



Information for Development Program

Request for Expressions of Interest

ICT Regulation Toolkit Module 4: Universal Access

Country: International

Notice/Contract Number: 1

Publication Date: September 27, 2006

Deadline: October 10, 2006

Funding Agency: *infoDev*

Implementing Organization: *infoDev*

Eligibility of Bidders: The consultants should have expertise and first class research capacity in ICT/telecommunications economics, policy, and regulation with a specific capability on universal access in developing countries. The consultants should also have a capability for online content development and use of online tools, and have some knowledge of eLearning Instructional Design.

Expression of Interest (EOI):

infoDev intends to finance the assignment described below under funding made available by *infoDev* Donors.

The overall objective of this activity is to develop and finalize an online Toolkit Module No. 4 on Universal Access, develop and finalize training materials, participate in dissemination or training events using this material, and prepare a 50-page summary paper. A detailed description of the assignment is provided in the attached Terms of Reference. The assignment is expected to be completed 48 weeks from the date of signing the contract agreement. The available budget for this assignment is \$250,000.

infoDev now invites eligible consultants to indicate their interest in providing their services. Interested consultants must provide information indicating that they are qualified to perform the services (brochures, description of similar assignments, experience in similar



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conditions, availability of appropriate skills among staff, etc.). Consultants may associate to enhance their qualifications.

Electronic submission of the EOI is preferred. The EOI can be submitted either as a Microsoft Word or PDF file. Please send your email submission to mpfeiffenberger@worldbank.org. (Please cc. Mr. Juan Navas-Sabater, jnavassabater@worldbank.org and Mr. Peter Smith, psmith2@worldbank.org.)

Selection will be based on the “Quality- and Cost-Based Selection” (QCBS) method (Section II of the Consultants Guidelines) in accordance with the procedures set out in the World Bank's Guidelines: Selection and Employment of Consultants by World Bank Borrowers May 2004, located at www.worldbank.org/html/opr/consult/contents.html.

Interested consultants may obtain further information at the address below from 10:00am – 5:00pm US Eastern Standard Time.

Expressions of interest must be delivered to the address below **by October 10, 2006**.

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TERMS OF REFERENCE

ICT Regulation Toolkit Module 4: Universal Access

I. BACKGROUND

The ICT Regulation Toolkit is a joint knowledge product of infoDev and the International Telecommunication Union (ITU).

1. **infoDev** is a program committed to the use of ICTs for development consisting of public bilateral and multilateral development organizations, working in close cooperation with partners from civil society and the private sector, and assisted by an expert secretariat housed at the World Bank's Global Information and Communication Technology Department (GICT). Its mission is to help developing countries and their international partners use information and communication technologies (ICTs) broadly and effectively, as tools of poverty reduction, sustainable economic growth, and empowerment of individuals and communities. Its work is rooted in the conviction that information and communication are indispensable elements of effective and responsive institutions, governments, markets, and societies. One of the main pillars of *infoDev*'s new strategy (approved by all its donors in July 2004) is the ICT enabling environment. Within that theme, *infoDev* will be producing research and knowledge products to practically assist its partners and stakeholders in reforming the regulatory framework to allow private sector growth in the ICT arena. This entails adapting *infoDev*'s knowledge products to developing countries' needs in terms of policy advice and capacity building services. Web Site: <http://www.infoDev.org>

2. **ITU** is a world-wide organization which brings governments and industry together to coordinate the establishment and operation of global ICT/telecommunication networks and services; it is responsible for standardization, coordination, and development of international telecommunications including radio communications, as well as the harmonization of national policies. To fulfill its mission, ITU adopts international regulations and treaties governing all terrestrial and space uses of the frequency spectrum as well as the use of all satellite orbits which serve as a framework for national legislations; it develops standards to foster the interconnection of ICT/telecommunication systems on a worldwide scale regardless of the type of technology used; and it fosters the development of ICT/telecommunications in developing countries. ITU was also the lead UN organizing agency for the World Summit on the Information Society (WSIS).

3. The ITU's Telecommunication Development Sector (ITU-D) is the development arm of the ITU. Its main responsibility is to foster ICT/telecommunication development in developing countries through policy advice, provision of technical assistance, mobilization of resources, and initiatives to extend access and bridge the digital divide.

Challenges to Regulators

4. Most countries have established, or are in the process of establishing, regulatory authorities to implement competition-centered policies on ICT reform and ICT infrastructure development. The diffusion, structure, and usage of an ICT infrastructure is influenced by the substantive regulatory standards that are applied, by the way regulators incorporate market considerations into their decisions, and by the relations they establish with the government and the courts, regulated service providers, consumers, and the media. The ICT sector has undergone many changes over the last 20 years, triggered by the development of new technologies and the convergence of network services, leading to a merging and intermingling of markets and services. These developments affect traditional regulatory strategies, raising questions such as how to deal with growing pressure to adopt converged licensing regimes and how to successfully realize the potential of new network infrastructures such as WI-FI and WIMAX to bring both services and high-speed Internet access to urban and rural areas.

5. Countries participating in the World Summit on the Information Society set the ambitious target of connecting all villages of the world to ICTs by year 2015, including establishment of community access points, and connecting universities, schools, libraries, post offices, health centers, and local governments. This Toolkit module will provide practical advice and share best practices to facilitate achievement of these WSIS goals.

ICT Regulation Toolkit

6. *infoDev* in cooperation with the ITU is developing an online ICT Regulation Toolkit to assist policy makers and regulators, primarily in developing countries, to identify questions and to provide them with answers and guidance. The Toolkit is an update and expansion of *infoDev*'s highly-regarded and influential Telecommunications Regulation Handbook published in 2000.

7. The ICT Regulation Toolkit is a web-based tool, consisting of several modules, as follows:

- Module 1: Regulating the Telecommunications Sector – Overview
- Module 2: Competition and Price Regulation
- Module 3: Authorization of Telecommunications Services
- Module 4: Universal Access



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- Module 5: Radio Spectrum Management
- Module 6: Legal and Institutional Framework
- Module 7: New Technologies and Impact on Regulation

8. **These terms of reference are for Module 4 on universal service, access and coverage.** Module 3 provides a template for all modules. Modules 3 and 6 are available on line at <http://ictregulationtoolkit.org/>. The other modules are at different stages of development.

II. SCOPE OF WORK

Objective

9. The objectives of the consultancy are to: (a) develop and finalize an on-line Toolkit Module 4 on Universal Access, (b) develop and finalize associated training and promotional material, (c) participate in dissemination or training events using this material, and (d) prepare a readable summary report of about 50 pages, suitable for publication and translation. The module should be developed as an information resource that can contribute to the achievement of one of the objectives adopted by the World Summit on the Information Society (WSIS), to connect all villages to ICTs by 2015.

10. The primary focus of the module will be on guiding policy makers and regulators in developing countries regarding the design, assessment, and implementation of universal service, access or coverage initiatives. The module will include a description and assessment of a range of international practices and will provide tools for examining systematically the relative merits of individual solutions. Module users are expected to be generally knowledgeable on policy, economics, and regulation of information and communication, but not experts in universal service, access or coverage. Module 3 (on Authorization of Telecommunications Services), already completed, is used as the template for content development including hierarchy, attributes of information at each level, and style. Module 4 will be consistent with this template and include material in four levels, as follows:

- Level 1: Overview - framework of the module and summary discussion
- Level 2: Related Information – expanded discussion of main topics
- Level 3: Practice Notes – summaries, discussion and/or examples of good practices
- Level 4: Reference Documents – additional related documents and information.

10. The Practice Notes (Level 3) will include summaries of current good practice or other descriptive, analytic, or graphic material on universal service topics, issues, and international experience. Practice Notes are expected to be succinct (often not more, say, than one or two screens), adapted from available sources or written especially for the

module. Most practice notes will explain how practitioners deal with some of the topics discussed on Level 2. Some Practice Notes may introduce and summarize large or complex Reference Documents (Level 4) that on their own would be intractable to a non-specialist reader. Reference Documents will provide module users with a wide range of relevant material, mostly taken directly from current practice in individual countries or international organizations. All Practice Notes and Reference Documents will be placed on the toolkit server so they remain readily available to module users. Additional references can be made to online and other sources.

11. One of the important features of the on-line Toolkit is navigation. The user of this module should be able to navigate easily between levels, between pages within a level, and between this and other modules. Examples provided by Practice Notes and Reference Documents should be readily accessible from any point in the module.

Tasks

12. In order to achieve the objectives of the assignment, the consultants will undertake the following tasks:

(a) Develop a set of definitions and structure for the work that will cover the different dimensions of universal service or access, including:

- universal individual service (sometimes referred to as universal individual or household access, universal coverage (for example by the footprint of a mobile network), and universal access (through shared public facilities such as payphones, telecenters, Internet access points in shops or post offices, libraries and local government offices);
- evolving definitions of categories of relevant services, moving from telephony to Internet and broadband; and
- universal service, access, or coverage program initiatives in urban as well as rural environments.
- Roles of public and private sectors, and NGOs, including for example initiatives for local open access networks for communities and municipalities.

(b) Explain why universal access/service is important. What do developing countries wish to achieve by providing universal access/service? How is the goal of achieving universal access/service linked to the WSIS objectives and the Millennium Development Goals?

(c) Discuss the role that regulatory reform plays in promoting universal access/service and whether fostering a competitive market is the first tool regulators can use to achieve universal access/service. Describe how authoriza-

tion/licensing, interconnection, tariff regulation and spectrum management practices impact ICT development. Include data on ICT growth in developing countries and studies on level of expenditures on ICT services in developing countries. Provide links to websites measuring countries' success in achieving the WSIS objectives of connecting all villages, schools, libraries, local governments, etc. by 2015. Discuss whether regulators are able to place less emphasis on programmatic or regulatory tools (e.g. universal service funds, subsidies, etc) where the regulatory framework encourages the market to meet the demand for ICT services. Distinguish where the market has not been allowed to meet demand from situations where the market alone may not respond to provide universal access/service solutions -- e.g., distinguish where regulations and policies hamper market responses from cases where it may be necessary for the government to intervene to bring a broad range of actors together to develop national broadband internet backbones or establish national and regional Internet Exchange Points (IXPs).

(d) Develop and apply a typology of international practices comprising different approaches and instrumentalities that Governments and non-government actors have used to promote improved universal access. Provide examples of approaches and instrumentalities, together with a discussion of the contexts for the alternative approaches.

(e) Provide an assessment of the alternative approaches employed by government actors. Examine classic approaches (e.g., implicit cross subsidies and license obligations) as well as innovative approaches (e.g., output-based aid targeted subsidies, incentives for infrastructure sharing, authorization and interconnection for local operators, etc.) employed by governments. Analyze differences in implementation that can affect ICT development (e.g., where subsidies are only made available to incumbent operators for the deployment of fixed lines versus the allocation of subsidies in a technology-neutral fashion through competitive, minimum subsidy auctions). Identify innovative variations governments have used (e.g., instead of providing subsidies to ICT companies to deploy networks, provide subsidies to local communities to develop public access points). Describe level of regulatory involvement in each approach, so that regulators understand the degree of human resources, changes to the legal or regulatory framework, and degree of complexity involved in each approach (i.e., ensure that the assessment of alternative approaches contrasts the complexity of establishing universal service funds with a regulatory approach that promotes infrastructure sharing in remote and rural areas). Include case studies/examples of actual implementations. Provide a discussion and assessment of relevant issues, and best practices, on topics which include the following: Universal service / access policies in the context of increasing deployment of broadband and Internet; Universal service / access mechanisms in the context of changing interconnection modalities associated with



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next-generation networks; Design of targeted subsidies; Risks and management models for universal service / access funds. Roles of public and private sectors, and NGOs, including for example initiatives for local open access networks for communities and municipalities;

(f) Provide an assessment of the alternative approaches employed by local government and non-government actors, including the private sector, philanthropic organizations, non-government organizations, and municipalities. Assess the role and effectiveness of initiatives for local open access networks for communities and municipalities. Examine the deployment of public internet access points as part of broader development projects (e.g., in refugee camps or HIV/AIDS treatment centers or job training centers) and identify any best practices in terms of financing, economies of scale in equipment purchasing and relevant content. Provide information on funding from philanthropic organizations or NGOs which can be made available for public ICT access projects. Provide case studies/examples of actual implementations.

(g) Develop practical guidelines for the assessment of alternative approaches, and for the economic appraisal of those approaches that involve public investment. Provide an example of an economic appraisal.

(h) Identify and discuss key technological and economic factors that will affect both the objectives of and approaches to improved rural telecommunications infrastructure. These factors are expected to include changes in expectations or needs as broadband becomes: (i) more pervasive; (ii) more necessary to access web-sites and undertake e-government and e-commerce transactions; (iii) convergence in the telecommunications and related sectors.

(i) Identify other key factors that impact on universal access/service, including the cost of international internet connectivity, whether low cost internet-access devices are available, import duties on IT equipment, availability of content designed to generate demand for ICT services. Discuss any solutions or best practices addressing these factors, and include links to low-cost equipment and content information. Refer, where appropriate, to other modules (e.g., the discussion of the cost of international internet connectivity should refer to IXPs in the Competition, Pricing and Interconnection Module).

(j) Provide links to sites where progress towards the WSIS objective of connecting all the world's villages by 2015 are collected and analyzed.

13. In order to submit the work in the sequence and form of the deliverables, the consultants will undertake the following tasks:



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- (a) Develop an outline of the module that establishes its overall structure and guides the placement of content consistent with the template hierarchy. The outline should, at a minimum, specify the levels and scope of services to be covered, include a brief overview of the module (Level 1), and list the expanded set of topics to be covered (in Level 2). This outline will be included in the Inception Report.
- (b) Prepare all draft and final text content for the on-line module at Level 1 and Level 2, outline all Practice Notes to be included in Level 3, and develop an indicative list of Reference Documents to be included in Level 4.
- (c) Draft all Practice Notes (Level 3) and include Reference Documents (Level 4). Revise material in Levels 1 and 2 as necessary..
- (d) Finalize module content at all levels, taking into account comments from reviewers.
- (e) Develop a plan and schedule for up-loading draft and final content for the module to *infoDev*'s ICT Regulation Toolkit on-line content development web-site.
- (f) Implement the plan using established format and procedures in consultation with the managers of *infoDev*'s content development web-site manager. Once the content has been uploaded onto the development web site, reviewed, revised, finalized and approved, the module will be migrated by *infoDev* over to *infoDev*'s live (or public) ICT Regulation Toolkit web site by *infoDev*.
- (g) Prepare training material to a high standard based on the module material in the form of PowerPoint slides suitable for one-hour and for six-hour training sessions, respectively.
- (h) Prepare a readable summary report of about 50 pages, suitable for publication and translation, and material suitable for a short brochure for the module.
- (i) Provide training delivery activities at two workshops or seminars to be designated by *infoDev*.

III. CONDUCT OF THE ASSIGNMENT

14. The consultants will work under the general direction of the task manager appointed by *infoDev*. The on-line module and related materials will be prepared, finalized and delivered over a period of approximately six months. Training will be delivered up

to six months later. All deliverable will be produced in English. The consultant will establish a quality review and assurance mechanism involving experts for example from government, academia, and industry. Additional review is expected to be provided by the World Bank and the ITU.

15. The consultant will deliver material according to the following schedule:

Contract award plus:	Deliverable
1 month	Inception Report. Focus on work plan, module outline, and quality assurance.
3 months	Draft content at Levels 1 and 2, brief outlines of all Practice Notes (Level 3), and indicative list of Reference Documents (Level 4).
4 months	Draft content of all Practice Notes (Level 3) and complete list of Reference Documents (Level 4).
5 months	Final module (all levels) uploaded onto <i>infoDev</i> online development web site.
6 months	Training and promotional material.
12 months	Training delivered at two workshops or seminars.

A payment schedule that links payments to deliverables will be established in the RFP issued to the shortlisted firms.

16. The consultant should have expertise and first class research capacity in ICT/telecommunications economics, policy, and regulation with a specific capability on universal access in developing countries. The consultant should also have a capability for online content development and use of online tools, and have some knowledge of eLearning Instructional Design. Prior experience in the use of Content Management System (CMS) and html conversion tools and editors will be helpful. The consultant team must include a capability to develop content consistent with the template provided, cross-referencing information using the functions of the CMS, and uploading all content to the *infoDev* development web site.

17. Reference documents relevant to this assignment include:

- *Universal Access Regulatory Best Practice Guidelines* (ITU, Global Symposium for Regulators)
- *Trends in Telecommunication Reform 2003: Promoting Universal Access to ICTs – Practical tools for regulators*, ITU (2003)
- *Extending Telecommunications Services beyond the Market – Toward universal service in competitive markets*, Bjorn Wellenius (2000)



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- *Local Open Access For Communities and Municipalities* (infoDev, publication pending)
- *Rural Telecommunications Development in a Liberalizing Environment*, Andrew Dymond and Sonja Oestmann (2002)
- *New Models for Universal Access in Latin America*, prepared for Regulate (2006)