Ethics of meat production

From farm to fridge - the truth about livestock production
4 Beefing about meat

From farm to fridge - the truth about livestock production
Delegates reaffirmed their commitment to the Education for All (EFA) goals at the recent High-Level Group meeting organized by UNESCO in Jomtien, Thailand. During the three-day conference, ministers and government representatives from 34 countries reviewed progress towards the achievement of EFA over the last two decades. They also identified new and emerging challenges for the post-2015 agenda. Progress towards the EFA goals is uneven – across countries and in regards to the different goals. Remarkable advances have been made in primary school enrolment; many countries have a fair prospect to achieve universal primary education by the 2015 deadline. However, progress towards the other goals has been much slower, notably early childhood care and education, youth and adult learning, vocational education and training, gender equality and literacy, as well as the quality of education. Quality issues and marginalization remain major obstacles to education goals in developing and developed countries. Progress towards EFA is thwarted by different types of disadvantages and discrimination, such as gender, income, location, nationality, disability, language, race and ethnicity. Delegates issued a statement calling on governments and EFA partners to meet the goals they committed to in Jomtien over twenty years ago at the 1990 World Conference on Education for All. The recent convention in Jomtien was a symbolic event that renewed the original spirit and commitment of the global community towards EFA and sent a strong signal that will inspire countries and donors to increase their efforts in the next four years to reach the six EFA goals by 2015.

Engineer shortage threatens development

More than ever, the world needs creative engineering solutions to face its biggest challenges, from poverty to climate change. Yet many countries are witnessing a decline in the enrolment of young people, especially women, in engineering studies. The slump endangers future engineering capacity, particularly in developing countries where the brain drain phenomenon is an additional problem. The shortage of engineers is a central theme of the first international report on engineering titled Engineering: Issues, challenges and opportunities for development, which was published recently by UNESCO. The report’s editor Tony Marjoram said: “The decline in engineering’s popularity among students is apparently due to a perception that the subject is boring and hard work, jobs are badly paid considering the responsibilities involved, and engineering has a negative environmental impact, and may be seen as part of the problem rather than the solution.” The report is intended as platform for a better understanding of engineering, an extraordinarily diverse and pervasive discipline that has been central to human progress since the invention of the wheel.
Ten billions of pigs, chickens, turkeys and cattle are eaten globally every year for consumption, and an estimated two billion people worldwide live on a meat-based diet.

Asia’s population and economic growth has been charted as the fastest annual growth of any region in the world in energy demand. Even though the demand for meat and poultry is steadily increasing, the number of farms to supply this demand has decreased allowing for corporate controlled consolidation and industrialization of agricultural techniques. Traditional farming practices that were used for millennia have been given up rapidly.

The global production of meat has grown fivefold in the latter half of the 20th century and is continuing to increase at an alarming rate. Even though developing countries such as China and Brazil play a huge role in this production, a recent UNESCO publication, titled “Energy Flow, Environment and Ethical Implications for Meat Production”, shows that out of the top 10 meat producing countries in the world, four of them are in Asia.

Dr. Robert A. Kanaly, at the chair of a UNESCO working group on ethics, energy and meat production from Yokohama City University, Japan, said: “Even with the rapid movement to build, expand and adopt more intensive meat production operations in Asia, there is a lack of discussion of core issues such as their heavy reliance on the availability of cheap non-renewable fossil fuel energy, combined with a large number of potentially serious environmental, socioeconomic and public health consequences.”

An increase in meat consumption is related to a country’s economic development. Meat was once considered a luxury and only consumed on special occasions in less developed countries. As a country becomes wealthier, people generally tend to eat more meat, especially beef, and this results in a new breed of over-consumers of cheaply-produced meat, potentially putting them at risk of chronic diseases that are now common in developed countries.

Meat production and climate change are closely interrelated. Extra attention should be paid to the serious health risks posed by meat production directly as well as the indirect health consequences caused by increased greenhouse gas (GHG) emissions.

The intensity of animal production is a key factor to controlling GHG emissions due to land use changes and animal waste releases. Up to 180 million tonnes of animal waste are excreted in the United States alone each year, releasing methane and other toxic gases.

“I think many people assume that vegetarians are animal-loving tree huggers and it is a political statement against cruelty to animals, which I agree has its merits,” said Lisa Joya from the Philippines, an avid vegetarian for the past decade.

“But I have issues with how meat is contemporarily produced by modern farmers and food companies. I have a problem with the hormones and other chemicals meat producers use to plump up their animals and produce at an unnatural pace.”

“Farmers inject animals with these hormones and then we ingest those animals. I think it’s more than natural to hunt and slaughter animals for consumption however I don’t think the meat we eat nowadays is anything close to ‘natural’ or healthy for either our bodies or the greater environment,” she said.

Meat production is a complicated issue that is deeply integral to issues concerning the environment, politics, public health, economics, and ethics, among many other factors. Since it is a major factor in global GHG emissions, it should be more heavily scrutinized in terms of climate change policy formulations.

“Environmental experts have been warning about the severe consequences of producing meat for years now. It’s nothing new, just that consumption is exponentially growing at the same time we want to reduce greenhouse gas emissions” said Darryl Macer, Regional Adviser for Social and Human Sciences in Asia and the Pacific at UNESCO Bangkok.

“Beef, for instance, is particularly damaging due to the low conversion rate of energy from maize to cattle and because methane, a potent greenhouse gas, that is released both by cows and by manure,” he said.

The long term effects of industrialized intensification on agriculture, soil degradation and deforestation appear serious. Currently, 70 per cent of all agricultural land and 30 per cent of the land surface of the earth is used for pastoral, mixed-system and intensive livestock production.

One of the most serious consequences is soil erosion, which diminishes productivity. This is the process of weathering and transporting of solids such as sediment, soil and rock in the natural environment and depositing it elsewhere. While it is a natural process, it has been exacerbated heavily by human activities such as human agriculture and deforestation.

“An integral part of intensive meat production is that cereal crops are fed in large quantities to animals that in turn require large amounts of fertilizer, water, land and industrial chemicals to produce. The fertilizer is basically made from nitrogen fixation using oil” said Dr. Kanaly of Yokohama City University.

“Indeed, Food and Agriculture Organization projects that account for 50 per cent of global grain production will be used for animal feed by 2030.”

The UNESCO report revealed that sewage...
from animal operations in the Philippines contributed to about 52 per cent of the pollution load. Another issue is the method of disposing of pig waste, which has a low demand as a fertilizer.

As a result, most swine farmers deposit pig waste in lagoons, septic tanks or digesters. Pig manure contains antibiotic-resistant bacteria and malodorous compounds such as ammonia, organic acids, alcohols, and sulfides.

These pollutants can have severe health effects on animals and humans. For example, chronic exposure to air with high ammonia concentrations can harm the respiratory system. The same report notes that most of the manure is even thrown into canals, rivers, open pits or just left on the ground to decompose.

The release of these antibiotics into the environment and effects on ecology is also a concern. Since many antibiotics are poorly absorbed by the intestinal tract of farm animals, up to 90 per cent may be excreted and end up in manure. These antibiotics are released into soil, surface waters and may enter ground water.

Another aspect of industrialized farming that is a major concern is the transfer of zoonotic infectious diseases. The risks of transfer are higher due to close contact between animals and humans under unhygienic and overcrowded production conditions.

When animal production facilities are built closer to the city core, this allows for more human-animal contact. The consolidation of facilities, transport routes, and coincident networks are crucial elements that play a role in increasing the transmission and development of pathogens.

Regulations to protect public health or adequately address related issues have not kept up with the accelerating pace of intensified meat production. There are several meat companies located in Central and Southern Luzon in the Philippines that were contacted for a survey concerning environmental values.

However, the producers were unwilling to be interviewed. According to Costales et al., as part of phase II of the International Food Policy Research Institute – Food and Agriculture Organization (IFPRI-FAO) project, what was common to all companies was the lack of desire to go on record and identify their employees’ environmental behaviour.

The lack of trust or ethics in being non-transparent is an important issue in people’s minds, so that many people do not trust meat producers and how they operate. As a result, environmental effects and health consequences occur, which in turn affects livestock, human beings, and the world around us.

“ Transparency and ethical concerns in relation to intensive farming clearly need to be considered more deeply on the production side,” said Dr. Kanaly. “But at the same time, the consuming public also needs to consider the ethics of their choices.”

The negative environmental, public health and socioeconomic effects in regard to meat production are undeniable, but there is also the issue of the ethics of producing food by these industrialized systems that needs to be considered even though it is controversial in most circles. From a health perspective, lower levels of saturated fat are always conducive to the human body. From an environmental viewpoint, food and energy is arguably “wasted” in the transfer from plants to animals since animal production is based on eating animals that have been fattened on grains and other foods that human beings could have eaten directly.

Another controversial element is the issue of slaughter and whether humans have the right to inflict pain upon another creature for consumption. Animal living conditions are valid points to be considered in modern forms of intensive farming. Most animals are made to lead miserable lives so that their muscles and fat can be made available to humans at the lowest cost possible. Society tolerates methods of meat production that confine sentient animals in cramped, unsuitable conditions for their entire lives. It is important for ethical standards to be present in different countries.

In defence of meat production, the “replaceability argument” is a blatant justification of meat eating. According to philosopher Leslie Stephen, “Of all the arguments for vegetarianism none is so weak as the argument from humanity. The pig has a stronger interest than anyone in the demand for bacon. If everyone in the world were Jewish [and Muslim], there would be no pigs at all.”

This states that all animals are replaceable. Although meat eaters are responsible for their deaths, they are responsible for the creation of more animals, since if no one ate traditional farm produced meat there would be no traditional farm livestock bred for fattening.

“I don’t have a sweet tooth, I have a meate tooth. Every meal must have some meat in it. Otherwise it’s not a meal to me, it’s a snack,” said Kwang Suk Chung, a self-proclaimed carnivore, from Korea.

“I do care about how it’s produced, but not enough to change my purchasing decisions. I understand that it’s possible to get all the protein I need from non animal sources, but it’s not as convenient and not nearly as satisfying. I do wish though, as a consumer, that there was more information on the packaging to indicate what hormones it contains. But no one’s ever going to let that actually happen,” he added.

In terms of policy options, effective public policies are essential to ensure that the control of livestock contribute to development goals and minimize damage to social equity, environment and public health.

The UNESCO report recommends that new policies needs to be implemented that influence intensive livestock production, as well as the need to abolish non-transparency methods. Better regulations, an increase of periodic checks on producers and stricter enforcement on guidelines would encourage companies to healthier livestock production practice.

The UNESCO report “Energy Flow, Environment and Ethical Implications for Meat Production”, along with others from the series, can be downloaded at: http://www.unescobkk.org/rushsap/

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A valuable evaluation tool
Unique review gives insight into critical EFA issues

Sixty-seven million children were not in school in 2008 and 796 million people did not know how to read and write, according to the UNESCO-commissioned 2011 Education for All Global Monitoring Report.

If this trend continues, millions of people will be guaranteed a lower than average quality of life and will be pushed into poverty.

In 1990 and 2000, the international community, including 160 governments, made a commitment to the Education for All (EFA) goals by 2015, thereby upholding the rights of all people to an equal access to a quality education.

To aid this commitment, UN agencies, global governments and NGOs conducted and implemented a series of targeted initiatives and capacity development activities and exercises towards reaching the

unreached in education.

In the Asia-Pacific region, countries participated in the Mid-Decade Assessment (MDA) and Mid-Term Review (MTR) (2006-2009) to focus on the monitoring and assessment aspects of EFA and to review the policies to reach the unreached.

At the end, an evaluation of the Education for All Mid-Decade Assessment and Mid-Term Review process was conducted in 2010 by an independent company contracted by the Regional Office of the UNESCO Institute for Statistics at UNESCO Bangkok.

As a first of its kind, the year-long evaluation intended to systematically document and evaluate what “worked well” and what could be improved in view of the next major assessment of EFA. Seven country case studies were conducted for the evaluation to gauge the impact of the EFA MDA and MTR processes.

Among the results; the Cook Islands reported that the process led to “insights about the marginalized groups”. The country shifted to “developing systems and processes for monitoring education outcomes” and “building partnerships”.

Malaysia saw that “improvement was made in the areas of communication, coordination and relationships between ministries and sectors”. The exercise also offered the country a structured method to collect data.

In terms of the impact on national policies and good practices, a range of initiatives were introduced. China for instance, tightened the management of prices of early childhood care and education, enabling children of migrant workers to access full-time primary and secondary education in the city the workers were employed, and enjoy the same privileges as the local students.

The evaluation found strong national ownership of the EFA MDA and MTR processes. Countries formed task forces and working groups to carry out the assessment. Many of these groups are still functioning, even after the MDA process, and some countries continued to carry out a national EFA assessment on their own, as a follow-up to the MDA.

The EFA MDA and MTR “shifted the emphasis from pride on enrolment rate to concern for those not enrolled”, said a respondent as documented in the evaluation report.

The EFA MDA’s positioning as a regional assessment provided “a sense of safety, unity and purpose” to the exercise. This allowed countries to pursue otherwise politically sensitive issues such as identifying certain unreached groups and barriers to education.

Simon Ellis, Regional Adviser of the UNESCO Institute for Statistics, said: “We’ve come a long way since 2000, when countries were asking: ‘Who constitutes the unreached target groups? To whom and how shall the EFA address its education reforms? Who has been left out of Education for All?’

“Today, we are able to respond to these questions with evidence. However, given that many countries will miss the EFA targets by 2015, we are now asking: ‘What have governments done for EFA over the past 20 years and what do they plan to do to accelerate their efforts in the years up to 2015 and after?’

To better assess their education situation, countries and EFA partners can now draw from the regional EFA evaluation for more insight to improve upon future assessments.

Countries need to know what gaps and issues are left to be addressed if the goals are to be met ahead of the 2015 deadline.

Among the lessons that could inform planning towards the EFA 2015 assessment, the evaluation recommends the need to involve the respective national statistics office early in the process in order to ensure integrated analysis and tailored capacity development activities and materials for the state, district and local/school levels.

The next assessment should also consider how to reconcile two key challenges: difficult inter-ministry coordination; and lack of involvement from the national statistical offices, thus limited access to their data.
Making climate change headline news

Training boosts journalists’ ability to report green issues

Intensive training is helping journalists in Central Asia to raise awareness about environmental destruction. Two media workshops were recently held in Kazakhstan and Tajikistan to develop journalists’ skills in research and analysis, and their presentation of balanced, contextualized coverage of environmental issues and the impact of climate change on our world.

Kazakhstan’s glaciers are retreating, its agricultural land is being depleted and its diverse animal and plant life is under threat. In light of this, how can broadcast journalists convince their editors to let them cover these important environmental issues and make their reports more interesting to TV audiences who tend to have a preference for crime, sport and celebrity news?

This was the challenge facing organizers of a five-day workshop held in Almaty, Kazakhstan on reporting environmental sustainability issues.

As participant Zhidigul Abdezhedelkyzy said: “TV channels do not take into account the functions of development and education. They basically reflect only ministry orders and national questionnaires.

“I believe that environmental education should be the mission of the channels. After the seminar, I would like to prepare an environmental television magazine for the KazNU TV School.”

Participants began by brainstorming key environmental issues facing the country and completed exercises on sources of environmental data, statistical analysis, visual storyboarding and information graphics.

National experts also presented current scientific research and gave interviews on three key issues: climate change and the melting of glaciers; the degradation of agricultural land; and biodiversity.

Trainer David Mould, Professor of Media Arts and Studies at Ohio University, USA, stressed that covering the environment is not only about the endangered and the exotic — the so-called “polar bear frame”.

“Every environmental story involves politics and policy making and many are directly linked to poverty, economic development, health and other development sectors,” he said.

The workshop in Kazakhstan was sponsored by the Asia-Pacific Institute for Broadcasting Development in Kuala Lumpur, Malaysia and UNESCO’s International Programme for the Development of Communication, with local arrangements managed by the Central Asia Regional Environmental Centre.

“Educating the public in ecological issues is crucial for the preservation of the environment,” said Karomatullo Olimov, Chairman of the Tajikistan National Commission for UNESCO.

“[The] Mass media can play the central role in changing the ways of thinking about natural resources, fresh water, woods and biodiversity that we have in Tajikistan,” he said.

“Such training is very important for raising awareness among journalists on the wide spectrum of environmental issues.”

The training in Tajikistan was conducted by the Independent School of Journalism “Tajikistan - XXI century”, with technical support provided by the UNESCO Office Almaty, the Committee for Environmental Protection under the Government of the Republic of Tajikistan, Media-Group “Asia-Plus” and the Tajik branch of the Central Asian Regional Environmental Centre.

Representatives of 18 print and electronic media titles attended the workshop in the capital Dushanbe.

The technical director of the local NGO Fondi Kuhiston, Svetlana Blagoveshenskaya, encouraged journalists to actively cooperate with scientists and “be exact and careful when covering environmental issues”.

She said mistakes in the usage of terminology related to the ecosystem of Tajikistan may undermine not only the image of Tajik scientists, but also the image of the Tajik media.

Abdusattor Saidov, Director of the Tajik Institute of Zoology, also stressed the importance of spreading knowledge on environmental issues among the population:

“Until we do not change the attitude to environment, our nature will continue suffering.”

“The event also aimed to encourage the media to engage in public debate about improvements that can lead to sustainable development,” said Safo Safarov, Executive Director of “Tajikistan - XXI century”.

A trip outside of Dushanbe allowed participants to explore areas where consequences of climate change and detrimental human activity on the environment were obvious.

Information collected during this trip and interviews conducted with experts and representatives of local administration and residents were used for print, audio and video stories participants prepared as an outcome of the training.

The event in Tajikistan was funded by UNESCO’s International Programme for the Development of Communication and the British Embassy in Tajikistan.
A political declaration, affirming political will and determination to promote and expand the scope of social protection policies in the South Asia region, was adopted recently at the Third Meeting of the UNESCO Forum of Ministers in charge of Social Development for South Asia.

The meeting, held in Colombo, Sri Lanka, focused on “Social Protection Policies in South Asia”, in order to raise awareness and foster commitment towards the development of social protection policies based on high quality research.

In the Colombo Declaration, ministers and heads of delegations agreed, among other commitments to: “Increase public funding to build the capacities of the social sciences in the region, through evidence-based research, analysis and statistics; adopt a comprehensive approach to social protection, encompassing preventive, protective and promotional measures that address both individual and community risks and deprivations; strive to move towards a universalized, rights-based, gender-sensitive approach in the extension of social protection and advance the agenda for a social protection floor in the region, ensuring universal access to essential social transfers and services.”

Jointly organized by UNESCO and the Ministry of Social Services of the Democratic Socialist Republic of Sri Lanka, the meeting involved ministers from Afghanistan, Bangladesh, Sri Lanka and high-level representatives from Bhutan, India, Maldives and Nepal, as well as over 50 researchers and scholars, social activists, representatives of UN agencies and international organizations from across South Asia, who engaged in social policy dialogue over social protection measures designed for the benefit of the poor, the vulnerable and the excluded.

“Social justice is at the heart of UNESCO’s mandate, which contributes to peace and security by promoting collaboration among the nations through education, sciences and culture”, said Ms. Pilar Alvarez-Laso, Assistant Director-General for Social and Human Sciences, UNESCO, highlighting the need to mitigate the effects of the financial and economic crises that have thrown the spotlight on the significance of social protection policies.

According to the Human Development Report 2010 and its Multidimensional Poverty Index, half of the world’s poor; an estimated 844 million people, live in South Asia.

The Human Development Report (2009) reveals that Asia displays the highest intra-regional migration in the world. Migrants are often ineligible to receive social protection benefits owing to the fact that they constitute “floating populations”.

The forum enabled dialogue between social science researchers and policy makers, which is particularly important given the findings of the UNESCO World Social Science Report 2010, which revealed the marginal presence of South Asia in the domain of international social science research and its limited impact on policy making.

The meeting also facilitated the exchange of experiences and best practices on social protection policies; highlighted the need for the advancement of social research on neglected themes and excluded groups such as migrants and the urban poor; and increased awareness about the Social Protection Floor Initiative and its practical eligibility in South Asia.

The Prime Minister of Sri Lanka, Hon. D. M. Jayaratne addressed the inaugural session of the meeting on Sunday 20 February 2011. This event held special significance as it coincided with the celebration of World Day of Social Justice, which recognizes the importance of promoting human dignity, harmony and equality of opportunity.
The year of 2011 marks the tenth anniversary of the senseless destruction of two giant 1,500 year-old Buddha sculptures in the Bamiyan Valley of Afghanistan.

Despite an international outcry before their threatened destruction, the statues were obliterated by dynamite over several days in March 2001 by the Taliban, because the former Afghan rulers considered them “un-Islamic”.

Since this outrageous act, the Bamiyan Valley still remains an important cultural site set against a magnificent natural backdrop.

Bamiyan Governor Habiba Sarabi said that although the Buddha statues’ destruction was a blow to the region’s history, she is hopeful for the future. “Though the Taliban regime destroyed the statues, the Bamiyan Valley continues to represent the glory of the past and the aspirations for peace in other parts of the country.”

Since 2001, the Afghan government, UNESCO, and international partners have united in an effort to safeguard the remains of this invaluable Afghan heritage. In 2003, the Cultural Landscape and Archaeological Remains of the Bamiyan Valley was inscribed on the World Heritage List, and also placed on the List of World Heritage in Danger.

Since this date, thanks to generous grants through the Japanese Funds-in-Trust programme for the Preservation of the World’s Cultural Heritage, UNESCO has undertaken three phases of a major project to safeguard the area. This includes eight sites in a serial nomination that preserve elements of Outstanding Universal Value from both the Buddhist and Islamic periods in Afghanistan.

UNESCO Representative to Afghanistan Mr. Shigeru Aoyagi said: “Substantial progress has been made since 2003, notably in relation to the considerable improvement of the state of preservation of the site of the Buddha Cliffs which encompasses the remains of the sculptures and Buddha niches and a vast monastery composed of labyrinthine rooms and caves cut into the cliff.”

The Eastern Buddha niche has now been saved from imminent collapse caused by destruction and landmines, and a clean-up programme has removed war detritus from the area.

Training programmes have also been initiated to improve national capacities for the conservation of cultural heritage, and a basis for the inception of cultural tourism in Bamiyan has been created.

However, more work needs to be done on emergency measures to safeguard all the sites in the Bamiyan Valley and to ensure the sustainability of the heritage values for which the property was inscribed on the World Heritage List.

Further technical interventions are also required to ensure the continued preservation of the site and in order to remove it from the list of endangered World Heritage Sites.

In March, the ninth Bamiyan Expert Working Group was held at UNESCO Headquarters in Paris. The Afghan government and UNESCO are taking the opportunity to commemorate the destruction of the Buddha statues in a solemn manner, but also with a positive outlook for the future of the World Heritage property, and for the development of the Bamiyan Valley in general.

Despite the tragic event it is clear 10 years on, the international community, the Afghan Government and the people of Bamiyan remain highly motivated to safeguard and rehabilitate cultural heritage in the Valley and are also optimistic concerning the ongoing success of cultural development in the province.

Bamiyan resident Ghulam Sakhi said: “True, that we lost an enormous amount 10 years ago, but there is a positive point to consider too, and that is the international community’s attention to the Bamiyan Valley and the hope for a better future.”

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Conservation experts are racing against time to preserve the Borobudur World Heritage Site which was severely damaged by a volcanic eruption in Indonesia last year - and authorities have issued a call for global financial assistance to help safeguard the historic site.

Massive destruction was caused when the active stratovolcano Mount Merapi erupted on 26 October 2010. The Indonesian National Disaster Management Agency reported a month later that the eruption had killed 322, injured 776 and displaced 136,585 people who made a living from Mount Merapi’s fertile slopes.

Besides this catastrophic human toll, the volcano blanketed the surrounding areas in volcanic ash, posing a threat to ancient cultural icons such as the Borobudur Temple Compounds.

Indonesian Ministry of Culture and Tourism officials closed the complex, which is situated 25-km away from Mount Merapi, and began a clean-up operation of volcanic ash from the grounds of the Borobudur, Mendut and Pawon temples to prevent corrosion of their stonework from the hazardous dust.

Experts analysed the ash and found it to be slightly acidic (pH 5-to-7) and to contain hyaline (a glass-like substance) structures. This corrosive ash can cause serious damage to the monument’s drainage system and more importantly, it is a very serious threat to the unique carved reliefs, Buddha statues within stupas on the terraces and the façades, and balustrades at the temple, for which the site is justly famous.

When diluted in water, the acid ash reacts with the stone and seriously accelerates the erosion of its surface. This potential and inevitable damage if not mitigated very soon constitutes a significant threat to the outstanding universal value of the three temples.

Rising from the ashes?

Conservation of historic site hangs in the balance

Indonesian authorities asked UNESCO for technical assistance at the disaster-affected areas and a programme titled “Emergency Operation for the Safeguarding of the Borobudur Temple Compounds from the Damage caused by the Mt. Merapi Eruption and Revitalization of the Local Community Livelihood in Cultural Industries and Heritage Tourism” was put into place.

The three-phase actions are: execution of an emergency cleaning operation with full participation of the local community; joint scientific damage assessment missions for the establishment of comprehensive remedial conservation measures and workshop for Natural Disaster Management; and activities for the local community with respect to livelihood and income generation via the tourism industries and cultural industries.

The restoration process was fortunate to get the financial backing of the international community, including the private sector, to ameliorate physical conditions at the temple, in particular phase one and two actions, which witnessed a keen interest in preserving the Borobudur site.

Some funds have already been committed to these emergency actions, and identified preliminary operations are currently underway at the site using this financial allocation, which is essentially the process of removing surface coating from parts of the drainage systems and reliefs.

However, substantial financial resources are still needed to fully restore the Borobudur Temple Compounds, to rehabilitate the cultural tourism sector, and to enhance the livelihoods of affected local communities who are directly and indirectly dependent on the site for their livelihoods.

UNESCO and the “Friends of Borobudur”, a group of individuals with a keen interest in the long-term safeguarding of the Borobudur Temple Compounds, welcome further financial assistance from donors, the private sector and other concerned partners to safeguard the outstanding universal value of the Borobudur Temple Compounds World Heritage Site.

An online account at the UNESCO website has been set up for people who wish to donate and support the emergency intervention to safeguard the area for future generations.

For donation: http://donate.unesco.org

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Science education and research has taken a prominent role in the recent history of the Maldives. This is evident in the way the Maldivian government has identified access to appropriate science and technology (S&T) - both in its manifesto, which helped it win the election in 2008, and its five year development plan 2008-2013 - as an important means to meet its development objectives.

The Maldives has recently inaugurated its first university (The Maldives National University) on February 15, 2011, based on a previous setup known as the Maldives College of Higher Education. The republic is also looking to establish a science foundation that will coordinate nationwide research and development programmes.

The ultimate objective of the foundation is to create a supply of appropriately trained, motivated and scientifically literate Maldivians, who will play a future role in nationalization of middle- and highly-skilled employment and a reduced dependence on expatriate workers in strengthening socio-economic development.

The quality of the marine and land environments, both in the fishing and tourism sectors, are major tenants of these economic and social development plans in the Maldives, and S&T development is at the heart of making these plans a reality.

UNESCO made continuing efforts in this direction through support for science education and research initiatives to respond to different challenges in the Maldives.

To develop local human resources, UNESCO organized a training course for researchers from the Marine Research Centre, Ministry of Fisheries and Agriculture on conventional and molecular fish disease diagnosis.

All fishing technology must consider implications for sustainability; a technical assessment capacity implying trained personnel, appropriate methods, and knowledge.

For example, outer island residents who have not enjoyed the same level of public services compared to the capital or more populated islands have benefited greatly from the country’s growing reef fishery industry. However, the industry needs to be monitored and regulated – especially during events such as the unprecedented high incidents of fish kill in 2007 - where some islands reported as many as 4,000 dead reef fish accumulated on the beach on a daily basis, causing a major public concern - if this is to become a sustainable economic activity.

The UNESCO training included instruction in specific staining methods of fish diseases, DNA based and antibody-based techniques.

“The training on fish disease diagnosis was very useful, in that it provided an exposure to all of the modern technology available in disease diagnosis,” said Shafiya Naeem of the Marine Research Centre, Maldives.

“At present, the Maldives lacks the capacity to conduct similar training effectively, due to the very limited access to modern technology, trained personnel and financial constraints,” she added.

S&T approaches need to be applied to fisheries sciences. From its current position as a marginal participant in these activities, the Maldives could become a regional, if not an international leader in developing innovative uses of natural resources from its rich marine ecosystem.

One of the other limitations of science education in the Maldives is the paucity of science supplies and kits needed to integrate closely with the curriculum and learning objectives. Teachers need support in learning how to make the best use of science laboratories and kits. In addition, consumable materials need to be replenished and “permanent” equipment has to be repaired as necessary.

Teacher education and training has not been able to keep pace with the rapid expansion of the education sector. As a result, local teachers, with lower level qualifications are often employed in Maldivian schools due to the unavailability of trained teachers.

Even then, the great majority do not teach science subjects. Thus, the key dimension of the quality of science education, i.e. teacher quality, needs special attention. This becomes even more relevant in the context of the government’s commitment to decentralization of services to the outer atolls that don’t always receive the attention offered in the capital Male.

In this context, UNESCO provided training on microscience kits for teachers at lower and higher secondary schools in Male and the outer islands in July last year. The concept of microscopy is that it provides a low cost, indigenous and essential alternative to the lack of equipment in most schools.

There are many advantages in that teachers find ways to transfer initiative to learners to experiment and find general strategies to engage in exploring, enriching and extending their appreciation of subject structures, concepts and connections among topics.

The act of construction/activity can also engage learners who might otherwise be passive and uninterested. It is hoped that this model of science in the classroom will be taken up positively by the government in its quest to enhance science education throughout the country.

“Many participating teachers expressed their desire to be master-trainers and expressed the need of further science education enhancement in Maldives,”

said Khadeeja Umar, a secondary school chemistry teacher at Jalalhudeen School in the Upper North province.

Ms. Umar expressed her wish to have microscopy experiments on each of the basic science subjects and said that the government should facilitate this to most of the outer island schools who don’t always have access to good science equipment.

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UNESCO Director General identifies education goals

Equity, inclusion and quality cited as essential to progress

During her recent visit to Thailand for the High-Level Group Meeting on Education for All (EFA) in Jomtien, UNESCO Director-General Irina Bokova talked to Voices about her commitment to provide a quality education for all.

What is your commitment to education in UNESCO in the coming years?
UNESCO is the lead agency for Education for All. My aim is to increase the profile of education on the global development agenda. This is vital, because education brings sustainability to development. We must galvanize stronger political commitment, mobilize more resources and forge more innovative partnerships to accelerate progress.

We are strengthening our leadership in policy planning, standard setting and capacity building in order to help countries address critical bottlenecks in their education systems. We must focus special effort on achieving Education for All in those countries that are lagging behind. This has many dimensions: access, literacy, teacher training and, more broadly, attention to the overall quality of education.

How do you want to see the education system globally changed in the coming five years to reach the Education for All goals in 2015?
First, ensuring equity in education is fundamental. This means reaching all marginalized groups that face many different forms of disadvantage based on income, gender, ethnic belonging, location and disability, for example. Measures such as abolishing school fees, providing free books, financial subsidies and scholarships have enabled many children to benefit from an education.

Second, education systems should promote inclusion. This is not only about integrating marginalized communities, but ensuring respect for linguistic and cultural diversity, and building systems that promote shared values, tolerance and understanding.

Finally, improving the quality of education is a concern in a majority of countries, especially those where enrolments have expanded rapidly over the past decade. Special attention has to be given to recruiting and training more teachers – a condition for reaching Education for All.

But there are many other dimensions to quality: the curriculum, the learning environment, the use of information and communication technology and mother tongue learning. Evidence shows that teaching children in their mother tongue in the early years improves their literacy skills and increases the chance they will stay in school.

In our fast changing and knowledge-driven societies, quality is becoming the number one challenge facing education systems. What is clear from all international assessments is that the best performing systems are also those that are the most equitable.

To sum up, equity, inclusion and quality are the three key concerns to address in shaping strong education systems.

As our 2011 EFA Global Monitoring Report shows, the situation of children in conflict-affected areas demands urgent attention and international resolve. Over 40 percent of children live in these countries and are being robbed of their future.

What is your strategy and what are your priorities for Asia and the Pacific?
The Asia Pacific is the largest region in the world, with a population of several billion people – it includes four of the E-9 countries. It is incredibly diverse. There has been enormous progress in the past years towards achieving the Education for All goals and very strong commitment to education. Some countries such as Bangladesh have reached gender parity in both primary and secondary education. Others have made impressive progress thanks to strong political will, increases in education spending and policies to expand access and improve quality.

But this is also a region where illiteracy rates remain high in a number of countries; where gender discrimination still prevails, where there is still deep poverty and large disparities.

Even the so-called “Tiger Countries” face issues of equity, inclusion and quality. Each country has to look at where it stands and move from there, whether it is to address drop out from primary and secondary education, to scale-up literacy programmes, provide better training for teachers or more second-chance opportunities for youth and adults. A country such as Thailand has done just that. It has demonstrated strong political commitment by launching the 15-year free education programme and giving a strong boost to technical and vocational education.

Coming back to UNESCO, what do you think is so special about the organization?
UNESCO is the organization created after the Second World War to build peace through intellectual and moral solidarity. Through its broad mandate, UNESCO is uniquely positioned to address the challenges of an increasingly globalized and interdependent world because the answer to many of these challenges lies in empowering people, notably through education, to participate in their societies, to know their rights and better shape their future.

In my view, one of the biggest challenges of our times lies in managing diversity. Our societies are increasingly diverse. I believe that UNESCO’s outlook is especially relevant, because we draw attention to the strong links between culture and development, to the importance of education, of values and science for building more responsible citizenship and sustainable societies. We make the connection between biodiversity and cultural diversity to address global environmental challenges. UNESCO is unique in having this comprehensive approach in bringing answers to the complex challenges of our times through culture, science and education. Because of this, I believe that our mandate is more essential than ever.

© UNESCO National Commission of Thailand
Education for All (EFA) is a commitment made by governments, UN agencies, donors, NGOs and civil society groups to provide quality education for all children, youth and adults. The six goals, set for the 2015 deadline, cover early childhood care and education, primary education, life skills and lifelong learning, literacy, gender equality and quality education.

The EFA initiative was first initiated in Jomtien, Thailand in March 1990 at the “World Conference on Education for All (EFA): Meeting Basic Learning Needs”. Delegates from 155 countries and representatives of 160 government and non-governmental agencies adopted the World Declaration on EFA, which reaffirmed education as a fundamental human right and urged countries to intensify efforts to address the basic learning needs of all.

The recent High-Level Group Meeting on EFA is an annual event to generate political momentum and mobilize financial, technical and political support towards the achievement of the EFA goals. It was established to follow up directives agreed at the 2000 World Education Forum in Dakar, Senegal.
Notes from the past
Preserving Uzbekistan’s musical heritage

Workshop participant Umid Tusunov told me a story that highlighted the power of music as he attended a UNESCO seminar on the musical heritage of Karakalpakstan, an autonomous republic in Uzbekistan.

He said: "A grandmother was singing an old lullaby to her grandchild, but despite her efforts, the baby would not go to sleep. Therefore, I suggested that the child’s mother sang but people said she was too young to be able to sing traditional lullabies that well.

“I said that all mothers, no matter what their age, can sing a lullaby and the young mother sang so well that even I nodded off to sleep for a short while, which caused some surprise!”

Within the framework of the UNESCO programme on strengthening the implementation of the national inventory of living heritage in regions of Uzbekistan, the UNESCO office in Tashkent organized a two-day seminar in the city of Nukus in order to train Uzbek and Karakalpak researchers in international practices on safeguarding their intangible cultural heritage.

The seminar also aimed to develop partnerships between communities, government administrations and international organizations to guarantee the long-term continuation of this initiative. The sessions gave local researchers an overview of the goals, as well as the legal, judicial and financial tools that have been made available by UNESCO to promote the protection of intangible heritage.

Participants also received practical training in music inventory processes through an introduction to audio and video equipment. Participant Uktam Khakimov said: “I was surprised by the devotion of the custodians of intangible cultural heritage. Everybody was very helpful and offered assistance in techniques to record objects of intangible cultural heritage, including musical instruments, recording rooms, national clothes and other attributes.”

The seminar was followed by a one-month fieldwork project, in 14 districts of Karakalpakstan, to draw up an inventory of musical heritage in the area. This was the first-ever survey in Central Asia of musical recordings made in an entire republic, not just in selected regions.

During the hands-on training, participants became acquainted with international practices on in-field inventory techniques of intangible cultural heritage. They were also trained in the use of digital audio and video equipment provided by UNESCO.

Consequently, the team were able to record 138 musicians, including several local instrument makers and over 300 recordings were made.

The recordings include a large selection of traditional, domestic and ritual repertoires, such as live lullabies (ha’yyiw), marriage songs (hawjar) and instrumental songs (duwtar, qobyz, shin’kobyz, qamys naj, balmam, saz, syrnaj, ushpelek and gartyq). Additionally, the traditional knowledge of instrument making was recorded on video, allowing the preservation and transmission of this handicap.

“Some of these songs remained only in text and it was thought that the melodies of these songs had been lost. But during the field work we discovered the roots of these melodies and had a chance to record them,” said Umid Tusunov of the Ministry of Culture and Sports.

Karakalpak epics (dastan) are an essential part of the long musical heritage of this culture. More than 60 epics are referenced in the archives of the Institute in Nukus.

An important part of this outstanding heritage has been recorded on old magnetic tapes. However, the aging process has inevitably caused the destruction or deterioration of these physical records.

Aitmurat Alniyazov, Director of Language and Literature at the Academy of Science of Uzbekistan, said: “The practical-theoretical training was a good start to the study and systematization of Karakalpak traditional music.

“The knowledge and skills received during the training courses will be used for further study of the Karakalpak folk music collection. Collected materials during the field survey will be incorporated into the music archive and will be the subject for specialists to study the appropriate profile.”

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As young people globally are at the heart of HIV prevention efforts, 2010 World AIDS Day (WAD) events in Indonesia, the Philippines and Timor-Leste were aimed specifically at secondary school students. The year-end activities included contests that disseminated information about the preventable virus, with a particular focus on the education sector and its role in supporting youth, out-of-school and young vulnerable populations at a higher risk of infection.

The Director of UNESCO Jakarta Hubert Gijzen said: “Education is the key to success. In the absence of a cure, the only vaccine available is education. And the results are clear. HIV infection rates are halved among people who finish primary school. “It has been estimated that universal primary completion could result in global prevention of 700,000 additional cases of HIV each year.”

Since the first AIDS case was reported by the US Centres for Disease Control on June 5, 1981, the world has struggled to come to grips with its extraordinary dimensions. Now, 30 years later, the pandemic is decimating populations and damaging the fabric of the global society itself.

WAD is held annually on December 1st and provides an opportunity to recall the devastating losses caused to individuals, households and communities by HIV and AIDS. It is also a chance to review where the global community stands in tackling the pandemic.

“The commemoration of World AIDS Day every year is one of the ways to remember that there is an urgent need to slow down the rate of people getting infected by HIV” added Mr. Gijzen.

Indonesia

HIV infection rates are falling or stabilizing in many regions of the world. Overall, declines in HIV prevalence have been most notable among young people aged 15–24. Unfortunately this is not the case yet in Indonesia where rates are still increasing in young key affected populations. Globally, these trends place young people at the centre of efforts to raise awareness about HIV prevention.

The UNESCO Office Jakarta, in collaboration with the Indonesia National Commission for UNESCO, organized several key activities involving young people to mark WAD. One of the highlights was a UNESCO-sponsored poetry writing, and pocket book cover design competition which attracted entrants from over 700 secondary schools and community learning centres across the Indonesian archipelago.

One hundred poems have since been published in the pocket book, with the cover, designed by the first place winner, written in Bahasa Indonesia, titled 100 Puisi: Universal Access and Human Rights.

UNESCO assists countries to plan and implement comprehensive responses that address the effect of the pandemic on the countries’ education systems.
Philippines

In an effort to increase the awareness and involvement of Filipino youth in the response to HIV and AIDS, the UNESCO National Commission of the Philippines and the UNESCO Office Jakarta, in partnership with the University of the East, marked 2010 WAD in the Philippines with an online video competition for young people titled: “I am the Next Generation Anti-Virus: Responding to HIV and AIDS through Responsible Choices”.

The competition served as an opportunity for secondary school students in Manila and Quezon, two of the top five cities in the Philippines with the highest incidence of HIV, to share their views on HIV and AIDS prevention through short videos. Students’ original work was uploaded onto YouTube.

In the recently released UNAIDS 2010 Global Report of the AIDS Epidemic, the Philippines was one of seven nations, in a survey of 63 countries, which reported increases in new HIV infections of 25 percent or more.

Fifty-six other countries reported either a stabilization, or a significant decline in the rate of new infections. A report suggested a lack of visible information about the disease in the Philippines. Recent data also indicates a significant shift of cases from the 30-39 to the 20-29 age group. This underscores a greater need for vigilance and support, especially among the young.

The video entry “Spread the Love, Not the Virus”, produced by Jemima Grace Yabes of the UP Integrated School, won a critic’s choice award.

A people’s choice award, given to the video entry obtaining the most number of votes on YouTube, was awarded to Kryston Jan Ricio of the University of Santo Tomas (UST) High School, with his entry entitled “Torch of Hope”. The two winning entries may be viewed at: http://www.youtube.com/user/wad2010videocntest

Timor-Leste

Although Timor-Leste is still regarded as a country with a low HIV prevalence rate, the rapid increase in HIV figures shows that there is a strong need for more awareness among the youth. On 2010 WAD, UNESCO in Timor-Leste provided awards to students from senior high schools for designing outstanding posters on the theme of “WAD, Universal Access & Human Rights”.

The objective of this event was to increase students’ knowledge on how to prevent HIV infection; understand the impact of HIV on young key affected populations; and gender inequalities that contribute to its escalation, while advocating for the basic human rights of people living with HIV.

The event was organized by the Timor-Leste National Commission for UNESCO, in collaboration with the UNESCO Antenna Office in Dili, with support from the UNESCO Office Jakarta.

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Central Asian development takes scientific route

The 21st century is becoming THE century based on the foremost recourses of constantly growing intellectual potential in sciences and education. This is having a great impact on the development and growth of many Central Asian countries' national economies.

It has become increasingly evident to us in the Central Asian region, that over the last five years, more and more regional countries are basing their economic development on innovation and scientific achievements.

Modern research and development policies in Central Asian countries have been created to sustain scientific and technical potential. It has also been necessary to create appropriate conditions for future development and to adjust to modern circumstances and the free market economy.

The State development programme “Intellectual Nation” has been approved in Kazakhstan and is currently being scrutinized by relevant agencies. New legislative regulations concerning the government’s support for innovative activities have also been passed by Parliament.

In comparison with other countries in the Central Asia region, Kazakhstan has a more developed infrastructure for the dissemination of modern innovative technologies among interested organizations. Kazakhstan also has an advanced and developed scientific information service providing crucial support for development opportunities. Kazakhstan is the chair of the Interstate Coordination Council for Scientific and Technical information of the Newly Independent States.

The Republic of Uzbekistan also possesses high scientific and technical potential. According to recent statistical data, the country has an average 954 researchers per one million people of the population.

The government strongly supports science and innovation activities and a number of presidential decrees aimed at developing science and technologies policies have been approved by the Government of Uzbekistan. According to a 2010 presidential decree, an updated system of postgraduate education has been established in higher educational and national research institutions as follows: instead of postgraduate studentships – establish three-year internships for researchers; and instead of doctorate study – create institutes of senior scientific research fellows for a duration of two-three years, depending on the area of research.

Greater attention to science and education at the national level has inspired more young people in Uzbekistan to get involved in the sciences.

In Turkmenistan, a number of presidential decrees concerning research and development have come into force in order to prepare highly knowledgeable specialists and managers of innovation projects. A National Academy of Science has also been restored in Turkmenistan and 10 new research institutions have been established. Despite the Osh riots in 2010 that shook the foundations of the state, the National Academy of Sciences of Kirghiz is also developing its own strategy for developing R&D, with support from the government, which is facing a very difficult period in its historical development.

Russia is also switching to innovative ways of development — and taking into account the similar tendencies inherent in Central Asian countries — this creates objective preconditions for significant bilateral and multilateral cooperation between Newly Independent States.

We believe that a huge number of possibilities exist for joint partner activities involving national scientific groups in Central Asian countries. This will enable participating countries to benefit from a mutually advantageous scientific approach to solving worldwide problems of ecology, food safety, the struggle against poverty, the preservation of natural resources, and the stabilization of Central Asian countries’ national economies.

For the first time, the UNESCO Science Report has focused on Central Asian countries. The current 2011 edition presents an overview of global trends in science and technology, based on a wide range of qualitative and quantitative indicators divided into chapters pertaining to various regions.

The Central Asia chapter was prepared by Professor Ashiraf Mukhammadiev, Head of Department, Committee of Coordination and Development of Science and Technology under the Cabinet of Ministers of the Republic of Uzbekistan.

To download the full report or this chapter, access: http://www.tashkent.unesco.org/en/news/249/
UNESCO celebrates International Museum Day on 18 May 2011, an annual event held to promote the role of museums in the development of society. This year’s theme is: “Museum and Memory”, to highlight how museums collect stories and keep memories of the communities in which we live. In this edition of *Voices*, young people reveal what they would showcase if they were given their very own museum exhibition.

**My personal museum**

By Amin Sadiqi, Emily Chu and Hyo-jin Lee

**Rach Chinupakpong, 15, Thailand**

“If I could have my own museum, I would feature an exhibition on ‘world peace’. Each floor would feature an issue that people need to be aware of in order to solve problems that lead to conflict. For example, issues that cause dispute such as valuable water resources. The scarcity of water resources will certainly bring problems in the future and I would like my museum exhibition to highlight this and other sources of conflict that could be solved peacefully in our world.”

**Tyrone Yan, 27, China**

“My museum would feature digital music production because that’s my hobby and passion. It would show the evolution of music production, like the history of the disc jockey from vinyl turntables to CD players to mp3s, which is basically no more CDs at all. I would also display the history of music from huge pop-rock production equipment and studios and compare it to what you can do today with a laptop or a keyboard.”

**Cynthia Shan, 27, Taiwan, China**

“I would feature Andy Warhol in my exhibition. I love his use of images from pop culture and I’m attracted to bright colours and modern designs. I love how Andy Warhol used familiar household products or household names and made them into works of art. His art can be appreciated by everyone, regardless of class, status, or even age. Everyone has had a bowl of Campbell’s soup and everyone knows who Marilyn Monroe is. I love how his use of bright colours exudes happiness and lightheartedness.”
Global Action Week on Education for All
Across Asia and the Pacific
2-8 May 2011
Contact: aa.boucher@unesco.org

National Workshop on Reorienting Teacher Education towards EFA and ESD in Viet Nam
HANOI, VIET NAM
May/June 2011
Contact: lc.tan@unesco.org

National Workshop on the Safeguarding of the Intangible Cultural Heritage in Nauru
NAURU
18-20 May 2011
Contact: a.takahashi@unesco.org

Pacific Regional Cultural Statistics Training Workshop (UIS/UNESCO/SPC)
SUVA, FIJI
25-27 May 2011
Contact: a.takahashi@unesco.org

Capacity Development Workshops on TVET Quality Assurance Manual (under the CapEFA Programme in Lao PDR)
LAO PDR
Luang Prabang: 23-24 May 2011
Champasack: 26-27 May 2011
Vientiane: 30-31 May 2011
Contact: y.choi@unesco.org

Workshop on CLC Parenting Education
BANGKOK, THAILAND
7-8 June 2011
Contact: a.kapur@unesco.org

National Workshop on the Safeguarding of the Intangible Cultural Heritage in the Marshall Islands
MAJURO, MARSHALL ISLANDS
27-19 June 2011
Contact: a.takahashi@unesco.org

East Asia Summit Meeting on the Recognition of Higher Education Qualifications in the Asia-Pacific Region
BANGKOK, THAILAND
22-24 June 2011
Contact: m.lee@unesco.org

EFA 2015 Assessment Strategic Planning Meeting
BANGKOK, THAILAND
22-24 June 2011
Contact: l.lugo-helin@unesco.org

Asia-Pacific Ministerial Forum on ICT in Education 2011
CEBU, PHILIPPINES
13-14 July 2011
Contact: ict.bgk@unesco.org

Conference on Human Rights and Migration (organized by UNESCO, LIPI, IOM and ILO)
JAKARTA, INDONESIA
14-15 July 2011
Contact: c.ahmimed@unesco.org

“Museums should link the past to the present and future. If you visit my country’s National Museum in Kabul there is a saying at the entrance gate which reads: ‘A nation stays alive when its culture stays alive.’ I think this is the main responsibility that a museum should carry out. The museum should be a home for outstanding artifacts and our cultural elements to rest in a secure place to show how magnificent culture can be.”

Reza Sharifi, 29, Afghanistan.

“I believe everyone is an information consumer regardless of their social status. Obtaining credible, accurate and up-to-date information is like holding the world in our hands and even possibly being able to navigate the world the way one wishes. Information is the everyday food which one needs in order to advance his, or her social, political and economic participation, as well as to fully enjoy their human rights that are enshrined in the universal declaration on human rights. Moreover; it helps us to avoid being victimized, exploited, or subjected to abusive actions.

“If I had a museum exhibition of my own, I would hold an exhibition presenting an information package on media agencies operating in the Kingdom of Cambodia for the public and more importantly for the youth. Besides this exhibition, I would like to see “The Museum of News” created in the Kingdom of Cambodia.

“I understand that to make this exhibition happen would require a lot of resources such as time, finance and man power because despite it sounding simple, the idea is complex and obviously impossible if there is no coordination and collaboration from media agencies.”

Rachana Bunn, Cambodia
Collection of E-Learning Tools.
Two new CD-Roms have recently been produced by UNESCO Bangkok, one recommended for learners age 3-13, targeting kindergarten students, and a second for advanced learners targeting high school students, university students, educators and teacher trainers. The tools are divided into the categories: Educational Suites, Language Learning, Mathematics, Arts & Graphics, Computer Literacy and Geography & Astronomy. The second CD-Rom recommended for advanced learners targets high school students, university students, educators and teacher trainers. The tools are divided into Geography & Astronomy, Language Learning, Mathematics, Science, Programming and Memorizing.

Representation and Decision-Making in Environment Planning with Emphasis on Energy Technologies (Ethics and Climate Change in Asia and the Pacific (ECCAP) Project Working Group 4 Report)
This report published by UNESCO Bangkok examines the rights of states to make decisions on energy technologies for their people, and instances where such decisions pose environmental or security risks to the region. Governments of all nations are identified as bodies entrusted with the duty of appropriate administration and management, with the authority to direct and implement laws and policies, including laws and policies concerning energy development and use.

Improving the Participation of Female Students in TVET Programmes Formerly Dominated by Males: The Experience of Selected Colleges and Technical Schools in the Philippines
The technical and vocational education and training (TVET) sector has a crucial role in the development of human resources for future manpower requirements. It is a fact that the women of today have taken significant steps to address some transformations in the learning environment and various processes that affect how they are able to function and complement the responsibilities of their male counterparts in the world of work. Mainstreaming the gender perspective in all policy planning, implementation and evaluation activities so as to fully benefit from women’s competence, experience and potential in TVET has gained importance across the nations of the world. However, to this date, many of the initiatives fall short of the expectations to bring women’s synergy into TVET. This publication, published by the UNESCO-UNEVOC Centre identifies success stories from the Philippines related to building social and human capital as key elements in empowering women on the road to development.

This Practical Guide, published in English and Indonesian language, is based on results of an evaluation and consultations between UNESCO Jakarta and the Directorate for Museums of the Ministry of Culture and Tourism on the overall conditions of Indonesian museums with the aim to identify appropriate actions and measures for museum revitalisation. Aimed at strengthening museum staff capacities in museum management, this guide focuses on collection care, human resources management, general administration and domestic and overseas museum partnerships, and also shares best practices from museums all over the world.

This magazine was printed eco-friendly with vegetable ink on 100% recycled paper.