opposed developments.

- On the one hand, rapid technological innovation and globalisation made it important to develop global technical standards more rapidly than could be done through existing standardisation bodies. This led to the creation of **private sector fora** to develop international standards for emerging ICT technology, networks and services.
- On the other hand, the creation of regional free trade areas combined with the desire to defend existing regional markets and gain competitive advantage in other parts of the world that were opening up to competition led to the creation of **regional standardisation bodies**, most notably the European Telecommunications Standardisation Institute (ETSI), as well as to the creation of a **Global Standards Collaboration** forum between regional and international organisations.

More recently, private arrangements have been extended beyond technical standardisation into policy domains that in the past would probably have been the primary or exclusive preserve of governments.

- The **Internet Corporation for Assigned Names and Numbers (ICANN)** is the leading and so far only example of an attempt to create a private organisation to provide global ICT governance of a kind traditionally provided by intergovernmental organisations. ICANN is a not-for-profit, private sector organisation, incorporated in the U.S. state of California. It was established in 1998 by a coalition of Internet business, technical, academic and user communities as a forum for coordinating the technical management of the Internet domain name system, a task previously undertaken through various voluntary, *ad hoc* and US government-funded arrangements. ICANN aims to accomplish this objective through an open process that builds consensus among members of the Internet community on an international basis. The ICANN structure currently includes supporting organisations, which, among other things, coordinate the allocation of the numerical addresses used to identify individual computers connected to the Internet and the domain name system that translates these numerical addresses into more user-friendly ordinary language. Governments are only involved in ICANN's work through an international Government Advisory Committee (GAC), which provides advice to the ICANN Board of Directors. As an example of industry "self-regulation", ICANN therefore represents a new approach to international ICT decision-making. Organisations of this kind are represented in Figure 4.

Figure 4: Mapping International ICT-Decision making: Private Bodies



C Participants in international ICT policy processes

1. Old hands

In general, formal participation in international ICT policy has been limited to members of the various international organisations. Apart from some long-established standards bodies, this meant that representatives of governments had the final say. However, this does not mean that other stakeholders were completely excluded from the decision-making process.

- The ITU, for example, has over 650 non-governmental members, the vast majority of which are now private corporations. These members do almost all of the ITU's standardisation work, provide much of the technical basis for its Radio Regulations, and have become active players in its Development Sector. In addition, government delegations to ITU meetings often include private Sector Members. However, apart from some technical standards, all of their work requires formal approval by government members.
- Although civil society organisations do not participate in the work of the ITU, they are engaged in the work of the UN and some of its specialised agencies in a well-recognised and long-established consultative capacity. However, this involvement stops short of formal participation in decision-making.

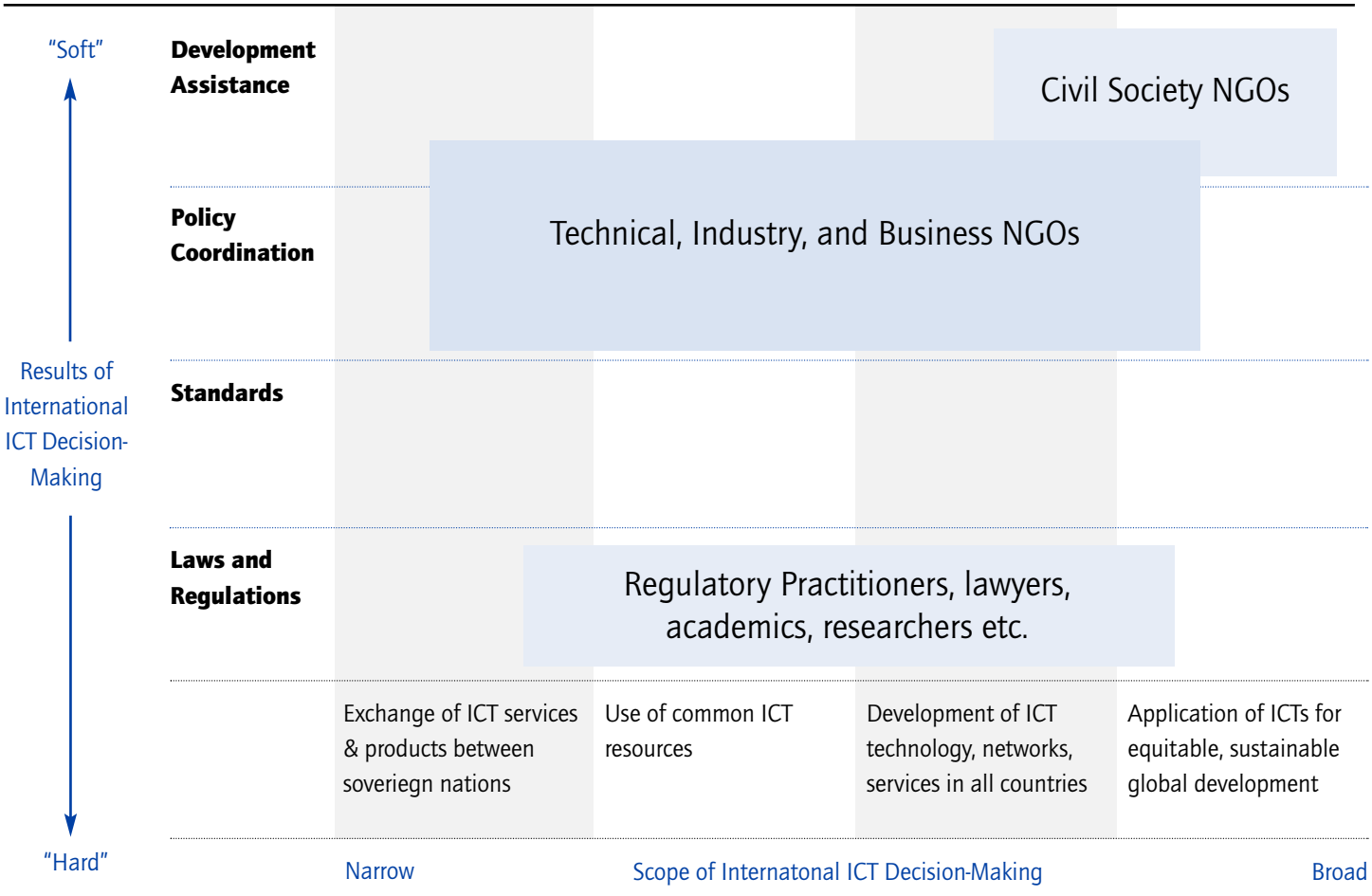
In contrast, although both organisations are obviously sensitive to the interests of the private sector, participation in WTO and World Bank decision-making has been strictly limited to government representatives, and has only recently begun to take notice of civil society concerns.

2. New players

In the past decade, reflecting the changes that have taken place in the broader international arena, a large number of new actors have become involved in discussion and debate on international ICT issues. This has mainly taken place outside the formal decision-making processes of those previously mentioned international organisations with ICT responsibilities. These new actors include:

- **non-governmental organisations (NGOs)**, some of which are primarily concerned with promoting the development of ICT-based networks and services in developing countries – particularly via the Internet and community-based initiatives – while others are focused on the use of ICT to promote sustainable economic, social, cultural and political development;
- **business community organisations (BCOs)**, including chambers of commerce, whose main interest is in promoting policies, regulations and practices that encourage trade and investment between countries- as well as task forces and roundtables that address

Figure 5: Mapping International ICT-Decision making: The Role of Non-Governmantal Actors



emerging global issues of policy, regulation and development from a private sector perspective;

- the legions of **academics, researchers, policy advisors and regulatory practitioners** who engage in ongoing public discussion, debate and analysis of the basic principles that should guide decision-making on international ICT issues.

These new actors have had a steadily increasing influence on international ICT policy discussion, and their representatives have become engaged in many of the informal multi-stakeholder fora that have been established in recent years, including the DOT Force and the United Nations ICT Task Force.

3. The Outsiders

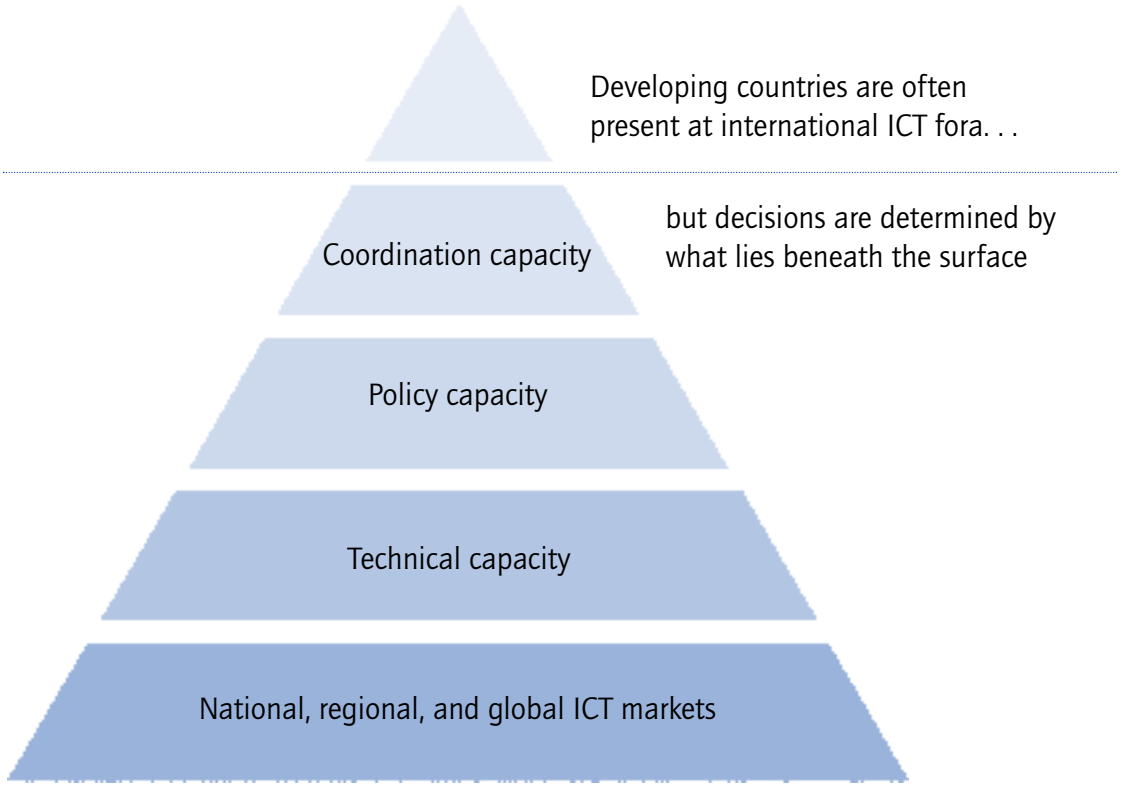
To understand the dynamics of the international ICT decision-making universe, it is important to see it in the context of the global ICT industry as a whole. As figure 6 illustrates, international ICT decision-making fora are "the tip of the iceberg", and the decisions they make are largely determined by what happens "below the surface".

The great majority of the issues that come before international fora have their roots in the ICT marketplace nationally, regionally, and – increasingly – at the global level. For the past three decades, this market has been characterised by rapid technological advance, continuous product and service innovation, and steadily increasing demand from corporate, institutional and residential customers. Although some market segments are now on pause, it is difficult to imagine that growth will not resume, albeit at more sustainable levels. The world as a whole agrees that it needs better information and better communication to support its development goals.

To complicate matters further, some of the most important decisions about ICT products and services on offer in the marketplace are made by actors who may have little or no direct representation in traditional international ICT decision-making fora. These include:

- **Commercial actors** operating in ICT market segments where proprietary technologies dominate because of market power (*e.g.* PC operating systems), where standards are set *de facto* rather than by negotiation (*e.g.* office suites), or where no standards exist and incompatible competing technologies battle for consumer preference (*e.g.* some segments of the consumer electronics marketplace).
- **National and regional regulatory authorities**, with mandates that may be sector-specific (telecoms) or of general application (*e.g.* competition, Intellectual Property Rights), and which carry global weight (*e.g.* Federal Communications Commission accounting rate decisions, US and European competition policy decisions).

Figure 6: International ICT-Decision making: The Tip of the Iceberg



By the time ICT issues surface at the international level, they have generally been filtered several times – by technological possibilities, customer demand, market research, the economics of production and supply, and the policies and regulations of leading ICT countries and regions, as well as negotiations between major suppliers and trading blocs. International ICT decision-making is a "bottom-up" process in which those who are not present when decisions are made in a sense may have more influence than those who are, even among developed countries.

When international ICT decision-making is seen in the context of the sector as a whole, it becomes clear why developed countries may not always see it as in their interest to encourage stronger participation by developing countries. They may well believe that developing countries lack the technical, policy and regulatory capacity required to add value to the process, and that stronger participation will only lead to inconvenience, delay and higher costs. This view is wrong in principle, if G8 members and other developed countries are committed to the principle of inclusive decision-making. It is also shortsighted, since it fails to take into account the many direct and indirect benefits that could accrue to developed countries from the growth of ICT capacities in developing countries, and from the expansion of their markets. Since the decisions of international ICT fora have a direct bearing on both these possibilities, it is clearly in the long-term self-interest of developed countries to adopt a more inclusive approach.

D ICT and Development – the State of Debate

It is clear that, in spite of the institutional heterogeneity that characterises the international ICT decision-making universe, a number of basic assumptions underlie its most significant activities and set the framework for discussion and debate about the relationship between ICT and development.

There is a general belief among high-level international policy-makers that ICT can play a very important, leading edge role in development. This belief is derived from the role ICT has played in recent decades in developed regions and in some developing countries, as well as its general impact on economic, social, cultural and political life. However, it is important to note that:

- This belief is not universally shared by development professionals and developing country policy-makers, some of whom (a) doubt that investment in ICT automatically translates into economic and social development and/or (b) believe that development assistance activities should concentrate on other areas, and let the market take care of ICT.
- ICT professionals and developed country policy-makers, for their part, have sometimes overestimated the contribution of specific technological solutions to development. (This is true of developed countries as well, as the dot.com crash and the contraction of the telecommunications industries have demonstrated). In addition, they have often underestimated the challenges facing developing countries in terms of the affordability of new technologies and the costs of economic, social and cultural adaptation.
- Development and ICT professionals, along with developed and developing country policy-makers, face a genuine dilemma which arises from the fact that, in the short term, ICT often represents a more costly way of doing things ("old things in new ways"). Long term benefits and opportunities for innovation ("new things in new ways") are more difficult to identify, estimate and cost-justify – as the ICT/productivity debate that took place in developed countries in the 1990s demonstrates.

Whatever doubts and debates exist about the macro relationship between ICT and development (which one is the chicken and which is the egg?), at the sectoral and micro level, there are certain policy principles that are accepted by almost all developing countries and other players in the development game.

- There is almost universal acceptance that private investment and the establishment of competitive markets for ICT products and services (subject to independent regulation to protect the public interest) is the best way to develop ICT and to gain development benefits from them.
- There is a parallel acceptance that the appropriate role of government is as a policy-maker and a leading user of ICT (e-government, tele-health, distance education).
- There is widespread acceptance of the notion that ICT and development strategies should be based on partnerships between government, the private sector and civil society involving both developed and developing countries – in policy formulation, where these partnerships take the form of open, participatory, policy-making processes, as well as in the design and implementation of public ICT projects, where the three sectors may work side-by-side.
- There is a general movement to change the emphasis of development assistance, by putting more focus on support for building human capacity in all its dimensions (education, training, access to information and knowledge, governance), and less on building physical infrastructure.

While these principles are widely accepted, implementing them is a difficult challenge for many developing countries, both domestically and in terms of their international engagement.

E Making Connections – the Fundamental Challenge

Even though it represents only the tip of the ICT iceberg, the international ICT decision-making universe covers a vast array of issues and involves a large number of actors, a number that is rising rapidly as globally competitive markets for ICT and increasing policy awareness of its implications generates new requirements for coordination, legislation and regulation. It is difficult for anyone, particularly in developing countries, to keep track of what is going on and to evaluate the importance of different events and fora.

As figure 7 demonstrates, developing country participation in this universe is very uneven.

- It is highest, not surprisingly, in fora that are primarily concerned with general policy matters affected by ICT, and with assistance to developing countries – in other words, the UN and its development agencies.
- Developing country participation is also relatively high in some of the more specialised fora, such as the ITU, WTO and WIPO, that deal with legal and regulatory matters of concern to governments.
- Beyond these traditional preserves of state power, developing country participation is low to non-existent in the rising number of international, private sector and informal fora now dealing with technical and policy issues – yet it is these bodies that increasingly set the international ICT agenda

In spite of – or perhaps because of – the growing number of actors and the emergence of non-traditional organisations as important players, there does not appear to be a real connection between international ICT decision-making fora and the global development agenda, as articulated for example in the UN Millennium Declaration and the New Partnership for African Development (NEPAD). On the one hand, many players are seeking to develop partnerships and/or to enlarge their mandates to provide this link. On the other, though, developing countries do not feel they are setting the ICT/development agenda, and that many of the issues of most concern to them are falling through the cracks.

As they seek to make the connection between ICT and development, it is clear that all of the main international ICT decision-making venues face a common set of challenges.

It matters not whether they are long-established or newly-minted – or whether they are purely intergovernmental, purely private sector, purely civil society or open to all – or whether they draw their inspiration from the world of telecommunications, the world of the Internet, the world of content creation, or the world of trade and commerce – or whether they are focused on ICT technologies, products, services, or applications.

All of the leading international ICT fora are looking for ways to build partnerships between government, the private sector and civil society and ways to strengthen participation by developing countries in their decision-making processes. There appears to be a general recognition – that is reflected in the work of the DOT Force and the mandate and composition of the UN ICT Task Force – that successful resolution of these two, inter-related issues is an essential prerequisite to effective action by the international community to bridge the digital divide.

Assessment of the Role Currently Played by Developing Countries in International ICT Decision-Making

Having mapped international ICT decision-making, the study proceeded to its second major task, which was to assess the role currently played by developing countries and to identify obstacles to full and effective participation. To provide both "top-down" and "bottom-up" perspectives on these questions, a small number of international ICT institutions and developing countries were selected for detailed study.

A Organisation Case Studies

At the institutional level, the study focused on the ITU, WTO and ICANN for several reasons. Their decisions have a significant impact on developing countries. They deal with three different aspects of international ICT policy. They represent three distinctly different models of global ICT governance, and engage developing countries in different ways and to different degrees.

- The ITU has the greatest developing country involvement in several senses. By its own count it has 158 developing country members, including all LDCs, and 162 private Sector Members from the developing world, including 9 from the LDCs. Roughly 20% of its budget is allocated to support the work of the ITU Telecommunication Development Sector which holds a quadrennial World Telecommunication Development Conference, hosts study groups on telecommunication development issues, and manages programmes that provide developing countries with assistance in the areas of telecommunications' policy and regulation, finance, infrastructure development, ICT applications and human resource development. It also publishes regular statistical and analytic reports on the state of world and regional telecommunications development and runs workshops on emerging international ICT policy issues.
- The WTO, which does not have a definition of developing countries, nevertheless reckons that it has about 100 developing country members overall. However, for purposes of this study the important fact is that 68 developing countries, including 5 LDCs have made market access and regulatory commitments under the GATS, its Telecommunications Annex, and Fourth Protocol. Like its GATT predecessor, the WTO permits "special and differential treatment" for developing countries in the implementation of commitments. At the ministerial meeting which took place in Seattle in 1999, WTO members were unable to agree on an agenda for their next round of negotiations, in large part because developing countries insisted that their needs and interests be taken more fully into account. The Doha ministerial conference which took place earlier this year successfully addressed these concerns. It launched a new round of negotiations with the central theme of "trade for development", as well as a considerably strengthened programme to assist developing countries.
- ICANN has a completely different view of the world in which individuals, private companies and not-for-profit organisations with an interest in the Internet are organised into constituencies, supporting organisations, regional groupings, and other decision-making and management bodies – but in which countries are not counted and governments are represented only in an advisory capacity. When ICANN was established as an experiment in industry self-regulation and private global governance, it was recognised that the different regions of the world should be represented on its Board of Governors with the result that some developing country representatives are included. ICANN has also made it a practice to hold meetings in developing countries, most recently in Ghana. However, there is currently very little developing country participation in ICANN, and the organisation is only beginning to come to grips with the question of how to strengthen their role.

B Country Case Studies

The six countries selected for national case studies were chosen to reflect the great differences that exist among developing countries in terms of geography, demography, wealth and other key development indicators. They were also chosen to reflect the fact that some developing countries have played a more significant role than others in international ICT policy fora, in the expectation that lessons could be learned by comparing experience. While this proved to be the case, the country studies yielded additional insights which underlined the fact that each country is unique and that there may be important distinctions between countries apparently at the same overall level of development as well as interesting similarities that cut across classification bands.

- Tanzania and Zambia are both LDCs, in the same sub-region of Africa and ranked within three places of one another on the UNDP Human Development Index. Neither country has so far been counted as a very significant player on the international ICT policy scene. However, this may be in the process of changing. In recent years, Tanzania has begun to make a mark in the ITU and been well represented on the DOT Force. A project is underway to develop a national strategy and

to engage all relevant stakeholders in ICT policy formulation. In Zambia, by contrast, there appears to be limited awareness at even the highest levels of the relationship between ICT and development. In spite of some very good research and analysis done under the aegis of the UN Economic Commission for Africa, nothing comparable to the Tanzanian initiative is happening in Zambia.

- Nepal and South Africa are a study in contrasts. One is a small mountain kingdom largely hidden away from the world, the other a leader not just in Africa or among developing countries, but in the world as a whole. One ranks among the LDCs and countries with a low HDI; the other is squarely placed among the middle ranks in terms of per capita income and overall human development. However, they share a common problem. The governments of South Africa and Nepal are both fully aware of the role that ICTs can play in development. Both have developed comprehensive ICT strategies and established independent regulatory authorities. And both are having trouble implementing their policies and strategies for internal governance reasons, specific to each country.
- Brazil and India are recognised as developing country heavyweights in the world of international ICT policy. Both have long had strong technical capacity, which they have leveraged into policy leadership. An Indian served as ITU Secretary-General in the 1960s, while the current Deputy Secretary-General is from Brazil. They were instrumental in re-orienting the WTO agenda pre- and post-Seattle so that it would focus on trade and development. However, the case studies show that there are clear differences in the paths they have taken in the past, and in their attitudes toward the future. India has steadily and deliberately opened itself to the world, beginning with telecommunications sector reform and using its technical base and competitive advantages to build a strong position in software and e-commerce, so that it faces the future with a sense of optimism. Brazil, on the other hand, has undergone three dramatic shifts in ICT policy and strategy in the past thirty years and has seen its technical capacity steadily eroded, at least in part because of choices made. On the results of our study, it faces the future with some trepidation.

When the results of the institutional and country case studies were compared, there was a high degree of coherence between "top down" and "bottom up" points of view on the obstacles facing developing country participants, and convergence on the actions required to strengthen their engagement. This part of the report sets out the main obstacles that were identified. More detailed information and analysis is contained in the full country case studies, available as annexes to this report.

Obstacles

1. Awareness

Lack of awareness was cited with surprising frequency as the most significant barrier to developing country participation in international ICT decision-making, in several different senses.

At the country level, interviewees reported a lack of awareness of the importance of international ICT decisions for national policies and regulations. More significantly, they reported a lack of awareness of the role that ICT has the potential to play in supporting economic and social development. This was considered to be a problem in all sectors and at all levels – from the highest reaches of government, to the owners of small- and medium-sized businesses, to rural inhabitants and "the man in the street". The basic problem, according to many of the people interviewed for the study, is that people simply do not see – in concrete, practical terms – how ICT can make a difference to their lives, and how it can contribute to their development as individuals, as members of families and communities, and as citizens of a country.

At the international level, there are also clear differences in the extent to which organisations are aware of the needs of developing countries and of the processes required to establish links between ICT and development. Among the institutions studied, the problem is clearly greatest in ICANN. In WTO, it took the failure of the Seattle ministerial and the events that surrounded the conference to begin the process of re-working the international trade regime to reflect and accommodate the needs and interests of developing countries more fully. In the ITU, the almost complete absence at the Istanbul World Telecommunication Development Conference of representatives of development agencies at a meeting devoted to the theme of "bridging the digital divide" raises questions about whether the organisation yet fully understands the difference between 'the development of telecommunications' and 'telecommunications for development'.

Awareness obstacles: the case of Nepal

The main obstacles are lack of awareness of international norms and policies. Even the media in Nepal is not sufficiently updated about the issues because of lack of access to information. The most important improvement to the lack of capacity can only come with better access to information, and here the role of traditional media is important. Some English-language media in Kathmandu have IT pages, but these are restricted to regurgitated information from the Internet. There is very little debate on the development applications for distance learning, computer literacy, localisation and other topics more relevant to Nepal. IT pages are also virtually non-existent in the Nepali-language media where it is perhaps needed even more. Organisations like the Nepal Press Institute could be used for developing a training curriculum in new media. Most interviewees felt that there should be more training seminars with both government, private sector and civil society participants.

Kunda Dixit, Nepali Times, Kathmandu, Nepal

2. Lack of technical and policy capacity

Lack of technical and policy capacity on ICT issues – particularly on emerging issues in such areas as the migration to IP-based networks, the implementation of future generation mobile communication systems, e-commerce applications, and protection of intellectual property rights – are viewed as fundamental obstacles to effective participation by developing countries.

At the country level, since technical and policy capacity can only be developed through years of education and work experience, it is recognised that there is no quick and easy way to overcome barriers in this area. Capacity-building is clearly seen as a long-term challenge that requires the engagement of government, the private sector and civil society from both the developed and developing worlds in a multi-pronged approach that takes advantage of every existing opportunity to develop human capital and imagines new ones as well.

Many of the people consulted for the study draw inspiration from the success that a number of developing countries in Asia have had in building ICT capacity. However, they also recognise that strategies which worked in the past may not be replicable in a world where privatisation, competition and globalisation are the norms and in which barriers to competitive market access are being steadily dismantled.

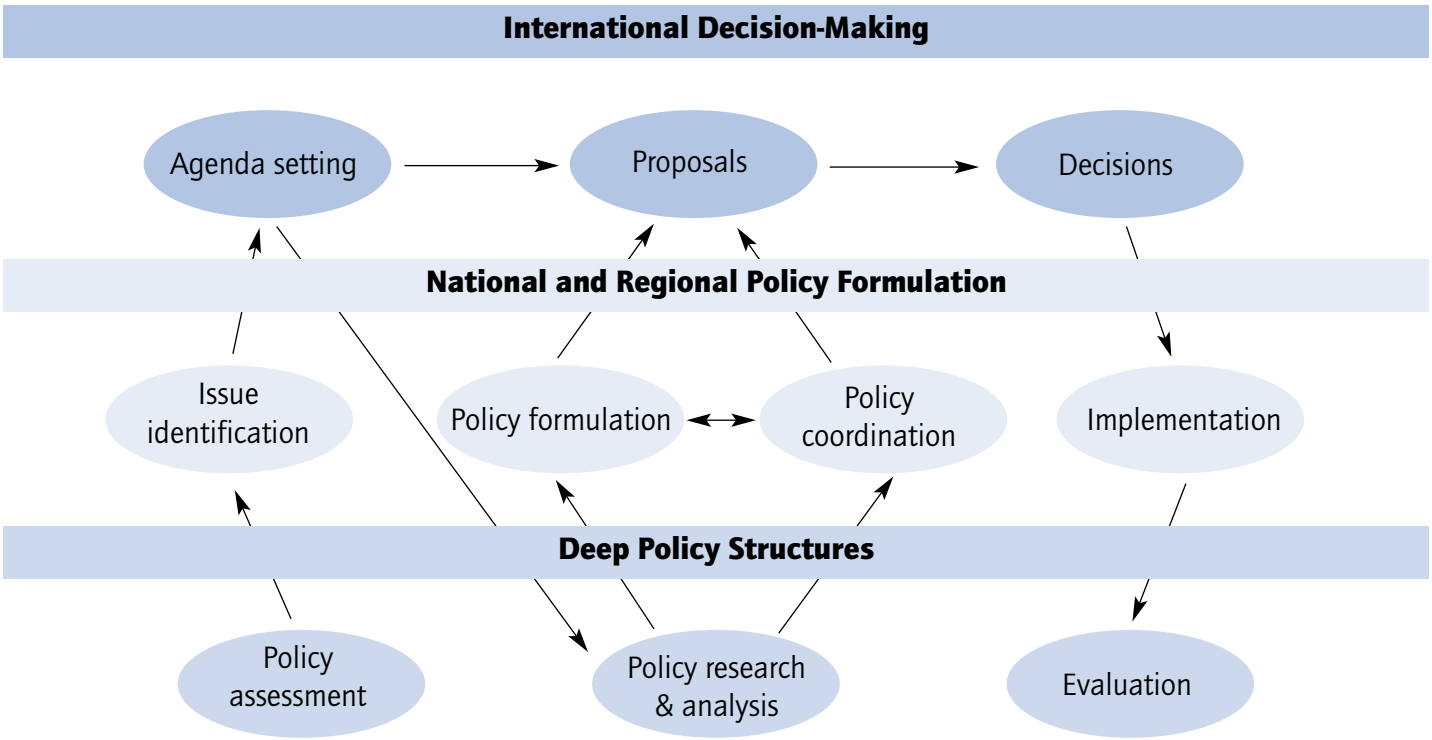
Given the close links between technical and policy capacity, there is also concern at the great difficulty the public sector has in retaining and attracting people with technical expertise, when their skills are in demand by the private sector on a global basis. The fact that some international ICT fora do not allow participation by non-government stakeholders may further compound the problem.

At the international level, the three institutions studied attempt to support the development of technical and policy capacity in developing countries by conducting research and analysis on key issues, providing workshops and seminars, and offering on-line resources which may include self-directed study.

While to some degree helpful, these efforts are very limited in relation to developing country requirements. In many instances, they provide general overviews of policy areas but do not necessarily help participants take the next step, by coming to grips with the detail of issues and the variety of options they face in their national environments. Nor, in general, do they train people in how to take part in international decision-making processes. In addition, some interviewees reported that training sessions are not always attended by those who would benefit most.

There is clearly a limit to what the staff of international organisations can do to help build policy and technical capacity, since in many cases this work is in addition to their normal duties. The study found that there is a need for new

Figure 8: The International ICT Policy Process



Information obstacles: the case of Tanzania

There is no national ICT strategy that covers telecommunications, trade in telecommunications goods and services, and Internet. Therefore, at the time of the study (March 2002), these issues were handled by different Government departments and agencies. However, the Government formed an ICT Task Force (the Task Force) under the Ministry of Communications at the beginning of 2002. The Task Force is charged with the responsibility of developing a national Information and Communications Technology (ICT) Policy. The intention of the Task Force is to produce an ICT Policy that will address all pertinent issues related to the development and use of ICT.

All interviewees were not sure about the level of the country's representation at the World Trade Organisation (WTO) in matters relating to trade in ICT services. Some of the interviewees said that WTO issues on trade in ICT services were probably handled by the Ministry of Trade in collaboration with the Ministry of Foreign Affairs. Since the Task Force is developing an ICT Policy that should cover all aspects of ICT, it is important that the Task Force should, at the very least, be familiar with the WTO's role and requirements on matters relating to trade in ICT services, lest they develop a policy which might have provisions that are contrary to the WTO requirements.

While there is no strict requirement for the Policy to comply with the WTO requirements since Tanzania has not made offers (by March 2002) to the WTO on trade in telecommunications services, it would be advisable that all members of the Task Force should be aware of these requirements so that they can make informed decision as regards whether it would be prudent to make the Policy future-proof with respect to WTO requirements.

Tsietsi Motsoela, ICT Consultants (PTY) Ltd., Mogodishane, Botswana

approaches to this problem by the international community. Two DOT Force initiatives – the International eDevelopment Resource Network and the DOT Force Entrepreneurial Network – respond to this need but more must be done.

As figure 8 illustrates, international ICT decision-making is a multi-layered process. Its most visible surface elements – the setting of meeting agendas, the submission of proposals, and the making of decisions – are supported by complex processes at the national and regional levels. Although most developing countries participate on the surface of international ICT decision-making by attending meetings, making proposals, and intervening in debates, many lack the underlying capacities needed to have a real impact on decisions, in part or in whole.

Capacity obstacles: the case of Brazil

Structural issues are not restricted to ICT segments, but reflect a more profound phenomenon that arose after the fall of the Berlin Wall and the end of the bipolar conflict that characterised the post-war international order. We are currently witnessing a change in the paradigm of the international system's operation, and furthermore, a change in the paradigm of economic development itself. In this new and more complex international environment – in which distinct interests in each country predominate and new, non-government players acquire growing relevance – there are frequent official and private complaints that there is a lack of Brazilian capacity, public and private, to influence the restructuring of the world order adequately, in which economics become more and more centered around the legal system, with special emphasis on forming new international rules on diverse topics related to trade and finance in general, and not just related to ICT.

Marcio Wohlers, André Correa & Katia Almeida
Centre of Latin American Economic Studies in Telecommunications (CELAET), Sao Paulo, Brazil

3 Lack of easy, affordable and timely access to information

Lack of easy, affordable and timely access to information and analysis about ICT-related issues, fora, and processes was consistently identified as an important barrier to developing country participation.

At the national level, the rapid increase that has taken place both in the range of issues on the international ICT policy agenda and in the number of organisations involved in ICT policy-making has made it increasingly difficult even for developed countries to keep track of what is going on, to anticipate key events, and to plan strategies for successful outcomes. But while the main problem for developed countries might be "information overload", the main problem for developing countries is still very much one of information scarcity. The costs and technical limitations associated with Internet access in many developing countries, along with the costs of paper-based publications and consulting studies on international ICT issues were cited as significant impediments to effective developing country participation.

At the international level as well, the increasingly crowded ICT agenda and meeting schedule is creating major coordination problems within and between organisations. As international fora seek to serve the interests of their members as effectively and efficiently as possible, by minimising overlap and duplication and maximising cooperation and partnership, it is important for them too to have easy access to a "big picture" of what is going on.

4. Weaknesses in ICT policy processes

Weaknesses in ICT policy processes drew more comment than any of the other barriers to effective participation identified in the study.

At the national level, general weaknesses reported in the case studies included a lack of political leadership, the absence of national ICT strategy, ineffective coordination between different government departments and agencies with ICT responsibilities, and the absence of ICT policy processes that are open to participation by all relevant stakeholders and based on public discussion and debate in the general and specialised media.

In addition, specific weaknesses were reported in the preparatory processes for international ICT meetings. These include weaknesses or outright failures in the following areas:

- dissemination of information about meetings to affected government departments and other stakeholders;
- preparation of national positions on the basis of consultations with all interested and affected parties;
- inclusion on national delegations of the technical and policy experts best qualified to participate in international meetings;
- dissemination of information about the results of international meetings to interested parties and the general public; and
- implementation and accountability mechanisms.

At the sub-regional and regional levels, the case studies found that a lack of effective institutions and preparatory processes for international meetings has weakend participation by developing countries, all the more so since regional coordination of policy positions is becoming an increasingly important feature of many international ICT decision-making fora.

At the international level, there were curiously few complaints from developing country participants about policy processes themselves, which can appear complex and arcane to outsiders whether they involve established organisations, such as ITU and WTO, or newcomers like ICANN. However, concerns were frequently expressed about meeting schedules, venues and rules of procedure.

Developing countries generally send small delegations to international meetings, in part because of cost and the need to retain decision-makers in country, in part because they may have relatively few people who have the knowledge and expertise required to follow what is going on, let alone actively participate. The fact that different organisations often schedule overlapping meetings, or that meeting agendas schedule important sessions in parallel, imposes additional burdens on developing country participants. Their problem is further compounded if rules of procedure exclude certain classes of stakeholder from participating in decision-making processes. Some developing country delegates to the ICANN Accra meetings, for example, felt that it would be easier for their countries to participate if government representatives were not excluded. On the other hand, there may be cases in which the restrictions imposed on private sector participation in ITU fora weaken developing country participation.

National and regional policy obstacles: the case of South Africa

While in South Africa there were generally high levels of awareness, access to information, technical regulatory and policy capacity and even financial resources to some degree, to participate in international ICT decision-making, the top-down approach of government to policy was identified as a limitation to strengthened decision-making.

A more participatory national policy process, greater use of capacity outside of Government, regional leverage of common interests to influence agenda setting, swing or veto votes, and generally lobby by organisation would improve developing country participation.

Several respondents identified the key to shifting the balance of power within the international organisations as regional co-ordination, caucusing and lobbying. Where a 'community of interests' had been created in Africa or regions of it, and resources had been pooled, enormous gains had been made. Several respondents cited issues particularly in the area of spectrum planning for international meetings that successful collective positions had been adopted to good effect. The failure of Africa and regions of Africa to do this consistently was compared to the consistent success of Arab countries in achieving this.

Alison Gillwald, LINK Centre,
University of the Witswatersrand, South Africa

International policy obstacles: the case of Zambia

A number of decisions passed by the ITU, WTO and others are often derived from boardrooms or government offices of the developed countries and implemented on the developing countries.

These decisions and processes do not take into account the real requirements of the third world. This is not to say that all decisions do not meet developing countries' requirements.

To have a sense of ownership and responsibility over a decision there is a need to consult the exact needs of the developing countries rather than base decisions on the assumptions of a few participating individuals. The participation of Zambia comes more or less from the government and not from that of other stakeholders in the country.

The form of participation in most cases is from attending meetings where decisions, already made, are discussed and implemented, sometimes without fair debate.

In most cases, there is no room for negotiation as execution times are already fixed, without consultations.

There is a need to change this. What is needed is a scenario where developing countries will actively participate in the instigation of ideas, brain storming and make the proposals on the work to be done, based on their background and ability to deliver.

John Slaighter Munsaka, University of Zambia, Lusaka, Zambia

5. Financial barriers

Somewhat surprisingly, financial barriers were not extensively discussed by people interviewed for the study, although they were given prominence in written replies to the general circulation questionnaire.

At the national level, the high cost of attending meetings in locations (wherever located), combined with the rapidly increasing number of ICT-related meetings, the cost of accessing timely and high quality information related to items on the international agenda, and the direct and indirect costs of mounting open, inclusive, and effective preparatory processes at the national and regional levels clearly present a very significant financial challenge to developing countries, in light of available resources and competing priorities.

However, instead of focusing on these barriers interviewees frequently expressed concern that financial resources allocated to support developing country participation in international meetings – by international organisations, in the form of sponsorships or fellowships, and by developing countries themselves – are not always used effectively and often result in "the wrong people attending meetings for the wrong reasons."

In addition, a number of those consulted suggested that resources would be found to support stronger and more effective participation if ICT were given appropriate policy priority by political leaders and weaknesses in national policy processes were remedied.

At the international level, the study recognised that it is often not possible for the staff of international organisations to set eligibility rules for sponsorship programmes or to ensure that delegates who are nominated for support by member states have the requisite qualifications. Establishing terms and conditions which ensure wise use of the limited financial resources allocated for this purpose should be a responsibility of the governing bodies of the organisations involved.

C The Way Forward

Today, in spite of the substantial efforts that are beginning to be made by some of the key international ICT decision-making institutions, by other actors on the international scene, and by developing countries themselves, the study found that, taken together, these factors constitute a formidable barrier to effective, meaningful participation by developing countries in international ICT decision-making.

It is worth noting that developing countries face analogous difficulties in many other non-ICT international decision-making fora, particularly those dealing with complex technical and regulatory matters, and that in some cases they have devised strategies that have succeeded in strengthening their role. A study undertaken for DOT Force Implementation Team 5 by the Brookings Institute examined four such cases – the WTO, the Codex Alimentarius Commission, the UN Framework for Climate Change Convention and Kyoto Protocol, and the Conference on Disarmament. The lessons that can be learned from these experiences are reported in the Dot Force IT 5 Roadmap document, "Enabling Meaningful Participation by Developing Nation Stakeholders in Global ICT Policy Processes".

In spite of the obstacles they face, the study found a surprisingly strong sense of optimism among developing country participants that, with a concerted effort by all members of the international community led by developing countries themselves, these barriers can be transformed into opportunities – opportunities to enhance the role played by ICT in the economic, social and political life of developing countries, and opportunities to strengthen the voice of developing countries in international ICT decision-making, to the benefit of all.

The studies indicate that simply trying to do "more of the same" in the future will not yield better results than it did in the past. Changes to international ICT decision-making structures and working methods – although necessary to strengthen developing country participation – are not sufficient to make real progress.

Changes at the international level alone cannot compensate for underlying weaknesses in the ICT strategy and policy-making processes of developing countries – the root causes that must be addressed to enhance international participation. In particular,

- Given the limited technical, human and financial resources available to developing countries, it is very important to focus on issues that have the highest impact on national development strategies. This in turn requires better information than is currently available about items on the international ICT decision-making agenda, and much stronger capacity to research, analyse and assess these items in terms of development strategies and priorities.
- Generic technical assistance and training cannot substitute for "the real thing" – *e.g.*
  - the development of independent, professional policy research and analysis capacities;
  - multi-stakeholder processes geared to the development of policy on issues up for decision;
  - exchanges, secondments and attachments between policy and regulatory authorities on a North-South and South-South basis
  - involving qualified, relevant technical and policy experts in international decision-making meetings.
- Although the international ICT playing field is severely tilted against developing countries, many have technical/policy capacity that is not effectively engaged because of current practices at the national and international levels, either because "the wrong people" attend meetings, or because the private sector and civil society are excluded from participation.
- There may be significant attitudinal obstacles to stronger participation that are very difficult to change unless national and international policy processes are changed – the feeling that agendas are set elsewhere, that important decisions are made by small groups behind closed doors, that the private sector cannot be trusted, that civil society is a disruptive force.
- Throwing money at the problem (e.g. through travel funds that are not contingent on qualification and performance) will not solve it, particularly if it winds up in the wrong hands. The study results suggest that, even in poor countries, money will be found if ICT is given policy priority, and that expenditure of developing country resources is likely to provide an incentive for making more effective use of existing technical and policy resources.

D Conclusions

The detailed studies of ITU, WTO and ICANN confirm the general conclusions of the previous chapter about the current lack of effective connection between international ICT decision-making and the agenda for developing countries.

They show that even if organisations make a significant effort (as the ITU has over the past decade and the WTO is in the process of doing) to strengthen participation by developing countries – *e.g.* by creating space for developing country issues in their structures and decision-making processes, as well as by providing information, technical assistance, training and financial support – there does not appear to have been a commensurate increase in the role played by developing countries in their decision-making processes, or in the inclusion of ICT on the development agenda. This suggests that the fundamental obstacles to strengthened participation lie elsewhere.

The country case studies very strongly suggest that the key to more effective participation in international ICT decision-making lies at the national level – a conclusion confirmed by the issue case studies.

Financial obstacles: the case of India

The main problem and possible solution to participation of developing countries in international ICT decision-making is best highlighted by India's contribution to the first meeting of the Council Working Group on ITU Reform. India pointed out that most ITU Study Group and Advisory Group meetings are held in Geneva, the seat of the Union. The distance involved for a number of countries from Latin America, the southern part of Africa and even from the Far East is considerable and due to economic considerations, the participation of experts from a number of countries is not possible. India suggested that ITU Study Group meetings, workshops, colloquium and even conferences related to sectors of standardisation, development and radio may be held on a regional basis in rotation. In order to organise such meetings in various regions of the globe, member countries of the ITU may be requested for hosting proposals. This will optimise ITU costs as well as offer an opportunity to a larger number of ITU Member States from least developed countries and developing countries to participate more effectively and in greater numbers. This would also result in an increase in programme ideas.

Sidarth Sinha, Indian Institute of Management, Ahmedabad, India

Conclusions and Recommendations

A Main Messages of the Study

All of the evidence and analysis of the study, and our experience working in the context of the DOT Force, points to the following messages:

- It will not be possible to strengthen developing country participation in international ICT decision-making fora effectively without first strengthening national ICT policy capacity. In particular it is necessary for developing countries to:
  - create a policy vision of ICTs and development, including the linkages between national and international dimensions;
  - build technical/policy capacity;
  - inform and involve all relevant stakeholders in policy making, monitoring and evaluation;
  - generate informed public debate.
- Action by developing countries to strengthen their national policy capacity must be accompanied by action by international ICT decision-making fora to level the playing field by making improvements to their decision-making structures, processes and working methods.
- As an independent tri-sectoral network uniting developed and developing countries, the DOT Force Implementation Network, in cooperation with other similar bodies, is ideally placed to spearhead and support change in developing countries and international organisations.

The following sections recapitulate the study's main findings and recommend actions that should be taken by developing countries themselves, international organisations, DOT Force members, and their development partners in order to strengthen developing country participation in international ICT decision-making.

In making these recommendations, we are conscious that some of the actions required to give developing countries a "Louder Voice" will be the work of many years and require resources at a scale far beyond those immediately available to those to whom our recommendations are addressed. Instead of preaching to the international community as a whole and speaking about what needs to be done in the long term, we have focused our recommendations on a number of relatively small-scale, inexpensive steps that could be taken immediately – so that we can begin to make a difference.

B Building Developing Country ICT Policy Capacity

1 Creating ICT policy awareness

Lack of policy awareness was frequently cited as the most significant barrier to developing country participation in international ICT decision-making.

The basic problem, in the opinion of many, is lack of awareness of the role that ICT can play in development. This exists at all levels in many developing countries, where people simply have no experience with ICT and its potential benefits. In the longer term, this problem will gradually disappear as people gain access to ICT, see it applied in their daily lives, and begin to use it.

More immediately, there is lack of awareness among policy-makers of the importance of international decisions for national ICT policies and regulations.

To help address this immediate problem , we recommend that:

- **international ICT fora should promote awareness of the role that ICTs can (and can not) play in development by providing comprehensive, publicly-accessible, non-technical information on the relevance of their activities to the development agenda, illustrated by stories of both success and failure;**
- **eStrategies for achieving development goals formulated by developing countries (including that with the assistance of the DOT Force International eDevelopment Resource Network) should include actions to address international ICT policy and regulatory issues, in line with national development priorities.**

2 Building technical and policy capacity

Lack of technical and policy capacity on ICT issues is viewed as a fundamental obstacle to effective participation by developing countries, particularly with respect to emerging issues such as the migration from circuit-switched to IP-based networks, the implementation of third generation mobile communication systems, and e-commerce.

Since technical and policy capacity can only be developed through years of education and work experience, it is recognised that there is no quick and easy way to overcome barriers in this area. It is also clear that the technical assistance activities of many international organisations make

only a modest contribution to this long-term objective and that new approaches are needed – such as the DOT Force International eDevelopment Resource Network and the DOT Force Entrepreneurial Network.

To help developing countries build policy and technical capacity we recommend that:

- **international ICT fora should provide independent, authoritative technical/policy research and analysis of major issues to be decided;**
- **the DOT Force Implementation Network should:**
  - **support the establishment, operation and maintenance of a global network of independent institutes for public and policy research on international ICT policy and regulatory issues, with nodes in all developing regions;**
  - **establish a fund to support small-scale research activities, including country case studies, by southern institutions on issues relevant to international ICT decision-making.**

3 Strengthening national policy institutions and processes

Weaknesses in national and regional ICT policy processes and institutions drew more comment than any of the other barriers to effective participation. At the national level, reported weaknesses included: lack of political leadership; absence of national ICT strategies; ineffective coordination between different government departments and agencies with ICT responsibilities; inadequate preparation for international meetings; and ineffective use of financial and human resources.

The absence in many developing countries of ICT policy processes that are open to participation by all stakeholders and based on informed public discussion was repeatedly identified as a fundamental weakness, as was the absence of effective regional policy fora.

To help strengthen policy institutions and processes in developing countries in the longer term, we recommend that:

- **developing countries should take action to:**
  - **improve information flows and policy coordination between different government departments and agencies with ICT responsibilities;**
  - **promote informed public discussion and debate through both general and specialised media;**
  - **include all relevant stakeholders in policy-making on an issue-by-issue basis;**
  - **encourage participation of experts from the private sector and civil society in national delegations to international decision-making fora;**
  - **share information, expertise and experience on a sub-regional and regional basis;**
  - **implement knowledge management techniques to ensure that information gained through participation in international ICT decision-making fora is captured, disseminated to relevant stakeholders, and made accessible to other interested parties such as the media.**

To begin immediately the work of fostering and catalyzing policy processes of this kind, we recommend that:

- **the DOT Force Implementation Network should support the development and application of model national and regional ICT policy processes in relation to key international issues of concern to developing countries, such as:**
  - **the World Summit on the Information Society;**
  - **work in ITU on IP telephony and 3rd generation mobile systems;**
  - **negotiations in WTO on e-commerce;**
  - **the development in ICANN of ccTLD dispute resolution mechanisms.**

C Levelling the International ICT Policy Playing Field

1 Providing access to information about the international ICT policy agenda

Lack of easy, affordable and timely access to information about ICT-related issues, decision-making fora and processes was consistently mentioned as an important barrier to developing country participation by government and other stakeholders. The rapid increase that has taken place both in the range of issues on the international ICT policy agenda and in the number of organisations involved in ICT policy-making has made it very difficult for developing countries to keep track of what is going on, to anticipate key events, and to plan strategies for successful outcomes.

To help ensure that all relevant stakeholders have easy, affordable and timely access to information about items on the international agenda, we recommend that:

- **the DOT Force Implementation Network should develop and implement a programme to provide authoritative, web-based information on international ICT decision-making to developing countries – for example by building on experience gained in the pilot phase of the CTO/Panos ictdevagenda web site, and through the creation of a "one-click" electronic library of documents related to international ICT policy and regulatory issues.**

2 Improving the structure, functioning and working methods of international ICT policy fora

Some of the fora examined in the study have made efforts to include developing countries in decision-making processes, for example by ensuring that management bodies include developing country representatives, sponsoring regional preparatory meetings, and providing fellowships to LDC participants in international events.

There is a general view that such measures will not result in effective participation until underlying weaknesses in developing country technical and policy capacity are addressed. In the short term, however, the study identified a number of improvements that could be made by international fora to make it easier for developing countries to participate in their activities.

To facilitate developing country participation, we recommend that:

- **international ICT decision-making fora should:**
  - **hold meetings in developing regions in a way that minimises travel costs for developing country participants;**
  - **avoid simultaneously scheduling important events;**
  - **ensure that their procedures allow all sources of developing country policy and technical capacity to participate in decision-making, whether they come from government, the private sector or not-for-profit organisations.**

As well as improving existing operations, there is clearly a need for the international community to re-think the basis of ICT global governance in light of the dramatic changes that have taken place in the structure of the ICT sector in recent years, and to make the link between ICT and sustainable development.

To lay the foundations for improvements to the international ICT governance regime, we recommend that:

- **the DOT Force Implementation Network should:**
  - **promote joined-up thinking among and within G8 governments with the aim of making links between technology, trade and development issues and of encouraging analysis and assessment of the impact of commercial decisions on developing countries;**
  - **encourage international ICT fora to permit and facilitate NGO participation in their activities if they do not already do so;**
  - **launch a programme to study, discuss and develop new global ICT governance models that would provide greater coherence between different policy and regulatory domains, link ICT decision-making with development goals, and provide for effective participation by government, the private sector and civil society from both developed and developing countries.**

3 Making effective use of financial resources

Financial barriers were not generally cited as a major obstacle to developing country participation. Instead, concern was very frequently expressed that financial resources currently allocated to support developing country participation by international fora and other bodies are not always used effectively. It appears that some fellowship programmes result in "the wrong people attending meetings for the wrong reasons."

To make more effective use of financial resources intended to support developing country participation we recommend that:

- **developing countries should review their current practices with respect to meeting preparation, delegate selection, participation, accountability and follow-up, with a view to ensuring that these practices result in the most effective use of financial resources through the optimum deployment and development of technical and policy capacity.**

To assist in this process, we recommend that:

- **the DOT Force Implementation Network, under the leadership of its developing country members, should develop a code of practice for programmes intended to develop and engage technical and policy capacity in international ICT decision-making (e.g. by supporting education and training, exchanges and detachments, participation in meeting) to ensure that access to these programmes is based on qualifications, and that performance is evaluated.**

This report has been prepared for DFID and the G8 Dot Force Implementation Team by the Commonwealth Telecommunications Organisation and the Panos Institute at the behest of the Government of the United Kingdom. The views of the consultants are not necessarily shared by the British Government.

The Commonwealth Telecommunications Organisation

The Commonwealth Telecommunications Organisation (CTO) is an international partnership between governments, businesses and civil society organisations focused on ICT and development. Its mission is to extend the provision and use of ICT to meet the needs of citizens and consumers, to facilitate the successful development of telecommunications and other businesses and to support the social and economic development objectives of governments and civil society.

The Panos Institute London

The Panos Institute is an international non-governmental organisation working with partners in Africa and Asia to stimulate informed public debate, particularly by working with the media and building media capacities. Its mission is to help ensure that development agendas are shaped and driven from within developing countries and reflect the perspectives of the poor and marginalised. Panos is a network of centres in London, Kampala, Kathmandu, Lusaka, Dakar, Paris and Washington.

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