



United Nations Educational, Scientific
and Cultural Organization



The Newsletter
of UNESCO's
Education Sector

Education TODAY

SCIENCE EDUCATION IN DANGER?

INSIDE

LEARNING WORLD



Empowering young girls
in Bangladesh, p. 3

FOCUS



Reversing waning interest
in science, p. 4

EDUCATION FOR ALL



Voices of civil society, p. 8

BRIEFS



Education initiatives
around the world, p. 10

In a world ever more dependent on innovations in science and technology, young people are turning away from science subjects. Role models and teaching methods are outdated, and students find science too demanding. Focus, a four-page dossier, examines this paradox.

EDITO

Let's for one instant imagine a world where people do not have sufficient understanding of basic science and technology concepts to understand issues relating to water shortage, pollution, health, forests or climate change. Who will take the decisions that are needed on these questions? Who will influence the decision-makers?

With just a little stretch of the imagination this world may not be that far away. Studies are constantly reminding us that young people today are less interested in studying science and technology subjects than before. They are opting for fields that pay better salaries and require less hard work. As the dossier in this issue points out, at a time when the demand for scientific advances and innovation are needed, the number of graduates in science and technology is falling.

Clearly, it is vital that nations wake up not only to the importance of science and technology, but also to the fact that every citizen – male and female – should have a basic understanding of both.

Efforts are being made to bring science closer to the concerns of young people and to make it more gender-sensitive. Two sectors within UNESCO – Education and Natural Sciences – have developed a joint programme through which they are assisting policy-makers, curriculum developers, trainers and educators, empowering them to improve the quality, relevance and attractiveness of their science and technology education policies and adapting them to the needs of students and teachers.

Emphasis is being placed on adapting programmes to the local socio-cultural contexts. These programmes need to have a bearing on what is happening in the community, whether it is desertification, over-population, pollution, diseases, lack of water or energy resources, etc.

Science and technology education contributes to three of the Education for All goals: attainment of life skills for youth (Goal 3), elimination of gender disparities in education (Goal 5) and enhancement of the overall quality of education (Goal 6). It is above all about ensuring sustainable development. Science and technology education is a universal requirement, not an empty slogan.

Aïcha Bah Diallo
Acting Assistant Director-General for Education

From their own words to literacy

Mauritians young and old learn to read and write in their native Creole

“A friend living in England signed me up for the course because I wasn’t able to write letters to him about what life was like in Mauritius. Without it, I’d have stayed ignorant,” says Jeewan Ramjeeawon, a farm labourer in his thirties. He has been attending classes for the past three years at the *Ledikasyon Pu Travayer* (Working People’s Education) at Grande Rivière Nord-Ouest, near the capital Port-Louis. Like Ramjeeawon, thousands of Mauritians can now read and write in Creole.

Born out of the 1976 student rebellion against elitism in education, the Working People’s Education programme set out to reduce illiteracy and promote the island’s two native languages, Creole and the Indian regional tongue Bhojpuri. Creole was spoken by the islanders’ slave ancestors brought from Madagascar and Mozambique, and Bhojpuri arrived with immigrants from India about 175 years ago. Two thirds of Mauritians are now of Indian origin and 28 per cent descendants of slaves. All of them speak Creole.

The courses are adapted to the daily lives and experiences of the learners and focus

on thinking, speaking, reading and writing. The learners’ own words and thoughts, all in Creole, are used as the basis of the first lessons. “They say what they experience; tell of their own lives, and what they say becomes the text we use for literacy,” explains one teacher.

Root words

Each of the thirty lessons begins with a few sentences spoken by the learners about something important to them. The teacher writes them on the blackboard and the class tries to understand them and copies them down. “One day a woman said she wanted to learn to read and write so she wouldn’t have to just gaze at the ceiling in her old age,” says Veena Dholah, another teacher. “This was full of significance and the class discussed it for a long time.”

The students then move on to one of a list of about twenty “root words” such as money, eat, vote, rights, factory, transport and bank. “Everyone says what they know about the word and then we look at the syllables to make new sounds using the five vowels,” adds Dholah. “With ‘money,’ we come up with ma, me, mo, mi, mu; na, ne, ni no nu. Next we

try to find other words with the syllables and these new words will be worked on throughout the course.” Some of the textbooks have been written by the teachers themselves and others by organizations campaigning for the use of Creole.

All of the learners have dropped out of school because of family or money problems. Nor are they put off by being older. “You can learn at any age,” says Parvatee Callychurn, a 49-year-old housewife and one of the many women who have taken the courses.

The ‘hearth’ structure

Classes are usually held in a circle and activities are structured so that everyone is on the same footing, as if around a hearth. Most of the teachers and learners are women. Discussions are held about local and international matters and their effect on people’s lives. Recent topics have included health, human rights, society, unemployment, jobs, privatization, globalization and democracy.

Every year, the programme trains about fifty volunteers who spend an hour a week leading group activities. The 100 or so people who take the courses each year pay five rupees (0.15 Euros) a month. This fee is added to the profits from the programme’s printing business, which produces and sells books in Creole written by programme members, including a Creole-English dictionary now in its fourth edition.

“I’m glad when they come and tell me they’ve managed to fill in bank slips for the first time or have written letters to their friends,” says teacher Georges Legallant.

For its achievements, the Working People’s Education programme was awarded one of UNESCO’s 2004 Literacy Prizes. The prize-giving ceremony was held during the International Conference on Education on International Literacy Day (8 September).

Contact: Namtip Aksornkool, UNESCO Paris
E-mail: n.aksornkool@unesco.org



Adapting courses to the learners’ needs

Escaping the grip of poverty

Empowering adolescent girls for social transformation in rural Bangladesh

At 17, Taslima is already a keen businesswoman and one of the breadwinners in her family. Living in the Mahishmara village of Modhupur, some 145 kilometers from Dhaka, the capital of Bangladesh, she earns her living raising poultry, making clothes and doing bridal make-up.

Taslima is one of 1,000 adolescent girls in Bangladesh who have participated in the UNESCO project “Breaking the Poverty Cycle of Women”. The project aims to empower young girls through literacy and training in skills and micro-credit. These 12- to 18-year-olds are considered potential actors for social change and for national poverty eradication strategies. The project also operates in India, Pakistan and Nepal.

The need for change is great. Bangladesh is one of the world’s most densely populated countries, with over 140 million people. About 83 per cent live on less than \$2 a day and, despite the considerable progress in education over the past decade, 35 per cent of girls and women remain illiterate.

Overcoming resistance

“Adolescent girls are even worse off than women in general,” explains Sayeeda Rahman, project team leader at UNESCO. “At this age, they are often confined indoors and their activities limited to household tasks.”

Taslima knows how difficult it is to escape the grip of poverty. She had to overcome resistance from her community to join the project, and even had to defy her parents’ decision to marry at the age of 13. With just primary education, Taslima was trained in sewing and embroidery, bridal make-up, health, hygiene and nutrition. “I also learnt about the importance of marriage registration, and income generation,” she says. The initial loan of TK 3000 (41€) that Taslima received to set up her business is already paid back.

Nari Moitree and Dhaka Ahsania Mission, two non-governmental organizations, are imple-



Girls attending a community learning centre in Modhupur

menting the project, launched in July 2002. Some 700 of the 1,000 girls now being reached, are from the Tangail district and 300 from the district of Narsingdhi.

Thirty Community Learning Centres (CLCs) covering 26 villages have been set up as part of the project. Local people have donated land and materials for the centres and family and community members are helping out with the construction. Social and community workers have been trained by the two NGOs to organize and run the CLCs.

Social changes needed

The “Gyan Bigyan Kendro” (Centre for Knowledge and Science), the CLC that Taslima attended, is humming with business. Some girls are taking lessons on sewing machines, and others are reading newspapers and receiving literacy training. The adolescents also learn about the role of science in every day life: how to filter water, make compost fertilizer and preserve vegetables.

The girls all tell the same story. Most belong to poor families and their parents are day labourers or subsistence farmers. Many had

dropped out of primary school and had landed unpaid or underpaid domestic jobs.

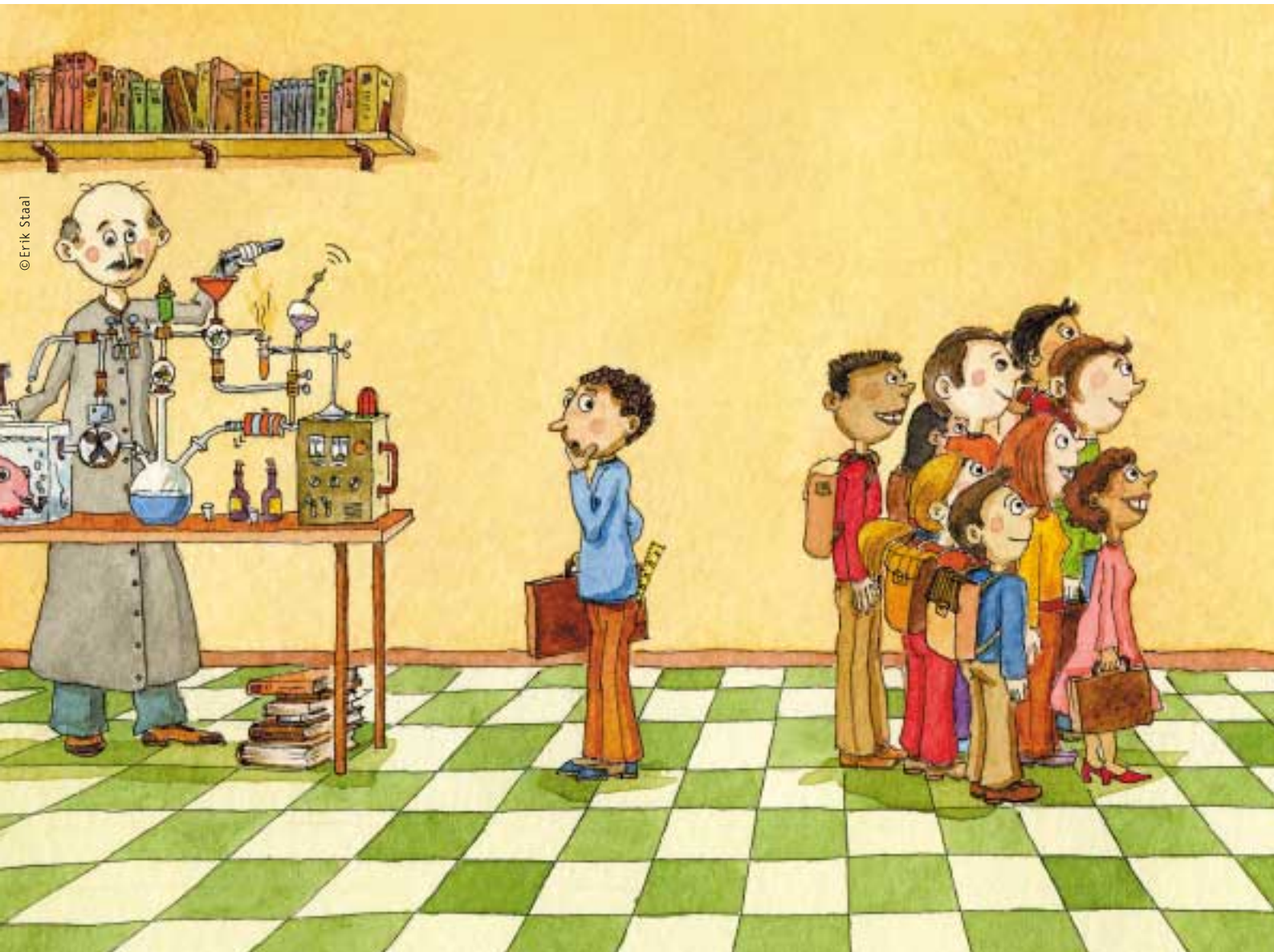
But the project brings new opportunities. Having completed their training, most adolescent girls, especially those over 14, take loans to start their own business.

The rapid empowerment of the girls is the good news. The problem, however, is that the community around them has not changed at the same pace, says Rahman. What will the future hold for these progressive and independent girls like Taslima? Will those who speak out find husbands and be accepted socially? she asks. Will families currently enjoying some extra cash, allow their daughters to leave home and get married? “The achievements of such projects are sustainable only if major social changes accompany them,” says Rahman.

Contact: Sayeeda Rahman, UNESCO Paris
E-mail: s.rahman@unesco.org

Science education in

In a world making unprecedented progress in science and technology and increasingly resources, students are turning away from science subjects. Too dull and theoretical,



Britain's Royal Society recently warned parliament about a sharp drop in the number of secondary school students taking mathematics, physics and chemistry at A-level (end of secondary cycle) and at university. The same trend can be seen in France, Germany and other industrialized countries. Students in developing countries are also

increasingly disinterested, says Orlando Hall-Rose, head of UNESCO's Science and Technology Education Section.

In fact, most countries are facing the biggest lack of student interest in science over the last thirty years. According to the OECD, the number of science and engineering graduates is falling, just as demand for

scientific advances and technological innovation is increasing. A strange paradox, since no period in history has been more penetrated by and dependent on the natural sciences than the twentieth century.

Most sectors of society are concerned by this lack of interest. Industrial leaders fret about having a qualified work force, universities and

danger?

aware of the Earth's limited
they say.



research institutions about new researchers, and education authorities about the lack of qualified teachers in these fields.

Experts agree: the need for science and technology education is greater than ever to make sense of today's world. Beyond its industrial and economic uses, science education teaches people how to discuss and

question things, how to challenge established truths and respect other people's views. "Today, people need to master a minimum amount of scientific and technological knowledge to understand the world around them, issues such as climate change, pollution, genetically modified organisms, water shortage and biodiversity," comments Hall-Rose.

Dull subjects

But why are young people turning away from science in school? According to Svein Sjøberg, a science education professor at the University of Oslo¹, scientists and engineers are no longer heroes. In olden times, scientists produced progressive knowledge, fought superstition and developed products that improved the quality of life. "This image is now stuff of history at least in the more developed countries," he says. New role models have come to the fore: football players, film stars and pop artists receive global publicity and earn fortunes. "A white-coated, hardworking and poorly-paid scientist in a laboratory is not a role model for many of today's young people," explains Sjøberg.

As a result, students tend to switch to other subjects that are more interesting and less demanding than science. For Nyiira Zerubabel, Executive Secretary of the Uganda National Council for Science and Technology, the future is bleak for science in his country. "In a society dominated by consumerism, young people choose to study things like economics and business, which are not so hard and lead to higher-paying jobs."

Young people also perceive science as dull, abstract and theoretical. "When I was a child, I loved science because we did experiments in class and went on expeditions to study nature," says Hall-Rose. "Now it is very book-based". Falling enrolment in science and technology subjects is not necessarily an indication of young people's disinterest

Science on wheels

"I want to be a scientist!" the children shout as they take copious notes on visits to Vigyan Rail, an itinerant science exhibition on a train that travels around India. Each coach illustrates a branch of science or technology (space, oceanography, the environment, defence, energy, health, information technology) using posters, models and quizzes.

To celebrate the 150th anniversary of the country's first railways, a dozen coaches of Vigyan Rail set off across the country at the end of 2003. The train stops for up to five days at each of the fifty-six scheduled stops. Visitors, alerted by local media and posters, include many students and school-children who sometimes return several times. Local volunteers provide explanations in one of India's ten major languages (which include some 4,000 dialects).

A special effort has been made to present in interactive form the major contributions of Indians to scientific progress over the past 4,500 years, such as the invention of zero. Photos of women scientists are also on display in the hope of attracting girls to science.

The coaches were designed by Vigyan Prasar, an independent organization founded in 1989 by the Indian government's Department of Science and Technology and responsible for popularizing science. "It's been more successful than we expected," says Vinay B. Kamble, head of Vigyan Prasar. "We're getting between 25,000 and 30,000 visitors a year".

Eighteen ministries are taking part in the project, which aims to boost the reputation of science with the public. "We want to get young people to once more take up science as a career," says Kamble.

More on www.vigyanrail.com and www.vigyanprasar.com

Science education in danger?

→ in these issues. In many countries young people are more interested than ever in *using* new technology. It's a paradox that the countries that have the most problems recruiting to scientific and technological studies are precisely those where the use of new technologies by young people is the most widespread: i.e. cell phones, internet and personal computers. "The eagerness to *use* the new technologies is not matched by an eagerness to *study* the disciplines that underlie them," comments Sjøberg.

Rote learning

Part of the blame for this unpopularity can be put down to the shortcomings of science curricula and textbooks, which often lead to rote learning and give no real understanding of concepts. This ends up with pupils becoming bored and developing a lasting aversion to science. The classroom approach to teaching mathematics and science is almost entirely authoritarian: lecturing, note-taking, and questions and answers sessions. Little practical work is done.

In many countries, experiments are demonstrated by the teacher while the students watch and take notes. The development of a scientific way of thinking is abandoned in favour of the learning of definitions and standard procedures. "There is a belief that 'real science' can be found only in the laboratory amidst fancy and expensive equipment, and not among the ordinary, everyday things of life," says Joseph P. O'Connor¹.

If scientific and technological education is to meet learners' needs, it is important to know what they find interesting. A study among 10,000 13-year-olds in twenty-one countries, North and South, found that both boys and girls preferred topics such as life outside earth, computers, dinosaurs, earthquakes and volcanoes. However, subjects closer to their daily lives, such as plants, food processing, detergents and soap found less favour with them. Interestingly, these findings challenge the position that young people want to learn about things that are concrete and familiar to them. The same study showed that children in developing countries

are interested in learning about nearly everything, probably because they perceive education as a luxury and a privilege.

Getting young people enthusiastic about science calls for an effort by teachers, who are generally poorly prepared to teach the subject and often did not study or like science themselves at school. In the classroom, these teachers are faced with students who frequently have more skills in information and communication technology than they have, even though their understanding of the underlying physical principles may be totally lacking. Educational authorities and teachers might well build on these skills of the young in new and inventive ways.

Come on girls!

Another challenge is how to tackle the persistence of gender stereotypes. Being a scientist appears to be one of the most stereotyped of all occupations and there is quite a psychological barrier to overcome if more girls are to be attracted to science subjects. Encouraging women to do professional training involves combating these obstacles. This is being done in Africa, for example, by the Female Education in Mathematics and Science in Africa Project (FEMSA). This regional non-governmental organization aims to improve the participation and performance of girls in science and technological subjects at primary and secondary level. It sets up national centres to provide teacher capacity building and a forum for brainstorming by women scientists. Other initiatives include science clubs and camps for girls, mathematics and science competitions, and exhibitions.

FEMSA studies have shown that girls learn science disciplines better when there is a less didactic and more hands-on approach. A review of a FEMSA programme in Tanzania showed that there are many more girls studying in secondary school science streams than five years ago. Results are spectacular, according to the review: "Girls talk in wonder about how they have found their place in science classes. Their faces light up and they laugh as they compare their new-found confidence with the prospect they faced a few years ago of failing science." →

Having fun with science at Ben Zakour College, Morocco



→ These observations are valid for all the eleven countries participating in the FEMSA programme, comments O'Connor.

Policy changes

The lack of interest in science is also mirrored at the policy level. "Many education ministries do not have access to information on innovations in this field," says Wataru Iwamoto, Director of UNESCO's Division of Secondary, Technical and Vocational Education. The result is that many countries simply do not develop science education policies.

Governments are increasingly guided by the recommendations of two international conferences: the World Conference on Science (Budapest, 1999), and the International Experts Conference on Science, Technology and Mathematics Education for Human Development (Goa, India, 2001). More than sixty countries are following these recommendations and using the Guidelines for Policy-making in Secondary School Science and Technology Education, developed by UNESCO in 2003.

Dialogue between experts

UNESCO is also encouraging national education bodies to make their courses and teaching methods more attractive and relevant to students' needs and expectations. For example, interdisciplinary working meetings are being held between universities, teaching associations, local education officials and decision-makers to bridge the gap between these stakeholders and get a genuine dialogue going (e.g. Bolivia, Cambodia, Ghana, Mali, Romania and Viet Nam).

The same idea is behind the regional conferences being organized by UNESCO, the first of which is scheduled for Latin America and the Caribbean (Peru, November 2004), and the next for Asia and the Pacific (China, December 2004). They will provide forums for discussion and set up mechanisms for cooperation. The International Network of Government Officers in Science and Technology Education (INGOSTE), set up by UNESCO in 1999, is another example of creating links between science stakeholders.

Learning by doing

Learning by one's own experiments is one of the principles of the *La main à la pâte* (learning by doing) movement, which is being applied in primary schools around the world. The aim: to fire children with enthusiasm for discovery from a very early age. The method is to use children's questions to help them formulate and discuss theories and note down their own arguments and conclusions – all to arouse their curiosity and desire for knowledge.

The movement is inspired by an American Nobel prize-winner Leon Lederman (1988), who founded what he called "Inquiry-Based Science Education" in schools in poor neighbourhoods of Chicago. Three French physicists, Georges Charpak (Nobel Prize 1992), Pierre Léna and Yves Quéré, took up his idea and set up *La Main à la pâte* in 1996.

The experiment went beyond the realm of science. "One of the most striking results reported by teachers was the rapid advances children made in speaking and writing," says Quéré. The same thing was noticed by chemist Rosa Deves, deputy head of the Chilean programme ECBI,* that implements the same method. "The children write down their ideas and the results of their experiments in diary form and so make progress in mastering language," she says.

The Chilean programme links teachers and scientists (as do similar programmes in Afghanistan, Brazil, Cambodia, China, Malaysia, Morocco and Senegal) and, more recently, parents. Teachers are trained on the job. The methods are spreading fast and a website (www.mapmonde.org) has been set up to help people swap experiences. The head of the new Alexandria Library, Ismail Serageldin, has also decided that the library will soon host an Arabic-language mirror site of *La main à la pâte*, says Quéré.

*The *Programa de Educación en Ciencias basada en la Indagación para la Enseñanza Básica* (ECBI-Chile), was launched in 2003 by the Chilean Academy of Sciences, the Ministry of Education and the Medical Faculty of the University of Chile.

Around the world, countries such as Portugal, Namibia, Nigeria, Malaysia and others are working to improve science and technology education at all levels, particularly teacher training and curriculum reform. The China Association for Science and Technology reaches out to 4.3 million people with training and academic exchanges in this field. More than 6,000 key educators in Malaysia have benefited from the training, development and research courses of the Regional Centre for Education in Science and Mathematics. Another encouraging development is the international comparative research project ROSE² – the Relevance of Science Education – now shedding light on the importance of learning science and technology in some forty countries. But more efforts are needed.

If the European Union, for instance, is to meet its goal of raising research and development spending to 3 per cent of GDP by

2010, it will require an estimated 700,000 new researchers. Likewise, the United States National Science Foundation estimates that employment in science and engineering will increase three times faster than the overall rate of employment between 2000 and 2010.

Where will these scientists come from? The full potential of the female population is a still largely untapped reservoir of skills. Apart from the just demand for gender parity, this is a chance to be seized. ●

1. *Innovations in Science and Technology Education*, Vol VIII, UNESCO Publishing, Paris 2003 16.50 Euros. To order: upo.unesco.org.

2. More on ROSE www.ils.uio.no/forskning/rose

The voices of the people

While civil society is playing an ever increasing role in education, constraints persist



Children in Costa Rica call for education for all

It was the World Education Forum in 2000 that largely accelerated this trend, calling on governments to include civil society as a partner in all stages of planning and implementing education. UNESCO renewed its own mechanism to facilitate partnership with non-governmental organizations – the Collective Consultation of NGOs – by broadening its focus to embrace the EFA agenda. The network today counts over 650 organizations.

“While civil society is well on board in many countries, it has yet to become a full partner in policy

dialogue at the national level,” says Susanne Schnuttgen of UNESCO. Participants at the meeting of the Working Group on EFA (see p. 9) heard that although civil society is fully engaged internationally, such participation is patchy at national level.

Becoming partners

To some extent this is because many civil society organizations lack the expertise to engage with governments. This is being overcome through capacity-building initiatives. A UNESCO-funded programme is training local organizations in eleven sub-Saharan countries. The programme in Tanzania has produced training kits on policy formulation, project design, curriculum development, and teaching methods and is translating them into Kiswahili.

The first twenty-five trainers now qualified will in turn train others in a snowball effect that is expected to prepare about 500 trainers in the coming year.

But training may not be enough. Salum Mnjagila, EFA Coordinator in Tanzania, expresses the view that governments must release their tight control on education, mutual communication and transparency must be enhanced, management structures set up to facilitate dialogue and a culture of democracy established.

Contact: Fabiana Chianese, UNESCO Paris
E-mail: f.chianese@unesco.org
Website: www.unesco.org/education/nfe

The adoption by the new Kenyan government of free and compulsory primary education in 2003 was largely due to the tireless lobbying of Elimu Yetu, a coalition of civil society organizations. E-Net, a Philippine’s network of some 100 NGOs, monitors education policy via the Internet. Civil society organizations in Brazil and El Salvador are looking closely at public spending on education.

Examples abound of civil society engagement in education. NGOs provide a voice to the marginalized to demand more and better education; they lobby governments and international agencies and experiment with innovative ways of delivering education, especially to the poor. North and South, civil society has forged a place for itself in the education world.

According to Desmond Bermingham, Senior Education Adviser at the U. K. Department for International Development, successful lobbying by NGOs in the United Kingdom has resulted in education becoming a higher political priority.

3 questions to Regional Coordinator of the on Education for All (ANCEFA)

1 Civil society is increasingly recognized as a partner in Education for All.

In what areas is this not yet the case?

In many countries of the South, civil society organizations are recognized solely as service providers in non-formal education. Most governments perceive them as implementers of policies and not as partners in policy formulation.

2 How can they be assisted to play a more meaningful role?

Firstly, by recognizing them as partners in the whole education process. Secondly, by creating a space for permanent policy dialogue between government and civil society organizations (CSOs) in the most inclusive manner. And thirdly, by providing opportunities for experience sharing between CSOs, international agencies and governments. For example if governments do not share with CSOs their expertise in curriculum development, monitoring and evaluation, these groups will never become meaningful partners in these areas.

Global initiatives come closer

One of the aims of the Working Group on EFA that met in Paris on 20 and 21 July was to create stronger links between Education for All and the Millennium Development Goals (MDGs) initiatives. The meeting mobilized more people than ever before. Some 100 participants represented governments, national EFA coordinators, bilateral and multilateral agencies and civil society. The private sector attended for the first time.

“Making connections between agencies and organizations responsible for these initiatives is fundamental,” says Abhimanyu Singh, Director of the Division of International Coordination

and Monitoring of EFA. “The progress by one is of direct benefit to the other”.

Involving members of the MDG Task Force on Education and Gender with this meeting also brought in a range of new actors, such as foundations, an investment bank and research centres, who in turn brought with them their own networks and constituencies. “For those bemused by the plethora of international initiatives, it is important for them to see that those responsible for them are talking to each other,” adds Singh.

More on www.unesco.org/education/efa

Contact: **Abhimanyu Singh, UNESCO Paris**

E-mail: abh.singh@unesco.org

World tour

→ National EFA coordinators from French-speaking African countries discussed the state of advancement of their national EFA plans, in Dakar (28 June – 2 July). Most of these countries need technical assistance to implement their plans and to integrate them into the broader poverty reduction and development frameworks.

→ At a workshop in Paris (21–24 July) UNESCO launched a new project to assist countries in strengthening their literacy and non-formal education policies in the framework of EFA. Among its activities, the project will review literacy and non-formal education in national EFA policies and build the capacity of researchers to articulate the relationship between gender, literacy and other socio-economic variables. The countries participating in the first phase are Burkina Faso, Bhutan, Mali, Morocco, Namibia, Nicaragua, Nepal, Senegal and Thailand.

→ About 100 policy-makers and development planners from Ministries of Agriculture and Education, as well as civil society organizations discussed education for rural people in Latin America, in Santiago (3-5 August). Organized by UNESCO and the Food and Agriculture Organization, the meeting adopted a regional action plan for educating rural people.

→ The 3rd African Convention of Principals Conference held in Nairobi (23–27 August) brought together some 600 delegates from English-speaking Africa around the theme: “Challenges facing the provision of quality education in Africa”. It was hosted by the Kenya Secondary School Heads Association.

→ Latin American Education Ministers received the first issue of a new bulletin that will disseminate information about the Regional Project for Education in Latin America and the Caribbean (PRELAC), at a meeting in Santiago, on 27 August. The new bulletin will be published in English, Portuguese and Spanish three times a year.

Gorgui Sow

African Network Campaign

3 Governments can be held accountable for their role in providing education for all. How can civil society groups demonstrate accountability for their role?

Civil society groups must learn how to run their own affairs. They must be held responsible for their own budgets and programmes. If they fail here, how can they demand that governments be accountable? But, once again, the issue of their empowerment is central. Capacity building of CSOs is vital in this respect. A number of training initiatives are ongoing in Africa and Asia to make this perspective a reality. In some countries, the lack of CSO participation in the EFA process puts them in a weak position to hold governments and international partners accountable.

EFA in the news

Journalists are often at a loss when writing about education. Getting a grip on issues such as education budgets and school mapping can be a formidable task. “Education Makes News” is a new training kit produced by UNESCO to facilitate reporting and writing interesting stories on Education for All. With this tool journalists and other media professionals can learn to create interesting stories from dull and dry statistics and bring the EFA debate to the centre stage.

It can also be used by policy makers, community leaders, civil society activists and others who are engaged in advancing the EFA goals.

The kit provides resource materials on a range of education topics and gives trainers all the necessary ingredients to host a complete workshop – a daily curriculum, ready-made presentations and more.

It can be downloaded at:

www.unesco.org/webworld/portal/download/mtk/cdrom.iso
(Size 486 mb: 4 hrs. to download using normal connection)

For hard copies contact: **Hara Padhy, UNESCO Paris**
E-mail: h.padhy@unesco.org



African views on adult learning

African Perspectives on Adult Learning is a new, groundbreaking series of textbooks for use in the training of educators for adult learners in Africa. The series puts the African context at the centre of adult education and highlights the importance of African philosophies, indigenous knowledge systems, traditions and cultures. "There is nothing like these volumes on the market at present," says Adama Ouane, Director of the UNESCO Institute for Education (UIE).

The series considers the impact of colonialism, liberation struggles, neo-colonialism and globalization. It also provides examples of the policies and practices that characterize adult education across the continent.

Universities and teacher-training institutions are expected to use the textbooks in introductory courses. "It is important to spread the word so that professional trainers of adult educators can plan to use these books in their lectures, seminars or workshops next year," says Ouane.

The first five volumes of the textbook series will be available beginning March 2005. The series is being produced by UIE and Pearson Education South Africa in collaboration with the Institute for International Cooperation of the German Adult Education Association and the University of Botswana.

Contact: UIE Publications and Information Unit
E-mail: uie-pub@unesco.org

Both Morocco and Thailand launched major education reforms in 1999. The Iraqi officials learnt about their experiences, particularly in the field of curriculum development and textbook production. In their discussions with Ministry of Education officials in Morocco, "they showed great interest in the issue of violence, and how to integrate peace and citizenship education into Iraq's new curriculum and textbooks," says Conhye-Soobrayen.

Since the launch of UNESCO's Iraq Textbook Project in June 2003, almost 9 million primary and secondary math and science school textbooks have been reviewed, printed and distributed. The project also seeks to build capacity by training Iraqi nationals in textbook review, printing and distribution.

Contact: Jaya Conhye-Soobrayen, UNESCO Paris
E-mail: j.conhye-soobrayen@unesco.org

Caring for young children

Despite enormous demand, early childhood care and education remains a privilege for young children in most of the world's nine high population countries. The E-9 countries include Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Nigeria and Pakistan.

A new report *Early Childhood Care and Education in E-9 Countries: Status and Outlook* finds that an average of only 32 per cent of pre-primary age children are enrolled in education structures in these countries.

"The need and demand for early childhood care and education services in the E-9 countries are assumed to be enormous and will continue to expand," says Soo Hyang Choi of UNESCO's Section for Early Childhood and Inclusive Education.

According to the report, pre-primary education in the E-9 group is most developed in Mexico, where 76 per cent of children over 3 are enrolled, followed by Brazil (55 per cent), China (39 per cent), India (29 per cent),

Indonesia (19 per cent), Nigeria (18 per cent), Egypt (10 per cent) and Pakistan (8 per cent). Although accurate data are scarce, the report points out that in some of these countries, early childhood services are provided mostly by the private sector.

Demographic trends provide a real opportunity for E-9 governments, comments Choi. Women are having smaller families and their children a better chance of survival. This means that there will be fewer and healthier children to cater for in the future.

Contact: Soo Hyang Choi, UNESCO Paris
E-mail: sh.choi@unesco.org

Study tour for Iraqi officials

Seven senior officials from the Iraqi Ministry of Education visited Morocco and Thailand last June to learn about education reforms and how to integrate human rights education into the curriculum. "The study tour was part of our efforts to build capacity in education in Iraq," says Jaya Conhye-Soobrayen of UNESCO.

Fighting doping in sport

UNESCO Director-General Koïchiro Matsuura released the preliminary draft of the International Convention against Doping in Sport to coincide with the Olympic Games in Athens (Greece), in August.

The draft was sent for review to the Organization's 190 member states. The convention will be the first global standard-setting instrument against doping in sport and, in less than two years, was prepared by government officials and experts in law and sport.

Following this consultation, the draft convention will be examined by the Fourth International Conference of Ministers and Senior Officials Responsible for Physical Education and Sport (MINEPS IV) meeting in Paris, 6 to 8 December 2004. It will then be submitted to the 33rd session of UNESCO's General Conference in October 2005, for adoption before the 2006 Winter Olympic Games in Turin (Italy).

Contact: Kevin Thompson, UNESCO Paris
E-mail: k.thompson@unesco.org

Technical and vocational education under scrutiny

More and more countries are launching initiatives to create dialogue between training institutions and the industry to cope with new demands for skilled labour. Sixty per cent of countries now have specific programmes designed to increase the participation of women and girls in technical and vocational education and training (TVET). A majority of countries offer evening or part-time programmes for working people to improve their skills.

These are some of the conclusions of a worldwide survey undertaken by UNESCO to assess how countries have benefited from the International Congress on TVE held in Seoul (Republic of Korea) five years ago and the Revised Recommendation on TVET, adopted by UNESCO's General Conference in 2001.

The results will be presented at the international meeting "Learning for Work, Citizenship and Sustainability" in Bonn (Germany), 25-28 October 2004. "It's evident that both developed and developing countries are endeavouring to prepare competitive and flexible workforces in order to seize the opportunities that globalization is presenting," says Mohan Perera, Chief of UNESCO's Section for TVET.

The meeting will also discuss the role and contribution of TVET in sustainable development. We need economies that are innovative, with sensible competitiveness and good productivity, says Rupert Maclean, Director of the UNESCO International Centre for Technical and Vocational Education and Training. "These will not last if we are not sensitive to environmental imperatives and develop economies that are sustainable and resilient", he adds.

Contacts: Rupert Maclean, UNESCO-UNEVOC
E-mail: r.maclean@unevoc.unesco.org
Mohan Perera, UNESCO Paris
E-mail: m.perera@unesco.org

Websites: www.unesco.org/education and www.unevoc.unesco.org

OCTOBER

5

World Teachers' Day

27-30

National Coordinators' Meeting and Exhibition of the South-Eastern Mediterranean Environmental Project (SEMPEP) • Organized by UNESCO and University of Genova • Genova, Italy • Contact: Dileep Bhagwut, UNESCO Paris • E-mail: d.bhagwut@unesco.org

NOVEMBER

8-10

The 4th Meeting of the High-Level Group on Education for All Organized by UNESCO • Brasilia, Brazil • Contact: Abhimanyu Singh, UNESCO Paris • E-mail: abh.singh@unesco.org

15-19

International TST Youth Forum: "Celebrating the African Diaspora" Organized by UNESCO • Port of Spain, Trinidad and Tobago Contact: Jean O'Sullivan, UNESCO Paris • E-mail: j.osullivan@unesco.org

15-19

Regional Workshop on Bridging the Gap Between Scientists and Science Educators in Latin America and the Caribbean • Organized by UNESCO and Government of Peru (CONCYTEC) • Lima, Peru Contacts: Orlando Hall Rose, UNESCO Paris E-mail: o.hall-rose@unesco.org

DECEMBER

1-3

Colloquium on Research and Higher Education Policy "Knowledge, Access and Governance: Strategies for Change" • Organized by UNESCO Paris, France • Contact: Maria Lindqvist, UNESCO Paris E-mail: m.lindqvist@unesco.org

3

Fourth International Conference of Ministers and Senior Officials Responsible for Sport and Physical Activities (MINEPS IV) Organized by UNESCO • Athens, Greece Contact: Marcellin Dally, UNESCO Paris • E-mail: m.dally@unesco.org

2-4

Second Global Consultation on Education in Emergencies and Early Recovery • Organized by the Inter-Agency Network for Education in Emergencies (INEE) • Cape Town, South Africa, Contact: Beverly Roberts, UNESCO Paris • E-mail: b.Roberts@unesco.org

6-10

Regional Workshop on Bridging the Gap Between Scientists and Science Educators in Asia and the Pacific • Organized by UNESCO and China Association for Science and Technology (CAST) • Shanghai, China Contact: Orlando Hall Rose, UNESCO Paris E-mail: o.hall-rose@unesco.org

9-11

Annual Meeting of the Collective Consultation of NGOs on EFA (CCNGO/EFA) • Organized by UNESCO • Lebanon, Beirut Contact: Fabiana Chianese, UNESCO Paris E-mail: ccngo.efa@unesco.org

JANUARY

10-15

Third Session of the Inter-governmental Meeting of Experts on the Preliminary Draft of the International Convention against Doping in Sport • Organized by UNESCO • Paris, France Contact: Kevin Thompson, UNESCO Paris E-mail: k.thompson@unesco.org

- **Manual on Rights-based Education.** This manual is a ready-to-use guide for those who would like to gain a deeper understanding of how globally-accepted human rights standards relate to education. It presents key rights as they relate to children, parents and governments, and the corresponding obligations, especially of governments, that must be met to fulfil those rights. Available from UNESCO Bangkok www.unescobkk.org E-mail: bangkok@unesco.org



- **EFA Flagship Initiatives.** This booklet describes the nine Education for All flagship initiatives. Established following the World Education Forum in 2000, the flagships focus on major issues in education for which special co-operative efforts are needed. They address questions of partnership, leadership, overlap, and the articulation of international and national linkages. E-mail: sdi@unesco.org

- **Education, Conflict and Social Cohesion,** edited by Sobhi Tawil and Alexandra Harley. Is schooling a potential catalyst for the outbreak of identity-based conflict? How can education contribute to social and civic reconstruction? This publication explores these and many more questions in societies as diverse as Bosnia and Herzegovina, Guatemala, Lebanon, Mozambique, Northern Ireland and Sri Lanka. Published by the UNESCO International Bureau of Education. Price: 23,80€. Available from UNESCO Publishing upo.unesco.org

- **Information Tools for the Preparation and Monitoring of Education Plans** by Lucy Carrizo, Claude Sauvageot and Nicole Bella. A solid information system is crucial for sound planning, management and monitoring of education systems. This practical guide presents the objectives of an education management information system (EMIS). It is the fifth volume in UNESCO's "Education Policies and Strategies" series. E-mail: sdi@unesco.org

- **Selected Readings on Sector-wide Approaches and Education** by Kaviraj Appadu and Nathalie Frédéric. It is widely recognized that new types of partnership arrangements are needed to enhance the effectiveness of aid to education. This document proposes a list of selected readings on sector-wide approaches in education, which is one example of such a partnership framework. It is published by the UNESCO International Institute for Educational Planning (IIEP) www.unesco.org/iiep. E-mail: f.du-pouget@iiep.unesco.org

- **Report of the Fifth E-9 Ministerial Review Meeting** (Cairo, Egypt, 19-21 December 2003). This 50-page report presents the keynote speeches, main working documents and the Cairo Declaration adopted at the meeting. E-mail: sdi@unesco.org

- **Promoting Basic Education for Women and Girls: Four African Case Studies** by Pai Obanya. This document presents the bold steps taken by four African countries (Burkina Faso, Ethiopia, Mozambique and Swaziland) to address country-specific problems of girls' and women's education. It draws attention to the immense challenge these countries are facing in their efforts to achieve gender equality in education. E-mail: sdi@unesco.org

- **Planning National Education Stakeholder Consultations.** This guide published by UNESCO's Office for the Caribbean in Jamaica is designed to assist education ministries in translating Education for All (EFA) goals into concrete action. It also offers some advice on how to obtain broad support for EFA action plans among the various stakeholders and participants in individual countries. E-mail: kingston@unesco.org

- **Partage des Connaissances (Sharing Knowledge).** Published by UNESCO's office in Morocco, this booklet describes the experiences of the 5-year programme "Horn of Africa Capacity Building". It shows the importance of setting up structures that give rural populations access to basic information and knowledge. Available in Arabic and French. E-mail: rabat@unesco.org

- **PROSPECTS, 129, Open File: Gender Equality and Education for All.** This issue of UNESCO's quarterly review of comparative education deals with gender equality in and through education through viewpoints and several country case studies (Cambodia, Jamaica, Malawi and Romania). It also includes a review of male and female roles in educational decision-making. PROSPECTS is published by the UNESCO International Bureau of Education. www.ibe.unesco.org E-mail: b.deluermoz@ibe.unesco.org

- **The Literacy Decade: Getting Started 2003-2004.** This first Report on the United Nations Literacy Decade (2003-2012) presents an overview of the challenges the world must overcome to meet the literacy objectives established for the Decade. It argues that increased political and financial support to solve illiteracy is urgently required. If present trends continue, the Report warns, the international community will not even come close to halving illiteracy rates by 2015. E-mail: sdi@unesco.org



- **Higher Education in a Globalized World. A UNESCO Position Paper.** This document provides an overview of the opportunities and challenges posed by globalization to higher education. It is part of a series of UNESCO position papers intended to state the Organization's views and thinking on key issues relevant to education today. It is available in Arabic, Chinese, English, French, Russian and Spanish. E-mail: sdi@unesco.org

Education Today is a quarterly newsletter on trends and innovations in education, on worldwide efforts towards Education for All and on UNESCO's own education activities. It is published by UNESCO's Education Sector in Arabic, Chinese, English, French, Portuguese, Spanish and Russian. All articles are free of copyright restrictions and can be reproduced provided *Education Today* is credited.

Editors: Anne Müller and Teresa Murtagh

Contributors: Nasseem Ackbarally, p. 2; Faruque Alamgir, p. 3; Dominique Chouchan, pp. 4-7

Assistant: Martine Kayser • Design: Pilote Corporate • Layout: Sylvaine Baeyens

Photo credits (cover): Berthold Egner; UNESCO/ASPnet/Karin Hunziker; UNESCO/Brendan O'Malley;

UNESCO/Georges Malempré; UNESCO/Spier-Donati

Education Today, Executive Office, Education Sector, UNESCO • 7, place de Fontenoy • 75352 Paris 07 SP • France
Tel: 33 1 45 68 21 27 • Fax: 33 1 45 68 56 26/27 • E-mail: t.murtagh@unesco.org

More news on: www.unesco.org/education

