5. PRO-EQUITY APPROACHES TO MONITORING AND EVALUATION:

GENDER, MARGINALIZED GROUPS AND SPECIAL NEEDS POPULATIONS

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Executive Summary

- M&E can play a significant role in supporting pro-equity approaches to ICT for education.
- A *pro-equity* approach to M&E should try to accomplish at least two goals: First, M&E specialists should engage in data collection with transparency as to who comprises the population target, and where this population fits into the national fabric and policy of poverty reduction. For example, what is the demographic breakdown of the intervention sample by gender, language, ethnicity, age, location, and income relative to the rest of the national population?
- Second, it is important to draw from M&E activities any conclusions about both policy formation and program implementation that can address pro-equity issues. For example, evaluation results should be prepared in a manner that allows expansion of the program to additional marginalized groups (by caste, location and other language groups).
- Much can be done to support pro-equity and pro-MDG approaches to ICT and development—efforts that will benefit and be inclusive to nations and *all* their citizens.

5.1 PRO-EQUITY APPROACHES

Long before the term *digital divide* became a common way to describe gaps between the rich and poor in access and use of ICT, most policy makers, researchers and practitioners could at least agree on one thing: Reaching the poorest of the poor was going to be very difficult challenge. Even reaching the so-called *ordinary* poor (that is, men with some secondary schooling, living in predominantly urban areas) would entail challenges of electrical power, telecommunications connectivity, human resources infrastructure, and the like. Reaching the *poorest of the poor* (that is, illiterate women with little or no schooling, living in predominantly rural areas, and possibly speaking minority languages) would be considerably more difficult. The goals of EFA and MDG are very clear about the need to promote *equity* by gender (women and girls), special educational needs (SEN), and among "marginalized" populations (such as illiterate persons, ethno-linguistic minorities, refugees, and so forth). This chapter attempts to describe where M&E might be able to play a role in supporting pro-equity approaches to ICT for education (ICT4E).

Who are the 'poor' in the world today? Clearly, poverty is a relative term—the poor in New York would have resources quite different from the poor in urban Johannesburg or rural Senegal. Yet using UN data, there is general consensus, as stated in the 2004 World Bank Annual Report[1], that on average, about 10-20 percent of people in OECD countries are poor, while this number climbs to a range of 40-60 percent in the bottom third of LDCs. In poor LDCs, the characteristics of poverty include an average GNP per capita of less than 1-2 U.S. dollars per day, high illiteracy levels (including either illiteracy or 'functional illiteracy' of 40-50 percent of the overall population), and relatively low social status (as related to gender, ethnicity, language, geographic location, and so on). It is variously estimated that only a tiny fraction (less than 5 percent) of

1 World Bank, 2004

global ICT investments focus on the poor as defined above.[2] Indeed, when considering the life opportunities of the poorest populations, direct investments in ICT have clearly been more rhetorical than real. Yet such work is crucial if the MDGs of universal basic education and literacy are to be achieved.

What is the overall scale of the target population that is covered within the MDG-ICT framework above? Groups comprised of women and those speaking minority-languages may be overlapping, but clearly contain a large majority of those on the *wrong side* of the digital divide. Further, there are over 100 million primary school-aged children out of school, and about one billion adult illiterates, the majority of whom reside in the poorest countries of South Asia and Africa.[3] Even these large numbers are likely to be a serious *underestimation* of literacy needs in the digital age. Indeed, if a larger set of skill competencies (reading, writing, math, ICT literacy) were included, along with the limited efficiency of adult literacy and "second chance" education programs, and the very low quality of many poor rural schools in developing countries, it would probably be more accurate to say that those in need of improved basic skills (required in order to effectively use ICT) today represent between 2-3 billion individuals (Wagner & Kozma, 2005). Of these individuals, we might estimate that at least half are among the poorest of the poor, as they will undoubtedly be over-represented by ethno-linguistic groups for whom ICT access in the international languages of the world (i.e., English, French, Spanish) is quite limited.

This raises a key question: Are the methods and indicators most commonly used in the monitoring and evaluation of ICT in education initiatives *biased* in any key ways that will work against the narrowing of gaps and towards the growth of equity in ICT for education? Put another way: Would the availability of equity-sensitive M&E indicators work towards promoting greater *inclusion* of populations within the MDGs?

Consider, for example, the *Bridges to the Future Initiative* project undertaken in India. In this project, a specific focus was on how to reach the most challenging poor populations, but within fiscal constraints that meant that an ICT infrastructure had to pre-exist in order to reduce expenditures. Within this important constraint, the project had to determine the best way to achieve MDG education goals, and measure the impact of multimedia instructional material on youth and young adults (see Box 5.1).

Many projects in the ICT sector claim to be 'bridging' the digital divide. But *what* divide are they bridging? Is it between the rural and urban? Between boys/men and girls/women? Between the well-off and the less-well-off? In many leading studies, including most of those referenced in this handbook, we have relatively *little* idea of the demographics around equity issues. We may be helping the "poor," but are we doing so at the expense of other poor people? While investment in a given ICT4E initiative may be effective and desirable for its target groups, to what extent does it satisfy the priority in the MDGs to reach the most disadvantaged? If a student is in high school in the lowest third of GNP countries, he/she is likely to already be in the top 10–20 percent of the socio-economic structure. Will helping this individual (no doubt a useful goal in and of itself) help achieve greater equity in the country concerned? In the following sections, we describe a number of key MDG areas that will need to be the subject of considerably greater investment if the MDG targets are to be met.

5.2 GENDER

Since the introduction of personal computers in developed countries in the early 1980's, the 'convention wisdom' has been that introducing ICTs in schools would favor males. Yet, as we have seen in numerous examples across the world, there are many cases where girls' and women's motivation and learning in ICT for education programs is equal to or greater than that of boys and men. The root causes of the initial 'digital

2 Wagner & Kozma, 2005
3 Unicef, 2000

BOX 5.1. India: Focus on ICT and the poor in the Bridges to the Future Initiative

The Bridges to the Future Initiative (BFI) in India provides multimedia, local language resources on literacy and vocational training for out-of-school youth and adults—about 50 percent of the population in poor parts of India that never had access to and/or completion of quality primary or secondary schooling. A key aspect of the BFI is that it seeks to address directly the needs of the poorest sectors of the populations in developing countries with the best of user-friendly ICT-based instructional tools. According to UN statistics, there are more illiterates in India (270 million) than in any other country. With a 35 percent adult illiteracy rate, economic and social development for all is highly constrained. While great strides in Indian education have been made, it is now clear that many schools are able to offer only inadequate quality of instruction, leading to a primary school drop-out rate of between 35-50 percent across the poorest states of India, including in Andhra Pradesh state where the BFI has been operating since 2003. Thus, the main target are the tens of millions of disadvantaged youth (ages 9-20 years) who are at risk of never getting a good job, performing poorly in trades that are education-dependent (especially those that change with the knowledge economy), and suffering a variety of health consequences due to poor education and income. Many of these youth (especially girls and young women) have had some schooling, but often too poor in quality for these individuals to achieve a functional literacy ability.

The BFI model is designed to take advantage of already-existing ICT infrastructure, largely in secondary schools, and create content to which such out-of-school youth have access. The instructional model builds on the oral competence of the learners in their mother-tongue, Telugu, the majority language in the state. As part of the BFI, a major impact assessment—a longitudinal study—has been undertaken to follow BFI out-of-school youth, and other youth in control groups, to measure skills and knowledge acquisition. Up to the present (March 2005), over 200 youth (age 10-20 years: about 60 percent girls) have participated in the BFI program study. Results indicate that the participating youth are learning literacy skills at an accelerated pace and show greatly enhanced motivation and retention. Further, results suggest that those youth with least schooling—especially girls—show the most gain in performance, and many of these have left the BFI program to return to complete their primary schooling. The BFI in India (along with a companion project in South Africa) was designed to demonstrate that cost-effective solutions can and should be developed for the most challenging situations.

Adapted from: Wagner and colleagues[4]

gender divide' (conscious or unconscious) against females have generally been perceived (by policy makers) to relate to issues such as lack of a safe place of access, limited literacy, and little in the way of useful outcomes. Another interpretation, of course, is that men's access to economic resources in the 'external' (outside of home) environment simply put them in greater proximity to technology access. We will unlikely know the definitive set of causes, but we do know the results. In most countries today, especially outside of the OECD, women's access to ICT inside an educational system lags significantly behind that of men's (see Table 5.1).

As with most areas of development, such gender biases are clearly counterproductive for all social indices. In the area of ICT for Development (ICT4D), we now have many examples of women (and girls) being at the forefront of the social and economic uses of new ICT. In one of the best-known examples of the use of microcredit for women, Grameen Bank in Bangladesh made loans to women, even poor and illiterate women, for the creation of small mobile phone businesses. The results were dramatic—not only were the women more reliable then men in paying back the loans, but they also made use of their local social networks to run highly successful enterprises even in poor, rural areas.[5] There are many such examples today that show that women in developing countries recognize the empowering dimensions and economic returns of ICT.[6]

When considering gender within the M&E area, it is increasingly the case that gender is a variable of interest. Today, gender is increasingly taken note of by program implementers, and the importance of gender in development processes overall now assures more than ever before, that ICT programs will be 'engendered'.[7] See Box 5.2 for some examples of who to improve a gender-sensitive approach to ICT4E.

4 Wagner, 2001; Wagner & Daswani, 2005; Wagner & Day, 2004); for more information on the BFI, see www.literacy.org or www.bridgestothefuture.org.
5 Richardson et al., 2000.
6 For reviews, see Batchelor, 2003; Hafkin & Taggart, 2001; and Huyer & Sikoska, 2003.
7 KM International, 2003; World Bank, 2003.

TABLE 5.1. Women's Internet use in selected developing countries and the United States

Country	Women as % of Internet users, 2000	Total women Internet users in '000s	Total number Internet users in '000s	Internet users as % of total population	Population in '000s	Female prof. & tech. workers % of total	Female literacy rate	Female GDP per capita (US$)	GDI Rank 1/174
USA	51.1	83,479	170,280	60.0	283,800	53.1	99.0	23,540	3
Philippines	51.0	76.5	150	0.6	77,726	65.1	94.3	2,510	65
South Africa	51.0	645.6	1,266	4.2	42,835	46.7	83.2	4,637	84
Brazil	43.0	1,075	2,500	2.1	169,807	63.3	83.9	3,813	67
Croatia	42.0	63	150	4.3	4,672	n/a	96.4	3,557	50
Mexico	42.0	567	1,350	2.5	98,553	45.2	87.9	4,594	48
Estonia	38.0	57	150	14.1	1,421	66.8	99	4,236	49
Russia	38.0	4,560	12,000	1.8	146,861	n/a	98.8	3,503	61
Zambia	37.5	1.13	3	0.2	9,461	31.9	67.5	753	125
Uganda	31.5	4.73	15	0.1	22,167	n/a	35	944	131
China	30.4	6,840	22,500	0.7	1,265,530	45.1	74.5	2,485	79
India	23.0	115	500	0.2	983,377	20.5	39.4	902	112
Poland	18.7	295.6	1,581	5.4	38,607	61.2	99	5,061	40
Belarus	17.5	14	80	0.1	6,667	38.4	98.5	3,909	54
Ethiopia	13.9	0.83	6	0.1	58,390	n/a	29.2	349	172
Slovakia	12.0	60	500	13.0	5,393	59.7	99	6,366	39
Czech Republlic	12.0	48	400	6.8	10,286	54.1	99	7,952	34
Senegal	12.0	.90	7.5	0.3	9,723	n/a	24.8	1,253	127
Lithuania	10.0	7.0	70	2.9	3,600	67.5	99	3,323	55
Jordan	6.0	3.7	60.8	1.8	4,435	n/a	81.8	1,429	n/a
Colombia	n/a	n/a	350	0.0	38,581	45.6	90.8	4,725	51
Peru	n/a	n/a	200	1.5	26,111	39.4	83.7	2,335	71
Turkey	n/a	n/a	450	2.3	64,567	33	73.9	4,681	73
Thailand	n/a	n/a	200	1.3	60,037	54.5	92.8	5,000	58
Indonesia	n/a	n/a	300	0.2	212,942	40.8	79.5	2,359	88
Pakistan	n/a	n/a	61.9	0.1	135,135	21.0	25.4	701	116
Vietnam	n/a	n/a	10	0.1	76,236	27.6	89	1,385	91

5.3 MARGINALIZED POPULATIONS

As noted earlier, the most disadvantaged groups in all societies tend to be those "on the margin"—on the socio-economic and cultural-linguistic periphery of a national population. Beyond issues of gender and age (which also can be marginalizing), such marginalized populations usually have one or more of the following kinds of characteristics:

- Belong to an indigenous people or special caste or race that has a pattern of historical social discrimination;
- Speak a language (or dialect) other than a major regional or national (or international) language;
- Have a history of little or no education, and likely to be illiterate or low-literate;
- Reside in, or migrate from, a historically deprived (usually rural) geographical region.

Being a member of a marginalized, usually an *ethno-linguistic* minority group, often has a broad set of deleterious social and economic consequences. In ICT4E projects, such factors must be taken into account directly, much as has the issue of gender discrimination. As yet, however, most technology projects have, for

a number of (often political) reasons, chosen to focus on 'majority' digital divide issues, rather than 'minority' or marginalized group issues. As with gender, M&E can play an important role in focusing attention on the problem, as well as providing a better targeting of implementation processes.

BOX 5.2. Several strategies have proven effective in encouraging the continued participation of girls and women in education in general

- Provision of scholarships;
- Culturally appropriate facilities;
- Female teachers;
- Alternative schools with flexible schedules;
- Vocational training;
- Presentation of a gender-neutral, or gender-inclusive image of scientists and the practice of science;
- Emphasis on hands-on activities and applications to everyday life, society, and the environment;
- Introduction of female role models and mentors;
- Conscious effort by teachers to treat girls and boys as equals in the classroom.

Adapted from World Bank[9]

Language is an exceptionally important marginalizing factor in the digital age. One reason for this is that the Internet itself is *not* language-neutral. Recent research shows that English is more present on the World Wide Web (approximately32 percent in October 2005) than any other language, and is about at parity with the next nine most prominent languages combined.[8] Interestingly, the dominance of English has dropped somewhat from an even greater dominance only a couple of years earlier (65 percent in mid-2001). No other language seems to rival the English total. Even though Chinese (at 13 percent of the world total) is rapidly growing, the role of English as a preferred global *second* language of communication will almost certainly guarantee its global dominance for years to come. Of course, there are major changes taking place on the Internet today, and there is serious disagreement as to the breadth and depth of availability and use of digital information. There are more languages—outside of the top ten—in use every year. Nonetheless, most research, as of 2005, shows that the top ten languages[10] dominate 80 percent of Internet use today, leaving those who have not mastered one of these languages as a first or second language in the margins of global information.

While similar data are not available for language-based instructional software production, a substantial dominance is likely to be found for English today, at the expense of other international languages, and major regional languages (e.g., Hindi, Swahili). Further, local minority/indigenous languages (e.g., Telugu in India, with 50 million speakers; or Mayan in Mexico with several million speakers) receive relatively little digital attention at all. It should also be noted that most of the monolingual speakers of indigenous languages are female, which adds an additional burden on the obstacles that women face in ICT4E projects.

Illiteracy and low-literacy, when combined with ethno-linguistic status is a further marginalizing factor. UNESCO[11] has estimated that there are nearly 862 million illiterates in the world aged 15 and above. One could estimate that at least 80-90 percent of this illiterate population is from the types of marginalized groups detailed above. Of this total population, we know that nearly 60 percent is comprised of women, most of whom are from the poorest countries or regions in the world. Overall, developing countries have increased literacy rates by 6.6 percent between 1990 and 2000. However, such increases in official literacy rates often have not kept pace with population growth (especially in South Asia and Sub-Saharan Africa) with the actual number of illiterate citizens having increased during the same period of time. As a consequence, illiteracy and low-literacy are fairly direct indicators of those who are marginalized in each society; furthermore such skills are central to ICT4E success due to their role in serving as a base for technological skill proficiency.

8 Langer, 2001; Internet World Stats, http://www.internetworldstats.com/stats7.htm
9 World Bank, 2003.
10 The top ten languages of the WWW are, in order, English, Chinese, Japanese, Spanish, German, French, Korean, Italian, Portuguese, and Dutch. See http://www.internetworldstats.com/stats7.htm.
11 UNESCO, 2000.

5.4 SPECIAL EDUCATIONAL NEEDS

New technologies have long been seen in industrialized countries as an exceptional way to reach out to individuals who are especially challenged with physical and psychological handicaps. Indeed, when resources can be deployed, new ICTs can be seen in a host of efforts to aid those with sight, hearing, and other physiological handicaps. Thus, "special educational needs" (SEN; a subset of the broader domain of special needs) usually refers to the sub-domain of ICT4E where two inter-related issues may arise: (1) Does the SEN learner have particular problems (such as visual or hearing impairments, or learning disabilities, and so on) that make the *ordinary* person-technology device (PC, PDA, other) interaction difficult (e.g., difficulty in seeing print on a screen); or (2) are there particular technology devices (*assistive technologies*) that are or can be especially tailored for SEN learners such that they are responsive to the particular needs of the learner (e.g., voice recognition technologies for the blind). While there is a long history of use of such assistive technologies for learning, mainly in industrialized countries (such as described in Box 6.3), due to resource constraints, this area has only begun to receive significant attention in developing countries.

In recent years, AT has been used increasingly in developing countries as well. Popular tools such as *JAWS*, a screen-reader software for the blind or visually impaired offers access to a wide variety of information, education and job-related applications (see http://www.synapseadaptive.com/). Two case examples are provided below that provide a sense of the types of AT in use, and the type of M&E that has been employed. In the first example, in Morocco (Box 5.4), visually impaired university students were provided with AT software that supported web access. The case study evaluation provided evidence of impact on a small number of students, with the hope of convincing government authorities of the utility of ICT/AT for education on a larger scale.

In a second effort, SEN adult learners in four Central American countries were provided with both AT software and hardware that was designed to foster employment skills (see Box 5.5). As may be seen, a variety of tools were deployed, and a group of several hundred individuals were evaluated and trained.

There is little doubt that the notion of inclusive education is taking hold across the world, both as national and international policy, and this is a priority central to the MDGs. OECD countries have moved strongly

BOX 5.3. United Kingdom: Assistive technologies in education

Assistive Technology (AT) is the software and technology which helps people with disabilities and special needs to overcome the additional challenges they face in communication and learning. For example, switch-operated software, onscreen keyboards and mouse alternatives are all types of assistive technologies. A number of studies have shown that technology can enable students to overcome barriers to learning and develop positive relationships with peers and teachers. …[E]valuation into the use of assistive technology is limited and often lacks detailed and comprehensive criteria for assessing the effectiveness of the devices. … Research studies indicate fairly positive outcomes from people with profound multiple learning difficulties using micro-switches and speech output systems. However, more advice, support and training for teachers and carers is needed to help students make effective use of the technology…

Speech-recognition software is of most value to those students who cannot produce handwritten work of sufficient quality or quantity. These systems can have a positive effect on reading and spelling with students showing significant improvement in word recognition, reading comprehension and spelling. However, not all students have expressed positive feelings about using the systems and have often reported the task of correcting speech recognition errors to be tedious and frustrating. In particular, some primary-age students [in the U.K.] have been unable to use such systems because the software has failed to recognize their high-pitched voices or unclear speech… …Most of the research evaluating speech- recognition systems has concentrated on the reliability and robustness of the systems for general use. Much less evaluation has been undertaken on the ways in which speech-recognition systems can be used and customized to meet the particular needs of individuals.

Adapted from Becta.[12]

12 Becta, 2003, page 3.

BOX 5.4. Morocco: ICTs for assisting blind students

"Having joined the center, I was newly born. I have acquired what I have been deprived of for years. I can now navigate the Net as freely as I like with almost no difficulty. It is a precious opportunity to prove my humanity. Instead of feeling embarrassed whenever I ask somebody to read or record for me, pressing CONTROL+ALT+J is enough to save me all that trouble by JAWS's presence following me all along the way carrying out any order I give it. I am free at last!" A fourth-year blind student at Cadi Ayyad University, Marrakech, Morocco

In Morocco, people with visual impairment, be it total or partial, are disadvantaged in two ways in terms of access to education. First, the usually humble social origins of these individuals (poverty and illiteracy of their parents) and the very limited availability of specialized institutions restrict their access to education. Second, even those having the opportunity to go to school are usually blocked by the lack of pedagogical materials adapted to their needs. Currently, specialized schools for the blind are very poorly equipped. The production of such materials is still far from responding to current needs. Blind students need help to compensate for the absence of adapted pedagogical material (manuals, reference books, etc.). This lack of adapted pedagogical material has slowed down the progress of blind students significantly and has increased the degree of their dependence on others (people assisting with their voices or offering writing services, etc.).

For its first year of operation, a group of 20 blind students at the Cadi Ayyad University Multimedia Center for the Blind (UMCB) were invited to benefit from a new training program. Results of the project to date, based on a qualitative interview assessment, include: (1) The student beneficiaries declare having gained much autonomy and independence. Most have acquired the skills needed for the independent use of the computer. Having benefited from free access to the UMBC at any time and having been engaged in a process of self-learning with the assistance of some volunteering students, the students managed to digitize many pedagogical tools and to transform them into audio files. (2) Some of the most motivated students managed to use resources available through the Internet by browsing the web and exchanging information through e-mail. (3) Some of the most motivated students engaged in training of trainers. Having themselves benefited from the training, they started ensuring the supervision of sessions of free access and giving personalized lessons to other beneficiaries. The evaluation undertaken today is an important step in demonstrating to government authorities that ICTs are not only useful, but that universities with research and evaluation capacities can play an important role in justifying further implementation activities.

Adapted from Bougroum.[13]

BOX 5.5. Central America: ICT-based Employment Training for People with Disabilities

[V]olunteer [staff] were sent to work directly with 10 organizations in Honduras, El Salvador, Guatemala, and Nicaragua. They trained more than 300 people who represented 44 organizations in the region. The principal skills taught by the volunteers included software training (Microsoft Office, Internet navigators, Microsoft Front Page, Netscape Composer, e-mail applications, database design) and adaptive technologies (among them, Scan and Read for the blind, and adaptive devices for people with impaired mobility). The project had a direct impact at three different levels: 1) introducing adaptive hardware and software, 2) training people with disabilities, and 3) training disability organizations as trainers. Unemployed people with disabilities were the target group. These people had been unable to find a job for a variety of reasons, including: (a) limited access to education, [since] special education services in the region are provided to [only] 3 percent of school-age children with a disability…; (b) inaccessible physical structures: many public buildings and roads are not modified for people in wheelchairs. Access to public transportation barely exists for the disabled, thereby limiting people's ability to get to work; (c) negative societal perceptions and discrimination: even when people endeavor to circumvent architectural barriers and have the necessary job-related skills, societal attitudes often keep them from being hired.
During the project evaluation, many organizations confirmed that they had improved their ICT skills and the quality of their work as a consequence of the training. They also reported that their use of e-mail had increased.

Adapted from Batchelor.[14]

in this direction[15], and more recently in-depth Africa-focused reports show new emphasis in the same direction.[16] While technological tools in LDCs are only beginning to be utilized, they nonetheless hold out hope for the millions in poor countries that are in need of additional ways to be included into the age of global education and information.

13 From Mohammed Bougroum, Cadi Ayyad University, Marrakech, Morocco, personal communication (2005).
14 Batchelor et al., 2003.
15 OECD, 2000.
16 Brandjes, 2002; Casely-Hayford & Lynch, 2003a, b; see also web resources at http://www.gg.rhul.ac.uk/ict4d/Disability.html).

5.5 CONCLUSIONS: TOWARDS A PRO-EQUITY USE OF M&E

Many of the current ICT for education efforts, even if deemed to have been successful, have not included a sufficiently *pro-equity* perspective. This is obvious for various reasons. Earlier, we asked, rhetorically, "Whose divide is really being bridged?" But, we may also simply observe the following: The vast majority of software/web content (mainly in major languages such as English, Chinese, French, Spanish) is of little use to the many millions of marginalized people for reasons of literacy, language or culture. Of course, the private sector produces, in large part, for the largest potential and most lucrative market—with clear (and negative) consequences for the poor in most circumstances. It is increasingly clear that user-friendly multimedia tools can satisfy the needs of the poor to a much greater extent than heretofore produced.[17] Providing such tools and developing the human resources capacity to support the local development and distribution of relevant content is one important way to help initiate a positive spiral of sustainable development. Indeed, if the private sector can learn to market to the poor (much as soap manufacturers have 'discovered' that smaller soap bars can be sold to a much larger segment of the poor in India), then real markets need to be found that support pro-equity approaches of investment.

How can M&E help this situation? A pro-equity approach to M&E could accomplish two goals: *First*, M&E specialists should engage in data collection with transparency as to who comprises the population target, and where this population *fits* into the national fabric and policy of poverty reduction. For example, what is the demographic breakdown of the intervention sample by gender, language, ethnicity, age, location, and income *relative* to the rest of the national population? *Second*, it is important to draw from M&E activities any conclusions about both policy formation and program implementation that can address pro-equity issues. For example, in the BFI-India project (Box 5.1, above), evaluation results should be prepared in a manner that allows expansion of the program to additional marginalized groups (by caste, location and other language groups).

BOX 5.6 Colombia: Pro-Gender Approach to Monitoring and Evaluation

Bosa [a locality in Colombia] has a telecenter located in a lower class neighbourhood where the majority of people are plain workers or unemployed. It is housed in Kerigma, a community cultural center, a community meeting space for different groups and organizations. Most of the women active in women's groups or organizations in the Bosa neighbourhood are housewives who have their children and housekeeping as their main interests and activities. Representatives of, Virtuous Mothers, Eco-Mujer, and Women's Centre took part in a [Gender and Evaluation Monitoring] project in 2003.

[A series of workshops were held, the results of which are provided in the comments below from participants]

- There are strong feelings involved in using a computer. Curiosity, fear of technology and the unknown, uneasiness, fear of breaking things, making mistakes, being mocked, are only a few of the difficulties faced by people who have not used a computer or do not know much about it. Women also think that computers are something fascinating, a new world where they do not belong.
- There is a need to learn and be taught in using computers in a sensitive manner.
- There is a lot of discrimination against women in this field. Society seems to give little importance to women's needs in the field of computer technology.
- Women feel they are looked down on by their own children because they don't know how to use a computer. They also feel bad because they can't help their children with their homework because they know nothing about computer studies. "We don't want to be called donkeys", one of them said.
- Women have to respect themselves and make others respect the role they play in society
- Women have to work towards equal opportunities. We don't want to copy men's ways, and instead show that there can be other ways that show respect for each other's rights.
- We don't have to discriminate against girls within the family. We should teach that girls and boys have equal opportunities in mind.
- We need to overcome fear of science and technology.
- Sometimes we feel that our only right is the right to be in the kitchen.

Adapted from APCWomen[18]

17 Wagner & Kozma, 2005.
18 Gender Evaluation Methodology (GEM) (accessed August 2005), at http://www.APCWomen.org.

It is also important to keep in mind the fundamental reality that effective programs, even without rigorous and state-of-the-art M&E method, can be found and supported. That is, while we advocate strongly here for M&E in all interventions, there are some projects, nonetheless, with little empirical data that we believe (from anecdote and observation) are worth greater investments. One case in point is a women's ICT-based program in Colombia (Box 5.6). Here we see the power of individual women in describing their own situation. Household surveys and the like cannot provide much additional value to what a group of motivated and reflective participants contributed in a set of workshops. Of course, simply becoming aware of the key issues as described in the Columbia example is not the same as knowing whether these issues have been effectively addressed from an evidenced-based perspective.

Much can and needs to be done to support pro-equity and pro-MDG approaches to ICT and development—efforts that will benefit and be inclusive to nations and *all* their citizens. The role of M&E in this domain should not be underestimated. As Margaret Mead famously said: "Never doubt that a small group of thoughtful, committed people can change the world. Indeed, it is the only thing that ever has." In a parallel fashion, it is only through a small set of credible studies aligned with policy prerogatives (such as the MDGs) that national policy change can take place in a guided fashion. This is the pro-equity challenge, a core component of what this M&E effort should be striving to achieve.

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