



United Nations
Educational, Scientific and
Cultural Organization

Organisation
des Nations Unies
pour l'éducation,
la science et la culture

Organización
de las Naciones Unidas
para la Educación,
la Ciencia y la Cultura

Организация
Объединенных Наций по
вопросам образования,
науки и культуры

منظمة الأمم المتحدة
للتربية والعلم والثقافة

联合国教育、
科学及文化组织



Science and Technology for Development

Science and Technology for Development

The overall focus of science, engineering and technology programme activity at UNESCO is on human and institutional capacity-building.

The application of knowledge in science, engineering and technology (SET) drives sustainable social and economic development, and is vital in addressing basic human needs, poverty reduction, promoting secure and sustainable development, emergency and disaster prevention, response and reconstruction, bridging the knowledge divide and promoting intercultural cooperation. The overall focus of science, engineering and technology programme activity at UNESCO is on human and institutional capacity-building and the application of SET to poverty eradication, sustainable social and economic development and the other Millennium Development Goals and related priorities regarding engineering and international development. Programme activities include advocacy and advisory services, information gathering and publication, curricula development and delivery, continuing education, distance and virtual learning and associated expert meetings, workshops, conferences and institutional cooperation in partnership with governments, the private sector, professional bodies and NGOs.



Technical training in Skopje,
Macedonia, 2003
(E. Lazovska © UNESCO)

strategy to promote human and institutional capacity-building in SET focuses on developing and strengthening:

- science and engineering education, training, research and professional development;
- curricula, learning and teaching materials and methods;
- standards, quality assurance and accreditation;
- distance and interactive learning;
- science and engineering ethics and codes of practice;
- advocacy and public understanding of science and engineering;
- indicators, information and communication systems for science and engineering;
- women and gender issues in science and engineering;
- emergencies and disaster prevention, preparedness, response and reconstruction;
- science, engineering and technology policy and planning.

Capacity-building in science, engineering and technology

We live in increasingly global knowledge societies, where science, engineering and technology are of greater importance for economic and social development. Capacity-building is vital in this context. Programme

Science, engineering and technology for poverty eradication

Poverty is often considered economic terms, but relates primarily to the limited access of people living in poverty to the

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UNESCO and Solar Villages in Africa

In Onamunanamha, in northern Namibia, a pilot solar village has resulted from a joint project between UNESCO and the UNDP. The electric supply has been supplied to the local church, school and clinic. Recent graduates have been trained to maintain this system. A similar project in Makanijira (Malawi) supplies power to 3,000 village habitants and its surrounding areas.

A feasibility study has been lead by UNESCO to establish a solar village in N'Gaoundere (Cameroon). This extensive study encompasses the production and distribution of five series of didactic assistance (in French) for primary school children, students in technical schools and community leaders, as well as the training of 100 community leaders themselves and representatives of women's organizations. This feasibility study has been distributed in Cameroon, Mali, Morocco, Niger, Tunisia, Tanzania and Zimbabwe.

Another solar village established in Ampasina Maningory (Madagascar) in 2000 uses solar panels installed on top of public buildings. The electricity generated supplies the City Hall, a primary school, a secondary school and the city lighting. It is planned to make this village a training center for renewable energy.

knowledge and resources with which to address their basic human needs in such areas as water supply and sanitation, food production and processing, housing, energy, transportation, communication, income generation, employment and enterprise creation. Engineering, science and technology is vital in addressing these areas of need. Engineering, science and technology need to be appropriate to the social, economic, educational and knowledge situations of people living in poverty, and can then enable poor people to alleviate their own poverty and promote sustainable livelihood development. People living in poverty are often more exposed to emergencies, natural and man-made disasters, and there is an important role for SET in emergency and disaster preparedness, mitigation and response. Programme activities focus on SET for poverty eradication, improving innovation systems through applied research, development of information, information-sharing and pilot project activity, with particular reference to the least developed countries.

Science, engineering and technology for sustainable development

Science, engineering and technology knowledge and resources exists to address basic human needs, poverty reduction, sustainable development and other UN Millennium Development Goals, following the World Summit on

Sustainable Development and as part of the UN Decade of Education for Sustainable Development (for which UNESCO is the lead agency). We need to apply knowledge in science, engineering and technology now where it is needed to make a difference to people's lives. In addition to related activity in capacity-building, programme activities address the need for direct support for the activity under the DESD (Decade of Education for Sustainable Development) and the WSSD (World Summit on Sustainable Development) WEHAB (Water, Energy, Health, Agriculture and Biodiversity) objectives in such areas as:

- environmental/ecological science and engineering;
- waste management, water supply and sanitation;
- cleaner production and recycling;
- energy efficiency, conservation and renewables;
- emergencies and disaster preparedness, response and reconstruction;
- involvement of engineers in policy making and planning for sustainable development.

Contact :

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