Full Item Register Number [auto] **CF/RAI/NYHQ/SP/SSC/2003-00009**

Ext Ref: Doc Series/Year/Number

Record Item Title

Children and Development in the 1990s: A UNICEF sourcebook - on the occasion of the World Summit for Children (1990: 28-29 September). Part 4 of 6. Pp 135-184. Total 266 pages

Date Created / on Correspondence	*Date Registered*	*Date Closed*
29-Sep-1990	**28-Dec-2001**	**30-Sep-1990**

Primary Contact	**Rijuta Tooker (Temp Assist)**
Owner Location	**Special Session & Global Movement For Chil =**
Home Location	**Special Session & Global Movement For Chil =**
Current Location	**Special Session & Global Movement For Chil =**

Fd1: Type: IN, OUT, INTERNAL
Fd2: Sender Ref or Cross Ref
Field 3

File Container Record ID	**CF/RAF/USAA/DB01/2001-06648**
File Container Record (Title)	**Background Documents (WSC)**

N1: Number of pages	*N2: Doc Year*	*N3: Document Number*
50	**0**	**0**

Full GCG Code Plan Number
Record GCG File Plan

Da1: Date Published	*Da2: Date Received*	*Date 3*	*Priority*

Record Type **A01ed Item Spec Proj - CF/RAI/NYHQ/SP/SSC**

DOS File Name

Electronic Details **No Document**

Alt Bar code = RAMP-TRIM Record Number **CF/RAI/NYHQ/SP/SSC/2003-00009**

Notes

Print Name of Person Submit Images	**Signature of Person Submit**	*Number of images without cover*
Paulette Spencer	Paulette Spencer	50

Water and sanitation

In brief

The Goals: Universal access to safe drinking water by the year 2000. Universal access to sanitary means of excreta disposal by the year 2000.

In the countrysides, cities, and peri-urban slums of developing countries, 1.2 billion people still lack access to safe water and 1.7 billion lack access to appropriate sanitation. The toll on individuals and societies is high: illness from water-borne and water-washed diseases, including diarrhoeal diseases, debilitates and kills many, particularly young children. And women and girls, who face the gruelling chore of fetching water in most cultures, spend time and energy they can ill afford, walking as much as five kilometres a day for water of questionable purity.

Although progress was made during the 1980s, it is estimated that the implementation rates for water coverage in the 1990s will have to increase by 1.5 to 2.5 times those of the 1980s in rural and urban areas respectively; rates for sanitation will need to increase 3 to 4 times those of the 1980s in urban and rural areas respectively.

The political will to address the problem is needed. Additionally, resources must be reallocated from high-cost to low-cost technologies; community financing needs to be intensified; and private sector involvement needs to be enhanced. Sound sector management is necessary, including the establishment of coverage status, definition of goals, and annual monitoring of inputs and coverage in each country.

Currently, in developing countries (including China), an estimated 1.2 billion people–or 31 per cent of the population–do not have access to adequate, safe water supplies.

Similarly, an estimated 1.7 billion people–43 per cent of the population of developing countries–are without access to appropriate sanitation.

Communities pay exceptionally high prices in terms of physical health and social well-being for the lack of access to such vital resources as water and sanitation. For example, many diarrhoeal diseases are water-borne, water-washed, water-based, or otherwise water-related. In 1985, WHO reviewed 67 studies of water and sanitation from 28 countries and found that improvements in water quality and accessibility cut diarrhoeal morbidity rates by nearly 40 per cent. Experts believe that reductions in diarrhoea-related deaths would be even higher.

Percentage reductions in diarrhoeal morbidity rates attributed to water supply or excreta disposal improvements

Type of intervention	Number of results	*Percentage reduction* Median	Range
All interventions	53	22	0-100
Improvements in water quality	9	16	0- 90
Improvements in water availability	17	25	0-100
Improvements in water quality and availability	8	37	0- 62
Improvements in excreta disposal	10	22	0- 48

Source: Esrey, Freachem and Hughes, "Interventions for the control of diarrhoeal diseases among young children: Improving water suplies and excreta disposal facilities", Bull. WHO, 63(4), 757-772 (1985).

And women and girls, the principal carriers of water in most cultures, have to walk long distances, sometimes up to five kilometres, to fetch water that may or may not be safe. The effort expends calories these women can ill afford, and leaves them with less time and energy to care for their children, to participate in social activities, and to meet other responsibilities.

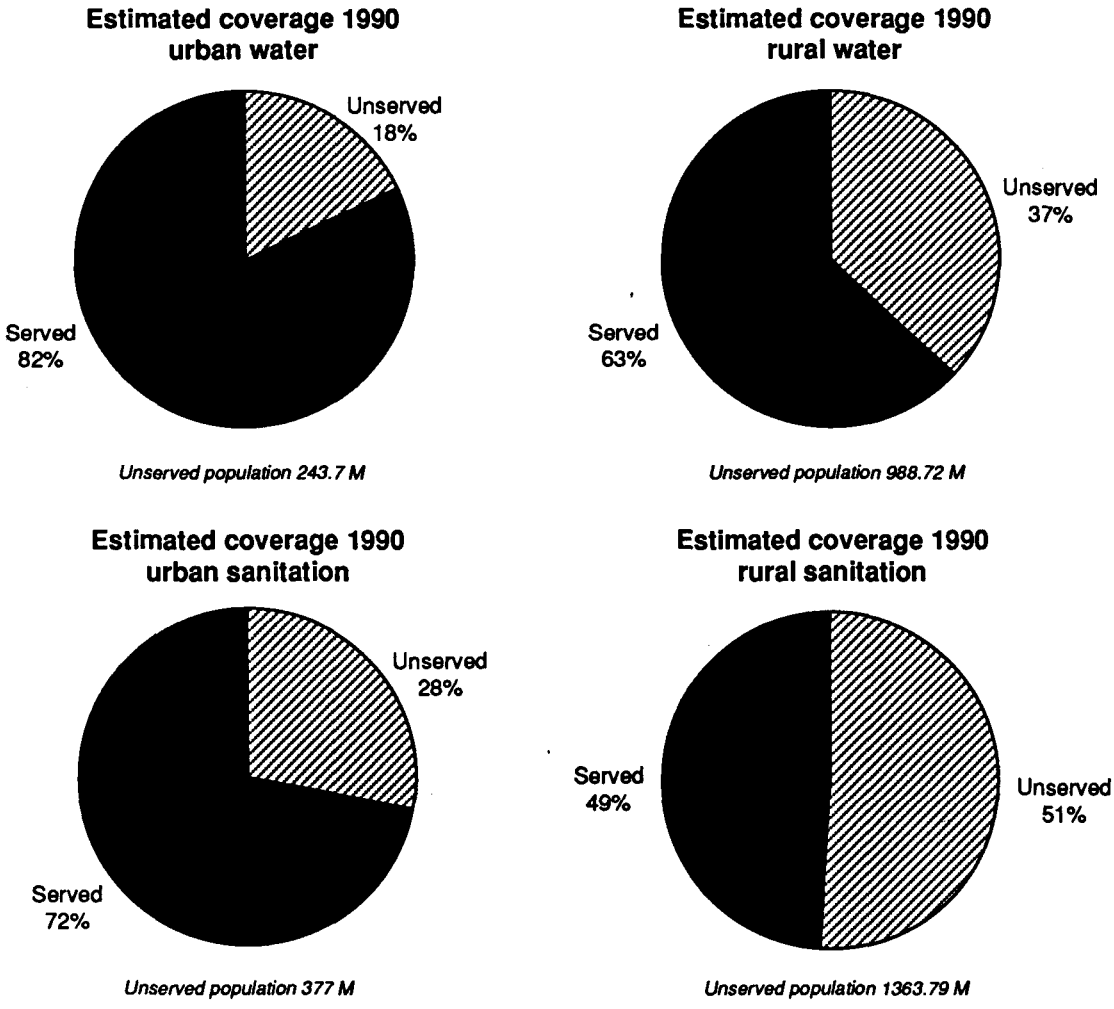
Where the world stands now

On 10 November 1980, the General Assembly of the United Nations proclaimed the period from 1981 to 1990 the International Drinking Water Supply and Sanitation Decade. The primary goal of the decade was to achieve universal access to water and to sanitation in developing countries by 1990. Individual countries have their own definitions of "access," but with regard to water, access is often taken to mean the availability of at least 20 litres of safe water per person daily, at a source within one kilometre from

a user's dwelling. Access to sanitation can be understood as a way of disposing of excreta and waste that can be considered sanitary in a given set of circumstances.

After 10 years of intense global effort, an additional 1.3 billion persons were served with water. World-wide access to water has risen by 5 per cent in cities and by 33 per cent in rural communities. In developing countries, urban water coverage is now approximately 82 per cent, and rural water coverage is approximately 63 per cent.

The decade saw more than 700 million people served with sanitation facilities. Global urban sanitation rates rose by 4 per cent, and rural rates rose by 32 per cent. Currently, urban sanitation coverage stands at approximately 72 per cent; rural coverage is approximately 49 per cent.



Source: UNICEF on the basis of WHO data.

The much larger increase of coverage witnessed in rural areas is essentially related to the fact that there were, in general, very few infrastructures in these areas in 1980; low-cost technologies were widely used to provide "first time" services during the 1980s; and in urban areas, while considerable investments were made to rehabilitate or upgrade existing services, these did not always expand service coverage.

The causes for lack of coverage

Several factors have contributed to the problem of inadequate access to water and sanitation:

- Over the years, development has tended to favour central cities and wealthy suburbs to the detriment of rural areas and low-income urban neighbourhoods.
- More money–80 per cent of global sector expenditures–has been spent on high-cost technologies, such as water treatment plants, suited to wealthy urban environments. These mechanized, high-technology systems can cost as much as $550 per capita. Only 20 per cent of global expenditures has been allocated to low-cost technologies such as boreholes and wells with hand-pumps, gravity-fed facilities, and rainwater catchments. Suited for rural communities and low-income urban areas, these cost less than $50 per capita.
- A properly devised action plan and better management of the sector are needed, as are more trained professionals and technicians.
- Ways to fully involve women in water supply programmes, especially in maintaining systems, have not been devised.

Sanitation, unlike water, is not an immediate, felt need. So while many of the above factors affect lack of access to both water and sanitation, one of the most important keys to the success or failure of sanitation programmes is the degree of community involvement and social mobilization such programmes achieve. Until recently, engineering techniques were considered the solution to sanitation problems. Now, however, it has become clear that, especially in rural areas, people need to be educated about the hazards of poor sanitation and how these hazards relate to the water supply.

What can be done

To ensure universal access to safe water, the implementation rates for the 1990s need to be raised by 1.5 to 2.5 times those of the 1980s in rural and urban areas respectively.

The implementation rates required to reach the goal of universal access to sanitation are 3 to 4 times those of the 1980s in urban and rural areas respectively. Yet, sanitation readily lends itself to social mobilization and is less capital intensive than water supply programmes. So the sanitation goal can also be achieved, although it will take a greater effort.

Available resources can be used more efficiently if there is a willingness to learn from the experience of the past decade. This experience has taught us the need to:

- Assure sustainability by relying on community management with the active participation of users (especially women); local control of operation and maintenance; and introduction and/or expansion of cost-sharing and cost-recovery measures.
- Strengthen human resources and institutions. Support is needed in training technicians and professional staff, equipping warehouses, offices, and workshops. The exchange of experiences between developing countries needs to be facilitated to prevent errors from being repeated as well as to replicate positive developments.

Currently, 80 per cent of global spending on water and sanitation goes to technologies such as water treatment plants, costing as much as $550 per capita, suited to wealthy urban environments. Low-cost technologies such as boreholes and wells with hand-pumps, suitable in many rural and urban situations, cost less than $50 per capita.

- Encourage widespread use of low-cost technologies and devote a greater proportion of investments to these relative to high-cost (conventional) technologies.
- Give greater priority to peri-urban slums, rather than focusing only or mainly on rural areas. Many rural people who migrate to urban areas settle in the peri-urban fringes, thereby creating a unique set of health and social problems.
- Increase the monitoring and evaluation of projects so that information from individual communities (regarding the cost-effectiveness of techniques, technological innovations, and improved social approaches) can be disseminated throughout the sector.
- Continue to link water and sanitation vigorously with health and related concerns, especially with the control of diarrhoeal diseases, eradication of Guinea worm disease, control of schistosomiasis, and reduction in cases of trachoma.
- Mobilize individual communities and whole nations to achieve greater awareness of problems caused by lack of access to clean

water and sanitation and their solution, learning from the systematic mobilization techniques used in the Universal Child Immunization (UCI) programme. Enlist support of governments, international agencies, bilateral donors, and the private sector to generate or reallocate funds to accelerate the coverage rate.

- Support research to refine and modify existing low-cost and high-cost technologies, thus reducing the long-term costs of water and sanitation.

What universal access will cost

Approximately $10 billion was spent annually in developing countries for water and sanitation in the 1980s. Governments, on average, contributed about 65 per cent of this amount, and external support agencies provided the remaining 35 per cent.

On the order of $35 billion per year will be needed during the 1990s, if total coverage of water and sanitation is to be achieved by the year 2000. This estimate implies the use of low-cost technology ($30 per capita for water supply and $20 per capita for sanitation) for rural populations globally, as well as for 25 per cent of all urban populations. It also implies the use of "intermediate technologies", costing $100 per capita for water supply and $25 per capita for sanitation for an additional 25 per cent of the unserved urban population, and high-cost technology ($550 for water and sanitation) for the remaining 50 per cent of the unserved urban dwellers.

Using this model, over 80 per cent of the currently unserved population could be reached with less than 30 per cent of the total required investment.

To reach the accelerated implementation rates, the following are both necessary and feasible:

- Reallocation of financial resources. Currently about 80 per cent of funding goes toward high-cost technologies and 20 per cent toward low-cost technologies. A ratio of 70:30 would represent a better funding ratio for high-cost and low-cost technologies.
- New resources allocated to water and sanitation, particularly from external agencies, are required.
- Community financing via cost-recovery and/or cost-sharing mechanisms that are already in progress should be intensified.
- Private sector involvement should be enhanced.

Universal access and the Summit

As political will is so crucial for the attainment of universal access, the World Summit for Children is an ideal forum for political leaders to give priority to achieving the goals on time.

An important first step would be by declaring that access to clean water and sanitation is a right of every child and endorsing national and global efforts for achieving universal access.

To meet the goals, each country needs to give priority to the following:

- A local review of their country's status regarding water and sanitation; its coverage as of 1990; a target date for universal access, and annual increments of coverage expected between 1990 and the target date; the types of assistance required initially and in the long run.
- Establishment of an action plan for the 1990s. This should be based on the above reviews of the country's status.
- Establishment of a monitoring unit by the government with help, if necessary, from external support agencies. This unit will monitor the entire water sector on an annual basis, using a local definition of "access."

Further reading

"UNICEF and the 1990s: The Water and Sanitation Sector Workplan for 1990-1995," Document WET/628/89. UNICEF. 1989.

Draft "Decade Assessment Report." WHO. Geneva. 1989.

WATER AND SANITATION

	% of population with access to safe water 1985-87			% of population with access to sanitation 1985		
	Total	Urban	Rural	Total	Urban	Rural
LATIN AMERICA & CARIBBEAN	**70**	**85**	**43**	**62**	**80**	**23**
Argentina	56	63	17	69	75	35
Bolivia	44	75	13	21	33	10
Brazil	78	85	56	64	86	1
Chile	94	98	71	85	100	4
Colombia	92	100	76	70	96	13
Costa Rica	91	100	83	94	99	89
Cuba						
Dominican Rep.	63	85	33	28	41	10
Ecuador	58	81	31	67	98	29
El Salvador	52	68	40	60	82	43
Guatemala	38	72	14	24	41	12
Guyana	77	100	65	86	100	79
Haiti	38	59	30	21	42	13
Honduras	50	56	45	30	24	34
Jamaica	96	99	93	91	92	90
Mexico	77	89	47	58	77	13
Nicaragua	49	76	11	27	35	16
Panama	83	100	64	81	99	61
Paraguay	29	53	8	86	89	83
Peru	55	73	17	50	67	12
Trinidad & Tobago	98	100	95	98	100	95
Uruguay	85	95	27	59	59	59
Venezuela	90	93	65	51	57	5
MIDDLE EAST & NORTH AFRICA	**76**	**98**	**55**	**N/A**	**N/A**	**N/A**
Algeria	68	85	55	57	80	40
Egypt	73	92	56			
Iran, Islamic Rep.	76	95	55			
Iraq	87	100	54	75	100	11
Jordan	96	100	88	61	92	
Kuwait		97			100	
Lebanon	93	95	85			
Libyan Arab Jamahiriya	97	100	90			
Morocco	60	100	25			16
Oman	53	90	49	31	88	25
Saudi Arabia	97	100	88		100	
Syria	76	98	54			
Tunisia	68	100	31	52	84	16
Turkey	78	95	63			
United Arab Emirates						
Yemen	42	100	25		83	
Yemen, Dem.	54	85	32			
AFRICA SOUTH OF THE SAHARA	**35**	**69**	**23**	**30**	**61**	**15**
Angola	30	87	15	19	29	16
Benin	52	80	34	35	58	20
Botswana	54	84	46	42	93	28
Burkina Faso	67	43	69	9	44	6
Burundi	26	98	21	58	84	56
Cameroon	33	43	24	46	100	1
Central African Rep.		13				
Chad						
Congo	21	42	7			
Côte d'Ivoire	19	30	10			
Ethiopia	16	69	9		96	
Gabon	92					
Ghana	56	93	39	30	61	16

WATER AND SANITATION

	% of population with access to safe water 1985-87			% of population with access to sanitation 1985		
	Total	Urban	Rural	Total	Urban	Rural
AFRICA SOUTH OF THE SAHARA (continued)						
Guinea	19	41	12			
Kenya	30	61	21			
Lesotho	36	65	30	15	22	14
Liberia	55	100	23			2
Madagascar	32	81	17			
Malawi	56	97	50			
Mali	17	46	10	19	90	3
Mauritania		73				
Mauritius	100	100	100	92	100	86
Mozambique	16	38	9	21	53	12
Namibia						
Niger	47	35	49			
Nigeria	46	100	20			5
Rwanda	50	79	48	57	77	55
Senegal	53	79	38		87	
Sierra Leone	25	68	7	25	60	10
Somalia	34	58	22	18	44	5
South Africa						
Sudan	21	60	10			
Tanzania	56	90	42	68	93	58
Togo	55	99	41	14	31	9
Uganda	20	37	18	30	32	30
Zaire	33	52	21			9
Zambia	59	76	41	56	76	34
Zimbabwe			32			15
ASIA	**44**	**70**	**29**	**45**	**58**	**37**
Afghanistan	21	38	17		5	
Bangladesh	46	24	49	6	24	3
Bhutan			19			
China		85				
Hong Kong						
India	57	76	50	10	31	2
Indonesia	38	43	36	37	33	38
Kampuchea	3	10	2			
Korea, Dem.						
Korea, Rep.	77	90	48	100	100	100
Laos	21	28	20			
Malaysia	84	96	76	76	100	60
Mongolia						
Myanmar	27	36	24	24	33	21
Nepal	29	70	25	2	17	1
Pakistan	44	83	27	20	51	6
Papua New Guinea	27	95	15	45	99	35
Philippines	52	49	54	67	83	56
Singapore	100	100		99	99	
Sri Lanka	40	82	29	45	65	39
Thailand	64	56	66	53	78	46
Viet Nam	46	70	39			

INDUSTRIAL COUNTRIES

No data available

Source: The State of the World's Children 1990, Table 3 and (for China) UN Economic Commission for Asia and Pacific.
(For explanations and qualifications to specific figures, see notes there.)
Figures for country groupings are median values.

BLANK
PAGE

Elimination of dracunculiasis

In brief

The Goal: Elimination of dracunculiasis by the year 2000.

Dracunculiasis is frequently referred to as Guinea worm disease. The Guinea worm, a water-borne parasite, infects nearly five million people every year (primarily in 19 African countries) who are exposed when they drink water contaminated with the worm's larvae. Eventually a full-grown adult worm emerges in a lengthy and painful process that can last more than two months, incapacitating the victim.

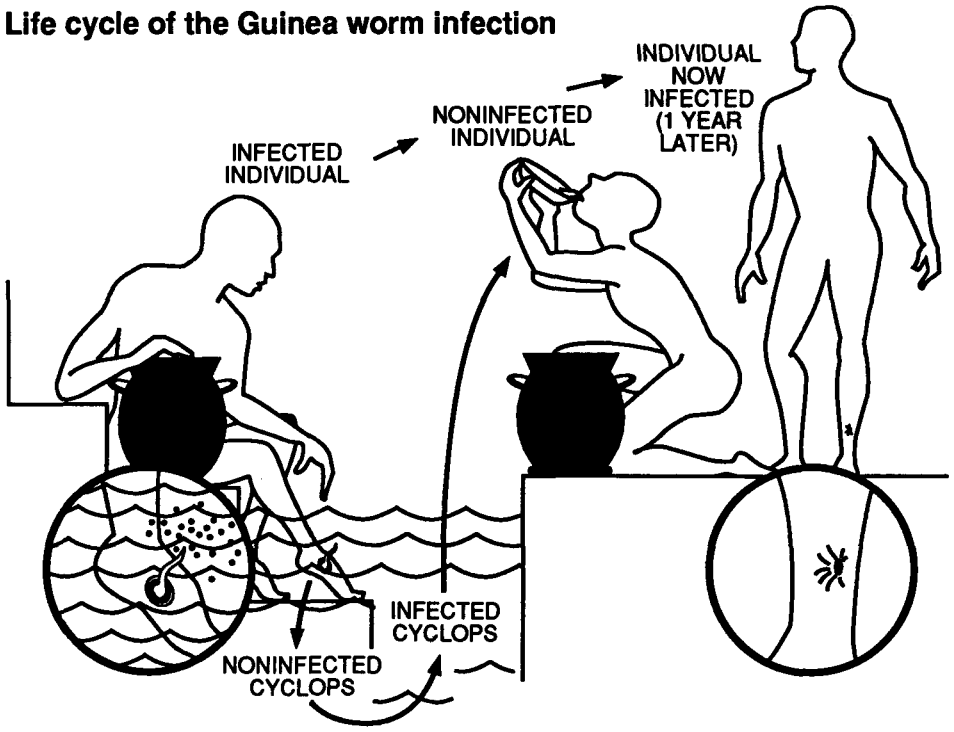
The costs to affected societies are enormous. Children infected with the worms are unable to attend school for months while the worms emerge, and are shunned by children from unaffected villages. A year's harvest–for families and sometimes for an entire village–can be lost when people are simultaneously incapacitated by the ancient disease known as the "fiery serpent," thus increasing children's risk of malnutrition.

Yet ensuring a safe drinking water source for one year with simple, low-cost interventions interrupts the transmission cycle of the Guinea worm. Like smallpox before it, dracunculiasis could be eliminated from the face of the earth before the end of the century.

Dracunculiasis (Guinea worm disease) is an ancient and brutal affliction, caused by a microscopic parasite that enters its victims–via an intermediate host, a small crustacean called cyclops–when they drink contaminated water. The female worm eventually migrates painlessly, from the digestive system through muscle and connective tissue, to a point just under the surface of the skin, usually in the lower extremities. There, it slowly and silently matures, growing to a length of up to three feet. At maturity, about a year after initial infection, the worm produces larvae that cause a burning, "fiery" blister in preparation to emerge.

It is at this point that the disease's cycle of transmission is renewed. Once the blister bursts and a worm is exposed it ejects thousands of microscopic larvae. And the worm continues to eject larvae, contaminating the environment and infecting drinking water, until it is completely removed, a process that can take as long as two months. A person seeking relief from the burning of the blister by immersing the affected area in a water source spreads the larvae. Or someone in whom a blister has broken and the worm is exposed may work in the fields near a water source or go to collect water, in that way contaminating the environment.

Life cycle of the Guinea worm infection



Source: Clinical Medicine, Vol. 3, Chapter 76 (see reference at end of chapter)
Reproduced with permission

One or more worms may emerge together and there are exceptional cases of 25 or more worms emerging simultaneously. The disease is rarely fatal, but it can cause permanent disability, largely as a consequence of secondary infection of the open wound.

People do not develop immunity to Guinea worm, and repeat infections are common year after year, decade after decade. There is no modern medical treatment for the disease. In the traditional treatment, the worm is wrapped around a small stick and slowly pulled out of the flesh over a period of weeks or months. Some believe the technique was the inspiration

behind the familiar symbol of modern medicine, a serpent wrapped around a staff.

Where guinea worm occurs

Some five million to ten million people of all ages are infected with dracunculiasis annually. With the exception of a few areas in India (8,000 cases) and Pakistan (500 cases), all known cases occur in 19 African countries.

Reported cases of dracunculiasis, by Year, 1985-1989*

Country	1985	1986	1987	1988	1989
Benin	...	...	400	33,962	5,692
Burkina Faso	458	2,558	1,957	1,266	5,122
Cameroon	168	86	...	752++	871+
Central African Republic	31	–	1,322	...	...
Chad	9	314	...	...	...
Cote d'Ivoire	1,889	1,177	1,272	1,370	1,555
Ethiopia	1,467	3,385	2,302	751	...
Gambia	–	–	–	...	...
Ghana	4,501	4,717	18,398	71,767	179,670+
Guinea	–	–	–	...	1
India	30,950+	23,070+	17,031+	12,023+	7,881+
Kenya	...	...	...	...	5+
Mali	4,072	5,640	435	564	483
Mauritania	1,291	...	227	608	447
Niger	1,373	...	699	...	...
Nigeria	5,234	2,821	216,484	653,492+	640,008+
Pakistan	...	...	2,400	1,111+	535+
Senegal	62	128	132	38	...
Sudan	...	822	399	542	...
Togo	1,456	1,325	...	178	2,749
Uganda	4,070	...	...	...	124

* From passive reporting and/or area-limited searches unless otherwise indicated
\+ National survey
... No data available
– Zero cases reported

Source: WHO Collaborating Center for Research, Training, and Control of Dracunculiasis – Centers for Disease Control, Atlanta, Georgia

Nigeria, Ghana, Benin, Burkina Faso, and Togo are the most severely affected countries. The full extent of the disease is not known, as only two countries–Nigeria and Ghana–have completed national case surveys to date. Before these national surveys, only 1 per cent of the Guinea worm cases in these countries was reported annually.

The disease also occurs in regions of Sudan, Senegal, Mali, Mauritania, Cote d'Ivoire, Uganda, Ethiopia, Niger, Cameroon, and Chad. The Central African Republic, the Gambia, Kenya, and Guinea are believed to have isolated areas of infection.

Dracunculiasis is highly localized. It may affect one village severely, or just a part of a village, completely sparing neighbouring areas or villages. Affected villages tend to be small and remote and the inhabitants are significantly less healthy, poorer, less organized as community members, and have less political influence than inhabitants of nonaffected villages. Affected villages are truly the "least reached villages" of sub-Saharan Africa.

Dracunculiasis is entirely preventable. The long-term and short-term solutions for the disease coincide: Villagers in affected areas need to be informed about the cause of the problem and motivated to drink safe water exclusively for one year, interrupting the annual cycle of transmission.

How to solve the problem

Dracunculiasis is entirely preventable. The long-term and short-term solutions for the disease coincide: Villagers in affected areas need to be informed about the cause of the problem and motivated to drink safe water exclusively for one year, interrupting the annual cycle of Guinea worm transmission.

Water can be made safe in a variety of low-cost ways. It can be strained through a cloth or filtered through sand, boiled, chlorinated, or iodinated, or the pond or other water source can be treated with a safe chemical larvicide. A pond or well can be protected so that an infected villager cannot contaminate the water by stepping into it. A borehole fitted with a hand-pump will never become contaminated by Guinea worm.

The costs of the disease

There have been few quantitative studies, but the social and economic consequences of Guinea worm disease are clearly enormous. Children who are affected are unable to attend school for months at a time, and are often shunned by children from unaffected villages who do not understand the origin of the disease. Children who are not themselves infected, but whose parents are, must assume even greater responsibilities at home to

help the family when the parent is incapacitated. Children of infected parents are also at much higher risk for malnutrition.

The economic impact on families and entire villages can be devastating. Because infection by worm larvae and the subsequent emergence of mature worms are seasonal phenomena, in highly endemic areas nearly the entire population of a village may be incapacitated. A year's harvest may lie abandoned in the fields because so many people are immobilized at the same time. In 1982, a World Bank economist estimated that between $300 million and $1 billion are lost in marketable goods every year because of the disease.

Status of dracunculiasis elimination programmes

Country	Target date for elimination	National search conducted/planned	Plan of action developed	National coordinator designated
Benin	1995	2/90	Yes	Yes
Burkina Faso	1995	1990	Yes	Yes
Cameroon	1993	1984-1990	Yes	Yes
Central African Rep.	None	9/90	No	No
Chad	1995	1990	1990	No
Cote d'Ivoire	1995	1990	No	No
Ethiopia	1995	1990	No	No
Gambia	+	9/90	No	No*
Ghana	1993	1989-1990	Yes	Yes
Guinea	+	6/90	1990	?
India	1991	1980-1990	Yes	Yes
Kenya	?	1989	1990	Yes
Mali	1995	9/90-11/90	Yes	Yes
Mauritania	?	9/90	No	No*
Niger	1995	5/90	Yes	No
Nigeria	1995	1988-1990	Yes	Yes
Pakistan	1990	1987-1990	Yes	Yes
Senegal	1995	12/90-1/91	1990	No
Sudan	1995	None	No	Yes
Togo	1995	11/90-3/91	Yes	No
Uganda	1995	1990	No	Yes

* Official in charge of communicable diseases is responsible for dracunculiasis

+ Indigenous disease may have already disappeared

The cost of eradication

Affected villages are poor in the health infrastructures needed to eradicate dracunculiasis: the means of identifying the problem, educating people on how to control it, and making the necessary environmental engineering changes in the water supply.

It is difficult to estimate the cost of extending the public health infrastructure to the approximately 30,000 to 40,000 affected villages. The effort will probably require in the region of $250 million to $500 million, including the cost of new and improved water points.

Current water supply programmes can help meet much of the expense. Financial and technical assistance will be needed from the international community to eradicate the scourge, but there is substantial scope for recovering some costs locally. The willingness of villagers to pay for a substantial part of the basic services required to combat the disease has been demonstrated time and again.

The role of the Summit

At the Third African Conference on Dracunculiasis that met in March 1990, delegates from countries where the disease is endemic asked that the disease be brought to the attention of world leaders assembled at the World Summit for Children so that, like smallpox before it, dracunculiasis can be eliminated from the face of the earth, for all time, within this decade. A strong consensus from the Summit would put the goal well within reach.

Further reading

"Dracunculiasis," by Donald R. Hopkins, in *Clinical Medicine*, John A. Spittell, Jr., ed. Vol.3, chapter 76. Harper & Row. Philadelphia. 1986.

"Dracunculiasis Eradication: Target 1995," by Donald R. Hopkins and Ernesto Ruiz-Tiben, *American Journal of Tropical Medicine and Hygiene*, 43(3) 1990 (in press).

PART FIVE:

Basic education

BLANK
PAGE

Basic education: an overview

In brief

The Goals:

- ***Expansion of early childhood care and developmental activities, including family and community interventions, especially for poor, disadvantaged, and disabled children.***
- ***Universal access to basic education and completion of primary education by at least 80 per cent of primary school-age children through formal schooling or non-formal education of comparable learning standard, by the year 2000, with emphasis on reducing current disparities between boys and girls.***
- ***Reduction of the adult illiteracy rate (the appropriate age group to be determined in each country) to one half its 1990 level by the year 2000, with sufficient emphasis on female literacy to significantly reduce the current disparity between male and female literacy rates.***
- ***Increased acquisition by individuals and families of the knowledge, skills, and values required for better living and sustainable development, made available through all educational channels including the mass media, other forms of modern and traditional communication, and social action.***

Ensuring that all citizens acquire the basic tools of literacy and numeracy is one of the most formidable challenges facing developing nations—where one out of every two children does not have the benefit of primary education, and three out ten adults (and six out of ten women) cannot read or write.

Intense social and economic mobilization and firm political will are crucial to meet the needs, particularly since resources for education, both from countries themselves and external sources, have fallen in many developing countries in the past decade. Teaching materials, as a result, are often nonexistent, and teachers' morale has faltered.

The four goals above are the strategic framework for progress, with primary education the cutting edge of a larger effort that includes

the complementary elements of early child development, adult literacy, and general access for all—through every possible channel of education and communication—to the knowledge necessary to improve life. Each country will need to set learning objectives for all its people and monitor their achievement in all educational programmes.

The world faces the unconscionable facts that one out of every two children in developing countries today does not enjoy the benefit of a full primary education, and three out of ten adults—and six out of ten women—cannot read or write. In sub-Saharan Africa and South Asia, which together account for over 30 per cent of the world's population, these proportions are substantially higher.

Educational and literacy statistics in the developing world are grim, and the handicaps imposed on individuals and societies as a result are enormous. For it is basic education, once a child's survival and health are ensured and protected, that enables the child to grow to be a productive person and live with human dignity.

Basic education is a learning foundation for all citizens, in which the tools of reading, writing, and numeracy, as well as fundamental knowledge and skills for life, are acquired. It is the foundation on which societies, depending on their resources and needs, build further learning opportunities for as many people as possible, at levels as high as possible.

And effective forms of basic education for all is a necessary condition for reversing the widening economic disparity between the poor and the rich countries, as well as tackling such critical problems of our age as protecting the environment and building harmonious societies without racial, ethnic, and religious violence.

The vital importance of basic education was reaffirmed recently at the World Conference on Education for All, held in Jomtien, Thailand, in March 1990. The conference, in which 155 county representatives, four heads of state, over 100 ministers, heads of several United Nations and international organizations, professional bodies and voluntary non-governmental organizations (NGOs) from all over the world participated, unanimously adopted a World Declaration and a Framework for Action to meet basic learning needs of every person–child, youth, and adult.

Framing the concept of basic education

Basic education is a learning foundation for all citizens, in which the tools of reading, writing, and numeracy, as well as fundamental knowledge and skills for life, are acquired. It is the foundation on which societies,

depending on their resources and needs, build further learning opportunities for as many people as possible, at levels as high as possible.

Basic education, including primary education for children, and literacy and continuing non-formal education for youth and adults, is not a restrictive concept. Early childhood care and education programmes and the extensive use of the communications media for disseminating vital knowledge are important and supportive components of basic education. Three premises underpin basic education:

First, the minimum or base that is intended for all is not the total for all. The minimum is the beginning of a self-sustaining process of learning for each individual.

Second, the level of the common base of learning can and will be raised progressively in all societies.

Third, all societies have to ensure that every citizen is equipped with the basic tools of learning and the basic knowledge and life skills relevant to his or her environment, so that each has a fair start in life.

The cutting edge of primary education

Primary health care (PHC) and child survival efforts in the past decade have taught us that in dealing with a complex, multi-faceted development phenomenon it is necessary to forge a cutting edge that can penetrate the many layers of obstacles to progress. In the case of basic education, the cutting edge would be success in primary education, particularly in such regions as sub-Saharan Africa and South Asia, where primary education lags far behind other regions of the world.

Concentrated efforts to ensure universal primary education would entail the following:

Setting goals and developing strategies in each country. The setting of goals by individual countries for universal access to and meaningful participation in primary education is necessary within the next decade. By identifying the most crucial of those things that can be done and doing them well, success is achieved that builds credibility and confidence for further success on a broader front. Countries' goals for primary education would serve as the wedges for broader efforts in basic education for all. Each country will have to explore and develop its own package of policies, strategies, and means of implementation. International partners would then pledge help and support in developing and achieving each country's goals.

Setting and assessing learning achievement levels. In primary education, the achievement of a basic level of literacy, numeracy, and life skills as defined by each country needs to be set and monitored by an assessment system. In most countries today there is no objective measurement to monitor the real progress made in achieving basic education objectives. Generally, enrolment is taken as the goal and as a proxy

measure for learning. Now, however, minimum levels of learning performance must be set and systems devised for assessing the performance of both the learner and the educational programme. The goal, for example, of having 80 per cent of 11-year-olds achieve a certain level of skills in literacy and numeracy and acquire certain basic knowledge could be periodically sample-tested to determine if it is being achieved.

Priority to girls and women and other disadvantaged groups. There must be an emphasis, as appropriate in each country, on the special need to reach out to girls and women, and to other disadvantaged groups, as early as possible to remove disparities in access to, and participation and achievement in learning. Since countries are at different stages of development regarding universal basic education, each country needs to set goals relevant to its circumstances, to be met within a given timeframe. Urgent attention, however, will need to be given to ways of removing cultural, economic, religious, and other barriers to participation in basic education.

Promoting complementary elements. The other elements of basic education, including early childhood development, adult literacy, and wider access to basic knowledge for living, need to be supported and promoted through the mass media and other channels of communication.

- Early childhood development, for example, is vital for expanding primary education and important in its own right. Early child care and pre-school programmes enhance learning performance and reduce the drop-out rate among disadvantaged children. A combination of approaches, including home and family-based programmes, activities linked with health and nutrition services, as well as conventional nurseries and kindergartens, and those that target parents and other care givers as well as children, provides the best chance of helping young children develop.

- Mass media and all other means of effective communication, important in their own right, also complement primary education and adult literacy efforts. This "Third Channel" of education, sometimes called informal education as distinct from formal and non-formal education, consists of both modern and traditional methods of communication and social action. Knowledge vital to improving people's health and well-being can be disseminated through this Third Channel. Such use of communication media would help close the gap identified by Federico Mayor, Director General of UNESCO, in his speech at the opening of the World Conference on Education For All in March 1990: "Never before in history has there been such a gap between the knowledge that could empower people and improve their well-being, and its actual availability to those who need to know."

Mobilizing support for the goals

Achievement of the goals has to be a national task in each country rather than the obligation of the education sector alone. National leaders have a special responsibility to place basic education high on the national agenda, engage in vigorous advocacy of the goals, and contribute to forging an alliance of all sectors of society in support of these goals.

In a process of social mobilization, all organized elements in society—youth and women's organizations, trade unions, religious bodies, social and cultural organizations, professional groups, cooperatives, industrial enterprises—can join and play an active role.

Local, national, and international NGOS have proven their extraordinary capacity for mobilizing people for self-reliant development. Serving as facilitators, usually at community and local levels, they help create and sustain the grassroots dialogue that helps people express their own learning needs, decide how they themselves can achieve them, and identify what human and material resources they can tap from government and other sources. Governments would do well to enhance the creativity and effectiveness that NGOS display in mobilizing people.

The Third Channel of education can also be used to mobilize societies to support and participate in basic education efforts. Thus, media, NGOS, religious groups, and community organizations might all join forces to build a school facility, for example, or help families overcome obstacles to keeping their children in school.

Where resources can be found at home

There is no doubt that intensifed and accelerated efforts in basic education will require substantial additional resources during the next decade. A recent study commissioned by UNICEF and UNESCO indicates that in 72 low-income and lower-middle-income countries, an additional $5 billion per year will be required over the next decade to ensure primary education of acceptable quality for all children, taking into account various cost-effective measures.

Many of the components of basic education—such as early childhood care and education, literacy and post-literacy learning, and the Third Channel of informal education—will depend on contributions from the learners themselves and their families, the community, local economic enterprises, voluntary organizations, and contributions from government sectors other than education, as well as public allocations for education.

In contrast, the major source of finance for primary education is generally government budgets at the national or sub-national level. In most countries, however, families and voluntary and religious organizations have traditionally contributed substantially as well. All these sources must be tapped to the fullest extent in the next decade.

For mobilizing the necessary resources, three kinds of action, all requiring vision and political will, are necessary:

- Changes within the education system, in structure, practice, and efficiency to achieve greater cost-effectiveness, including reducing grade repetition, instituting double-shift teaching, and making class sizes efficient in some situations.
- Strengthening the basic education system to raise its quality. A minimum of books and basic equipment must be assured for every classroom, and incentives and conditions for teachers must be improved during the 1990s. While such strengthening may add to total costs, it is vital for improved performance as well as for universal coverage and for encouraging peoples' support for education.
- The review of all mechanisms for increasing revenue and domestic financial support for basic education. Increased fees for primary education may raise a small amount of funds in some countries. In most countries, to increase resources for basic education, education budgets themselves will have to be restructured to give priority to basic education and education will need to be given a larger share of the total government budget and of total national resources in many developing countries. Among the possibilities are a reallocation of spending from defence budgets to education, and a shift in budget emphasis from higher levels of education to basic education.

Finding resources externally

External assistance will be a decisive influence on the Least Developed Countries, particularly in the countries of sub-Saharan Africa, which have seen a progressive decline in assistance for two decades and in South Asia where there is the largest concentration of educationally disadvantaged children and adults.

The study of low- and lower-middle income countries mentioned above concludes that of the additional $50 billion needed in the next 10 years to give every child the opportunity for basic education, some $15 billion will have to come from external assistance, given primarily to the Least Developed Countries.

This estimate of needs is based on the assumption that the economic decline of these countries will be arrested, that their debt burdens will not grow, that national budgets and GNP for education will show moderate growth, that reforms for more efficient spending will be implemented, and that current levels of external support will continue.

During the 1980s, the share of resources from external donors going to education fell from 17 to 10 per cent. Political will has to be mobilized internationally to restore and to increase education's share in total aid. National leaders can play a decisive role in exploring new means to elicit support for education.

External debt relief, for example, might be combined with additional education support, since without significant debt relief it will be impossible to achieve the objectives of basic education for all.

Donors, including multilateral agencies, also need to consider that the forms that aid usually takes—support for capital construction, imported equipment, and outside technical assistance—are not the major needs in basic education.

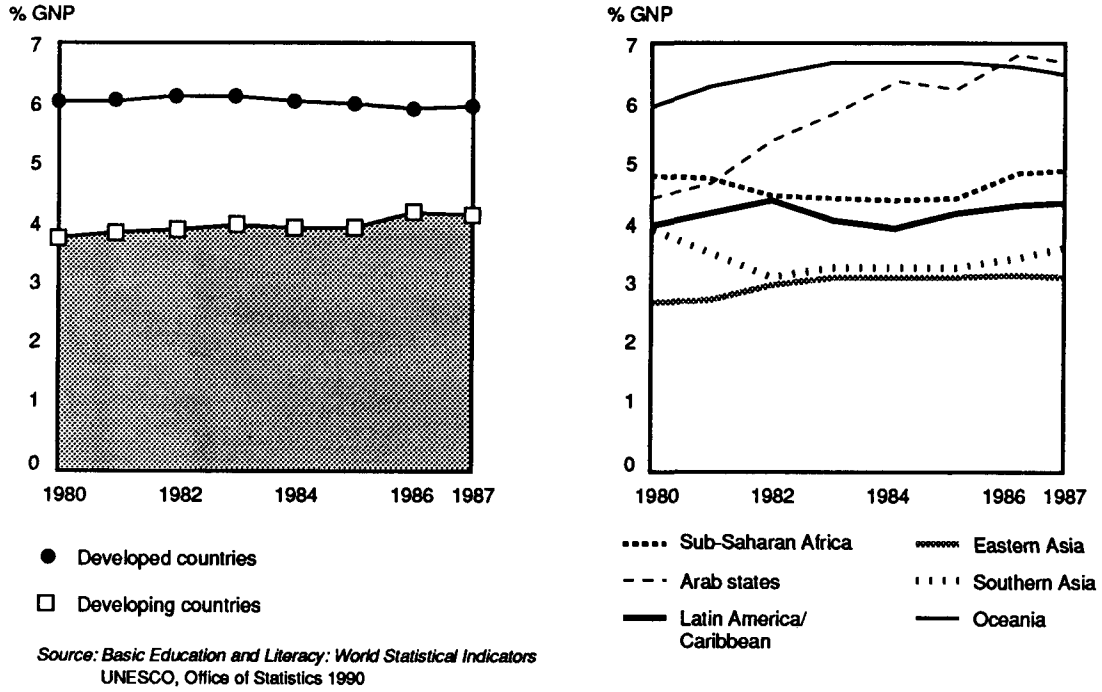
And the popular commitment of NGOs in the industrial countries can be encouraged and built upon to provide yet further support.

Through such means it should be possible to raise the necessary $1.5 billion per year needed beyond present external support.

In short, to give every child a chance for basic education, the international community, during this new decade, needs to aim at:

- Providing a certain amount, say up to $5 per pupil where it is essential, to ensure that no country in sub-Saharan Africa and the Least Developed Countries elsewhere lacks textbooks, exercise books, blackboards, and other material necessary to achieve the basic education goal, if they are so committed;

Public expenditure on education as a percentage of GNP



Source: Basic Education and Literacy: World Statistical Indicators
UNESCO, Office of Statistics 1990

Public expenditure on education as a percentage of GNP

	1970	1975	1980	1985	1986	1987
World Total	5.5	5.8	5.5	5.6	5.6	5.6
Developing Countries	2.9	3.6	3.8	4.0	4.2	4.2
Sub-Saharan Africa	3.1	3.9	4.8	4.4	4.8	4.9
Arab States	5.0	5.9	4.4	6.2	6.7	6.6
Latin America/Caribbean	3.3	3.6	3.9	4.1	4.3	4.3
Eastern Asia	1.9	2.2	2.7	3.2	3.2	3.1
Southern Asia	2.6	3.1	4.0	3.3	3.4	3.5
Oceania	7.0	7.7	6.0	6.7	6.6	6.5
Developed Countries	6.0	6.3	6.0	6.0	5.9	5.9

Source: see previous chart

- Providing additional support through debt relief and exploring other innovative measures to help communities increase the local resources they can allocate to education.

Further reading

"World Declaration on Education for All" and "Framework for Action to Meet Basic Learning Needs," adopted by the World Conference on Education for All, March 5-9, 1990, Jomtien, Thailand.

"Meeting Basic Learning Needs: A Vision for the 1990s." Background document, World Conference on Education for All. Published by the Interagency Commission (UNDP, UNESCO, UNICEF, World Bank) for the World Conference on Education for All. New York. April,1990.

Basic Education and Literacy: World Statistical Indicators. UNESCO, Office of Statistics. 1990.

Investing in the Future: Setting Educational Priorities in the Developing World, by Jacques Hallak. UNDP/UNESCO. 1990.

Early child development

In brief

The Goal: Expansion of early childhood care and developmental activities, including family and community interventions, especially for poor, disadvantaged, and disabled children.

The economic, social, moral, and scientific arguments for investing in programmes of early childhood care and development are compelling. Examples of effective, low-cost programmes abound. Nations should focus on support and education for parents and other caretakers in particular, as well as on measures to counteract the deteriorating circumstances for the development of children from families in the marginal urban and poorest of rural areas. The World Conference on Education for All in Jomtien, Thailand, in March 1990 recognized the significance of health, nutrition, and early education, including stimulation, integrated into one package for implementation.

Human development is the process of change in which people, from childhood onward, become able to handle ever more complex activities. The process involves considerably more than just growing bigger. It includes a *physical dimension*, the ability to move and co-ordinate; an *intellectual dimension*, the ability to think and reason; a *social dimension*, the ability to relate to others; and an *emotional dimension*, self-confidence and the ability to experience emotions.

Human development begins pre-natally. For a child to develop in a healthy and normal way, it is necessary to meet not only the basic needs of protection, food, and health care, but also to meet the basic needs for affection, interaction and stimulation, security (associated with experience of consistency and predictability), and learning through exploration and discovery. Major demographic, economic, social, and political changes over the last several decades make it all the more vital to focus on the problems of early childhood care and development and to promote condi-

tions of care, socialization, and education, both formally and informally in the home and community.

More than 12 of every 13 children born in 1990 will live to see their first birthday, a prospect only 5 of 6 children born in 1960 had. If goals for infant and child mortality reduction are met, by the year 2000, 19 out of every 20 children born will survive. Many of these children will, in their earliest months and years, face conditions that put them at risk of impaired physical, mental, social, and emotional development; they are condemned to lethargic, unrewarding, unproductive, and dependent lives, unable to cope adequately with an increasingly complex world.

Rapid urbanization and the disruption it causes to the family unit, the erosion of healthy traditional child-care practices, and the difficulty of adapting to new settings all negatively impact on early development. The dramatic growth in the number of women in the paid labour force plus the shift towards nuclear families and women-headed households increase the need for alternative forms of child care in urban and rural areas. The lingering aftermath of the world-wide recession of the 1980s has exacerbated these problems for families struggling to survive at the economic margins.

The case for investing in early childhood care and education

Neglecting early development carries a high social cost. Early childhood development programmes can serve as catalysts for social as well as individual change. A society that ignores this potential, fails to preserve and enhance the very human resources it should be able to call upon in its continuing efforts to overcome such problems as economic stagnation, social disintegration, and environmental degradation.

Scientific research demonstrates repeatedly that the early years are critical in the development of intelligence, personality, and social behaviour. The brain cells are formed during the first two years of life. Sensory stimulation from the environment is essential to the structuring and organization of the brain's neural pathways during the formative period.

Research also shows that children who have experienced consistent, caring relationships will be better nourished and less apt to be sick than those who have been neglected. Also, research has established that early intervention programmes have positive long-term effects on school progress, social behaviour, and economic productivity.

From the human rights point of view, children, being dependent on others in their early years, need help to defend their right to develop to their full potential. In moral and social terms, humanity benefits. It is through children that society transmits, preserves, and/or changes "for the better" its moral and social values.

Concepts such as living together harmoniously or protecting the environment begin to take hold in the pre-school years and can be nurtured

and promoted through child development programmes. Equally, by providing a "fair start," the programmes can help modify socio-economic and gender-related inequities such as those affecting the girl child.

On the economic side, society benefits from investing in child development through increased productivity and the savings associated with reductions in school repetition and dropout rates, delinquency, drugs, teenage pregnancies, and illiteracy. Other programmes, where, for example, the accent is on health and nutrition, primary school education, and/or women, can benefit and improve by incorporating those elements of early childhood care and development that focus on healthy mental and social development.

In sum, these arguments provide a compelling case for making a heavy investment in programmes to improve care and enhance development in the early years.

What can be done?

Over the past 15 years, a wealth of experience and knowledge has accumulated as a result of hundreds of experiments with programmes of early childhood care, stimulation, and education, all within a framework of integrated attention to the young child. These include programmes of institutional care and education (creches, home day care, formal and non-formal pre-schools, play groups, kindergartens, child care centres in the work place, etc.); programmes of support and education for parents and other caregivers (home visiting, adult education, mass media presentations, child-to-child); and broader community development programmes built around integrated attention to the child. (These complementary approaches are set out in the accompanying table).

Much of the programme experience has been derived from smaller-scale efforts that demonstrate innovative, low-cost, and effective programming approaches. Examples include a co-operative system of child care in rural Nepal linked directly to a programme of Production Credit for Rural Women; home visiting programmes in both Ireland and Indonesia using a "cartoon curriculum" presented by local workers and including thematic material on mental and social development, as well as health and nutrition, for discussion with parents and other caregivers; an integrated nutrition and community development project in Northeast Thailand using interactive videos to help create maternal awareness of the child as an individual with early perceptual ability, while stressing the need to recognize the importance of play and mother-child interaction.

Also, more and more large-scale programmes are successfully reaching a significant portion of the population. For instance, Colombia has embarked on a major home day-care programme that early evaluations show to be effective not only in helping the development of children, but in reviving economic activity in marginal communities by freeing women to

Programming for child development: complementary approaches and models

Programme Approach	Participants/ Beneficiaries	Objectives	Models
Deliver a service	The Child • 0-2 years • 3-6 years • 0-6 years	• Survival • Comprehensive development • Socialization • Rehabilitation • Improvement of child care	• Home day care • Integrated child development centres • "Add-on" centres • Work-place • Preschools: formal/ non-formal
Educate caregivers	• Parent, family • Sibling(s) • Public	• Create awareness • Change attitudes • Improve/change practices	• Home visiting • Parental education • CHILD-to-child programmes • Mass media
Promote community development	Community • Leaders • Promoters • Members	• Create awareness • Mobilize for action • Change conditions	• Technical mobilization • Social mobilization
Strengthen national resources, capabilities	Programme personnel • Professionals • Para-professionals	• Create awareness • Improve Skills • Increase material	• Training • Experimental, demonstration projects • Strengthening infrastructure
Advocate child development programmes	• Policymakers • Public • Professionals	• Create awareness • Build political will • Increase demand • Change attitudes	• Social marketing • Ethos creation • Knowledge dissemination

earn and learn. In Kenya, over 700,000 children aged three-to-five are enrolled in non-formal, community-based pre-schools at very low cost to the Government. Italy covers approximately 90 per cent of all three-to-five year-olds through state and non-state nursery schools.

A child-to-child programme in Jamaica that began as a small-scale experiment teaching older children to help in the healthy care and development of their younger siblings is now in the process of being integrated into the national primary-school-system curriculum. India's Integrated Child Development Service reaches into 40 per cent of the nation's socio-economic development districts, with the potential for reaching over 11 million children up to the age of six, as well as pregnant and lactating women. Since 1985, the People's Republic of China has organized over 200,000 "Parent Schools" attached to kindergartens, primary schools, hospitals, and programmes for newly-weds. In yet another kind of programme, Brazil has incorporated provisions for the rights of children into its new constitution.

Society benefits from investing in child development through increased productivity and the savings associated with reductions in school repetition and dropout rates, delinquency, drugs, teenage pregnancies, and illiteracy.

Is the cost prohibitive?

Early childhood development programmes often conjure up images of formal pre-school settings complete with expensive equipment, professional teacher, and classes of 30 or more children. This is not the case with most of the examples cited above, which are effective and low in cost to governments because they rely heavily on para-professionals and/or parents, and use inexpensive and locally-made materials and facilities that are either donated or constructed by the communities they serve. In some instances, these programmes simply constitute an "add on" to existing health or nutrition activities designed to provide integrated attention to the young child.

Early childhood development programmes are sometimes seen as constituting a direct trade-off against primary education or against survival programmes. The fact is that investment in child care and development can reduce costs of other programmes and, in some instances, even pay for itself.

A Brazilian programme of early education, nutrition, and health paid for itself through the reduction in costs it brought about by decreasing repetition in the first two years of primary school. Combined pre-school and primary school costs per first grade graduate were 17 per cent lower than for a child without pre-school experience. In the United States, the Perry pre-school project combining quality pre-school attention with home visiting for disadvantaged children has been shown to bring economic returns seven times the cost. A follow-up study comparing project children with

similar children who did not participate showed major differences 15 years later, including higher rates of school completion and employment, and lower rates of juvenile delinquency, teenage pregnancy, and welfare payments. Costs of parental education programmes are also recoverable, since they equip parents to take greater responsibility for care themselves and to use exisiting services more efficiently.

A variety of innovative ways of funding programmes has been found to work. In Thailand, a community-based early education programme is tied to a loans scheme administered by the local community using funds originally provided by an outside donor. Over time, a capital fund is built up as loans are repaid and management skills are sharpened. After five to seven years, the programme is self-supporting. Colombia has supported early childhood programmes from a payroll tax. Some countries have used lotteries. Communities have proven to be strong financers of early care and development schemes, if supported by their Governments.

In short, when it comes to early childhood care and education, the problem of underinvestment is not, at root, a problem of prohibitive costs. Instead, it is primarily a matter of approach, of acquiring new ways of thinking, of taking advantage of exisiting knowledge about what to do, and of mobilizing the political and social will to do it, within the limits of available resources. It is in this light that nations are urged to re-examine their thinking and programmes.

Further reading

Innocenti Global Seminar: Early Child Development, June 12-30, 1989, Summary Report prepared by Cassie Landers. UNICEF. New York. 1989.

Cross Cultural Child Development: A View From the Planet Earth, by E.E. Werner. Wadsworth Inc. Monterey, CA. 1983.

The Ecology of Human Development: Experiments by Nature and Design, by Urie Bonfenbrenner. Harvard University Press. Cambridge. 1979.

Primary education

In brief

The Goal: Universal access to basic education and completion of primary education by at least 80 per cent of primary school age children through formal schooling or non-formal education of comparable learning standard, by the year 2000, with emphasis on reducing current disparities between boys and girls.

A strong primary education is a crucial foundation on which developing nations can build more productive futures. Yet the rate of progress in primary school attendance in many regions over the past decade has slowed, and in some countries the actual numbers have been lower than in the 1970s. Economic decline has had a dual impact: resources were cut from education, leading to poorly equipped and staffed schools that were unable to retain students. And many children, required to work to supplement family income, dropped out of school or never enrolled.

The legacy of impoverishment needs to be reversed, teachers' morale restored, at least minimal educational material ensured for all classrooms, and curricula improved. Levels of learning achievement must be set and systems devised for assessing performance.

Empowering communities to help them define, finance, and achieve the decade's goals is also crucial, so that educating a child is seen not as a burden, but as a way to enhance family, and ultimately national, life.

Primary education, delivered in formal schools and in out-of-school non-formal programmes, is the core of basic education in three fundamental senses: First, it is the main vehicle for catering to the learning needs of children in their formative years. Second, the learning achievement in primary schools and equivalent programmes establishes the foundation in children for further life-long learning. Third, the accomplishments in pri-

mary education determine the demand for literacy activities and knowledge-and-skill programmes for youth and adults.

About 600 million children are currently enrolled in primary schools all over the world. Although the designated age span for primary schooling usually is 6 to 11 years, enrolments in most developing countries include up to a quarter of the pupils who are one to two years younger and up to three years older.[1] According to UNESCO, the gross enrolment ratio in all developing countries for 1987 was 91 per cent. This represents an exaggerated picture of the situation because of the statistical weaknesses noted.

Some 100 million children in the primary school age group in developing countries do not enrol in school. At least another 100 million leave primary education without completing this basic stage or acquiring self-sustaining learning skills. According to UNESCO estimates, of 100 children who began grade one in 1986, only 66 reached grade four by 1989 in sub-Saharan Africa; in the Arab States, 83 out of 100 did so; in Latin America and the Caribbean, only 55 did so; in Eastern Asia, 78; and in South Asia, the number was 59.

There is a further and special cause for concern: Although there was major quantitative progress in primary education enrolment in the 1970s, rates of growth in enrolment have fallen considerably in most areas in the 1980s, as the following table shows:

Average annual growth rates of enrolment in primary education (%)

Developing Countries	1970-80	1980-87
Sub-Saharan Africa	3.7	1.0
Arab States	8.7	2.5
Latin America & the Caribbean	3.2	1.6
Eastern Asia	3.2	1.1
Southern Asia	3.0	3.3
Oceania	2.9	2.6
Developed Countries	1.1	0.2

Source: UNESCO, Basic Education and Literacy, World Statistical Indicators, Table 5.

In the developed countries, Oceania, and East Asia, the lower growth rate in enrolments is attributed to slow growth of the primary school age population. The lower growth rate in enrolments in sub-Saharan Africa and the Arab States, however, reflects lower investments in primary education rather than demographics.

South Asia has maintained its growth rate, but this region, with a gross enrolment rate of 86 per cent, and the Arab States and sub-Saharan Africa,

with rates of 83 per cent and 72 per cent respectively in 1987, all lag behind the average of 91 per cent enrolment for all developing countries and 99 per cent for the world.

Why growth rates have slowed

The slow growth in primary school enrolment rates in sub-Saharan Africa and Latin America in particular is related to the economic situation in those regions. In the 1970s, public spending for education grew at a median rate of 8.4 per cent in sub-Saharan Africa and 7 per cent per year in Latin America in constant prices. These rates dropped to 3.4 per cent and 4 per cent respectively in the 1980s.

At the same time, it has become clear that just building schools does not guarantee that children will attend or that parents will find schools useful or relevant. In India, for example, one estimate is that at least 45 million children in the primary school age group, or about one third of the total, are engaged in paid work or work in the household to supplement their families' meager income, and cannot participate in primary education unless the school's educational programme and learning content are redesigned to suit their circumstances.

Another limitation is the poor quality of the education many schools offer, which reinforces the low demand and motivation of children and parents among the disadvantaged groups. In the poorer areas of low income countries in sub-Saharan Africa, South Asia, and Latin America, the deterioration in recent years in the quality of primary education has reached a stage where the minimum conditions for any form of efficient learning no longer exist.

Major strategies for change

Experience has shown that a comprehensive approach, addressing the specific and critical needs of countries and situations will be required.

Some major areas of concern include:

Restoring teachers' morale and motivation. The first and most critical input into primary education is the teacher. The motivation and morale of teachers have been seriously affected in many countries by the fall in standards of living caused by the recent economic crisis and adjustment policies.

Raising financial rewards for teachers in a substantial way may be difficult in many countries under present circumstances. However, providing certain material benefits—such as housing—for teachers working in deprived areas could be cost-effective. Using the promotions and incentives systems to encourage the more motivated teachers is also a possibility.

An effective way of improving the performance of teachers is to organize adequate professional support for them, a strategy seriously compromised in many countries by budget squeezes. In-service teacher

training, replacing, in part, a lengthy pre-service qualifications requirement, has also been found to be cost-effective in several countries. A combination of distance education, supervised practice, and periodic short courses has been used effectively in some countries, including Tanzania and Zimbabwe. The conservatism of educational establishments, however, has prevented expanded use of this approach.

More flexibility is needed in the way schools are structured and organized. The familiar primary school with its standard duration, sequence, age structures, and pedagogical techniques need not be the only vehicle for basic education. Such variations as flexible daily hours, school calendars that vary according to local conditions, and a combination of productive work and learning have proved effective.

Providing basic learning equipment. The minimum requirements for teaching and learning—seats and desks, blackboards and chalk, textbooks for students and teachers, exercise books and pencils—often do not exist in schools in deprived areas of the developing world. This is not surprising since the proportion of primary school budgets for non-salary expenses is generally extremely low. At the beginning of the 1980s in the Africa region, for example, it was no more than 3 per cent and more often less than 1 per cent.

An urgent, relatively cost-effective step would be to provide every school with a "minimum package" of essential teaching/learning tools. Research has shown that the textbook can be the single most useful tool for the learner. Textbooks require special attention, however, in preparation, design, and production to be effective.

Improving the content. There is a growing awareness that providing a sound general curriculum based on language, mathematics, and science equips the child best for life by giving him or her the tools of learning and reasoning. The practical knowledge and skills relevant to a child's environment can be woven into the basic curriculum through appropriate content and pedagogic methods, rather than by adding new topics to the curriculum.

Monitoring learning achievement. In most countries there is no objective measurement to monitor the real progress made in achieving basic education objectives. Generally, enrolment is taken as the goal and as a proxy measure for learning. A clear definition of learning objectives and performance standards for different grades and for total primary education are urgently needed so that minimum common levels of learning can be established and achievement assessed.

The language of instruction. The multitude of languages and dialects in many countries and their use as media of instruction pose many problems. The use of a child's mother tongue for at least the early years of education is the sound approach from the educational point of view; and people do want to assert their linguistic identity. If the mother tongue is different from the national or official language, however, the learner may be cut off from opportunities for further education and in other areas of life.

The solution to this problem may be in the use of a local language at the primary or early primary levels, both for pedagogical reasons and to preserve local linguistic and cultural identity. Then a transitional phase has to be provided, during which a learner changes over to the national language.

When language policy is formulated, the educational implications in terms of equity in learning opportunities, availability of textbooks and reading materials, the preparation of learning aids, and the training of teachers need to be considered fully.

Stimulating motivation and sustaining demand. A first requirement will be to alleviate or eliminate various direct and indirect costs that have made it increasingly difficult for poor families to send their children to school. During recent years, in many countries, even when tuition is nominally free, families have been asked to pay fees for parents' association dues, school construction, extra curricular activities, costs of school supplies and uniforms, etc.

Another measure to encourage the children of the disadvantaged is school feeding, which has been shown to have a positive impact on attendance and academic performance. Food aid constitutes an important proportion of development assistance which could be linked to expanding feeding and nutrition programmes for young children. Early childhood care programmes for pre-school children also are effective in motivating children to attend primary school.

Adapting schools to local needs. Overcoming the barriers to education is not just a question of stimulating demand. The primary school system must be flexible and creative in meeting the needs of the community it serves and developing affordable approaches.

A national curriculum, for instance, may have to be modified and complemented with materials relevant to the lives of local ethnic and cultural minorities who do not identify with the objectives and content of the educational programme. Relevance can also be enhanced by incorporating into a curriculum local needs for knowledge and skills for improving health, welfare, and living conditions.

More flexibility is needed in the way schools are structured and organized. The familiar primary school with its standard duration, se-

quence, age structures, and pedagogical techniques need not be the only vehicle for basic education. Variations of the standard model have proved to be effective, particularly for sections of the population outside the mainstream. Examples of such "hybridization" include flexible daily hours, school calendars that vary according to local conditions, distance education, the use of "non-professional" instructors from the community, and a combination of productive work and learning.

Traditional institutions. Many countries can expand primary education opportunities in partnership with traditional institutions such as Koranic or monastic schools, which existed long before formal schools and which are integral parts of local communities. Several countries (Indonesia, Mauritania, Senegal, and Pakistan, among others) have begun to explore the potential of these institutions.

The mobilization challenge

The numerous obstacles to expansion and improvement of primary education can be ultimately overcome by mobilizing purposefully society's will and determination and by forging a partnership of all who can contribute. Resources and capacities are inadequate; this is what underdevelopment means.

Obstacles can be overcome more easily, however, when parents' natural instincts and deep desire for doing well by their children are harnessed and communities are given a sense of ownership of the basic education programme for their children and for themselves. A case in point is some 3,000 primary classes established by communities themselves, under the auspices of the Bangladesh Rural Advancement Committee (BRAC).

In the face of seemingly intractable problems, these classes are held in sheds erected by the villagers and taught by teachers recruited from the villages. Teachers are given a short period of training and receive continuing support from BRAC supervisory staff. The schools have managed to enrol, retain, and teach effectively girls and boys who had never enroled in or who had dropped out from the regular public schools.

The keys to success seem to be the schools' effectiveness in adapting to the particular circumstances and needs of the people, instead of asking the people to adapt themselves to the requirements of the school, and in releasing the innate energy and spirit of people to help themselves.

A strong community role and that played by non-governmental voluntary organizations such as BRAC in fostering people's involvement do not and cannot mean the abdication of the government's ultimate responsibility for basic education in terms of providing a large share of the finances, setting national policies and goals, and safeguarding overall public interest. But a true partnership of governments, communities, and voluntary

organizations offers the best chance of tackling the seemingly insurmountable hurdles.

Further reading

Improving Primary Education in Developing Countries: A Review of Policy, by Marlaine Lockheed and Adrian Verspoor. World Bank. Washington, D.C. 1990.

Primary Education and Economic Recession in the Developing World, by Dieter Berstecher and Roy Carr-Hill. UNESCO. Paris. 1990.

[1] This causes the statistical problem of a large difference between gross and net enrolment ratios. The gross ratio is arrived at by comparing the total population of children in primary school, regardless of their ages, with the nation's total population in the specified primary-school-age group- in many countries this is the population of children from 6 to 11 years old. The enrolment statistics often do not differentiate between those within the primary-school-age group and those outside the age group who are entrolled, thus overstating the gross enrolment ratio. The enrolment statistics also generally fail to take into account the number of students who drop out during the school year and the repetition of grades.

PRIMARY SCHOOL ENROLMENT AND COMPLETION

	Primary school gross enrolment ratio*				Completion Rate **
	1960		1986-88		1985-87
	Male	Female	Male	Female	
LATIN AMERICA & CARIBBEAN	**96**	**92**	**104**	**104**	**51**
Argentina	98	99	110	110	
Bolivia	78	50	97	85	
Brazil	97	93			22
Chile	111	107	103	101	33
Colombia	77	77	112	115	57
Costa Rica	97	96	100	97	81
Cuba	109	109	107	100	92
Dominican Rep.	99	98	99	103	35
Ecuador	87	79	118	116	50
El Salvador			77	81	31
Guatemala	50	39	82	70	36
Guyana	107	106			84
Haiti	50	42	83	72	15
Honduras	68	67	104	106	43
Jamaica	92	93	104	106	
Mexico	82	77	119	116	71
Nicaragua	65	66	94	104	20
Panama	98	94	109	104	82
Paraguay	105	90	104	99	50
Peru	95	71	125	120	51
Trinidad & Tobago	89	87	99	100	84
Uruguay	111	111	111	109	86
Venezuela	100	100	107	107	73
MIDDLE EAST & NORTH AFRICA	**88**	**39**	**104**	**92**	**82**
Algeria	55	37	105	87	90
Egypt	80	52	100	79	64
Iran, Islamic Rep.	56	27	122	105	83
Iraq	94	36	105	91	71
Jordan	94	59	98	99	96
Kuwait	131	102	96	92	91
Lebanon	105	99	105	95	
Libyan Arab Jamahiriya	92	24			82
Morocco	67	27	85	56	69
Oman			103	92	89
Saudi Arabia	22		78	65	90
Syria	89	39	115	104	67
Tunisia	88	43	126	107	77
Turkey	90	58	121	113	85
United Arab Emirates			98	100	82
Yemen	14		141	40	15
Yemen, Dem.	20	5	96	35	40
AFRICA SOUTH OF THE SAHARA	**45**	**24**	**76**	**59**	**63**
Angola					
Benin	38	15	84	43	36
Botswana	35	48	111	117	89
Burkina Faso	12	5	41	24	74
Burundi	27	9	68	50	87
Cameroon	87	43	119	100	67
Central African Rep.	53	12	82	51	17
Chad	29	4	73	29	17
Congo	103	53			75
Côte d'Ivoire	68	24			68
Ethiopia	11	3	46	28	41
Gabon					59
Ghana	52	25	78	63	
Guinea	44	16	41	18	70
Kenya	64	30	98	93	62
Lesotho	63	102	102	127	52
Liberia	45	18	82	50	
Madagascar	58	45	97	92	30
Malawi		45	73	59	33
Mali	14	6	29	17	39
Mauritania	13	3	61	42	92
Mauritius	103	93	105	107	96
Mozambique	60	36	76	59	39
Namibia					
Niger	7	3	37	20	75
Nigeria	46	27			63
Rwanda			69	66	49
Senegal	36		71	49	83
Sierra Leone	30		68	48	

PRIMARY SCHOOL ENROLMENT AND COMPLETION

	Primary school gross enrolment ratio*				Completion Rate **
	1960		1986-88		1985-87
	Male	Female	Male	Female	
AFRICA SOUTH OF THE SAHARA (continued)					
Somalia	13	13			33
South Africa	94	85			
Sudan	35	14	59	41	61
Tanzania	33	18	67	66	76
Togo	63	24	124	78	59
Uganda		32	76	63	76
Zaire	88	32	84	68	60
Zambia	51	34	102	92	91
Zimbabwe			130	126	74
ASIA	**80**	**58**	**104**	**98**	**67**
Afghanistan	15	2	27	14	63
Bangladesh	66	26	76	64	20
Bhutan	5		31	20	
China			140	124	68
Hong Kong	93	79	106	105	98
India	80	40	113	81	
Indonesia	86	58	120	115	80
Kampuchea					50
Korea, Dem.					99
Korea, Rep.	99	89	104	104	99
Laos	34	16	102	85	14
Malaysia	108	83	102	102	97
Mongolia	79	78	100	103	
Myanmar	61	52			27
Nepal	19	1	104	47	27
Pakistan	46	13	51	28	49
Papua New Guinea	59	7	75	64	67
Philippines	98	93	105	107	75
Singapore	121	113	118	113	95
Sri Lanka	100	90	105	102	88
Thailand	88	79			64
Viet Nam			107	94	50
INDUSTRIAL COUNTRIES	**104**	**103**	**102**	**101**	**95**
Albania	102	86	100	99	
Australia	103	103	106	105	
Austria	106	104	102	101	95
Belgium	111	108	99	100	77
Bulgaria	94	92	105	103	90
Canada	108	105	106	104	
Czechoslovakia	93	93	95	96	93
Denmark	103	103	98	99	99
Finland	100	95	102	101	98
France	144	143	114	113	95
Germany, Dem.	111	113	107	105	
Germany, Fed.			101	101	95
Greece	104	101	106	106	99
Hungary	103	100	97	97	92
Ireland	107	112	100	100	
Israel	99	97	94	97	
Italy	112	109			99
Japan	103	102	102	102	99
Netherlands	105	104	114	116	94
New Zealand	110	106	107	106	
Norway	100	100	95	95	99
Poland	110	107	101	101	94
Portugal	132	129	131	123	
Romania	101	95			
Spain	106	116	113	113	96
Sweden	95	96			
Switzerland	118	118			
United Kingdom	92	92	105	106	
USA			101	100	
USSR	100	100			80
Yugoslavia	113	108	95	94	98

Source: The State of the World's Children 1990, Table 4.
(For explanations and qualifications to specific figures, see notes there.)
* The total number of children enrolled at the primary school level - whether or not they belong in the relevant age group - expressed as percentage of the total number of children in the relevant age group of primary school.
** Percentage of grade one enrolment completing primary school.
Figures for country groupings are median values.

BLANK
PAGE

Adult Literacy

In brief

The Goal: Reduction of the adult illiteracy rate (the appropriate age group to be determined in each country) to one half its 1990 level by the year 2000, with sufficient emphasis on female literacy to significantly reduce the current disparity between male and female literacy rates.

Illiteracy is a major obstacle to the economic and social advancement of individuals and nations. Almost one third of the world's adult population is illiterate and about 60 per cent of those marginalized by a lack of education are women. A reassessment of government and donor priorities is urgently needed to address this and other serious imbalances in development priorities.

Among the most urgent needs: a revival in national and donor interest in education spending and an emphasis on basic education to bring illiterate and profoundly disadvantaged population groups into the social and economic mainstream.

Close to one billion people over the age of 15 are illiterate today. That is roughly 30 per cent of the world's adult population—a statistic that embraces about half of the adults in Africa and the Arab States, 60 per cent of the adults in South Asia, one third of the adults in East and South East Asia, 15 per cent of the adults in Latin America and the Caribbean, and almost two thirds of the adults in the world's least developed countries. About 60 per cent of the illiterates are women.

If present trends in educational development continue through the 1990s, illiteracy rates in the developing world will decline only marginally by the year 2000. And with the high rates of population growth in the world's poorest countries, the absolute numbers of illiterates are destined to rise.

A perspective on illiteracy

The illiterate in any society are disadvantaged economically, politically, and culturally. They are deprived of the knowledge, information, and skills

that would enable them to advance their position, and thus trapped they tend to pass this legacy to their children. There is a well established linkage between the illiteracy of parents and the failure to enrol children in school and early primary school drop out.

There is also a well documented connection between literacy levels among women, the size of their families, and the mortality and nutrition status of their children. It is now well recognized that the higher a woman's level of education, the greater the likelihood that she will practice family planning, that her children will be well-nourished, and that they will survive the high mortality risks of early childhood.

The cost of illiteracy to society as a whole is the unfulfilled promise of personal growth and the reduced capacity of the individual for self sufficiency and economic achievement.

The distribution of illiteracy in society typically follows certain patterns. There is a high concentration of illiteracy among ethnic and cultural minorities. At high risk are: those belonging to tribes, castes, races, religions, and language groups outside the mainstream of society; populations in relatively remote or inaccessible regions; the poor; and women who, as a result of discrimination, constitute the majority of those denied access to education.

Countries with 10 million and more illiterates aged 15 and over in 1990

Country	Illiteracy Rates (%)	Number of Illiterates (millions)	Proportion of World Total (%)	(cum. %)
India	51.7	280	29.1	29.1
China	26.5	222	23.1	52.2
Pakistan	65.1	43	4.5	56.7
Bangladesh	64.7	42	4.4	61.1
Nigeria	49.2	29	3.0	64.1
Indonesia	22.9	27	2.8	66.9
Brazil	18.7	18	1.9	68.8
Egypt	51.5	16	1.7	70.5
Iran	46.0	15	1.5	72.0
Sudan	72.8	10	1.0	73.0
Sub-Total (10 countries)		702	73.0	
World Total		963		100

Source: Basic Education and Literacy: World Statistical Indicators UNESCO, Office of Statistics 1990

Literacy as a measure of progress

The degree and persistence of illiteracy reflect structural imbalances in any society; in particular, the uneven distribution of political and economic power; the uneven way in which political and economic policies and priorities are determined; and the organization of systems and institutions to implement those policies.

The extent of illiteracy reflects a nation's failure to attach high priority to principles of social justice—something that afflicts both industrialized and developing countries. It has been well demonstrated that progress in literacy is not strictly tied to a nation's economic status. There are an estimated 30 million 'functionally illiterate' adults in North America. Some of the poorest countries, or regions within countries, have made very substantial gains in both adult literacy and primary education in recent times, while others with substantially higher national incomes lag far behind.

A participatory approach must be developed in which the broad spectrum of social, cultural, religious, labour, and professional organizations can contribute to a mass education movement. Rather than attempt to manage and control the education process, the main task of governments should be to create a national learning environment in which all sectors of society can participate.

A close look at the magnitude of illiteracy and recent efforts to deal with it in various parts of the world leads to the following conclusions:

- No serious or lasting impression on illiteracy is possible unless children are brought into the primary education system and retained there long enough to achieve a self-sustaining level of literacy.
- The political and social constraints in most developing countries with a large and continuously replenishing pool of illiterates, make the goal of universal or near-universal literacy within one or even two decades quite unrealistic for many countries given their present economic difficulties and limited resources.

Practical steps

Lessons from both large-scale nationwide literacy campaigns and movements, as well as from regular programmes in recent decades, suggest a number of operational steps to mount and sustain literacy promotion.

Massive illiteracy goes hand in hand with an absence of primary education opportunities for large numbers of children. Any plan to signifi-

cantly reduce adult literacy must start with an effective plan to expand the reach of primary education. The aim must go beyond enrolment to provide a self-sustaining level of learning.

While literacy programmes should offer the widest possible opportunities for the interested student, a realistic strategy demands that priorities be set within an established time frame. To address large-scale illiteracy, a logical priority would be to reach young adults who are more likely to be motivated to learn and to immediately put their knowledge and skills to use.

Special attention is necessary to overcome the religious, social, cultural, and economic barriers to education for women, because they are victims of age-old discrimination and because their literacy could have a positive direct impact on the well-being of their children and families. The most potent weapon against these barriers will be public opinion, but measures will have to be taken simultaneously to overcome economic or logistical obstacles to equality, including the overburdening of women with daily chores that deprive them of time and energy to participate in literacy programmes.

Literacy programmes, complemented by expanded and effective primary education, must also be reinforced and supplemented by a network of opportunities for diverse and continuing post-literacy learning. All channels of communication and education must be harnessed to create a "learning society" in which a culture of literacy can be nurtured. Literacy can only be kept 'alive' if communications technology is fully used to disseminate widely useful knowledge and information that can make a difference to people's lives.

A participatory approach must be developed in which the broad spectrum of social, cultural, religious, labour, and professional organizations can contribute to a mass education movement. Voluntary organizations and community groups that address people's urgently felt needs can often be the best vehicles for literacy and continuing education. Rather than attempt to manage and control the education process, the main task of governments should be to create a national learning environment in which all sectors of society can participate.

Additional public resources, both budgetary and as a percentage of national income, must be directed to basic education, and particularly towards primary education, literacy, and post-literacy learning. The budget priorities of many developing countries clearly need rethinking. Developing nations also have to consider ways of mobilizing all avenues of non-governmental financing in support of a mass literacy effort.

There has to be a more rigorous approach to setting meaningful measures of literacy than the casual methods prevailing in many countries. Systems for monitoring and assessing individual literacy achievements as well as national progress in this area must be developed and applied systematically.

Teaching and learning methods specifically for adult literacy, the training of instructors, the question of which national language to teach in, the measurement of progress, learning content, and the production and distribution of learning materials–all need professional attention, especially if many local organizations are expected to be active in literacy efforts. One approach found useful in this regard has been the development of networks of resource centres to provide local organizations with technical support.

Further reading

Adult Literacy in the Third World: A Review of Objectives and Strategies, by Agneta Lind and Anton Johnston. SIDA. Stockholm. 1990.

Literacy Lessons. Forty pamphlets on aspects of literacy for International Literacy Year 1990. International Bureau of Education. Geneva.

ADULT LITERACY

	Adult literacy rate*			
	1975		1985	
	Male	Female	Male	Female
LATIN AMERICA & CARRIBBEAN	**79**	**71**	**89**	**84**
Argentina	94	92	96	95
Bolivia	68	46	84	65
Brazil	69	63	79	76
Chile	90	88	97	96
Colombia	79	76	82	82
Costa Rica	88	87	94	93
Cuba	86	87	96	96
Dominican Rep.	69	65	78	77
Ecuador	75	68	85	80
El Salvador	61	53	75	69
Guatemala	51	37	63	47
Guyana	94	89	97	95
Haiti	26	17	40	35
Honduras	55	50	61	58
Jamaica	96	97		
Mexico	78	69	92	88
Nicaragua	58	57		
Panama	81	81	89	88
Paraguay	85	75	91	85
Peru	81	60	91	78
Trinidad & Tobago	95	89	97	95
Uruguay	93	93		
Venezuela	79	71	88	85
MIDDLE EAST & NORTH AFRICA	**47**	**17**	**70**	**40**
Algeria	39	11	63	37
Egypt	50	20	59	30
Iran, Islamic Rep.	40	17	62	39
Iraq	50	18	90	87
Jordan	64	29	87	63
Kuwait	65	42	76	63
Lebanon	79	58	86	69
Libyan Arab Jamahiriya	60	13	81	50
Morocco	34	10	45	22
Oman			47	12
Saudi Arabia	15	2	71	31
Syria	60	20	76	43
Tunisia	44	17	68	41
Turkey	69	34	86	62
United Arab Emirates	24	7		
Yemen	9	1	42	7
Yemen, Dem.	31	9	59	25
AFRICA SOUTH OF THE SAHARA	**29**	**14**	**54**	**31**
Angola	16	7	49	33
Benin	23	8	37	16
Botswana	37	44	73	69
Burkina Faso	13	3	21	6
Burundi	29	10	43	26
Cameroon	47	19	68	45
Central African Rep.	26	6	53	29
Chad	20	2	40	11
Congo	50	19	71	55
Côte d'Ivoire	26	10	53	31
Ethiopia	8	1		
Gabon	43	22	70	53
Ghana	43	18	64	43
Guinea	21	7	40	17
Kenya	44	19	70	49
Lesotho	49	74	62	84
Liberia	27	8	47	23
Madagascar	56	43	74	62
Malawi	42	18	52	31
Mali	11	4	23	11
Mauritania				
Mauritius	77	59	89	77
Mozambique	29	14	55	22
Namibia				
Niger	6	2	19	9
Nigeria	35	14	54	31

ADULT LITERACY

	Adult literacy rate*			
	1975		1985	
	Male	Female	Male	Female
AFRICA SOUTH OF THE SAHARA (continued)				
Rwanda	43	21	61	33
Senegal	18	5	37	19
Sierra Leone	18	8	38	21
Somalia	5	1	18	6
South Africa				
Sudan	28	6	33	14
Tanzania	48	18	93	88
Togo	27	7	53	28
Uganda	52	30	70	45
Zaire	61	22	79	45
Zambia	66	37	84	67
Zimbabwe	63	47	81	67
ASIA	71	45	85	68
Afghanistan	13	2	39	8
Bangladesh	36	12	43	22
Bhutan				
China			82	56
Hong Kong	90	64	95	81
India	47	20	57	29
Indonesia	66	42	83	65
Kampuchea		23	85	65
Korea, Dem.				
Korea, Rep.	94	81	96	88
Laos	37	28	92	76
Malaysia	71	48	81	66
Mongolia	87	74	95	90
Myanmar	85	57		
Nepal	23	3	39	12
Pakistan	30	11	40	19
Papua New Guinea	39	24	55	35
Philippines	84	81	86	85
Singapore	92	55	93	79
Sri Lanka	85	69	91	83
Thailand	86	72	94	88
Viet Nam			88	80
INDUSTRIAL COUNTRIES	96	93	N/A	
Albania				
Australia				
Austria				
Belgium	99	99		
Bulgaria	94	89		
Canada				
Czechoslovakia				
Denmark				
Finland				
France	99	98		
Germany, Dem.				
Germany, Fed.				
Greece	93	76	97	88
Hungary	98	96		
Ireland				
Israel	93	83	97	93
Italy	95	93	98	96
Japan	99	99		
Netherlands				
New Zealand				
Norway				
Poland	98	97		
Portugal	78	65	89	80
Romania	96	91		
Spain	93	87	97	92
Sweden				
Switzerland				
United Kingdom				
USA	99	99		
USSR	98	97		
Yugoslavia	92	76	97	86

Source: The State of the World's Children 1990, Table 4.
(For explanations and qualifications of specific figures, see notes there.)
* *Percentage of persons aged 15 and over who can read and write.*
Figures for country groupings are median values.

BLANK

PAGE