



**Financing the Information Society
in the South:
A Global Public Goods Perspective**

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*Prepared for the Association for Progressive Communications (APC) by the
Instituto del Tercer Mundo, Montevideo, Uruguay
June 2004
APC gratefully acknowledges the funding support of CIDA.*

Abstract

This paper sets out to look at the question of financing the provision of information and communication technologies (ICTs) in the South, within the context of the United Nations' World Summit on the Information Society, and advocates adopting a "global public goods" perspective on the issue. The paper first examines how the question of ICT financing has been debated during the WSIS preparatory process and the first phase Summit (Geneva, December 2003). Particular attention is paid to Senegal's proposal for the creation of a "Digital Solidarity Fund", and the reactions to it of the different stakeholders – governments, from both North and South, the private sector and civil society – participating in WSIS. The following section explores the potential for addressing the issue of financing ICT expansion from a global public goods (GPG) perspective. First the authors provide an overview of what such an approach means in conceptual terms, looking both at general definitions of GPGs and the applicability of the concept to ICTs. They then review the debate that has been taking place around the specific issue of which existing or alternative innovative financing mechanisms might be used for GPG provision, linking the proposed strategies whenever possible to the ICT sector. Finally, in the conclusions the authors offer a concrete proposal with respect to what we consider to be the most appropriate financing mechanism for funding expanded ICT access in the South.

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Introduction²

This paper looks at the issue of financing information and communication technologies (ICTs) for development in countries in the South. This subject is one of the two pending issues in the second phase of the ongoing World Summit on the Information Society (WSIS). The question of how to bridge the so-called digital divide between the North and the South is addressed here from the same perspective as that adopted in the WSIS discussions, focusing on the promotion of universal access through the expansion of ICT infrastructure and the challenge of finding ways to finance the latter. This does not mean that we regard these as the only issues to be taken into consideration when tackling the digital divide.

For instance, beyond the emphasis placed on how to get hold of resources, there is a need for discussion of how these resources should be invested to ensure that they are used to benefit those most in need and in order to achieve far-reaching structural changes in countries in the South. In this respect we believe that there is a need for in-depth studies of local technological requirements, that consider not only the implantation of new technologies, but also support for community-level communications based on "traditional" media, and strengthening of social structures and processes of capacity-building and citizenship construction.

Second, while expanded infrastructure may ensure physical access to the global communications network there are other non-physical barriers to access that also contribute to the digital divide. The right to access and use information is one that may be blocked only too easily, for example, by pricing, patents¹ or censorship policies.² On another level, high-tech equipment may be necessary but it is useless unless people have the literacy, education, computer-training and capacity-building required first to operate the equipment, and then to make full use of the knowledge or information they access. Similarly, developing countries' high levels of foreign indebtedness inhibits their capacity to contribute to the generation of knowledge, for example, through national investment in research.

Furthermore, the proposals that have emerged so far in the WSIS process not only do not question the North-producer/South-consumer model, but do not contemplate factors that have a decisive impact on development in the South, such as current systems of protection of intellectual property rights, the global trading system that relegates the interests of countries in the South, or the impact of debt service payments, all of which could provide the starting point for thinking about real alternatives for financing. On the other hand, it is necessary that mechanisms be put in place to ensure that the resources raised are effectively transferred. While we believe that new strategies for financing for development in the South need to be developed, we also believe that at the same time the commitments made at Monterrey must be effectively complied with, in the understanding that countries with better overall levels of human development will create more favourable environments for the implementation of specific policies to strengthen "information and knowledge societies".

We believe that these other dimensions to the question of how to finance ICTs for development in countries in the South – which are notably absent from the WSIS debates – are equally relevant, and should be incorporated into the Summit

² The authors wish to thank Roberto Bissio, Magela Sigillito, Karen Banks and Sonia Jorge for their input and comments on earlier drafts.

¹ Such as the WTO-sponsored Trade Related Intellectual Property Rights (TRIPs) or the World Intellectual Property Organisation's (WIPO) Patent Law Treaty.

² See, for example, Stiglitz (1999) and the UN Committee for Development Policy's report on the fifth session of the Economic and Social Council (UNCDP 2003).

agenda. However, it is beyond the scope of this paper to address them in further depth here.

In this paper we first examine how the question of ICT financing has been debated during the WSIS preparatory process and the first phase Summit (Geneva, December 2003). Particular attention is paid to Senegal's proposal for the creation of a "Digital Solidarity Fund", and the reactions to it of the different stakeholders – governments, from both North and South, the private sector and civil society – participating in WSIS. The following section explores the potential for addressing the issue of financing ICT expansion from a global public goods (GPG) perspective. First we provide an overview of what such an approach implies in conceptual terms, looking both at general definitions of GPGs and the applicability of the concept to ICTs. We then go on to review the debate that has been taking place around the specific issue of which existing or alternative innovative financing mechanisms might be used for GPG provision, linking the proposed strategies whenever possible to the ICT sector. Finally, in our conclusions we review the main elements of the argument in favour of regarding universal ICT access as a global public good and offer a concrete proposal with respect to what we consider to be the most appropriate financing mechanism for funding expanded ICT access in the South.

The issue of financing in WSIS

The background

At its 1998 Plenipotentiary Conference in Minneapolis,³ the International Telecommunication Union (ITU)⁴ passed a resolution⁵ to explore the possibility of holding a high-level meeting to discuss global issues relating to the information society. In December 2001 the United Nations (UN) General Assembly resolved that the meeting would take the form of a world summit at the level of heads of State and government, and assigned to the ITU the leading managerial role in the executive secretariat of the Summit and its preparatory process.⁶ The World Summit on the Information Society (WSIS) was scheduled to take place in two phases: the first in Geneva, in December 2003, and the second in Tunisia, in November 2005.

For developed nations the Summit offered an opportunity to promote expansion of their telecommunications companies in countries in the South. The way had been paved by the signing in 1996 of the World Trade Organization's (WTO) Telecommunications Agreement⁷ promoting the liberalization of communications markets at the expense of the national companies (which were frequently state monopolies) that had regulated the sector until then. The agreement assured competitive conditions for foreign investment in national markets, and held the promise for developing countries of increased access to communications, a drop in charges for international calls and more efficient national telecommunications systems. Previously, global communications resources had been managed by the ITU according to an international accounting rate system,⁸ and it was aware of the

³ Fifteenth Plenipotentiary Conference of the International Telecommunication Union (ITU), Minneapolis, USA, October 1998, <http://www.itu.int/newsarchive/press/PP98/>

⁴ The ITU, headquartered in Geneva, Switzerland is an international organization within the United Nations System where governments and the private sector coordinate global telecom networks and services. For more information, see its web site: <http://www.itu.int>

⁵ ITU Resolution 73 (Minneapolis 1998): <http://www.itu.int/council/wsis/R73.html>

⁶ UNGA Resolution A/RES/56/183: http://www.itu.int/newsarchive/press_releases/2002/UNGA_res_56_183.html

⁷ See http://www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_e.htm

⁸ See "Accounting Rate System", ITU: <http://www.itu.int/osg/spu/intset/>. A statement issued by the Civil Society Working Group on Access, Infrastructure on WSIS Action Plan section D -funding mechanisms-, calls for "a rehabilitation of the international 'accounting rate system' to its former

fears expressed by developing countries that liberalization and the opening up of their communications sectors to foreign investment might not benefit areas lacking services. However, the ITU found itself sidelined in the new international telecommunications framework, promoted by the WTO and backed by the G7, OECD governments, and the international financial institutions (IFIs), in which access prices to communications services are regulated by market forces. Organizing WSIS therefore represented an opportunity for the ITU to regain its central role within the cohort of multilateral bodies. The ITU, which at one time had promoted a vision of international communications that took into account the interests of the least developed countries,⁹ arrived in 1998 at the proposal for the Summit with its agenda updated in line with the new dominant paradigms and in the midst of the growth phase of the "communications bubble" that was to burst in the year 2000.

The year 2003 finds the WSIS process taking place against a backdrop of political changes in multilateral negotiation processes, marked by a new central role for countries from the South and a high level of involvement by organized civil society. Tensions between alliances of countries in the South and the North led to the collapse of the WTO ministerial meeting in Cancun in September 2003,¹⁰ coinciding with the third WSIS preparatory meeting and one of the most difficult moments in the intergovernmental negotiations. Furthermore, the Summit is led by an organization that is attempting to recover its leading role through an agenda based on the expansion of telecommunications following the laws of the market, at a time when international communications are in the hands of a few transnational companies and following a period of economic contraction and a drop in foreign investment, in particular in the telecommunications sector, where interest dropped sharply at the end of the 1990s.¹¹ Justifiably, then, expectations around what could be achieved at the Summit were not high.

The issue of financing

The expressed aim of the UN General Assembly in organizing WSIS was to provide an effective means of providing support to the ITU in achieving the goals set at the Millennium Summit,¹² by developing a global framework to address the challenges posed by the information society. One of the clearest challenges in this respect was the new expression of historic structural inequalities between rich and poor countries that was given the name of the "digital divide".¹³

Over many years and in different contexts international organizations have delivered proposals for overcoming the digital divide. Among others, these include the ITU, the G8 Digital Opportunity Task Force (DOT Force),¹⁴ the United Nations Information and Communication Technologies Task Force (UN ICT TF),¹⁵ the World

state and functioning (before 1998). It states that "the settlement on tariffs for international calls should be considered as an effective mean of raising financial resources for developing countries" and that "the shift from the former tariffing rules to the actual ones has led to an annual loss in African operators revenue by nearly 2 billion dollars a year".

⁹ See, for example, the "Maitland Report" (Independent Commission for World Wide Telecommunications Development, ITU, December 1984).

¹⁰ Fifth WTO Conference, Cancun (September 2003): http://www.choike.org/nuevo_eng/informes/1236.html

¹¹ In the case of developing countries, investments during the period prior to the bursting of the telecom bubble were concentrated in centres of population density and in the mobile phone sector. A significant proportion of investments were bids for market position through the creation of start-ups and projects that never got off the ground.

¹² UN Millennium Declaration (September 2000): <http://www.un.org/millennium/summit.htm>

¹³ The gap between those who can effectively use new information and communication tools and those who cannot. See "Digital Divide Network": <http://www.digitaldividenetwork.org/>

¹⁴ G8 DOT Force: <http://www.dotforce.org/>

¹⁵ UN ICT TF: <http://www.unicttaskforce.org/>

Economic Forum (WEF),¹⁶ the Organization for Economic Co-operation and Development (OECD),¹⁷ the United Nations Development Programme (UNDP),¹⁸ the United Nations Conference on Trade and Development (UNCTAD)¹⁹ and the World Bank.²⁰ Some of these proposals will be addressed later in this paper.

In the preparatory process it soon became clear that developed country governments (the United States and European Union in particular) would do everything in their power to avoid broadening out the WSIS agenda to include issues that have a decisive impact on the creation and growth of this divide, such as the conditionalities imposed on countries in the South by the IFIs or the policies promoted by developed countries within such bodies as the WTO and the World Intellectual Property Organization (WIPO) with respect to international trade or intellectual property rights. For the most powerful governments, discussion on the digital divide in WSIS should be limited to analyzing the problem of lack of access to digital technology affecting the majority of the world's population²¹ and to exploring how to resolve it through the development of economically profitable communications infrastructure.

In this context, at the second meeting of the WSIS Preparatory Committee (PrepCom2), held in February 2003 in Geneva, President Abdoulaye Wade of Senegal, speaking on behalf of countries in the South, argued for the need for a transfer of resources from the North for the development of Information and Communications Technologies (ICTs) in the South, with the aim of bridging the digital divide. This transfer would be based on the notion of "digital solidarity". In his speech at PrepCom2, Wade suggested that the ITU could co-ordinate, together with governments and the private sector, mechanisms to transfer such resources, based, for instance, on statistical indicators of Internet connection rates in the various countries. This system would be detailed in a "Digital Solidarity Charter" to be signed by the governments of those countries supporting the initiative.

As Vice-President and Co-ordinator of the ICT Area of the New Partnership for African Development (NEPAD), Wade also suggested that NEPAD be responsible for implementing this initiative, which represents one of the priorities on the NEPAD agenda. Wade argued that the concept of digital solidarity should not be limited to a North-South exchange, and that NEPAD should also explore possible co-operation with other countries in the South, such as India, which had already demonstrated significant production capacity in the area of new ICTs.

President Wade had already presented the concept of digital solidarity on a previous occasion within the UN. In his speech in June 2002 at a meeting of the General Assembly to discuss ICTs for development,²² Wade had proposed the establishment of a "World Fund for Information and Communication Technologies" to "help Africa reduce the digital divide that separates it from the rest of the world". Wade maintained that the idea was not to reformulate the "classical and obsolete" model of development aid, but to embark on mutually beneficial projects from a new

¹⁶ WEF Global Digital Divide Initiative:

<http://www.weforum.org/site/homepublic.nsf/Content/Global+Digital+Divide+Initiative>

¹⁷ See the OECD paper 'Understanding the Digital Divide':

<http://www.oecd.org/dataoecd/38/57/1888451.pdf>

¹⁸ UNDP Information and Communication Technologies for Development: <http://sdnhq.undp.org/it4dev/>

¹⁹ See UNCTAD's E-commerce and Development Report 2003:

<http://www.unctad.org/Templates/StartPage.asp?intlItemID=2629&lang=1>

²⁰ <http://info.worldbank.org/ict/>

²¹ Nineteen per cent of the world population accounts for 91 per cent of Internet access. For detailed statistical information on access see UN Economic Commission for Europe's "Monitoring the Information Society: Data, Measurement and Methods": <http://www.unece.org/stats/documents/2003.12.wsis.htm> and ITU's "Digital Access Index": <http://www.itu.int/ITU-D/ict/dai/index.html>

²² http://www.solidaritenumerique.org/en/IMG/pdf/Pdt_Wade_AG_2002_Nations_Unies.pdf

perspective. The Senegalese president highlighted the importance that was being given to the development of the new ICTs in the framework of NEPAD as an engine for development in Africa. He further stressed that this approach had received backing from private sector actors, such as Cisco Systems, Hewlett Packard, Microsoft, and Tiscali, among others, who had expressed their desire to contribute to the technological development of Africa and had responded en masse to the invitation issued to the private sector to participate in the conference on financing for NEPAD, held in Dakar in April 2002.²³

The Digital Solidarity Fund proposal

The third meeting of the WSIS Preparatory Committee (PrepCom3) took place in Geneva in September 2003. At the meeting the Senegalese delegation once again raised the issue of the need to incorporate the concept of “digital solidarity” into the WSIS outcome documents. On this occasion they presented a proposal – which was subsequently elevated to the Summit in December 2003 – for the creation of a “Digital Solidarity Foundation”. The foundation would be headed by a 15-member council chosen according to a criterion of regional balance, with three representatives per region: one from government, one from the private sector and one from civil society. The representatives would be nominated by each regional group and appointed by the UN Secretary-General. The foundation’s mission would be to manage a “Digital Solidarity Fund” (DSF), that would be fed by voluntary donations from countries in the North. The final version of the proposal, presented in December 2003, suggested that these voluntary donations be raised on sales of personal computers, software and network equipment (a dollar in each case) and on the use of international communications (one US penny (*sic*)). The fund would also receive voluntary contributions from the private sector (manufacturers of computers, network equipment and accessories, software designers, telecom operators), governments and any other voluntary donor. In order to ensure transparency in the management of the fund, it was proposed that all the fund’s accounting data be made available for public consultation on the Internet. According to the proposal, the foundation would promote South-South – as well as the traditional North-South – co-operation, although the dynamics of this dimension were not explained in detail. The resources raised by the DSF would be used for: (1) development of infrastructure; (2) development of applications and services for government administrations and communities (health, education, etc.), in particular among marginalized groups (women, handicapped people, etc.); (3) development of new markets and creation of stable jobs; (4) human resources capacity-building and preventing the brain drain.

Reactions to the DSF proposal

The proposal presented at WSIS by Senegal was backed by the African countries participating in the Summit, as well as the majority of countries in the South, who expressed their support both in the framework of WSIS, and at other multilateral events where the topic was addressed. At the African Regional Conference for WSIS,²⁴ which took place in Bamako, Mali, in May 2003, support was expressed for President Wade’s initiative and mechanisms were proposed for the transparent and democratic management of the fund. In addition, the “Marrakech Framework of Implementation of South-South Cooperation”, agreed by G77 countries at the “High level conference on South-South Cooperation”,²⁵ included as a resolution “[s]upporting the establishment of an International Voluntary Digital Solidarity Fund as an innovative mechanism to contribute towards building of an inclusive Global

²³ “Conference on the financing of NEPAD”, Dakar (April 2002): <http://www.nepadsn.org/>

²⁴ Regional Conference Africa, Bamako (May 2003): <http://www.wsis2005.org/bamako2002/>

²⁵ High-level Conference on South-South Cooperation, Marrakech (December 2003): <http://www.g77.org/marrakech/>

Information Society and to the implementation of the Digital Solidarity Agenda set forth in the Plan of Action adopted at the World Summit on Information Society held in Geneva from 10 to 12 December 2003”.

During the WSIS preparatory process countries like Brazil, India, China and South Africa, which had built strategic alliances during multilateral processes parallel to WSIS (such as the WTO meetings), expressed their support for the African countries’ initiative and favoured the inclusion of the terms proposed by Senegal with respect to the creation of a DSF in the official Summit documents. The Islamic countries, represented at the Geneva Summit by Dr Abdelouahed Belkeziz, Secretary-General of the Organization of the Islamic Conference (OIC),²⁶ also supported the creation of the fund,²⁷ in accordance with the resolution taken at the “Tenth Session of the Islamic Summit Conference” held in Putrajaya, Malaysia, in October 2003.²⁸

The governments of developed nations, like the United States, the European Union and Japan, strongly opposed the initiative, which – together with other factors –²⁹ caused friction in the discussions during the preparatory process to the point that it was feared that the Summit would be a complete failure, and that the Geneva meeting in December would be reached without any prior agreement on the Declaration of Principles and the Plan of Action. As a result, new rounds of negotiations had to be added to the agenda in addition to those originally scheduled. Declarations by the president of Senegal during the preparatory process even evinced the possibility that, were references to digital solidarity not included in the WSIS official documents, the countries from the South would walk out, leading to the collapse of the negotiations, as had happened shortly before, at the fifth WTO ministerial meeting in Cancun.³⁰

The United States, one of the principal opponents of the creation of the Fund, has argued that financing should be sought through existing mechanisms, not by creating new ones.³¹ US policy for the development of communications in Africa advocates the liberalization of African markets, which should be opened up to US private sector investment. This policy finds its practical application in the “Digital Freedom Initiative” (DFI),³² a Bush administration programme whose aims are defined as follows on its web site: “This approach embraces market forces, the power of technology and the strength of American volunteerism and business leadership. The initiative provides US business entities an opportunity to voluntarily invest their resources with the expectation that market demand will essentially increase DFI beneficiary nations.” Following this approach, the programme “will be piloted in Senegal over a three-year period and, if successful, rolled out to a total of 20 countries in the next five years to increase business activity, develop more efficient markets, create more jobs in the US and DFI beneficiary countries, and help establish a business friendly regulatory framework conducive to US investment and partnerships.” This proposal represents the further development of the “Leland

²⁶ The OIC, established in Rabat, Morocco in 1969, has 57 member states: <http://www.oic-oci.org/>

²⁷ OIC Statement at WSIS: <http://www.itu.int/wsis/geneva/coverage/statements/oic/i32.html>

²⁸ Islamic Summit Conference (October 2003): <http://www.oicsummit2003.org.my/>

²⁹ Other issues that evoked heated debate and on which no agreement was reached, were the media, intellectual property rights, and Internet governance. This last point, together with the question of financing, were the two that generated the greatest controversy. Due to the lack of agreement at the conference, discussion on the issue of governance was also put back till Tunisia. The Plan of Action approved in Geneva requests that the Secretary-General set up a Working Group to investigate and make proposals for action, as appropriate, on the governance of Internet by 2005. See: http://www.wsis-online.net/igov-forum/root/IGOV_Issues

³⁰ See “Abdoulaye Wade: Pas de 2e Cancun à Genève!”, *Terra Viva*: http://www.ipsnews.net/focus/tv_society/viewstory.asp?idn=77

³¹ See, for example, the US State Department’s “US Outlines Priorities for World Summit on the Information Society”: <http://usinfo.state.gov/gi/Archive/2003/Dec/04-512136.html>

³² “Digital Freedom Initiative”: <http://www.dfi.gov/>

Initiative", launched by the US Agency for International Development (USAID) in 1996 as part of the USAID Africa Global Information Infrastructure Project. The LI claimed as its overall objective "to extend full Internet connectivity to 20 or more African countries in order to promote sustainable development".³³ Despite this laudable expressed aim, the information provided on the LI web site shows that promotion of US state and private-sector interests remained the primary goal of this initiative, determining both whether Internet connectivity was deemed "desirable and feasible" for any given country and whether Internet access was expanded nation-wide, including secondary cities and rural villages. While both the LI and DFI use the rhetoric of ICT for development it is clear that their ultimate goal remains the creation of "enabling environments" for the expansion of US corporate interests in Africa. This role adopted by the US as champion of private sector interests was made explicit in a press release on the WSIS outcomes issued by the US delegation which stated that it was "pleased that commercial and economic interests from around the world will continue to have a center seat at the table in the development of the Internet".³⁴

The position adopted by governments of the developed world was backed up by the private sector, one of the three stakeholders³⁵ participating in the WSIS preparatory process. During discussion of the draft official documents the Coordinating Committee of Business Interlocutors (CCBI), speaking on behalf of the private sector, proposed the elimination of the references to the creation of the DSF³⁶ and expressed concern "about the creation of additional funding mechanisms". They further stated: "we believe that the focus should be on coordination among existing funding mechanisms and the effective use of existing private sector initiatives. [...] Business does not support the creation of a new specific digital solidarity fund which is tied to supporting the work of one organization such as ITU [...]". In its explanatory notes on this point, the CCBI argued that "[i]t is critical to recognize that an international fund will not and cannot serve as a substitute to private sector investment which requires an enabling environment which fosters a pro-competitive policy and responsive and effective regulatory environment". While companies like Cisco, Microsoft and Hewlett-Packard maintained a low profile in the process as individual actors, preferring to participate collectively under the umbrella of the CCBI, they did take advantage of the platform provided by WSIS to announce that they were injecting hundreds of millions of dollars into communications for the South through partnerships with governments or international organizations like the ITU or UNDP.³⁷ In fact, the majority of these resources consists of transfer of equipment and software programmes for education centres in the South, a strategy designed to create loyal new markets. African organizations have expressed concern regarding such agreements, pointing out that "they were jeopardising their local software industry as well as limiting the potential of ICT development in their countries".³⁸

³³ "Leland Initiative": <http://www.usaid.gov/regions/afr/leland/>

³⁴ US Press release on the outcome of WSIS (December 2003): <http://www.us-mission.ch/press2003/1210USWSIS.html>

³⁵ Together with governments and civil society.

³⁶ WSIS CCBI comments on revised Draft Declaration of Principles and Plan of Action (October 2003): http://www.iccwbo.org/home/e_business/word_documents/ICC%20WSIS%20CCBI%20comments%20PC%203%20continued.pdf

³⁷ ITU Press Release (December 2003): <http://www.un.org/News/Press/docs/2003/pi1552.doc.htm>

³⁸ Free Software and Open Source Software Foundation for Africa (FOSSFA) issued a strongly-worded warning to African governments that are – or are planning to – enter into "deals" with the Microsoft Corporation and, in a letter to open source advocates across the continent, FOSSFA's coordinator Bildad Kagai wrote: "[...] Microsoft has signed agreements with the New Partnership for African Development (NEPAD), United Nations Development Programme (UNDP) and the United Nations High Commissioner for Refugees (UNHCR) to the tune of thousands of millions of dollars which effectively confines these agencies and the governments they represent from pursuing and practicing the freedom of choice especially from the local software producers who are currently coming up in all pockets of Africa." See: http://www.fossfa.net/tiki-print_article.php?articleId=150

For their part, civil society organizations participating in the Summit, concerned at the lack of progress during the preparatory process on essential issues related to the information society, made public in November 2003 a “benchmarks” document, according to which the outcomes of the Summit would be validated.³⁹ The document states that: “[...] challenging poverty requires more than setting of ‘development agendas’. It requires the commitment of significant financial and other resources, linked with social and digital solidarity, channeled through existing and new financing mechanisms that are managed transparently and inclusively of all sectors of society. [...] Market-based development solutions often fail to address more deep-rooted and persistent inequalities in and between countries of the North and South. Democratic and sustainable development of the information society can therefore not be left solely to market forces and the propagation of technology. In order to balance commercial objectives with legitimate social interests, recognition should be given to the need for responsibility of the public sector, appropriate regulation and development of public services, and the principle of equitable and affordable access to services.” During the Geneva phase of the Summit in December 2003, civil society organizations, considering that the voices and general interest that they had expressed during the preparatory process were not being adequately reflected in the Summit’s documents, decided to publish their own declaration,⁴⁰ which they proposed should be treated as part of the official outcomes of the Summit. The declaration includes the following reference to financing: “Existing and new financing measures should be envisaged and appraised. The ‘Digital Solidarity Fund’ has been proposed by Africa. Such a fund could be a real hope for African peoples if it clearly states its goals, is transparently managed, and aims to foster primarily public services, especially for populations living in underserved and isolated areas. In addition, we stress the significant role that diaspora populations from all the world’s regions can play in financing ICT programmes and projects. In order to optimise scarce financial resources, appropriate cost-effective technological options should be used, while avoiding duplication of infrastructure. Additionally, synergies between different sectors and networks can be exploited to this end, with particular attention to the energy and transport sectors, given their close links with the telecommunications sector. A ‘Community Media Fund’ should be established through a donor civil society partnership to invest in and support community-driven and community-based media, and information and communication initiatives using both traditional media and new ICTs. Effort should be made to eliminate the duplication of infrastructures and to consolidate projects in a national or regional frame to encourage investment funding. Where possible, ICT and radio/TV networks should use common infrastructure for dissemination.”

Organizations that are part of the United Nations system, such as the UN Educational, Scientific and Cultural Organization (UNESCO), have expressed partial support for Senegal’s initiative. In a communiqué issued on the occasion of the Ministerial Round Table on “Towards Knowledge Societies”⁴¹ UNESCO states: “We urge the international community to help the developing countries to build their capacity so that they can achieve self-reliance as soon as possible. To achieve this objective, we need to pay particular attention to the identification of possible mechanisms for the funding of this effort, including the setting up of a digital solidarity fund to augment national resources.”

³⁹ Civil Society Essential Benchmarks for WSIS: <http://www.prepcom.net/wsis/1069062981246>

⁴⁰ “Shaping Information Societies for Human Needs”, Civil Society Declaration to the World Summit on the Information Society (December 2003): http://wsis-online.net/smsi/file-storage/download/WSIS-CS-Decl-08Dec2003-eng1.htm?version_id=313554

⁴¹ Ministerial Round Table on “Towards Knowledge Societies”, UNESCO Headquarters (October 2003): <http://www.unesco.org/wsis/events/roundtable/>

The World Bank, for its part, also issued a general statement of commitment to seeking ways – including financial – to bridge the digital divide: “We stand ready to contribute to digital solidarity by mobilizing additional financing for regional infrastructure initiatives, as well as targeted and competitively awarded subsidies to increase ICT access to poor areas beyond what the market can provide on its own, especially in Africa. We also intend to aim to take a hard look at how we can improve the efficiency and effectiveness of existing financing mechanisms, and how we can scale-up and expand successful ICT and knowledge programs.”⁴² Since September 1995 the World Bank has been running an Information for Development Program (infoDev) the original aim of which was “to promote innovative projects on the use of ICTs for economic and social development, with a special emphasis on the needs of the poor in developing countries”. Until 2003 it was primarily a grant facility for pilot projects, with mostly Northern governments (although also Brazil, Colombia and El Salvador) and some transnational corporations (IBM, Motorola, Telecom Italia) providing policy advice and technical assistance. Its new 2004-5 strategy aims to “strengthen the linkages between pilot projects, evidence, analysis and action in harnessing ICTs for development”.⁴³ However, some commentators see it primarily as a project to “promote foreign private sector ownership of the developing countries’ telecommunications and information service provision sectors” (Sy 1999), following the same market-driven approach to ICT expansion as that promoted by the US Leland and Digital Freedom Initiatives. It is questionable, the critics argue, whether such projects will even contribute to bridging the “digital divide”, rather it appears that they reinforce existing divides, both between hooked-up urban centres and isolated and excluded rural areas within developing countries, as well as between the industrialised “producers” of information and information technologies and their “consumer” counterparts in the South.

Official WSIS outcomes

In December 2003, following complex negotiations, a Declaration of Principles and Plan of Action were approved in Geneva, as official WSIS outcome documents. The final text of the Declaration of Principles does not establish the fund as proposed by Senegal. Instead, it states (section 11, paragraphs 60-64): “We recognize the will expressed on the one hand by some to create an international voluntary ‘Digital Solidarity Fund’, and by others to undertake studies concerning existing mechanisms and the efficiency and feasibility of such a fund”.⁴⁴

Since no consensus could be reached on the creation of the DSF, the governments agreed to include a “Digital Solidarity Agenda” (DSA) in the Plan of Action⁴⁵ (section D, paragraph 27). Its priorities and strategies are outlined in section D1 and mobilizing resources are discussed in section D2. In short, what the DSA proposes is the proper implementation of existing financing mechanisms, such as those agreed on in the Monterrey Consensus, which have not been effectively applied by developed countries,⁴⁶ and an evaluation study of them, to be completed by December 2004. Section D2f of the Plan of Action reads: “This review shall be

⁴² Speech of the Special Representative of the World Bank to the United Nations at the WSIS 2003, <http://www.itu.int/wsis/geneva/coverage/statements/worldbank/i24.html>

⁴³ See infoDev: <http://www.infodev.org/>

⁴⁴ WSIS Declaration of Principles. Building the Information Society: a global challenge in the new Millennium (December 2003): http://www.itu.int/dms_pub/itu-s/md/03/wsis/doc/S03-WSIS-DOC-0004!!PDF-E.pdf

⁴⁵ WSIS Plan of Action (December 2003): http://www.itu.int/dms_pub/itu-s/md/03/wsis/doc/S03-WSIS-DOC-0005!!PDF-E.pdf

⁴⁶ Plan of Action, section D2b: “Developed countries should make concrete efforts to fulfil their international commitments to financing development including the Monterrey Consensus, in which developed countries that have not done so are urged to make concrete efforts towards the target of 0.7 per cent of gross national product (GNP) as ODA to developing countries and 0.15 to 0.20 per cent of GNP of developed countries to least developed countries”.

conducted by a Task Force under the auspices of the Secretary-General of the United Nations and submitted for consideration to the second phase of this Summit. Based on the conclusion of the review, improvements and innovations of financing mechanisms will be considered including the effectiveness, the feasibility and the creation of a voluntary 'Digital Solidarity Fund', as mentioned in the Declaration of Principles."

In this way, the issue of how to finance the development of communications in countries in the South was transferred to the second phase of the Summit, and an official decision regarding the creation of a DSF was delayed until November 2005 in Tunisia.

Shortly before the conference closed, the cities of Geneva and Lyon, and the Government of Senegal announced contributions totalling about one million euros, representing the first three payments towards the Digital Solidarity Fund, thus rescuing the initiative from a sense of total failure. By May 2004, Paris, Rome, Bilbao, New York and Tunisia had also expressed their willingness to contribute to the DSF. The United Cities and Local Governments⁴⁷ has made a call for their constituents to participate.

The UN ICT Financing Task Force

The UN Secretary-General has requested that the UNDP lead a group⁴⁸ in charge of structuring and organizing the work towards the launching of a Task Force on Financing around September 2004. Until then, the UNDP will co-ordinate a comprehensive research and analysis activity to map the current situation on financing ICT around the world, that will be used to inform the work of the Task Force. This activity will result in a report that the Task Force will endorse and submit to WSIS in February 2005.

The UNDP has had a programme on ICT for Development (ICTD) since 1992. Its website⁴⁹ states: "[...] UNDP has explicitly recognized the key role that ICT can play in the fight against global poverty and as an effective tool in helping to achieve the MDGs. UNDP has promoted this innovative approach to ICTD through its participation in global fora such as the G-8 DOT Force, the UN ICT Task Force and, more recently, at the various WSIS regional and global preparatory meetings. UNDP's ICTD strategy focuses on upstream policy advice to help countries design a strategic approach to ICT as an enabler for development and link it to Poverty Reduction Strategies (PRS) and related development focus processes. This is complemented by support to the implementation of ICTD priority programmes based on a multi-stakeholder approach and innovative national and global partnerships to secure additional resources and expertise. [...] UNDP has created a dedicated ICTD Trust Fund [...]. To date, the trust fund has received contributions of over 7 million dollars and started financing new ICTD programme activities in close to 25 developing countries, on a demand driven basis."

In the Global Knowledge Partnership (GKP)⁵⁰ 2004 Annual Meeting (Costa Rica, May 2004) the UNDP presented a report⁵¹ on the activities relating to the Task Force on Financing ICTD in which the following financing challenges were signalled:

⁴⁷ United Cities and Local Governments: <http://www.cities-localgovernments.org/uclg/>

⁴⁸ That includes, among others, the World Bank and the UN Department of Economic and Social Affairs (DESA).

⁴⁹ UNDP ICT4D website: http://www.sdn.undp.org/it4dev/docs/about_undp.html

⁵⁰ GKP website: <http://www.globalknowledge.org/>

⁵¹ Power Point presentation available online at: http://202.144.202.75/gkps_portal/view_file.cfm?fileid=2010

- ?? Attracting ICT private sector investment, particularly in poor urban/rural and under-served areas within countries, specially LDCs and Sub-Saharan Africa.
- ?? Securing domestic or external financing for implementation of priorities identified by national ICTD strategies and/or policies.
- ?? Promoting financing for ICT "mainstreaming" to address development goals, promote better governance, public service delivery, enterprise effectiveness, etc.
- ?? Obtaining domestic or external financing for scaling-up or continuing successful ICTD programmes implemented by civil society/communities.

At this meeting UNDP raised some "critical questions" to be addressed by the UN Task Force on Financing. These include:

- ?? Who is financing ICTD?
- ?? What is being funded? Is current financing focusing mostly on infrastructure and access?
- ?? Is there a mismatch between what is supplied and what is demanded?
- ?? Can ICTD financing (often hidden as a "component" of development projects) be effectively tracked?
- ?? Are national "universal service funds" and related domestic financing mechanisms working?
- ?? Is private sector (local and international) investment making a difference?
- ?? Why is ICTD financing not part of mainstream discussions about financing and roles?

The planned timeline of activities for May-December 2004 presented by the UNDP at the GKP meeting included:

May

- ?? Constitution of small TF Secretariat
- ?? Finalization of proposed structure of TF
- ?? Information gathering and outreach

End May

- ?? TF Website launched with virtual fora on different types of financing modalities

May-September

- ?? *Outreach:*
GKP Annual Meeting – Costa Rica May 12-14
WSIS Prepcom – Tunisia 24-26 June
Selected Global/Regional Meetings on ICTD
Virtual fora and Consultations

October

- ?? *Briefs on different modalities and case studies, etc.:*
Mapping by financing modalities & types of demand?
Business-case for selected innovative mechanisms
Identification of gaps/mismatches as well as areas where financing has made a difference.

Early November

- ?? Circulation of draft report of the TF for comments & incorporation of comments

Mid-December

?? *Finalization of Report:*

Making ICT work for Development: suggested areas of action for financing

On 11 June 2004 the UNDP convened a “brainstorming meeting” with participation by civil society, private sector and governments⁵² to discuss the key issues on which the Financing Task Force should focus its work. At the meeting the following issues were identified:

- ?? Rural services and access
- ?? Backbone network and infrastructure
- ?? Government networks
- ?? Post-conflict countries' specific needs
- ?? Innovative financing schemes/mechanisms

The global public goods approach

Senegal’s proposed DSF and its rejection by several Northern governments and the CCBI on the grounds that existing financing for development (FfD) mechanisms should be used to bridge the digital divide – presumably along the lines of the US DFI project – poses the question of whether there are feasible alternative approaches to ensuring provision of universal ICT access. This implies not only looking at which existing funding sources could be tapped or alternative financing mechanisms developed, but also raises the issue of how the goal of universal ICT access should be conceptualised, and how it fits in with or differs from traditional development goals. One conceptual approach that is beginning to gain ground in terms of its applicability to the issue of expanded ICT access is the “global public goods” (GPG) framework. In the sections that follow we look, first, at how GPGs have been defined, and then at how that definition may be applied to global connectivity, global communications networks and the Internet.

Defining global public goods

The concept of GPGs came to the fore in 1999 with the publication of the UNDP book *Global Public Goods – International Cooperation in the 21st Century* (Kaul et al 1999). Since then the concept has gained prominence in the context of international efforts to achieve sustainable development,⁵³ while at the same time subsequent studies and discussions – both theoretical and practical policy applications – have both refined and complicated the original definition. While its basic conceptual elements are generally agreed upon, some commentators have criticized the “fuzziness” of the concept, especially in its application in policy-making (see Sagasti and Bezanson 2001), and there continue to be differences in both emphasis and scope regarding how the concept should be defined.⁵⁴ However, the appeal of the notion is unlikely to abate in the context of an increasingly globalized world. As Kaul et al point out, globalization and global public goods are inextricably linked: discontent with globalisation often arises because GPGs are not provided or are mal-provided due to a series of shortcomings or “gaps” in current global policy-making structures and practices. The extent and form of provision of global public goods therefore determines whether globalization is an opportunity or a threat.

⁵² One participant from civil society (APC) and one from the private sector (ICC) were present, together with several governments (including Senegal and various Northern countries).

⁵³ See, for example, European Commission, ‘EU focus on global public goods’, “The EU at the WSSD, 2002”: <http://europa.eu.int/comm/environment/wssd/publicgoods.pdf>

⁵⁴ See Binger (2003: 4-6) for a review of the different definitions in use so far.

Taking the three elements of the concept in reverse order, we can highlight some of the agreed notions that comprise the concept of GPGs.⁵⁵ First, the term **goods** does not refer to merchandise or services, but the benefits to society that derive from the provision of certain utilities or the satisfaction of wants, such as the eradication of disease or the reduction of pollution; thus the elimination of a public “bad” is itself a public good.

Second, a good is **public** if in principle every member of the public can derive benefit from provision of the good (likewise, public “bads” generate shared costs). Although the goods themselves do not have to be provided by governments or public bodies, they should have the potential to be enjoyed by all, regardless of whether the end user has paid for them or not. Further precision of the public nature of a good is provided by an evaluation of how it is consumed. If a good can be consumed by many people (or countries) without becoming depleted, it is *non-rival* in consumption. Likewise, if no one (or country) can be prevented from benefiting from the good, it is *non-excludable*. It is these characteristics that differentiate these public goods from private goods, whose use by one consumer effectively prevents another from accessing them. Those goods that meet both criteria are called “pure” public goods; however, such public goods are rare, and in reality, most GPGs are significantly but not entirely non-rival and non-excludable. One of the problems that arises in relation to the provision of, in particular, pure public goods is what is known as the “free-rider” syndrome. A free rider is someone who enjoys the benefits of a good without contributing to its cost; precisely because pure public goods are non-excludable there is little incentive to pay for them, since everyone benefits whether they paid or not. A final point to make in relation to the publicness of public goods is that the potential availability of benefit to everyone does not necessarily imply that everyone derives the same measure of benefit. As Morrissey et al (2002) point out, the utility derived by individuals “will depend both on their preferences and on their capacity to consume”.

Finally, a public good is **global** if its benefits are inherently global in range, which does not mean that in practice everyone on the planet benefits. In fact not all GPGs are truly global in their reach but they are, at least, regional and/or international in that their benefits extend across several countries. To further qualify as global, public goods should provide benefits that “are quasi-universal in terms of [...] people (accruing to several, preferably all, population groups) and generations (extending to both current and future generations, or at least future generations)” (Kaul 1999: 2-3). In other words, public goods exist at all levels and the spatial reach (or spill-over range) of the benefits determines whether the good can be regarded as a local, national, regional, or global public good.

Externalities

The concept of *externality* is closely connected to, although separate from, the notion of GPGs (see Binger 2003: 6-7; Kaul et al 1999; Kaul et al 2002). Externalities are the unintended positive or negative effects arising from any action, which are not borne directly by the person(s), organization or country responsible for the action. Public bads in particular are very often the result of such negative externalities, and likewise, the motivation for providing public goods stems from the desire to generate or enhance positive externalities and correct negative ones. With globalization, negative and positive externalities are increasingly borne or reaped by people in other countries. So, GPGs are essentially about “cross-border externalities”, which occur when action or omission by one country has consequences for others.

⁵⁵ This draws on Binger (2003), Ferroni (2002), Kaul et al (1999), Kaul et al (2002), Kaul et al (2003), Morrissey et al (2002), Reisen, Soto and Weithöner (2004), Sagasti and Bezanson (2001) and Stiglitz (1999).

With the question of financing GPGs, there has been much discussion around the strategy of “internalising externalities”, which Binger (2003: 7) explains as follows: “If the cost associated with a negative externality is effectively attributed to the responsible agent the externality is regarded as *internalized*. Positive externalities are *internalized* when the value added by an actor’s initiatives is confined to that actor.” The logic behind the GPG approach dictates that governments must assume full responsibility for the cross-border effects that their own actions or those of their citizens generate, and develop national policies designed “to reduce or avoid altogether negative cross-border spillovers and preferably to go beyond that to generate positive externalities in the interest of all” (Kaul et al 1999).

Classifying global public goods

In short, a GPG is “a benefit providing utility that is in principle available to everybody throughout the globe”. As Binger (2003) notes, different approaches have been adopted in attempts to identify and classify key GPGs. Some authors simply classify GPGs thematically into those relating to the environment (the global commons), health (communicable disease eradication), knowledge generation and dissemination, governance (international financial stability, a free and open trade system), and peace and security (including global peace and protection from crime and narcotics) (see Speight 2002; Reisen et al 2003). Others (see Gardiner and Le Goulven 2001; Sandler 2001) classify GPGs sectorally as environmental, social (including health, peace and security), economic (including trade and financial stability regimes) or institutional (knowledge and governance). Yet other commentators opt to typify GPGs in more abstract terms. For Ferroni (2002: 1), for instance, “international public goods include the knowledge, standards and rules required to address [transnational challenges and threats to stability], the institutions that monitor and enforce the rules, and the benefits that arise and are shared indiscriminately among countries.” For their part, Morrissey et al identify three types of interrelated benefits that tend to give rise to pure public goods – risk reduction, direct provision of utility, and enhancing capacity – of which the first two are commonly global in reach since in principle everyone benefits, while the third is more likely to be spatially limited to national or local levels.

Another distinction that has been made is between “final” or “core” GPGs and “intermediate” or “complementary” GPGs.⁵⁶ The former are the final benefits that people consume, while the latter are benefits that feed into or facilitate access to the former. Thus Ferroni distinguishes between “core” activities to produce public goods – “noncountry-specific investments in knowledge, dialogue, basic research into technologies meant to be in the public domain..., negotiation of agreement on shared standards and policy regimes [and] intercountry mechanisms for managing adverse cross-border externalities or creating beneficial ones” – and “complementary” activities which aim to “prepare countries to consume the crossborder public goods that the core activities make available”.

A global public goods approach to ICTs

In his Millennium Report, the Secretary-General of the UN made reference to the GPG attributes of information and information networks: “Finally, the core product in this sector – information – has unique attributes, not shared by others. The steel used to construct a building, or the boots worn by the workers constructing it, cannot be consumed by anyone else. Information is different. Not only is it available for multiple uses and users, it becomes more valuable the more it is used. The same is true of the networks that link up different sources of information. We

⁵⁶ ODS 2002 and Ferroni (2002) refers to “final” and “intermediate” GPGs, while other studies, including GDF (2001), Morrissey et al (2002), Sagasti and Bezanson (2001) use the alternative terminology.

in the policy-making world need to understand better how the economics of information differs from the economics of inherently scarce physical goods – and use it to advance our policy goals.”⁵⁷ The reference to information “networks” as also meeting the criteria of non-rival consumption and non-excludability signals the possible adoption of a GPG conception of the information society.

Although knowledge and information – final products – are generally classified as GPGs, all the different elements contributing to their production and dissemination, while seen to have attributes of GPGs, are not so widely accepted as GPGs per se, or at least as core GPGs, but rather are seen by some as complementary. What interests us here in particular are those elements contributing to knowledge production and dissemination that relate to the “information society”. Several studies have explored the public good dimension of connectivity, global telecommunications, new information technologies and the Internet (Sy 1999; Spar 1999; ODS 2002; Guermazi 2003).

The UNDP Office of Development Studies’ publication *Profiling the Provision Status of Global Public Goods* (2002) starts by looking at the question of global connectivity – “the state of people being connected to each other for communication as well as knowledge and information-sharing purposes” across national borders. Global connectivity, it argues, can be defined as a GPG since no one can enjoy connectivity alone, but requires the existence of others to whom she or he can connect, and therefore “connectivity is theoretically, by definition, and practically, by policy choice, a non-rival and non-exclusive condition”.

The authors further argue that the global communications network and the Internet, which are the principal building blocks of global connectivity, “have themselves important dimensions of global publicness”. The global communications network is largely non-rival and services that use the network – like Internet – are neither depletable nor excludable: “Both the global communications network and the Internet exhibit network externalities – their value to any single user increases as they are expanded and as more users join. The higher the number of telephone users, the greater the number of interconnections that become possible. On the Internet, each new user may be a potential supplier or consumer of goods and services, and can expand the global market for electronic commerce...” As Spar points out, “theoretically any number of users can simultaneously interact in cyberspace. By ratcheting up the necessary physical infrastructure – adding servers, increasing telephone lines, building additional satellite capacity – new users can simply piggyback on to the existing system: it is almost infinitely expandable.”

While Morrissey et al acknowledge the public good dimensions of the global communications network and the Internet, they argue the case for seeing them as complementary to the core GPG of knowledge: “in principle, knowledge is available to all equally. Although some may be constrained in their ability to access or use the knowledge, implying the need for complementary public goods, knowledge itself is nevertheless an international public good. Education enhances national capacity, and therefore is a national public good. It also enhances the capacity to produce global knowledge, and is therefore an activity complementary to providing the international public good. [...] Internet sites and global networks are complementary activities that contribute to disseminating knowledge; provision of education and access to information are complementary activities that facilitate the use of knowledge.”

⁵⁷ The Secretary-General’s Millennium Report: <http://www.un.org/millennium/sg/report/>

Another public goods attribute of cyberspace identified by Spar is its capacity to generate positive externalities, including the provision of low-cost, high-quality services, such as long-distance medical treatment or tele-education, or purely commercial benefits: “With access to the Net, small producers in remote locations can gain exposure in, and thus access to, wider markets. Rather than having to link themselves to intermediaries and retail distributors, producers can advertise their wares directly on the Net, attracting the kind of consumers most likely to purchase a particular product.” Likewise, one could also argue that the global public nature of the Internet is attested to by the negative cross-border externalities it generates – spamming, computer viruses, dissemination of pornography or materials inciting racial intolerance or violence – which may be seen as global public bads.

The expansion of communications networks clearly creates national public goods, by generating important benefits relating to health, education, productivity and democratic participation, and thus contributing significantly to overall development goals. However, ensuring network development does more than just benefit the countries receiving the new communications infrastructure. What is not always recognised is the fact that what some label a “complementary activity” – that is, network development in developing countries facilitates their access to the GPGs of connectivity or knowledge and information – can also generate positive cross-border externalities. On the one hand, as Guermazi argues, “given the information-based nature of the modern economy, the globalization of the telecommunications industry, and the interdependent global environment, the value of the global network grows as more national networks and users are interlinked”, and therefore “funding for the universal service component of such a network should not be conceived simply as funding for those who are gaining access *in* developing countries but also as funding for those who are gaining access *to* developing countries” (emphasis added). On the other hand, expanded ICT access not only creates the conditions for these countries’ consumption of the GPGs of knowledge and information, but also increases their capacity and potential to contribute to the production of such GPGs. This issue becomes particularly relevant when we consider the question of who is to bear the costs of GPG provision and what form their financing is to take.

Clearly, this conceptualisation of global connectivity and its main building blocks requires further refinement and precision, just as its implications for practical policy application need to be further explored. However, the brief review of the literature above shows that convincing arguments are being marshalled in support of adopting this approach to the challenge of how to bridge the digital divide.

Providing global public goods: Financing mechanisms

The question remains, then, of how such a global public good could or should be financed. This question not only refers to whether existing funding sources could be tapped, or alternative or innovative mechanisms should be explored, but contains a second dimension relating to its implications for existing policy-making processes and structures and whether there is a need to develop new institutional arrangements to co-ordinate the chosen fundraising strategies and to manage and disburse the funds raised.

Just as analysts fail to agree on the scope and applicability of the concept of GPGs, so debate continues on the question of which financing mechanisms are most appropriate and effective for ensuring universal provision of GPGs. The discussion below highlights some of the main positions on these issues, in relation to the provision of global public goods in general, and the GPG of ensuring universal ICT access in particular.

Foreign direct investment

The most traditional way for a country to access external financial resources is by seeking to attract foreign direct investment (FDI), and it is precisely this approach – stimulating foreign investment in emerging markets – that is promoted in the USAID Leland and Digital Freedom Initiatives. As long as there is an appropriate political framework for that investment, FDI is without doubt an important engine for development, job creation and technology transfer. However, the laws of the market do not guarantee equitable development. Over the last decade, for example, 75 per cent of FDI was concentrated in just 10 middle-income countries and a select few economic sectors (the automobile industry, and the chemical, engineering, energy and pharmaceutical sectors). This has further marginalized developing countries and strongly restricted their capacity to participate in the global economy. In the specific case of investment in technology, Panayotou (1994) signals a range of obstacles for investors, such as “the uncertainty of returns, long gestation, and the inability of investors and innovators to capture the full return of their investments due to the public good aspects of technology development”. In other words, the scope of provision through FDI will always be limited by the profit principle, and in the case of ensuring universal access to ICT infrastructure it is only too clear that expansion of communications networks to isolated rural areas or the most marginalised and poorest communities holds little prospect of profitable returns for investors.

If, then, the GPG approach implies that these goods should have the potential to be enjoyed by all, regardless of whether the end user has paid for them or not, this means that their provision cannot be left up to the play of market forces. Indeed, traditionally, most national public goods were provided by public authorities. However, domestic provision of GPGs in developing countries is obviously problematic, otherwise the need to attract FDI would not exist. A wide range of factors limit the financial resources of developing countries, including “limited tax and capital bases, underdeveloped taxation systems, capital markets, and the diversion of substantial resources to servicing foreign debt” (Panayotou 1994). With respect to ICT expansion in particular, it may not be regarded as a development priority by poor countries that have limited funds to address much more urgent problems, such as critical poverty levels, conflict resolution, or communicable disease epidemics.

So, if neither the market nor the state have the capacity to ensure provision of GPGs in developing countries, what other existing sources of financing could be brought into play?

Official development assistance

As Ferroni (2002) points out, “one of the roles of official development assistance is to promote the delivery of public goods not provided by the market or by recipient governments in the absence of such assistance”. It would therefore appear logical for GPG provision to be funded through traditional aid channels.

In fact, one of the reasons that the notion of GPGs was received with such enthusiasm is that it was seen as a potential motor to revive political commitment to official development assistance (ODA). The question of how to revitalize ODA has been present on the agenda of the international community since the Five Year Review of the World Summit for Social Development (Reisen 2003) and was a central issue at the high-level UN Forum on Financing for Development in Monterrey, Mexico, in March 2002. The persistent failure of rich countries to meet the long-standing target of 0.7 per cent of their gross national income (the highest

level reached was 0.35 per cent, dropping to a low of 0.22 in 2001) has fuelled debate concerning the problems with the system, including the question of aid conditionality or donor earmarking against recipient country “ownership” and freedom to set its own development priorities; accountability and transparency in spending, and the problem of corruption; and the link between ODA and other development objectives such as the defence of human rights and governments’ eligibility for aid.

The clear links between GPGs and development goals may further support the idea that that funds should come from what is currently the main source of financing for development. However, not only is ODA itself beset by problems, but in some ways GPGs challenge the very characteristics of traditional ODA. Global policies and programmes can complement national development efforts in three principal ways: through “beneficial cross-border spill-overs, reduced harmful spill-overs, and improved national outcomes” (Ferroni 2002). On the one hand, the provision of GPGs supports and stimulates the development process; on the other, development itself is a prerequisite for nations to take full advantage of the benefits of GPGs, and therefore insufficient development may imply lack of capacity to benefit from GPGs. Moreover, development generates a resource base which enhances a country’s capacity to contribute – both financially and with expertise – to the provision of GPGs. As Binger (2003: 7) argues, viewing the world from a GPGs perspective has brought greater awareness of the interdependence between developed and developing countries in that it “highlights both the *unidirectional* and *multi-directional* nature of spill-over”, which clearly has implications for global cooperation and development, and challenges the traditional one-way relationship between affluent donor nations and poor recipient countries.

While some analysts (see, for example, Lamb 2002) argue that GPGs should be funded by creating more space within existing ODA or by drawing out the GPG dimension of MDGs, others highlight the risks involved in diverting ODA to fund GPGs. As the EU has recognised: “A key concern is that additional funding for GPGs should not be to the detriment of the poorest countries and of funding for the core objective of poverty eradication. As GPGs benefit both developing and developed countries, one of the consequences of increased policy attention to providing and financing GPGs could be that the real level of official development aid (ODA) reaching the poor would be even lower than the current official figures if the resources for GPGs were to come from ODA.”⁵⁸

According to Andersson (2002), in 2001 the World Bank estimated that, during the mid-1990s, approximately 30 per cent of the US\$55 billion of total ODA was allocated directly and indirectly to global public goods. Moreover, it indicated that this trend was likely to increase, a prospect that is a cause for concern if this means a net transfer of resources away from developing countries. Guillaumont (2002) signals that the main risk relates to GPGs that do not predominantly benefit developing countries. If donor countries are tempted to focus ODA on pure GPGs that, while public in consumption, may not be valued equally, or be given the same priority status, by all countries, the use of aid to fund these goods could result in the reallocation of resources from low-income to middle-income countries or from certain low-income countries to others, and in a context of declining aid flows, such diversion could have serious consequences. These concerns are addressed in Reisen et al’s study (2003) analysing ODA financing of global and regional public goods by OECD donors. The study shows that over a five year period (1997-2001) 30 per cent of ODA was allocated to global (15 per cent) or regional (15 per cent) public goods and the authors find some evidence of crowding out, although this is insignificant in the case of aid to the poorest countries, but significant (with an

⁵⁸ European Commission, ‘EU focus on global public goods’, “The EU at the WSSD, 2002”: <http://europa.eu.int/comm/environment/wssd/publicgoods.pdf>

offset coefficient of 25 per cent) in the case of traditional aid. The authors conclude that “these results favour the separation of traditional ODA and spending on the provision of international public goods, to both maximise ‘ownership’ of ODA partner countries and the provision of international public goods”. A similar conclusion was reached by the high-level panel on financing for development established by the UN Secretary-General in 2000 and chaired by Ernesto Zedillo, the former Mexican president. The Zedillo report cautions that the identification of new needs – such as those relating to the provision of global public goods – seldom generates additional funding, and stresses that “it is imperative to separate finance for development and humanitarian assistance from finance for global public goods”.⁵⁹

Likewise, Andersson (2002) argues that “since the provision of global public goods is beneficial to all countries, developed as well as developing, new funds should be raised to contribute to the provision of global public goods” and urges the international community to find innovative ways and means to ensure that provision, including through the involvement of the private sector. Kaul et al (2002) also recommend that the financing of GPGs should not come out of ODA. They highlight a range of problems relating to the use of aid resources for global public goods purposes: “the overlap between aid and global public goods financing often occurs without country-specific analyses or fully participatory international policy dialogues. Thus we do not know to what extent a country’s national development priorities are indeed identical with aid-driven global public goods priorities. We do not know whether and to what extent a growing concentration of aid on global public goods entails neglect of critical national public goods in recipient countries. Moreover, developing countries may not have had an adequate say in shaping the global public goods to which they are expected to contribute or link up to through the use of aid.” The authors conclude that rather than using ODA, which primarily involves country allocations of assistance, new financing should be sought involving national and international-level allocations to particular global public goods, incorporating “a clearly articulated dimension of international cooperation into the existing public finance framework”.

Debt swaps, private-public partnerships and voluntary donations

Some analysts have sought to address some of the problems signalled above with ODA, domestic funding and FDI for financing GPGs by exploring other newer funding mechanisms.

For example, some authors argue that given the burden of debt service for developing countries, it is unfeasible to think of FFD mechanisms that do not take into account the outflow of resources from the South to the North, and suggest different forms of debt relief as a more effective way to finance GPGs. The Plan of Action approved in the first phase of WSIS makes the following reference to this issue: “For those developing countries facing unsustainable debt burdens, we welcome initiatives that have been undertaken to reduce outstanding indebtedness and invite further national and international measures in that regard, including, as appropriate, debt cancellation and other arrangements. Particular attention should be given to enhancing the Heavily Indebted Poor Countries initiative. These initiatives would release more resources that may be used for financing ICT for development projects.” While the effectiveness of the HIPC initiative is at best questionable and it has come under strong criticism from civil society, there are other debt-relief related mechanisms that merit further exploration.

⁵⁹ High-Level Panel on Financing for Development - Recommendations & Technical Report, United Nations, A/55/1000, 26 June 2001, <http://www.idlo.int/texts/IDLI/mis5712.pdf>

One such mechanism is the use of debt swaps, which are “legal and financial instruments that transform developing country debt with official or commercial creditors into direct budget allocations” for development objectives (Sagasti and Bezanson 2001: 50). Debt swaps have taken a variety of forms, some more general – debt for development or debt for equity – and others more specific – such as debt for environmental protection or debt for education, health or nutrition. Several authors have supported exploring debt swaps further as a potential mechanism for financing GPG provision. However, the tying of debt relief to particular areas of development on the part of creditors has the same negative implications for developing countries’ freedom to set their own development priorities as earmarking aid. And, as mentioned above, were countries in the South to receive debt relief, in most cases it is unlikely that ICT development would be regarded as a priority area for channelling the freed-up funds.

Another trend that has gained ground in recent years is the creation of private-public partnerships (PPP) to promote investment in areas with some commercial prospects and that in parallel allow financing of activities to promote development of public goods. These partnerships bring together private companies with national and/or international public institutions, such as the World Bank, the UNDP and international NGOs. For example, the Medicines for Malaria Venture is an initiative designed to produce new medicines against malaria, in which the World Health Organization and the World Bank participate alongside private foundations like the Rockefeller Foundation and pharmaceutical companies represented by the International Federation of Pharmaceutical Manufacturers Associations (IFPMA) and the Association of the British Pharmaceutical Industry.⁶⁰ Some authors have argued that ICTs represent a propitious area for the development of similar partnerships, and indeed, Senegal’s DSF proposal includes a strong PPP component, in that funds would be administered by a foundation comprising a coalition of governments, international organizations, the private sector and civil society. However, Southern civil society organizations and networks have raised objections to this type of venture, pointing out that PPPs are often no more than veiled forms of privatization.

Another potentially positive characteristic of the DSF proposal is that it takes the form of a fund fed by charitable or voluntary donations (by private individuals, firms and governments). According to the Senegalese president, such a financing mechanism generates a win-win situation for the private sector in developed countries, in that the expansion of the communications market in developing countries will be accompanied by greater possibilities for those companies that provide the required technology to make a profit. While it may be supposed that there is considerable potential for generating funds through this kind of voluntary donations,⁶¹ it represents an unpredictable source of revenue, since it depends entirely on individual voluntarist actions.

Multisectoral Global Funds (MGFs), such as the Global Fund for AIDS, Tuberculosis and Malaria (GFATM), the Global Environment Facility (GEF) and the Global Alliance for Vaccines and Immunization (GAVI) are a new type of funding structure that combines both of these last two strategies – public-private partnerships and voluntary donations. Although Heimans (2003) argues that MGFs hold considerable promise as focal points for generating additional public and private resources to address urgent global problems and to finance global public goods, he nonetheless casts doubts on their effectiveness in fundraising.⁶² Unlike contributions to membership-based international organizations, contributions to MGFs are usually

⁶⁰ See Medicines for Malaria Venture web site: <http://www.mmv.org/>

⁶¹ For example, in 2002 private donations amounted to around two per cent of the GNP of the United States, equivalent to 220 billion dollars.

⁶² See below for further analysis of the potential of such funds.

voluntary and so governments will only contribute to those funds they find politically attractive, and their interest in specific funds may wane over time or be transferred to emerging new issues. He also points out that the argument that they will act as magnets for private sector funding has yet to be demonstrated in practice (the exception being the US\$750 million donation to the GAVI by the Gates Foundation, far exceeding any government contribution), while some NGOs have expressed fears, firstly, that an excessive focus on the private sector could distract attention from donor governments' core responsibilities, and secondly, regarding a possible conflict of interests, since corporate actors may have an economic stake in MGF activities through procurement decisions.

Finally, there are two types of innovative alternative financing mechanisms that appear to have a strong rationale for their use in funding GPG provision, in that they represent an effective way of internalising externalities: taxes and user fees.

Taxes

A range of suggestions has been made – some dating back several decades – as to how to tackle global public bads, such as ozone depletion, pollution or financial instability, through global taxation systems. In this section we shall examine how such funding proposals for the provision of what are universally acknowledged as global public goods may provide a starting point for thinking through financing strategies for global communications. One productive approach may be to consider whether notions like “pollution”, traditionally linked to the study of environmental problems, are extendible to communications spaces, like the Internet. The growing vision of the Internet as a platform for business, designed to “recruit consumers” by any possible means, has produced an exponential explosion in commercial web sites of little or no value to the general public, as well as a massive increase in spamming. These developments not only degrade network traffic but also generate “noise” in communications and limit users' chances of accessing information of real value. This “pollution” is a negative factor for those initiatives that use the Internet as part of educational processes, that seek to further human development or promote capacity-building for an informed and responsible citizenry. In countries with limited communications infrastructure, where access to the net is more costly and optimization of online time is vital, this becomes a significant problem. An interesting approach therefore might be to explore the possibility of extending the concept of “sustainability” to the global communications network and analyze whether the mechanisms proposed for environmental protection – increasingly based on the idea that “the polluter pays” – could be applied to the sector of electronic communications.

A range of taxes has been suggested both at local and global levels to finance GPGs, such as the Carbon Tax, Aviation Tax, Currency Transaction Tax (CTT) or Tobin Tax, World Trade Tax, International Arms Trade Tax (see Binger 2003). These proposals have a dual purpose – to obtain funds to develop the “goods”, while at the same time penalising the “bads” – and likewise generate a “double dividend”. The Carbon Tax, for example, proposes taxing carbon dioxide emissions generated by the use of fossil fuels, which is one of the main causes of environmental problems like the greenhouse effect. In addition to being a way of discouraging the production of pollutants, this type of initiatives has the potential to generate significant revenue. It is estimated that applying the Carbon Tax globally, even at modest rates, would alone generate enough revenue to fund all the Millennium Development Goals (MDGs) (Sandmo 2003). While criticism has been voiced regarding the “regressive” nature of such a tax (in that it would represent a greater burden for lower-income sectors), there is considerable consensus on the convenience of such a measure. The Nordic countries have already implemented

national-level taxes based on this concept and other European countries have also expressed their support for such measures.

The Currency Transaction Tax or Tobin Tax is a mechanism designed to promote stability in financial systems, especially in dependent countries, by limiting speculative financial transactions, while at the same time generating resources to provide other public goods. The Tobin Tax was proposed in 1972 by the economist James Tobin. Since then the proposal has fuelled much debate and many studies have been carried out exploring possible implementation models. The application of the Tobin Tax is supported by some governments and civil society organizations, such as The Action for a Tobin Tax to Assist the Citizen (ATTAC).⁶³ The proposal consists in taxing currency transactions as a way of combating market volatility. Several studies have been made of the revenues it would generate, both at regional and global levels.⁶⁴ It is estimated that a tax rate of 0.01 per cent would generate an annual revenue of around 20 billion dollars.

With respect to the possibilities of applying fundraising mechanisms based on taxes in the ICT sector, one antecedent is the "Bit Tax" or "Email Tax", first proposed in the 1999 UNDP Human Development Report (UNDP 1999). The report estimated that a tax of one cent on every 100 e-mails sent daily (with an average size of 10 Kbytes per e-mail) would have raised 70 billion dollars in 1996. Taking into account the growth in e-mail traffic in recent years and their increase in size, even smaller tax rates would produce considerable revenue that could be used to finance the development of communications in the South. The proposal contained in the UNDP report was rejected outright by countries like the United States. This fact, together with the objections raised regarding the difficulties involved in its practical application, stopped the proposal from being developed any further. In the end the UNDP issued a communiqué stating that it did not officially support the proposal included in the report and the initiative ended there.⁶⁵

User fees

The geostationary orbit, used by communications satellites, or the electro-magnetic spectrum, used for radio and television-based communications, are limited resources that could be regarded as "heritage wealth" and there is a certain degree of consensus regarding the fact that all of humanity should have access to them. The Centre for Science and Environment (CSE) has argued that "the South needs ecological space to grow, but this space has already been colonised by the North".⁶⁶ The same idea could be applied to communications spaces.

Several years ago proposals first started emerging for the creation of "user fees" for finite global resources such as fishing or cultivable land, and suggestions have been made to apply similar fees to the use of resources used for communications purposes. Organizations like the ITU or UNESCO have at different moments considered the possibility that a percentage of the resources generated by international telecommunications be used to promote the development of more equitable communications systems.

⁶³ ATTAC's web site: <http://www.attac.org/>

⁶⁴ A study commissioned by the Federal Ministry for Economic Cooperation and Development of Germany in 2002 analyzes the feasibility of a tax on foreign exchange transactions in the "euro zone", revenue from which would be used to finance the MDGs: <http://www.wiwi.uni-frankfurt.de/professoren/spahn/tobintax/>

⁶⁵ See 'Caslon analytics e-taxation and tariffs guide' for more information on the "Bit Tax", <http://www.caslon.com.au/taxationguide2.htm>

⁶⁶ See CSE's web site: <http://www.cseindia.org/>

This kind of initiative was included in documents like the “Many voices, one world” report⁶⁷ published in 1980 by the International Commission for the Study of Communication Problems,⁶⁸ convened by UNESCO.⁶⁹ The report, known as the McBride Report, identifies the need to establish a new world order in the area of communications: “The international dimensions of communication are today of such importance that it has become crucial to develop co-operation on a world-wide scale. It is for the international community to take the appropriate steps to replace dependence, dominance and inequality by more fruitful and more open relations of inter-dependence, and complementarity, based on mutual interest and the equal dignity of nations and peoples”. The report goes on to say that “[t]he electro-magnetic spectrum and geostationary orbit, both finite natural resources, should be more equitably shared as the common property of mankind”. In the section covering the issue of how to generate financial resources to be used for developing more equitable international communications, the report states: “The scarcity of available resources for communication development, both at national and international levels, highlights the need for further studies in three different areas: (a) identification of country priorities for national and international financing; (b) evaluation of the cost-effectiveness of existing investments; (c) the search for new financial resources. As far as new resources are concerned, several possibilities might be explored; (a) marshalling of resources deriving from surplus profits on raw materials; (b) establishment of an international duty on the use of electromagnetic spectrum and geostationary orbit space for the benefit of developing countries; (c) levying of an international duty on the profits of transnational corporations producing transmission facilities and equipment for the benefit of developing countries and for the partial financing of the cost of using international communication facilities (cable, telecommunication networks, satellites, etc)”.

Another UNESCO initiative, the World Commission on Culture and Development (WCCD), published a report titled “Our creative diversity” (UNESCO 1997). The report includes an “International Agenda” that aims to “enhance and deepen the discussion and analysis of culture and development and foster the emergence of an international consensus on as many of the key issues as possible”. Part of the agenda states: “The Commission regards the airwaves and space as part of the global commons, a collective asset that belongs to all humankind. This international asset at present is used free of charge by those who possess resources and technology. Eventually ‘property rights’ may have to be assigned to the global commons and access to airwaves and space regulated in the public interest”. The agenda goes on to suggest the possibility of introducing user fees for commercial use of these “global commons”, which could then be used, for instance, to promote national, community and public broadcasting services.

Another idea was first proposed in 1984 by the Independent Commission for World Wide Telecommunications Development (known as the Maitland Commission), set up within the ITU. In its report “The missing link”, the Maitland Commission proposed using a portion of revenues from calls between developed and developing countries to boost telecommunications infrastructure development. This suggestion is taken up again by Guermazi (2003) in her study of possible ways of financing universal access to ICTs in developing countries. She also identifies ITU Resolution 88,⁷⁰ adopted at the Plenipotentiary Conference in Minneapolis in 1998, as a useful antecedent for the application of an international user fee for satellite filing,

⁶⁷ The McBride Report’s conclusions and recommendations are available online at: <http://www2.hawaii.edu/~rvincent/mcbcon1.htm>

⁶⁸ Also known as the McBride Commission.

⁶⁹ For more details of the work of this Commission, see Ó Siochrú (2004).

⁷⁰ Resolution 88 (rev Marrakech 2002), ‘Processing charges for satellite network filings and administrative procedures’, <http://www.itu.int/aboutitu/basic-texts/resolutions/res88.html>

although the original resolution proposed introducing this user fee as a way to finance specific services and products provided by the ITU, rather than ICT expansion in the South.

It is clear that there are many mechanisms that could potentially fund GPG provision, but as Sagasti and Bezanson (2001) point out, “the appropriateness, convenience and feasibility of using one or another of these mechanisms will depend on the specific characteristics of the public good in question and on a variety of other factors” including: the amount of funds a given mechanism can generate; the sustainability of funding; the fairness and equity of the mechanism; its flexibility and capacity to adapt; the administrative complexity it involves; and whether it is politically feasible or can mobilize political support. Several of these factors relate to the other dimension of providing GPGs mentioned above – what new or existing institutional arrangements are required to co-ordinate potential financing mechanisms and global policy-making.

Providing global public goods: Institutional arrangements

Policy issues that were traditionally limited to the national level have now become global because their resolution exceeds the resources or policy-making reach of any one country. As Kaul et al state: “Public goods that were once national public goods – clean air, public health, financial stability and market efficiency – have increasingly assumed cross-border dimensions. To provide these goods to their local constituencies, policymakers can no longer rely solely on domestic policy measures but need to engage in international cooperation. Conversely, international public goods – notably the natural commons, including the atmosphere and the ozone shield – increasingly demand national-level corrective measures if their use is to be sustainable.” In other words, there is a growing need for a clear articulation between national and international and global-level policy-making processes and structures. Much of the debate on how to ensure effective provision of GPGs has focused precisely on the fact that this articulation is currently lacking, which results in a series of “gaps” undermining effective global policy-making (Kaul et al 1999).

The *jurisdictional gap* refers to the discrepancy between the global boundaries of major issues and the predominantly national-level focus and scope of policy-making. Therefore, closing the jurisdiction gap requires the reconfiguration of international cooperation to create a “jurisdictional loop” (Binger 2003) coordinating national, regional and global actions. The *participation gap* is due to international cooperation being essentially intergovernmental even though many other stakeholders contribute to GPGs. Closing the participation gap requires bringing civil society, businesses and other interest groups into international negotiations alongside governments and intergovernmental institutions, and also reducing the vast gap in negotiating capacity between industrial and developing countries. The *incentive gap* arises from the fact that “moral suasion is insufficient for countries to correct their international spillovers or to cooperate for GPGs” (Binger 2003:). Therefore, to ensure that international cooperation has lasting and effective results with respect to the provision of GPGs, it must offer clear net benefits to all participating parties, and all actors must perceive the benefits as fair.

In other words, the bridging of these gaps is what is needed to link the different spheres and actors involved in policy-making in order to meet the challenges of a globalized world. Along similar lines, Sagasti and Bezanson (2001: 27-28) identify three “domains” in which their model of an idealized international public goods delivery system would operate: the domain of the global – the site of GPGs; the domain of the networks – “the host of institutional arrangements, including

international organisations and partnerships, supranational financial mechanisms, and operations policies and procedures that are in charge of ensuring that the global public good is made available"; and the domain of the local – "the multiplicity of national and local activities related to the actual production and consumption of global public goods, which include domestic policies and incentives, national and local financial mechanisms, and the activities of government agencies, private firms, civil society organisations and individuals".

The question, then, is how to articulate GPG provision between these three domains, a challenge that is by no means simple. Indeed, many of the criticisms directed at the proposals for financing GPGs through taxes or user fees focus precisely on the obstacles to the practical application of such mechanisms – administrative difficulties, or the complexity of collecting and managing the resources generated, in a transparent manner that respects national sovereignty. Suggestions to overcome these obstacles include the use of mechanisms based on local administration systems (at city and country level) to raise the taxes, with the revenue being subsequently transferred to some type of international organization to manage it. Again, different proposals have been made regarding what type of organization this should be and what jurisdictional scope it should have. Some suggest that such organizations should function within the orbit of the UN system, while others argue that their most appropriate sphere of action would be that of the International Development Banks. Yet others propose the creation of a joint public-private institution to fulfil this function. The use of resources generated through taxation or user fees and the implementation of policies at country level also require democratic and transparent mechanisms which can effectively ensure that the original goal of GPG provision is met. It is further crucial that such mechanisms count with the support of local governments and the civil servants in charge of policy implementation, in order for such ventures to be successful. A three-tier-system of local-to-global governance has been proposed by Hartzok (1999) for the case of a "green tax", for example. According to this model, the world would be seen "as a pyramid with three basic levels: a small tier at the top for global institutions, a greatly slimmed down second band of national governments, and a vast sturdy base of local governance". The authors maintain that this "could become a comprehensive and universally accepted approach to public finance policy [...] Percentages of total resource revenues collected could be disbursed up or down these tiers based on criteria of equity [...]".

One new type of institution that is emerging as a potential structure for managing the financing of development and other global priorities are the Multisectoral Global Funds mentioned above. According to Heimans (2003), what makes MGFs different is that "they are administered and financed by multi-actor coalitions of governments, international organizations, the private sector and civil society, they operate independently of any one institution and are tied to particular issue or policy areas". Heimans argues that these characteristics may make them more streamlined operationally than traditional mechanisms and help capture some of the benefits of collaboration among different actors. However, he also notes that MGFs may result in a less coherent response to global problems, duplicate existing structures and be weakly democratically accountable (the selection of board members tends to be ad hoc and non-transparent, and "inclusiveness and consultation is compromised in favor of being seen as 'quick to act' in different aspects of fund operations"). Sagasti and Bezanson (2001) express similar reservations regarding the GEF, and also note that "national and local organisations in developing countries may not have the capacity to deal with demands from multiple donors involved in the partnership, which often have conflicting interests and priorities".

Along the lines of these global funds, Hartzok (1999) has proposed the creation of a "Global Resource Agency", responsible for monitoring the global commons and collecting fees for their use. She maintains that "such a body could also assume substantial authority for equitably distributing fees collected and levying fines and penalties for the abuse of common heritage resources". Other authors, however, echo the concern that the creation of this kind of agency would create additional levels of bureaucracy, and highlight in contrast the advantages of establishing small specialist, issue-specific organizations, rather than one all-encompassing global agency.

One comprehensive proposal for funding universal ICT access that tackles both the question of funding strategies and institutional arrangements within a GPG framework was outlined by Guermazi in her draft memo (November 2003) for the Social Science Research Council. Guermazi suggests that "the ICT gap could be narrowed if the international community embraced a global universal service and access regime (GUSA) as a global policy objective. A global universal service and access regime would constitute a global public good funded by the international community to ensure that all the world's inhabitants are reasonably connected to the tools shaping today's information economy." She reviews a series of potential financing strategies, including several of the mechanisms outlined above – a global universal service tax along the lines of the e-mail bit tax and international user fees for orbital slots and radio frequency spectrum – and also maintains the importance of targeting ODA to ICT development (within a framework proposal to differentiate between country-specific ODA allocations and issue-specific global aid allocations) particularly in countries that have difficulty attracting foreign direct investment or to provide financing for activities that are not especially attractive for private investors, such as the development of low profit rural networks. Finally, Guermazi argues that the best possible international institutional arrangement to coordinate the different mechanisms for raising funding for ICT expansion and to ensure the transparent and accountable management of the funds raised would be a Global Universal Service Fund, along the lines of the GFATM or GEF. She concludes: "As in the case of the GEF, private sector and global civil society are important stakeholders for the success of the fund. Because of the changing telecom environment and the increasing role of the private sector in tackling telecommunications project, the GUSF should not be relied upon as a substitute for private investment, but rather as a supplement to the market mechanism."

Conclusions

This paper has focused on presenting the current state of affairs with respect to the issue of financing communications in countries in the South, in the context arising from the proposal for a Digital Solidarity Fund presented by Senegal at WSIS. We have argued in favour of treating the challenge of universal ICT access as a GPG issue and sited the financing issue within a broader discussion on appropriate mechanisms for GPG provision, and a review of the current situation of financing for development. In this final section we summarize our main line of argument and offer a concrete proposal regarding what we consider to be the most appropriate financing mechanism for funding expanded ICT access in the South.

Bridging the digital divide means promoting global connectivity. As argued above, global connectivity can be considered a global public good in that it is theoretically and practically both non-rival and non-exclusive. Moreover, the building blocks of global connectivity – the global communications network and the services that use the network, such as the Internet, that is, the very objects of the financing debate – also display important dimensions of global publicness. Once the evident restrictions on access are overcome, they, too, are strongly non-rival and non-

excludable, and in addition, generate positive cross-border externalities, in that their expansion increases their value to any single user, producing benefits in a spill-over range extending to the North as well as the South. Ways must be sought, therefore, to address the challenge of ensuring universal access through expanded communications infrastructure as a necessary step towards providing these global public goods.

Adopting a conceptual starting point that sees ICT expansion as an issue of GPG provision provides a normative framework for thinking about how this objective should be funded. Following the arguments outlined above, we do not believe that funding should come from current ODA. Nor do we regard a fund fed solely by voluntary donations – as proposed by Senegal as the basis of the DSF – to be the best option, partly because it risks deepening the model of dependence of the South on “charity” from the North, partly because it is doubtful whether a sufficient degree of sustainability of funding could be achieved. Moreover, a voluntarist solution runs the risk of generating a “free-rider” problem, since those actors most likely to benefit from expansion of the communications network – in particular the transnational corporations that manufacture ICT soft- and hardware – could choose not to contribute and yet still stand to gain from the “800 million [new] consumers” in Africa, referred to by President Wade of Senegal. On the other hand, a fund that is too closely dependent on contributions by private companies in the North could find its hands tied with respect to its freedom of choice. While the interest expressed by companies like Cisco, Microsoft or Hewlett-Packard in developing communications in Africa can be seen in a positive light, as President Wade suggests, we would argue that this is so only insofar as that interest does not take the form of imposing technological solutions that transform Southern societies into captive markets.

Given these potential difficulties with a fund based purely on voluntary donations and returning to the issue of what financing mechanism would be most appropriate given the positive cross-border externalities generated by the expansion of the communications network, we advocate the application of a tax on information and communications technology. However, in contrast to Senegal’s proposal that funds should be raised at the end-user end of the production-consumption chain (see above), we believe that the tax should be levied at the other end – on the manufacture of the microchips used in such technology. This would obviously simplify revenue collection, as it would involve taxing a handful of transnational companies rather than billions of consumers purchasing at millions of outlets, and thus also obviate the potential problems linked to transparency and respect for national sovereignty signalled above. Finally, there is clearly a very strong rationale for using revenue raised from taxing information and communications technology to fund expansion of the communications network, and at the same time the mechanism itself guarantees that the fund is self-sustaining, since ICTs expansion would in turn generate more revenue.

Finally, it is clear that responsibility for collection and management of the resources raised through such a tax would have to be assigned to a specific institution. However, the precise structure, jurisdictional scope and location of such a body is open to debate, and both existing – such as the Global Environment Facility – and proposed institutions – such as Senegal’s Digital Solidarity Foundation or Guermazi’s Global Universal Service Foundation – provide an interesting starting point on which to build. As we have already stated, while it is essential that the private sector be involved in the process, it is important to analyze how to balance private and public interests and to develop mechanisms to ensure the independence of such a fund and its freedom to make the best use of the monies raised, including the adoption of those technological options that best adapt to local realities. We believe that civil society in the South has an important contribution to make in

pointing the way in this respect and should therefore play a central role in the administration of the fund, both at global and local levels.

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