

UNESCO's 2009 Contribution to the Report of the United Nations Secretary-General for the 2009 Substantive Session of the Economic and Social council and for the Sixty-Fourth Session of the General Assembly on the "Implementation of the Programme of Action for the Least Developed Countries for the Decade 2001-2010.

### Introduction

Goals and targets

The present report, prepared by the United Nations Educational, Scientific and Cultural Organization (UNESCO), provides an analytical assessment of UNESCO's action to assist the LDCs in implementing the goals and commitments of the Brussels Programme of Action in UNESCO's areas of competence. It is based on the specific action areas for which UNESCO has been assigned lead responsibility in the UN System Action Plan for the further implementation of the Programme of Action for the least developed countries during the period 2007-2010, which was endorsed by the United Nations Development Group (September 2008) and subsequently also by CEB at its session on 24 October 2008.

## UNESCO's implementation of the UN System Action Plan For the further implementation of the Brussels Programme of Action for the Least Developed Countries

Progress achieved during the reporting

**UNESCO** Action

		period, 2008-2009
Commitment 3 - Building human and institutional capacities		
7. Ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete, free and compulsory primary education of good quality	Build human and institutional capacities of LDCs in the area of education by ensuring global leadership and coordination of Education for All (EFA) and assisting national leadership to achieve EFA goals, including through:  (i) the "Global Action Plan: improving support to countries in achieve the Education for All goals" as a global platform for collaborative action;  (ii) the UNESCO National Education Support Strategy (UNESS) at country-level, strengthening national planning, monitoring and evaluation capacities; and  (iii) South-South and triangular South-North-South cooperation;  Further enhance educational quality through improved content, curriculum, learning assessments and school management, as well as through the Teacher Training Initiative in sub-Saharan Africa (TTISSA) and enhanced cooperation with the AU and the Forum Parliamentarians for Education in different region of UNESCO (Africa, Arab, APA and LAC)	In its role as lead UN coordinating agency for Education for All (EFA), UNESCO continues to strive to maintain the momentum for EFA and mobilize political and financial support at the international, regional and country levels. Efforts strategically target the most marginalized populations and the most EFA-challenged regions, with particular emphasis on the Least Developed Countries (LDCs).  UNESCO continues to be present on international platforms to reiterate the urgent need for strong political commitment to education backed by the right policy choices and financial support. These have also been opportunities for UNESCO to step up its efforts to influence the global debate and advocate in particular for sustained investments in education in EFA-challenged countries. These fora have included the High Level Forum on Aid Effectiveness (Accra, 2-4 September, 2009), the High-Level MDG session of the UN General Assembly (New York, NY, 25 September 2008), the high-level event on Financing Education in Conflict Affected Areas co-organized by the Government of Qatar and UNESCO on the occasion of the Doha Conference on Financing for Development (Doha, Qatar, 31 October to 3 November 2008), and the General Assembly's Thematic Debate on Education in Emergencies (New York, USA, 18 March 2009).  The High-Level Group (HLG) meeting remains one of EFA's key mechanisms for advocating for sustained support for the EFA agenda. The composition of the Eighth HLG meeting (Oslo,

16 – 18 December 2008) included Ministers or their representatives from 10 LDCs (26 per cent of total country representatives), demonstrating UNESCO's continued focus on coordinating work for this particular group of countries.

Discussions of this HLG meeting were informed by the outcomes of the International Conference on Education (Geneva, November 2008), the Ninth Meeting of the Working Group on EFA (Paris, 12-14 November 2008) and the Global Monitoring 2009 EFA Report: "Overcoming Inequality: Why Governance Matters", and shed light on equity in education, calling for targeted support to countries and populations most in need. In particular, the Oslo Declaration endorsed the creation of the International Task Force on "Teachers for EFA" to coordinate existing teacher-related initiatives and synergize ongoing efforts that address the policy, capacity and financing gaps related to the global shortage of teachers.

The Task Force's work will not seek to duplicate existing efforts but will draw and build upon efforts undertaken by the Teacher Training Initiative in sub-Saharan Africa (TTISSA) and the International Institute of Capacity Building in Africa (IICBA). This Task Force also serves as a platform to promote South-South cooperation, focusing on prioritizing efforts for country-level support to those countries furthest away from the EFA goals and with the largest teacher gaps. Initial target countries are being identified, many of which will include LDCs.

Similarly, South-South and North-South-South Cooperation is also being emphasized within the E-9 Network, whose current focus is on developing and promoting good practices in teacher training initiatives, both within the E-9 countries (which includes one LDC) and beyond, in particular to least developed regions.

To better assist countries – especially the most EFA-challenged – in achieving the EFA agenda, UNESCO has intensified consultations and collaboration with the other four convening agencies (UNDP, UNFPA, UNICEF, and the World Bank), notably drawing on points from the "Global Action Plan" and the Oslo Declaration. UNESCO has taken the lead in issuing a joint letter to staff of all five agencies that proposes, among other initiatives, scaling-up action in the most EFA-challenged countries based on increased cooperation, alignment, and harmonization within the agreed

frameworks of the Paris Declaration (2005), the Accra Agenda for Action (AAA) (2008), and the EFA-Fast Track Initiative (EFA-FTI) process.

UNESCO also provided a strategy on prioritizing LDCs in the EFA-Fast Track Initiative (EFA-FTI) and advised on the replenishment of the EFA-FTI trust funds. At country level, UNESCO is playing an increasingly active role in the coordination of technical and financial partners and in political dialogue with several governments, focusing on the most EFA-challenged countries (e.g. the Central African Republic and Haiti).

With respect to mobilizing action in the most EFA-challenged countries, UNESCO also works closely with members of the Inter-Agency Network for Education in Emergencies (INEE) to determine how best to promote EFA in fragile countries, many of which are LDCs. The upcoming third INEE Global Consultation meeting (Istanbul, 31 March – 2 April 2009) will explore emerging developments in the field of education in emergencies, chronic crises and early recovery.

The International Advisory Panel, bringing together representatives of all key EFA partners, continues to contribute to better ownership and continuity in the international EFA movement. LDCs are one of the 22 constituencies represented in the IAP, represented by Benin (Chair of the LDC group).

UNESCO has also intensified its collaboration with other UN Agencies in the Global Task Force on Child Labor and Education for All which intends to mobilize political will and momentum towards mainstreaming the issue of child labour in national and international policy frameworks contributing to the EFA objectives. LDCs countries will receive priority.

8. Achieving a 50 per cent improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults

Engage ministries and other stakeholders through the Literacy Initiative for Empowerment (LIFE) programme to address literacy issues in national policies, plans and actions conceived to achieve EFA

Targeting the most challenged countries is a strategic imperative for all of UNESCO's activities, including the Literacy Initiative for Empowerment (LIFE), which continues to generating concrete commitment in such countries. The LIFE framework enables UNESCO to bring together bilateral and multilateral donors in several African countries to raise awareness of the importance of literacy, rally political will and resources and assist in policy development and capacitybuilding. A strategic framework has been collaboratively developed for the upcoming years of the United Nations Literacy Decade (UNLD) focusing on continued advocacy, effective programme delivery and

resources.

In the framework of the UNLD and LIFE, UNESCO organized six Regional Conferences in Support of Global Literacy in 2007 and 2008 in the Arab Region, Africa, Asia and the Pacific, Europe, and Latin America and the Caribbean. The Conferences were a major effort to advocate for literacy, identify and discuss main challenges and achievements, present effective practices and policies at country level, build cooperation among stakeholders, mobilize partners and resources for concrete interventions at the country level, and develop recommendations on the way forward to be pursued at global, regional and national levels.

Representatives from relevant government bodies, research institutions and civil society organizations from a high number of LDCs attended the Conferences and thus demonstrated increased policy commitment to youth and adult literacy.

Throughout 2007 and 2008, a mid-Decade review of the UNLD was undertaken by UNESCO in cooperation with all Decade partners to assess progress in the areas of priority outlined in the Plan of Action of the UNLD - policy, programme design and delivery, research, assessment and evaluation, and advocacy for literacy.

Regarding the integration of literacy in national education systems and plans, the mid-Decade review report, presented to the UN GA in October 2008, highlights efforts of many national governments to take the lead in the development of literacy policy, for example, in developing their literacy situation analysis and integrating adult literacy into education plans and poverty reduction strategies. Examples of LDCs showing increased policy commitment for literacy include the following:

Mauritania put its National Strategy for the Eradication of Illiteracy into an operational workplan in 2006, linked to the poverty reduction strategy. In the Gambia, adult literacy has been integrated into the education policy and the poverty reduction strategy paper. Similar policy shifts are observed in many countries of South and West Asia, particularly in Bangladesh, where new literacy initiatives are integrated into the overall human resource development framework. The establishment of community learning centres in Afghanistan, and non-formal basic education centres and mass literacy centres in Bangladesh is

illustrative of this trend. Further examples of increased policy commitment include Malawi (a revised National Literacy Policy), Senegal (with a threefold budget increase and a new national website on literacy), Benin (greater integration of action in literacy as part of its EFA plans), Mali, Burkina Faso (a national task force to mobilize funds) and further LIFE countries (Niger, Bangladesh and Pakistan), with national action plans developed in Haiti, Mali, Niger, Senegal, and Bangladesh. The strong response to LIFE in general illustrates the commitment of many LDCs to literacy.

In addition, based on the outcomes of the Conferences and the results of the mid-Decade review of the UNLD, a strategic framework for action was developed in a collective effort involving all UNLD partners. The framework will guide collective efforts for literacy in the second half of the Decade around three main strategic objectives: A. Mobilizing stronger commitment to literacy, B. Reinforcing more effective literacy programme delivery and C. Harnessing new resources for literacy. UNESCO's future support to efforts for promoting youth and adult literacy in LDCs will be based on the strategies and proposed actions set out in the strategic framework.

Furthermore, it should be noted that UNESCO continues to provide technical and financial assistance to several LDCs for setting up a Non-Formal Education Management and Information System (NFE-MIS). Senegal, Tanzania, Bangladesh and Niger have already of the phase completed pilot implementation. Rwanda, Nepal, Bhutan and Mauritania will start a pilot project soon. The increased interest of LDCs in the setting up of such an information system which provides policy-makers and planners with reliable, relevant and timely data to allow for informed decision-making, better planning and improved monitoring, building capacity and creating a culture of monitoring is again another clear affirmation of stronger commitment to tackling the literacy challenge in the LDCs concerned.

9. Eliminating gender disparities in primary and secondary education by 2005, and achieving gender equality in education by 2015, with a focus on ensuring girls' full and equal access to and achievement in basic education of good quality.

Promote sharing good practices on gender equality and women's right to education

The EFA challenge now is to address both the issues of exclusion and quality learning at the same time. Even when girls are enrolled, it is important to ensure that they are not excluded from quality learning.

UNESCO has used the two-pronged approach to girls' education, supporting Member States to simultaneously serve school girls through primary and secondary education and out-of-school girls through its literacy and non-formal education approach.

In partnership with Member States, UNESCO has been active in promoting girls' education and gender equality by providing policy advice, developing policy briefs to stimulate policy dialogues on questions pertinent to girls' education, providing technical support by introducing gender budgeting into the planning of the Ministries of Education: supporting the network of curriculum developers to access the representations of identities and gender roles in primary education textbooks in French speaking Africa and to develop a training methodology for this to help countries analyse how gender inequality is constructed in textbooks over the curriculum; developing a participatory training methodology in the development of gender sensitive reading materials for use in non-formal settings and as supplementary reading materials in school in Africa and Asia. The themes of such materials vary but recent ones focus HIV and AIDS, enhancing learning environment through tackling violence in school is another activity where UNESCO has worked with the Forum for African Women Educationalists (FAWE) and Action Aid to increase understanding on gender-based violence in school in Western Africa, chairing the UNAIDS Inter-agency Task Team on Girls' Education which has produced significant publications on the subject. These include, for example, Girls Education and HIV Prevention, Review of the Evidence: Girls' Education and HIV Prevention and Tools to Support Education Sector Planning and Evaluation.

It is worth noting that UNESCO has actively supported the process of establishment of the UN Interagency Task Force on Adolescent Girls (UN IATF Girls) to support groundbreaking ioint programmes targeting adolescent girls, in particular the most marginalized and vulnerable. The technical consultation (Paris, 20-22 October 2008) was hosted by UNESCO and resulted in the finalization and promotion of a UN Joint Reaching Programming Framework for Marginalized Adolescent Girls and identification of concrete steps. Participating UN agencies included ILO, UNESCO, UNFPA, UNICEF, UNIFEM, and WHO. The Task Force presented its work to member states and global the Fifty-Third Session of Commission on the Status of Women held 3rd of March 2009 The joint programmes in Ethiopia, Malawi and Rwanda and other LDC countries are under discussion and will be implemented in 2009.

empowerment in LDCs countries such as Niger, where it provides support to the promotion of human rights, sustainable literacy programmes and development of income generating activities for women. This has led to an increase in girls' schooling.

14. Reducing by half by 2015 the proportion of people who are unable to reach or to afford safe drinking water

Improve water resource management and access to water through the International Hydrological Programme (IHP) strengthening human and institutional capacities in the filed of hydrology; enhance global monitoring and reporting through the World Water Assessment Programme

UNESCO's International Hydrological Programme (IHP)—including the UNESCO-IHE Institute for Water Education and the numerous centres and institutes under the auspices of UNESCO that are focusing on regional water issues—has provided education, training and capacity building in the sustainable management of freshwater resources based on sound science in the following LDCs in the Asia/Pacific region: Afghanistan, Cambodia, Lao People's Democratic Republic, Myanmar, Kiribati and Timor Leste, and in the following LDCs in the Africa region: Angola, Benin, Ethiopia, Lesotho, Mozambique, Diibouti, Rwanda, Sudan, Togo, Benin and Uganda. Trainings focused on linking indigenous knowledge and modern science in order to develop a holistic approach to Integrated Water Resource Management (IWRM), on Remote Sensing for IWRM, on geophysics applications for groundwater management, on conducting hydrological surveys, and on water and climate risk management. In addition to organizing trainings at the national level, IHP promoted capacity building at the regional level to enhance the management of transboundary water resources

UNESCO is also working towards women

The IHP has also assisted with the preparation of national policies regarding freshwater in several LDCs, including the Pacific island nation of Kiribati and in Sudan, and has provided training for those responsible for the implementation of such policies. An example of a best practice is the project that IHP has been involved in to develop a National Water Resource Policy and Implementation Plan in Kiribati. This new policy and its implementation plan is designed to provide safe, adequate, and affordable water services to all communities in Kiribati. It also addresses the conservation. sustainable use and efficient management of Kiribati's water resources and will improve the welfare and livelihood of the people of Kiribati despite the threats of climate variability and change. The policy and plan is currently being implemented by the Government.

The UNESCO-hosted World Water Assessment Programme (WWAP) has successfully coordinated three editions of the World Water Development Report (WWDR),

including the most recent one launched at the Fifth World Water Forum in March 2009. The WWDR uses the most recent data to provide a snapshot of the status of freshwater globally, once every three years. The study projects initiated in participating countries served as a platform bringing relevant national stakeholders together to identify the gaps in knowledge, the shortcomings in the legislative system and the aspects of institutional capacity that need to be enhanced. Case study development has provided an impetus for the national agencies responsible for water management to organize their data collection and reporting efforts more efficiently. It has also helped raise public awareness of the global water crisis and the visibility integrated water resources of management on national agendas. Most importantly, in the process, the skills and experience of both local water professionals and policy-makers are engaged and enhanced. WWAP activities have also influenced action elsewhere, thanks to actively conducted research on the protection and sustainable use of water resources.

The case studies complement and compound the analyses provided in the WWDR series by taking a critical look at the state of water resources, varying conditions and the resilience of national mechanisms for coping with change. The case study volume of the WWDR3 examines these and other elements in 20 case studies from four regional settings involving 23 countries and numerous Small Island Developing States.

National level WWAP case studies have been initiated in the following countries:

Africa region: Sudan and Zambia (in addition Ethiopia, Mali and Uganda were covered in the previous phase of the WWAP); Asia region: Bangladesh, the island states of Samoa, Solomon Islands, Tuvalu and Vanuatu are covered within the framework of Pacific Islands case study included in the WWDR3.

15. Reducing HIV infection rates in persons 15-24 years of age by 2005 in all countries, and by 25 per cent in the most affected Countries

Continue to support countries in their efforts to implement comprehensive, scaled-up, educational programmes on HIV and AIDS through EDUCAIDS

EDUCAIDS has two main objectives which inform its response largely through formal education systems: (i) To prevent the spread of HIV through education; (ii) To protect the core functions of the education system from the worst effects of the epidemic. EDUCAIDS promotes responses across a number of components that together constitute a comprehensive education sector response to HIV and AIDS.

EDUCAIDS responses in all LDCs target both upstream and downstream initiatives, from policy development to curriculum design and

implementation in schools and colleges. In all of the LDCs where EDUCAIDS has a presence, strong partnerships with the Ministry of Education have been established in order to ensure that the two main EDUCAIDS objectives are met.

### Overall progress in LDCs

In the period under review, EDUCAIDS has continued to support 20 LDCs in their efforts to implement gender sensitive, comprehensive, scaled-up educational programmes on HIV and AIDS. The countries include: 15 of the 33 least developed African countries; 5 of the 15 least developed Asia / Pacific countries, and Haiti.

UNESCO has appointed four regional HIV and AIDS advisors who cover all of the LDCs. The advisors are responsible for overall coordination of EDUCAIDS initiatives in each region, a situation that has scaled up the response of UNESCO's education-related HIV and AIDS initiatives. EDUCAIDS Focal Points become increasingly involved have coordinating the national response education-related HIV and AIDS activities. Scaling-up coordination in LDCs assists with meeting Paris Declaration and UNGASS objectives to achieve universal access.

### **EDUCAIDS in African LDCs**

The African countries where EDUCAIDS has actioned responses are: Angola, Burkina Faso, Burundi, Central African Republic, Chad, Guinea, Guinea-Bissau, Lesotho, Madagascar, Mozambique, Rwanda, Senegal, Sudan, Uganda, Tanzania, Zambia.

UNESCO has designated sub-Saharan Africa as a priority region in the response to HIV and AIDS due to it being the area most affected globally. Those African LDCs not in sub-Sahara are also highly affected by the epidemic.

Coordination of national HIV-and AIDS-related activities through designated EDUCAIDS personnel has been increasing in African LDCs. Increasingly, EDUCAIDS Focal Points assist in UNCT, UNDAF, UNTG meetings. In Uganda, for example, the Focal Point attends all HIV and AIDS coordination meetings to advocate for increased harmonisation of national responses. In Lesotho, the EDUCAIDS Focal Point liaises with national coordination mechanisms.

In all of the LDCs in Africa, progress has been

achieved in the education sector as measured against the two main EDUCAIDS objectives, notably through activities such as: capacity development in Ministries of Education, curriculum design and implementation in schools, tertiary institutions and in pre-and inservice teacher training. Each activity is gender assured of inclusiveness addresses, where appropriate, prevention, care, treatment and support. For example, in Burkina Faso, Guinea Bissau, Lesotho and Sudan, with the assistance of Japanese Funds in Trust, EDUCAIDS has implemented each of these activity areas. In addition, in Sudan, gender sensitive, post-conflict responsive HIVand AIDS-related work place policy has been developed for all of the country's tertiary institutions. The activities outlined provide for both collective and individual responses and in many instances build on activities that preceded them in each country. For example, in Lesotho, Japanese Funds in Trust activities were subsequently funded by the private Bruni-Tedeschi Foundation which operates through EDUCAIDS in four sub-Saharan counties including Angola and Lesotho.

### **Progress made in Haiti**

The EDUCAIDS Focal Point has been involved in numerous education-related HIV and AIDS activities that assist with scaling up the national response through educational institutions. Activities include: a situational assessment in secondary schools, analysis of existing HIV-and-AIDS-related educational policy, curriculum development, and the dissemination of gender sensitive resources to teacher training initiatives. In all cases, EDUCAIDS has worked in partnership with the Ministry of Education.

### Progress made in Asia / Pacific LDCs

The Asian countries where EDUCAIDS has actioned responses are: Afghanistan. Bangladesh, Cambodia, Lao People's Democratic Republic and Nepal. A range of government ministries are fully involved in EDUCAIDS initiatives in each of the five Asian LDCs, a situation that has scaled up capacity and promoted increased synergies and partnerships with co-sponsors and other stakeholders. For example, in Nepal, a gender responsive OPEC Fund-supported EDUCAIDS project assisted in bringing together four different ministries for capacity development and subsequent joint project implementation. This situation assisted in harmonising activities and developed important synergies amongst government agencies. In Afghanistan,

EDUCAIDS was responsible for distributing 1000 gender sensitive advocacy tool kits in minority languages in partnership with the Ministry of Education. All of the EDUCAIDS-related activities in the five LDCs were consistent with national planning operatives and objectives.

Increasingly in the Asian LDCs, EDUCAIDS responses are being developed around the findings of the UNAIDS Commission on AIDS in Asia Report. The requirement that all responses be evidence-based has gathered momentum through the UNESCO Regional Bureau in Bangkok which has been responsive to the Commissions' findings on the epidemiology of concentrated epidemics and the emerging issues involved in each. As a result, EDUCAIDS-related responses and activities seek to deepen their engagement with injecting drug users, men who have sex with men, and sex workers.

### **Challenges**

A number of challenges have been identified in the LDCs where EDUCAIDS has been involved:

- Gender-related stigma and discrimination is a feature of each country and poses challenges in how to approach education-related activities in formal and non-formal educational settings.
- Involving people living with HIV is problematic due to stigma and discrimination. As with gender-related challenges, EDUCAIDS approaches this challenge with special determination. EDUCAIDS-funded studies on gender and on people living with HIV notably teachers and orphans – has assisted in LDCs. In Lesotho, Angola and Rwanda, the research has informed EDUCAIDS responses in both gender and positive people's related activities.
- Scaling-up harmonised and nationally aligned responses in education remains a challenge given that increasing number of stakeholders involved in education-related activities.
   EDUCAIDS approaches this challenge with increased emphasis on advocacy for a well coordinated response that meets the Paris Declaration and the UNGASS objectives.

Strengthen national and regional research systems, particularly through the intergovernmental programme, Management of Social Transformations (MOST), in order to provide policy-

UNESCO has been working to strengthen national and regional research systems in a number of LDCs. in the following migration-related fields: climate change and migration; migrants' rights and the promotion of the

oriented research on migration,; and strengthen policy-oriented research networks ratification of the UN Convention on Migrant Workers' Rights; regional agreements on migration and the establishment of free movement at the regional level; and skilled migration and brain drain.

Networks of relevant stakeholders: policymakers, experts, and NGOs have been established who have conducted research on these specific issues. Their major findings have been published and widely disseminated through the International Social Science Journal and the Journal on Multicultural Societies, and through the MOST online Policy Research Tool. Forums with ministers of social development at the regional and subregional levels have also been organized to strengthen search-policy linkages. By strengthening policy-oriented research networks in the field of migration, the Organization hopes to better enable national and regional research systems to provide policy-relevant information on the challenges raised by migration.

Build capacities to draw up inventories of intangible cultural heritage and implement plans for the safeguarding of that heritage. Promote cultural diversity and intercultural dialogue.

UNESCO has been promoting cultural diversity through the safeguarding of tangible and intangible cultural heritage, by enhancing cultural expressions and by promoting intercultural dialogue. 18 LDCs have become States Parties to the 2003 Convention for the Safeguarding of the Intangible Heritage during the first half of the biennium. The Directives for the implementation of the Convention were approved in June 2008, making the Convention fully operational at the international level. States Parties have started submitting nomination files for inscription of their intangible heritage on the Representative List, and those that are eligible have submitted proposals requests to for international assistance from the ICH Fund. Some 40 safeguarding plans and activities aiming at ensuring the transmission of intangible cultural heritage are currently being executed and are related to the items that the Intangible Heritage Committee incorporated in the Representative List in November 2008 and include a component on inventorying intangible cultural heritage.

Capacity building in safeguarding intangible cultural heritage was strengthened in a number of LDCs in Africa through regional workshops and in the Asia and Pacific region through subregional and national training workshops for government representatives. Workshops focused on the functioning of the Convention and its implementation at the national and International levels, in particular through the drawing up of inventories on intangible cultural

heritage, and the identification of good practices, with a view to ensuring the viability of intangible heritage in the LDCs in these regions.

UNESCO has been working to promote peace, mutual understanding and social cohesion in LDCs through its work to promote a dialogue among civilizations and cultures in accordance with the Global Agenda for Dialogue among Civilizations and its Programme of Action adopted by the United Nations General Assembly in 2001. An intersectoral platform has been established to further strengthen UNESCO's interdisciplinary work in this area. This platform focuses on achieving the following objectives: (i) promoting and exploiting the Regional Histories; (ii) promoting the development of intercultural skills; (iii) engaging new voices in interfaith dialogue; and (iv) fostering dialogue and mutual understanding through the media. Projects are being implemented at the national level in the following LDCs: Afghanistan, Mali and the Democratic Republic of the Congo to achieve these objectives. LDCs also benefit from UNESCO's activities at the regional and subregional level. An example is the regional histories projects, which include the General History of Africa, the General History of Latin America, the General History of the Caribbean, the History of the civilizations in Central Asia and the Different aspects of Islamic culture. These histories were conceived to "decolonise" and spread the history of these regions, promote an internal perspective of these regions and create a dialogue between the different viewpoints on a common regional history. Further to the work being undertaken by the Platform, the Organization is also focusing on revising textbooks and curricula to help to ensure the removal of hate messages, distortions, prejudice, and negative bias from textbooks and other educational media; and to ensure basic knowledge and understanding of the world's main cultures, civilizations and religions. The sharing of common values pertaining to specific scientific disciplines in different cultural settings, has also been promoted through such mechanisms as the From Potential Conflict to Cooperation Potential initiative, which facilitates multilevel and interdisciplinary dialogues in order to foster peace, cooperation and development related to the management of shared water resources. Efforts have also been undertaken to assist free, independent and pluralistic media by working with professional journalist associations to prevent conflict and promote mutual understanding, notably through the creation of cross-cultural networks, the

# Commitment 4: Building productive capacities to make globalization work for LDCs

### **Technology**

Further support the development of national science, technology and innovation policies through strengthening of educational and research institutions, policymakers, curriculum planners and teachers, with special focus on science, technology, engineering and mathematics (STEM) education in the following ICT-related areas: (i) e-learning, (ii) enhancing open access, and (iii) exploring alternative and new ICT applications.

development of ethical and professional approaches to reporting, as well as training and awareness-raising of media professionals so as to promote an enabling environment for free self-expression. The Organization has also been working closely with the Alliance of Civilizations to identify, plan and implement activities in the framework of the Memorandum of Understanding between the Alliance and UNESCO signed on 15/01/08.

UNESCO has been strengthening capacities in a number of LDCs in science policy formulation, evaluation and implementation. Requests have been received from 14 African LDCs: Benin, Burundi, Central African Republic, Democratic Republic of the Congo, Gambia, Madagascar, Malawi, Mauritania, Niger, Sudan, Togo, Uganda, United Republic of Tanzania and Zambia; and from two LDCs in Asia: Nepal and Cambodia. A stock-taking exercise intended to provide a comprehensive understanding of the status of the STI systems under review was completed in 5 LDCs: Benin, Burundi, Central African Republic, Madagascar and Sudan. UNESCO is heading a team of UN agencies and development partners which are accompanying Tanzania to reform its STI system within the Delivering as One Initiative. UNESCO and government departments and agencies have formulated a series of proposals to reform the Tanzania's STI system for a total of US\$10 million, which is to be financed from the One UN fund and other sources.

The Organization has also been working to assist a number of LDCs in developing STI indicators through regional training workshops. As part of UNESCO's ongoing work to moblize networks and parliamentarians, a Central African Regional symposium on "Science, technology and Parliament" was organized in the Democratic Republic of the Congo, which results in the launching of an Inter-Parliamentary Forum and in the decision to create centre for research and training in regional S&T policy as well as a sub-regional fund for S&T. Another regional training programme was also organised for policy officials in South-East Asia. In the Arab States Region, UNESCO assisted the Arab League and ALESCO in elaborating the Arab Science, Technology and Innovation Strategy, which was discussed by experts from the region and will be considered by the Heads of States as the forthcoming Summit of the Arab states in Kuwait in January 2009.

Priority science education needs in a number of least developed countries have been

#### identified through regional experts' meetings and workshops, and policy guidance has been provided in enhancing S&T education and in addressing the promotion of education in the basic sciences, engineering, ecological sciences, ethics and science journalism. Sustainable Tourism UNESCO is providing assisting to a number of Building on the Global Alliance for LDCs in heightening the socio-economic Cultural Diversity and through Southimpact of small craft enterprises that will give South and north-South-South priority to women craftworkers. Projects seek to cooperation, further promote cultural strengthen craftswomen's management and industries and creative industries. marketing skills in order to increase their including cultural tourism productivity and, ultimately, their personal income. Priority is being given to women through the "Design Social Network" programme and instruction in national languages. UNESCO has also been working to advocate the crucial role of culture in international development frameworks, including United Nations system common country programming exercises, and by assisting member States in the formulation, revision and updating of their cultural policies in order to give greater recognition to cultural diversity and dialogue as vehicles of development equity and peace, taking into account the links between cultural diversity, intercultural dialogue and sustainable development, with particular attention to the needs defined by the New Partnership for Africa's Development (NEPAD), including gender equality, while reinforcing institutional, including legislative, capacities and those of policymakers and culture professionals. Commitment 5 -UNESCO continued its efforts to enhance Energy Enhancing the role of national capacities and the knowledge base for Further provide evidence-based policy trade in development the rational and balanced use of alternative capacities advice. build sources of energy and promote renewable disseminate scientific and technical energy policies and management. development of national capacities knowledge with special emphasis on renewable and alternative energies, capacities renewable energy for a number of LDCs was energy management and conservation as an integral part of sustainable furthered through the field implementation of activities under the Global Renewable Energy development. Education and Training (GREET) Programme and its regional chapters. The aim of the Programme, which places special emphasis on Africa, is to improve the use and application of alternative and renewable energy systems through better management and operation of renewable energy systems, as well as the sharing of scientific knowledge and best practices through high-level expert meetings, continuing education and training activities taraetina energy-policy decision makers. researchers, engineers, university educators technicians. and Under the **GREET** Programme, learning and teaching materials,

textbooks and brochures on renewable energy have been prepared and disseminated in the field. Similarly, to conduct week-long seminars

and training activities, training platforms are implemented. UNESCO has carried out a number of training activities for the benefit of participants from LDCs, particularly those in the African region. Sharing of scientific and technological knowledge was also promoted through networking and the support and active contribution to international specialised conferences, exhibitions and forums covering different forms of renewable energy.

Concurrently, UNESCO is providing technical assistance for energy policy-making and planning in the form of advisory services and institutional capacity-building. UNESCO contributed the strengthening to parliamentary capacities for renewable energy legislation and policy in the Economic Community of West Africa through a regional seminar addressing decision makers. UNESCO also provides its support to LDCs in the Africa region in developing national policies and strategies through the established partnership on energy with the Community of Sahel-Saharan States (CEN-SAD).

To strengthen its capacity in addressing the development of institutional and human capacity-building, dissemination of relevant scientific knowledge and technology, and technical and policy advice on renewable energy sources in the LDCs, UNESCO and the Government of the Russian Federation established in 2008 the International Sustainable Energy Development Centre in Moscow as a Centre under the auspices of UNESCO. Twenty fellowships were provided to representatives from developing countries by the Centre under a UNESCO co-sponsored fellowship scheme in the first year. To promote the sharing of information and best practice, the Centre is also producing for wide dissemination a journal, the Energy Bulletin.

Regional expert meetings to review the renewable energy profiles, identify regional and national priorities and promote integration of renewable energy in local development were organised in Senegal and Togo, while capacity building and human resources were enhanced through training workshops and regional summer schools on renewable energy held in Burkina Faso, Guinea, Mali, Mauritania, Niger, United Republic of Tanzania and Togo.

A training platform on renewable energy to serve as a tool to conduct weeklong seminars and training of trainer's was implemented in Burkina Faso, while the fifteen session of the summer school on "Solar electricity for rural"

areas" addressed Burkina Faso, Cameroon, Chad, Guinea Bissau, Guinea, Mali, Mauritania, Niger, Senegal, and Togo. Lastly, consultations and preparatory work was carried out to define a national strategy/policy for the development of renewable energy in Benin in 2008.

The major challenge for researchers and scholars particularly in the fields of science, technology and engineering in LDCs is to access to knowledge in an easy and affordable way. To overcome the challenge, the Jakarta Office teamed up with national and subregional ICT (Information and Communication Technologies) networks to deliver courses on renewable energy technology and policy to Cambodia, Myanmar, Nepal and Bangladesh in 2007 and 2008.

In the ASPAC region, there are new ICT network development initiatives like the Japanese Asia Broadband Project, Asia-Pacific Advanced Network (APAN), the SOI/ASIA and Al3, the Trans-Eurasia link (TEIN) and GDLN (Global Distance Learning Network). In addition, national research education networks have also emerged in many countries like Indonesia and Malaysia, and are being developed in LDCs like the Lao People's Democratic Republic and Cambodia. There have been increasing demands to improve the connectivity among these networks in countries in Asia and the Pacific countries and to establish a regional or sub-regional platform for research and human resource development especially in higher education. UNESCO's Jakarta Office proactively collaborates with these ICT networks to broaden and enhance people's access to educational materials, both within and outside of the formal higher education system in Asia and the Pacific by mobilizing science knowledge through ICTs. drastically enhanced project has knowledge flow and established regular communication between researchers in LDCs and those in other Asian countries.

### Commitment 6 – Reducing vulnerability and protecting the environment

Support global monitoring of climate change, biodiversity loss and sustainable development through World Heritage sites (including biosphere reserves), as well as through the GEOSS, devoting special attention to the integration of traditional knowledge and heritage in environmental protection;

Provide support and intergovernmental coordination for the implementation of the Hyogo Framework for Action on Disaster and Resilience 2005-15 to

## Monitoring of biodiversity loss and sustainable development through World Heritage sites (including biosphere reserves)

As regards biodiversity loss, UNESCO's Man and the Biosphere Programme (MAB) has executed regional programmes for building capacity in several biosphere reserves in LDCs in Africa, Latin America and Asia. Activities included research grants for Master and Ph.D. students studying biodiversity-human use interactions with biosphere reserves as

foster tsunami early warning and risk mitigation systems, including integrated approaches, disaster education (through the UN Decade on Education for Sustainable Development) and regional partnerships.

demonstration sites. Training courses were organized for conflict prevention and management on biodiversity as well as study exchange between biosphere reserve staff, MAB National Committees and local communities.

### Climate Change Monitoring + Hyogo Framework for Action on Disaster Resilience

UNESCO's Intergovernmental Oceanic Commission (IOC) implemented activities in two themes that in are inter-related. These are (a) monitoring programmes through the Global Ocean Observing System (GOOS); and (b) fostering tsunami early warning and risk mitigation systems, including integrated approaches and regional partnerships.

Global monitoring for climate change was undertaken through fostering capabilities for ocean observations and services, including natural disaster warning systems. UNESCO/IOC coordinates GOOS that contributes to the ocean component of the Global Earth Observation System of Systems (GEOSS), and also partners with WMO in the Joint WMO-IOC Technical Commission for Marine Meteorology Oceanography and (JCOMM). The Indian Ocean GOOS (IOGOOS) and GOOS in Africa (GOOS-AFRICA) are the long term capacitydevelopment mechanisms in Indian Ocean countries and in Africa. Long-term monitoring of climate change as well as marine-related disasters is conducted through the IOC Global Sea Level Observing System (GLOSS) of coastal sea level monitoring stations. The installed sea level stations are part of the global monitoring systems for climate and tsunami monitoring, and the observations contribute to both long term global sea level change studies and operational use.

During 2008-2009, IOC coordinated the development of tsunami early warning and mitigation systems (TWS) in four ocean basins through Intergovernmental Coordination (ICG), targeting LDC countries, Groups especially SIDS. The Pacific Ocean (PTWS) has the active participation of Samoa, Solomon Islands, and Tuvalu. The Indian Ocean (IOTWS) encompasses Bangladesh, Comoros, Madagascar, Maldives, Mozambique, Myanmar, and United Republic of Tanzania. These countries participate in a UNESCO project, which provides training for local staff to produce accurate bathymetric and topographic maps, and to provide inputs to tsunami arrival, run-up and inundation in coastal areas.

National disaster management and preparedness agencies are then trained to use these inputs in developing flood maps, determining back lines, coastal ecosystem mapping, and zoning for coastal users.

Sea-level gauges have been installed or upgraded in Africa, Indian Ocean region countries, and the Pacific Ocean. Countries in regions are Djibouti, Mauritania, Mozambique, Senegal, and United Republic of Bangladesh, Tanzania; Maldives, Kiribati, Samoa, Tuvalu, Myanmar: and Vanuatu: and in Yemen. The detection. verification and communication parts of the tsunami systems are increasingly blended into existing observational networks. Observations from the sea-level stations are available in real time at www.ioc-sealevelmonitoring.org/

Together with WMO, technical aspects of data and warning information dissemination via the Global Telecommunication System (GTS) and other technical aspects are being pursued, mainly through JCOMM.

GOOS-AFRICA coordinated Earlier, intersectoral project Applications of Satellite Remote Sensing for Integrated Management of Ecosystems and Water Resources in Africa. This project supported the empowerment of institutional and individual capacities in a number of LDCs in Africa. UNESCO Chairs in the Applications of Earth Observations for Integrated Management of Water Resources, Ecosystems and Coastal and Marine environment were also established.

The Pacific-wide Tsunami Warning and Communication Exercise "Pacific Wave 08" undertaken also involved Kiribati and Vanuatu. Plans are most advanced in the IOTWS with a new regional management structure based on bi-lateral agreements and adapting procedures and guidelines to their common needs. Discussions are still needed to map ways that these bi-lateral agreements do not impair the essential business of timely warnings that save lives.

All new systems are addressing multi-hazard aspects and plan to become operational in 2010- 2011. This optimizes the technical infrastructure, such as sea level gauges, data and communication links, warning centre operations and warning/advisory formulation and dissemination. In the same vein the "user community" has been extended to include disaster risk reduction aspects and address in particular disaster management or civil protection agencies.

### C. The integration of traditional knowledge and heritage in environmental protection

Through its Local and Indigenous Knowledge Systems (LINKS) programme, UNESCO supports the recognition and promotion of traditional knowledge and practices as tools for biodiversity conservation and communitybased monitoring and adaptation to climate change. Programme activities include the detailed recording of indigenous knowledge about biodiversity and the production of reference volumes in vernacular languages, organized according to indigenous worldviews, but cross-referencing to scientific concepts and taxa. These volumes provide the basis for effective communication between biodiversity managers and local knowledge holders, while also serving as support for pedagogical tools enhance indigenous knowledge transmission and the use of vernacular languages. In the Solomon Islands, UNESCO produced Rainforest: Reef and environmental encyclopedia of Marovo Lagoon, which records and defines more than 1,200 terms in the Marovo language for important organisms and features of terrestrial, lagoon, reef and open ocean habitats. The book has been printed (2005) and widely since distributed in the Western Province and elsewhere in the Solomon Islands. In addition to providing a first basis for a meaningful exchange between communities and managers, the text has also been piloted as an educational resource in vernacular language that fosters the transmission and development indiaenous environmental knowledge through dialogue across generations. From a primary anchorage in the school system, the pilot work uses the Marovo Encyclopedia to highlight the connections between local knowledge and science. In Vanuatu, the LINKS programme has been working with the Vanuatu Cultural Centre towards the inclusion of knowledge indigenous and practice in education curricula. As part of this exercise, a series of seven LINKS posters on key aspects of indigenous knowledge, available in Bislama (Vanuatu pidgin, also the national language), English and French, was launched at the Cultural Centre in the framework of a workshop on reinforcing traditional knowledge in the education system (December 2008). UNESCO also published the volume "Evolution of villagebased marine resource management in Vanuatu" (2004) that examines the role of traditional management systems in the conservation of marine biodiversity.

Since 2000, UNESCO's Office in Apia (Samoa)

has worked with Massey University in New Zealand, the Vanuatu national government, and local communities in Vanuatu to employ a blend of volcanology and traditional/indigenous knowledge as the starting point for disasterpreparedness planning. Using a strategy developed from case studies in Fiji and the Solomon Islands, a series of participatory community workshops supported by UNESCO with contributions from other donors were organized on the island of Ambae, which is at risk from volcanic eruption. The workshops sought to develop trust in scientific warnings and volcanic monitoring tools so that these could eventually be installed on the island. A second purpose was to preserve the traditional knowledge of community hazard preparedness and volcano-influenced cultural practices and incorporate these into modern disaster management plans for rural parts of Vanuatu. A range of group exercises were used in the participatory workshops to develop skeletal traditionally-based emergency response plans for both the communities which would need evacuating and those which would be hosting the evacuees. The effectiveness of this work was put to the test in December 2005, when the volcano on Ambae erupted.