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Foreword by the Director-General of UNESCO

The comprehensive high-level mid-term review of the Istanbul Programme of Action for the Least Developed Countries (LDCs), held from 27-29 May, 2016 in Antalya, Turkey, is an opportunity to review the progress achieved by the LDCs' in meeting their development priorities. It is also a moment to identify new drivers for progress and to align all efforts with the 2030 Agenda for Sustainable Development.

The Addis Ababa Action Agenda, the Sendai Framework for Disaster Risk Reduction, the 2030 Agenda for Sustainable Development and the Paris Climate Change Agreement – all trends are pointing in the same direction. 2015 saw momentous agreements, embodying a new commitment by the world to support LDCs. Taken together, I believe that these chart a new vision to eradicate poverty, to promote new paths to inclusive sustainable development, to strengthen the foundations for peace and to protect the planet, bringing all countries together under a single, universal and transformative vision.

Between 2000-2015, there was significant progress in many LDCs in lifting people out of poverty, and in reaching major milestones in education, water and sanitation, expanding access to communication and information, and increasing science, technology and innovation capacities. However, there remains still a long way to go.

Take education, for instance. For many children and young people in the LDCs, education remains a distant promise. The percentage of children of primary school age who are in school has risen from 60% in 2000 to 82% in 2013 in the LDCs – but there remain still over 24 million children of primary age not in school. There are a further 22 million adolescents of lower secondary age also out-of-school. In total, almost two-in-five of all out-of-school children and adolescents in the world are in LDCs.

The Istanbul Programme of Action (IPoA) (2011-2020) and the 2030 Agenda open a new horizon of opportunities to strengthen our collective support to the LDCs in addressing the unfinished business of the Millennium Development Goals and Education for All, and to tackle new challenges. For this, we cannot rely on business as usual – we need new forms of support, new integrated approaches, new partnerships for innovative action.

These goals guide all of UNESCO's action to support the LDCs in an integrated and comprehensive approach to inclusive quality education for all, bolstering STI for sustainable development and in response to climate change, advancing the empowerment of girls and women, supporting social inclusion and youth engagement, strengthening culture as an enabler for sustainable development, and upholding freedom of expression.

Many countries have expressed their determination to graduate from LDC status by 2020 and are integrating targeted action plans to that end in national development plans. Through an integrated approach to sustainable development, harnessing the power of education, the sciences, culture, communication and information, UNESCO will remain ever more focused and committed to help countries achieve their goals, working in cooperation with all partners and stakeholders.

We know the ingredients of progress -- continued strong national leadership, dedicated support from national and international partners, and the mobilisation of sufficient resources and partnerships. UNESCO will do everything it can to support the LDCs in their quest to build a more inclusive, sustainable and peaceful future for all. No country and no person can be left behind – this is UNESCO's message today.

A handwritten signature in black ink, reading 'Irina Bokova'.

Irina Bokova
Director-General of UNESCO

➤ GLOBAL PRIORITY GENDER EQUALITY

Gender equality is a development imperative for the LDCs. Efforts to accelerate the implementation of the Istanbul Programme of Action and the 2030 Agenda will not be met without ensuring the full and equal participation of women and girls in sustainable development. UNESCO accords global priority to gender equality in its medium-term strategy for 2014-2021 (37 C/4) and its Programme

and Budget for 2016-2017 (38 C/5). The Organization's two-pronged approach involves both gender-specific programmes and gender mainstreaming within UNESCO's five areas of competence (Education; Natural Sciences; Social and Human Sciences; Culture; and Communication and Information), guided by the Priority Gender Equality Action Plan for 2014-2021.

➤ QUALITY EDUCATION: A CATALYST FOR POVERTY ERADICATION AND SUSTAINABLE DEVELOPMENT

Education is at the heart of the IPoA and 2030 Agenda. The 2030 Agenda highlights education as a stand-alone goal (SDG 4) and also includes targets on education under several other SDGs. It is also a key priority area in the IPoA and has an instrumental role to play in accelerating efforts to achieve all of the IPoA goals and the SDGs in the LDCs. Evidence of education's unmatched power to improve lives, particularly for girls and women, continues to accumulate¹. It helps people obtain decent work, raises their incomes and generates productivity gains that fuel economic development. It is also one of the most powerful means of achieving gender quality and improving people's health and is crucial in promoting democracy and human rights and enhancing global citizenship, tolerance and civic engagement as well as sustainable development.

While some progress has been made in achieving individual Education for All goals since 1999, the LDCs are still far from achieving EFA as a whole, as measured by the education for all development index (EDI).² Of the 21 LDCs with data out of 48, 5 were in the medium achievement ranking, with EDI's values ranging from 0.81 in Burundi to 0.83 in Sao Tome and Principe, while the vast majority (16) had an EDI score below 0.80 in 2012. Chad and Niger were at the bottom of the world EDI ranking, with scores of 0.52 and 0.53, respectively. The low EDI category countries are mostly from sub-Saharan Africa but also include, Sudan in the Arab States, as well as Bangladesh and Nepal in South and West Asia.

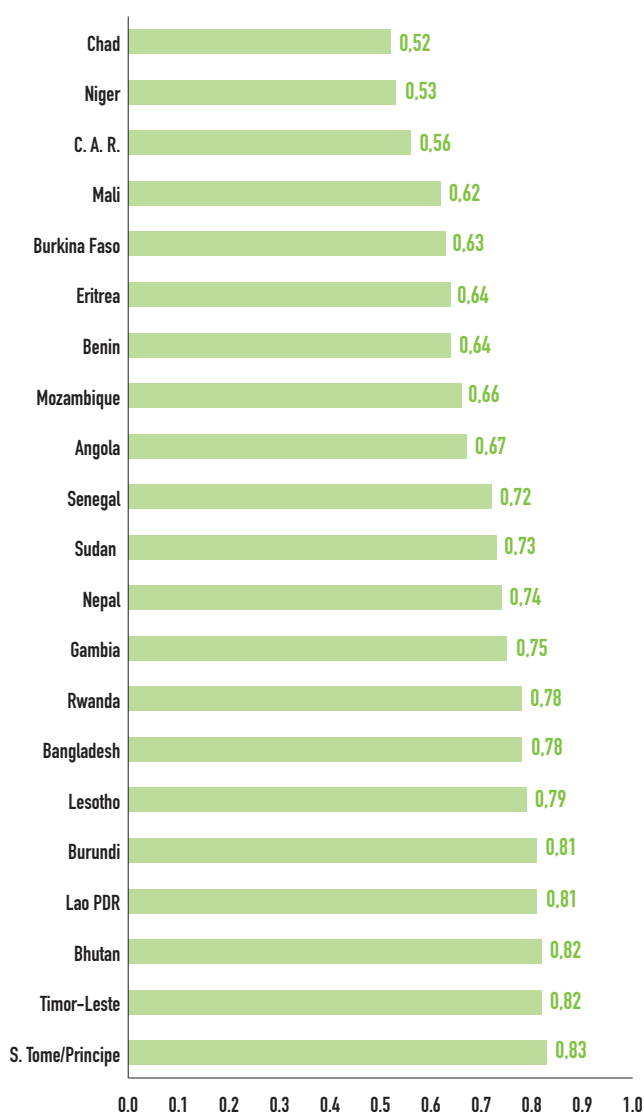
Most of these countries had a poor record across all four EFA goals included in the EDI: universal primary education, adult literacy, gender parity and equality, and quality of education.



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Access to knowledge can transform communities.

- 1 UNESCO. 2014. EFA Global Monitoring Report 2013/14 – Teaching and Learning: Achieving Quality for All
- 2 The composite index that captures four of the six EFA goals: Universal primary education (goal 2), measured by the primary adjusted net enrolment ratio (ANER); adult literacy (goal 4), measured by the literacy rate of those aged 15 and above; gender parity and equality (goal 5) measured by the gender-specific EFA index (average of the GPIs of the primary and secondary gross enrolment ratios and of the adult literacy rate); quality of education (goal 6), measured by the survival rate to grade 5. The EDI is an arithmetical mean of its four components. Its value falls between 0 and 1, with 1 representing full achievement across the four goals.

Figure 1: Most least developed countries remain far from overall EFA achievement
Education for All Development Index (EDI) scores, 2012



Source: EFA global Monitoring Report 2015.

Data from the UNESCO Institute for Statistics³ indicate that, although the percentage of children of primary school age who are in school has risen by 22 percentage points from 60% in 2000 to 82% in 2013 in the LDCs, there are still over 24 million children of primary age not in school. There are a further 22 million adolescents of lower secondary age also out-of-school. In total, almost two-in-five of all out-of-school children and adolescents in the world are in LDCs. The three countries in the group with the largest number of out-of-school children of primary age are: Sudan with 2.7 million, Ethiopia with 2.1 million and the United Republic of Tanzania with 1.7 million. Concerning out-of-school adolescents of lower secondary age, the largest numbers are found in Ethiopia 3.6 million, Bangladesh 2.2 million and Myanmar 1.9 million.

3 Data received from UNESCO's Institute for Statistics, December 2015.

There are still over 24 million children of primary age not in school. There are a further 22 million adolescents of lower secondary age also out-of-school in the LDCs.

While there has been a substantial rise in the school life expectancy from primary to tertiary in recent years from 5 years in 1990 to 7 years in 2000, it still falls nearly 3 years short of the rest of the world as a whole. Boys can also still expect to spend more than one extra year in school than girls. In terms of gender parity, none of the LDCs has achieved gender parity in enrolment at the secondary and tertiary levels, while only one-third have achieved it at the primary level.

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This data demonstrates that there is still a lot of unfinished business in terms of achieving the EFA goals and the education related MDGs. Building on the EFA movement, the Incheon Declaration for Education 2030⁴, adopted at the World Education Forum held in Incheon, Korea in May 2015, takes into account lessons learned since 2000 and focuses on increased and expanded access, inclusion and equity, quality and learning outcomes at all levels, within a lifelong learning approach.

The Education 2030 Framework for Action⁵, adopted by the global education community during UNESCO's General Conference in November 2015, provides guidance to countries on how to implement SDG 4 on education and its related targets, and proposes ways of implementing, coordinating, financing and monitoring Education 2030 to ensure inclusive and equitable quality education and lifelong learning opportunities for all. It proposes indicative strategies which countries may wish to draw upon in developing contextualized plans and strategies, taking into account different national realities, capacities and levels of development and respecting national policies and priorities.

UNESCO, as the specialized agency for education, will continue in its mandated role to lead and coordinate the Education 2030 Agenda by undertaking advocacy to sustain political commitment; providing capacity development; facilitating policy dialogue, knowledge sharing and standard-setting and providing policy advice; promoting South-South and triangular cooperation; monitoring progress towards the education targets, in particular through the work of the

4 The Incheon Declaration is available at <http://unesdoc.unesco.org/images/0023/002338/233813m.pdf>

5 The Education 2030 Framework for Action is available at <http://unesdoc.unesco.org/images/0024/002432/243278e.pdf>

UNESCO Institute for Statistics and the Global Education Monitoring (GEM) Report, hosted by UNESCO. To ensure strong global coordination on Education 2030, UNESCO will convene a multi-stakeholder Education 2030 Steering Committee to support countries in achieving Education 2030. The Organization is also preparing guidelines that offer strategic advice on how to support the implementation and monitoring of Education 2030 at regional and national levels. These guidelines include information on advocacy and communication, how to conduct education sector plan reviews, as well as guidance on coordination mechanisms, partnership and cooperation modalities, monitoring and reporting.

CLOSING THE EDUCATION FINANCING GAP

Full realization of the Education 2030 Agenda in the LDCs requires sustained, innovative and well-targeted financing and efficient implementation arrangements. Efforts to close the funding gap must start with domestic funding. At the same time international public finance will also play an important role in complementing the efforts of the LDCs to mobilize public resources domestically. The Addis Ababa Action Agenda encourages countries to set nationally appropriate spending targets for education. National contexts in the LDCs are diverse, but the following international and regional benchmarks are crucial reference points:

- allocating at least 4% to 6% of domestic product (GDP) to education; and/or
- allocating at least 15-20% of public expenditure to education.

In 2012, countries allocated 5.0% of GDP and 13.7% of public expenditure to education, on average⁶. LDCs need to reach or exceed the upper end of these benchmarks if they are to achieve the targets laid out in the 2030 education agenda. Thus far, in more than half of LDCs, expenditure on education exceeds 4.0% of GDP or 15% of total government expenditure (or both).

Increasing and improving external financing to education will be critical for addressing the financing gap in the LDCs between available domestic resources and the amount necessary to reach the new education targets. An important use of international public finance, including ODA, is to catalyze additional resource mobilization from other sources, public and private. Aid will thus remain a crucial source of education financing over the next 15 years if the targets are to be met.

Support to education from emerging donors, including through the strengthening of South-South cooperation, and from private sector and philanthropic institutions, to the same extent as the other sectors, notably health, should be encouraged. Existing multi-stakeholder partnerships need to be strengthened. Aid effectiveness needs to be improved through harmonization and better coordination,

as does the equity of external financing. In the face of conflict and natural disasters, it is critical to develop more resilient and responsive education systems and ensure that education is maintained during emergency, conflict and post-conflict situations. Education overall received only 2% of humanitarian aid in 2014. There is a \$2.3 billion gap⁷ which is ten times what education receives from humanitarian aid at present. Efforts should be made to significantly increase the percentage of funds earmarked for education in humanitarian aid. Creating synergies between humanitarian and development financing can increase the effectiveness of every dollar invested in recovery efforts and address coherently short, medium, and long-term needs in order to support fragile and conflict-affected states to find a long term sustainable solution to crisis.

Innovative sources of financing, such as the model used by Gavi, the Vaccine Alliance, should also be considered. A recent policy paper entitled "Every Child Should Have a Textbook," produced by the Global Education Monitoring Report, noted that this model could help address key bottlenecks in the textbook market that many least developed countries face and could triple the number of books that are available for children in sub-Saharan Africa. It further demonstrates how this model could also increase the available donor and private resources for textbooks from US\$ 1.2 billion to 1.7 billion. This, together with the potential cost savings of centralized procurement could more than triple the number of books available to children around the world from 243 to 867 million. Textbooks are especially relevant to improving learning outcomes in least developed countries with large class sizes, a high proportion of unqualified teachers and a shortage of instructional time.



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The Empowering Adolescent Girls and Young Women through Education joint programme of UNESCO, UN Women, UNFPA and the World Bank aims to strengthen the nexus between education, health, gender equality and empowerment in 20 target countries where the education gender gap is most critical.

6 UNESCO. 2015. EFA Global Monitoring Report, op.cit.

7 http://fts.unocha.org/reports/daily/ocha_R16_Y2010___1106200206.pdf - Accessed 20 June 2011.

➤ SCIENCE, TECHNOLOGY AND INNOVATION: A CATALYST FOR POVERTY ERADICATION AND SUSTAINABLE DEVELOPMENT



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Countries, businesses and institutions which create an enabling environment for women in science and engineering increase their innovative capacity and competitiveness (UNESCO Science Report: towards 2030)

The 2030 Agenda, the IPoA and the AAAA all recognize the contribution of science, technology and innovation to sustainable development. Indeed, the spread of scientific and technological progress and innovation has a great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies across areas as diverse as medicine and energy in the LDCs.

Robust national Science, Technology and Innovation (STI) policies and systems need to be set up to take advantage of the LDCs' full potential to create and use scientific and technological knowledge to promote sustainable economic growth and achieve full and productive employment through the development of sustainable industries and by fostering innovation. In this connection, UNESCO has worked with 15 African LDCs over the past three years in the field of STI policy to provide policy advice and capacity building to improve the governance of their STI systems. Through its Global Observatory of Science, Technology and Policy Instruments (GO-SPIN), UNESCO has also been providing support to African LDCs in reforming and upgrading their national STI systems and enabling policy makers and researchers to monitor and evaluate their STI policies and programmes.

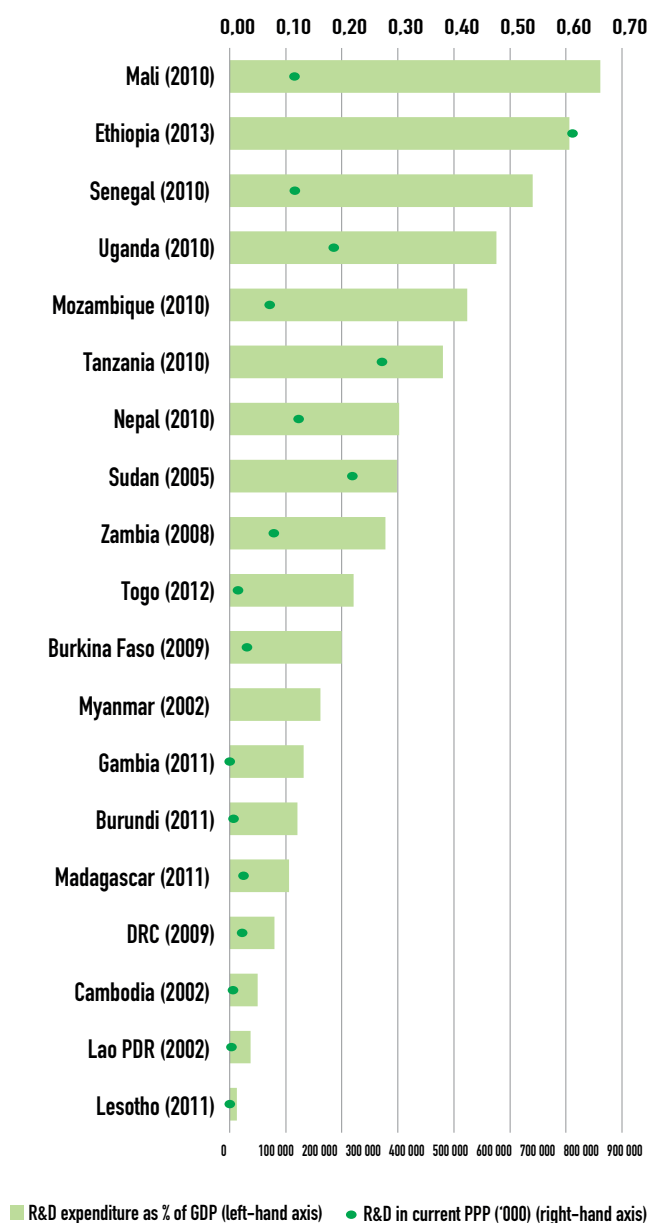
Significant investments in science, technology and innovation (STI) and commitments from governments are crucial to reach the full potential of STI for achieving the Sustainable Development Goals (SDGs), as recommended by the UN Secretary-General's Scientific Advisory Board, for which UNESCO is the Secretariat. In fact, data from the UNESCO Institute for Statistics indicate that, in 2013, the world spent US\$1.7 trillion (in purchasing power parities) on scientific research and experimental development (R&D), but only US\$5 billion of that amount, or 0.29% of the total, was spent in LDCs.

Similarly, there were almost 7.8 million researchers in the world, but only 59,000 of them were living in LDCs. Many countries and regions have set targets for their relative level of R&D expenditure. The EU for example has pledged to devote 3% of GDP to R&D by the year 2020, whereas the African Union fixed a target of 1% of GDP over a decade ago. China is on track to reach its own target of a 2.5% ratio by 2020. Globally, the world devoted 1.70% of its GDP on R&D in 2013, up from 1.53% in 2000. During that same period, R&D intensity increased from 0.21% to 0.24% in LDCs. While this trend demonstrates that LDCs are focusing more resources on R&D to achieve more inclusive growth and sustainable development, while concomitantly buffering their economies from the vagaries of fluctuating global commodities prices, it is still insufficient to tackle the myriad of development issues which could be resolved with the aid of R&D.

Figure 2 shows the situation for those individual LDCs for which data are available. It reveals that none of these LDCs have reached the 1% target set by many developing countries. Figure 2 also highlights the need to improve the capacity of the LDCs to generate, share and use available data to support effective decision-making, as data are not available for many of the LDCs. This is true for many other areas related to the SDGs, which require international support for the data revolution to fill data gaps, using original data as well as new data in achieving the SDGs.

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Figure 2: R&D expenditure in LDCs



Source: UNESCO Institute for Statistics database, February 2016

INCREASING PRIVATE SECTOR INVESTMENT IN R&D

As indicated in the *UNESCO Science Report, Towards 2030*, the private sector is either not surveyed or makes a negligible contribution to research expenditure in LDCs. This is where LDCs and high-income countries diverge most: the UK government devoted just 0.44% of GDP to R&D in 2013 but British businesses contributed a further 1.05%. Even in Germany and the USA, the government contributed only 0.85% and 0.76% of GDP respectively, compared to 1.91% and 1.92% for the business enterprise sector. As it is the private sector which contributes the lion's share of research expenditure in developed countries, a stronger private sector could make all the difference in LDCs to boosting investments in R&D.

Malawi is a good example of an LDC that is encouraging more private sector investment in R&D. According to the UNESCO study *Mapping Research and Innovation in the Republic of Malawi (2014)*, cited in *UNESCO's Science Report*, the government has introduced a number of fiscal incentives to attract foreign investors, including tax breaks, in order to foster technology transfer, develop human capital and empower the private sector to drive economic growth. In 2013, the Malawi Investment and Trade Centre put together an investment portfolio spanning 20 companies in the country's six major economic growth sectors, namely agriculture, manufacturing, energy (bio-energy, mobile electricity), tourism (ecolodges) and infrastructure (wastewater services, fibre optic cables, etc.) and mining. The Malawi Innovation Challenge Fund provides businesses in Malawi's agricultural and manufacturing sectors with competitive grant funding for innovative projects which have a potentially strong social impact and could help the country to diversify its narrow range of exports. The fund is endowed with US\$8 million from the United Nations Development Programme and the UK Department for International Development. The great majority of foreign investors in 2012 came from China (46%) and the UK (46%).

USING TECHNOLOGY AND RESEARCH TO IMPROVE PRODUCTIVE CAPACITY

Many LDCs are striving to improve the efficiency of their agriculture sector and to develop their manufacturing capabilities, observes the UNESCO Science Report. There is a need to add value to agricultural products through agro-processing and to improve productivity. As an example, the *Perspective Plan of Bangladesh to 2021* acknowledges that industrial expansion will need to go hand in hand with more productive agriculture. *Vision 2021* sets out to increase productivity in all spheres of the Bangladeshi economy, including through technology parks and a National Technology Transfer Office. The aim is to attain self-sufficiency in food, reduce the proportion of the workforce employed in agriculture from 48% to 30% and raise the contribution of manufacturing from 17% to about 27% of GDP.

One of the key deliverables of the Addis Ababa Action Agenda is the decision by Member States to establish a technology facilitation mechanism (TFM) to support the successful implementation of the SDGs. In collaboration with sister UN agencies, the private sector and the scientific community, UNESCO is actively supporting the development of the three complementary components of the TFM, i.e. a UN interagency task team on STI for the SDGs; a multi-stakeholder forum on STI for the SDGs; and an online platform as a gateway for information on existing

STI initiatives, mechanisms and programs. UNESCO is also building a global database on STI policy instruments, legislation and institutional frameworks in the framework of its Global Observatory on Science, Technology and Innovation Policy Instruments (GO-SPIN) Programme, which, along with its UNESCO Science Report, provides an important qualitative monitoring mechanism on the role of STI in achieving the SDGs in the LDCs.

Further to the TFM, a dedicated Technology Bank for the LDCs is another key deliverable of the IPoA, the AAAA

and the 2030 Agenda. UNESCO is actively supporting the development of the technology bank, whose objective is to “help improve least developed countries scientific research and innovation base, promote networking among researchers and research institutions, help LDCs access and utilize critical technologies, and draw together bilateral and multilateral institutes and the private sector, building on existing international initiatives.” Both the TFM and the TB will be important mechanisms for supporting LDCs in fully utilizing science, technology and innovation to achieve their development goals.

➔ SUSTAINABLE DEVELOPMENT IN THE LDCs IS BEING HAMPERED BY THE CURRENT SKILLS SHORTAGE AND SKILLS MISMATCHES

According to the *UNESCO Science Report, Towards 2030*, countries know they will need to build a solid knowledge base, if they are to make efficient use of science, technology and innovation to address sustainable development challenges. Several LDCs have raised public expenditure on higher education to over 1% of GDP in recent years (e.g. Benin, Burundi, Guinea, Malawi, Timor Leste) and others are close (e.g. Burkina Faso, Mali, Mozambique, Togo), but some devote less than 0.5% of GDP to higher education (e.g. Bangladesh, Central African Republic, Cambodia, Ethiopia, Nepal, Uganda), having, in many cases, focused their limited education budgets on achieving the Millennium Development Goal of universal primary education.

With most LDCs recording high annual population growth rates – 2.6% on average in Africa and 1.6% in Asia – the challenge will be even greater to train a skilled workforce. Enrolment in higher education is struggling to keep pace with rapid population growth. Participation at the tertiary level is much lower in LDCs than the rest of the world. As indicated by the UNESCO Institute for Statistics, the gross enrolment ratio in tertiary education in 2013 was less than 9% in LDCs compared with 33% worldwide. There are more than 7.5 million students studying in LDCs and a further 230 thousand students studying abroad. Students from LDCs account for about 4% of all tertiary students in the world, but nearly 7% of all internationally mobile students.

Several LDCs have enlarged access to higher education in recent years by founding new universities, including Malawi, Mali, and Senegal. University enrolment doubled in Afghanistan between 2011 and 2014, according to the *UNESCO Science Report*, but women still accounted for just one in five university students in 2014, despite the ambitions of the *Higher Education Gender Strategy* (2013) for improving this ratio. A shortfall in funding has prevented the construction of facilities from keeping pace with the rapid rise in student rolls, including a sufficient number of women’s dormitories on university campuses. The shortage of classrooms has led to the creation of ‘night schools,’ which make use of limited space that would

otherwise be vacant in the evening. The ‘night shift’ is proving increasingly popular in Afghanistan, observes the report, with student numbers more than doubling between 2012 and 2014. By 2014, women represented 12% of those attending evening classes.

Achieving sustainable economic development through the use of STI is dependent upon the ability of LDCs to reduce barriers to skills development and technical and vocational education and training (TVET), starting from the secondary level, as well as to tertiary education, including university, and to provide lifelong learning opportunities for youth and adults.

Achieving sustainable economic development through the use of STI is dependent upon the ability of LDCs to reduce barriers to skills development and technical and vocational education and training (TVET), starting from the secondary level, as well as to tertiary education, including university, and to provide lifelong learning opportunities for youth and adults. Many LDCs are prioritizing the development of skills for the world of work through technical and vocational education and training (TVET). In this context, UNESCO is calling for the transformation of TVET so it encompasses the full range of skills that are needed for, and in, the world of work. This implies grounding TVET in a lifelong perspective of learning, which seeks to guarantee equality of opportunity for all. This transformed vision of TVET comprises formal, non-formal and informal learning. Guided by this approach, UNESCO - with the assistance of the UNESCO-UNEVOC International Centre – supports countries in improving their TVET policies, systems and practices. This includes capacity

development and operational programmes that focus on inter-ministerial coordination, curricula reform, entrepreneurship, qualifications framework and quality assurance, information systems, labour market analysis, and monitoring and evaluation of TVET. UNESCO is also rolling out a new TVET strategy (2016-2021)⁸, in full alignment with SDG 4, to support

Member States in strengthening the relevance of their TVET systems and to equip all youth and adults with the skills required for employment, decent work, entrepreneurship and lifelong learning, and to contribute to the implementation of the 2030 Agenda for Sustainable Development as a whole.

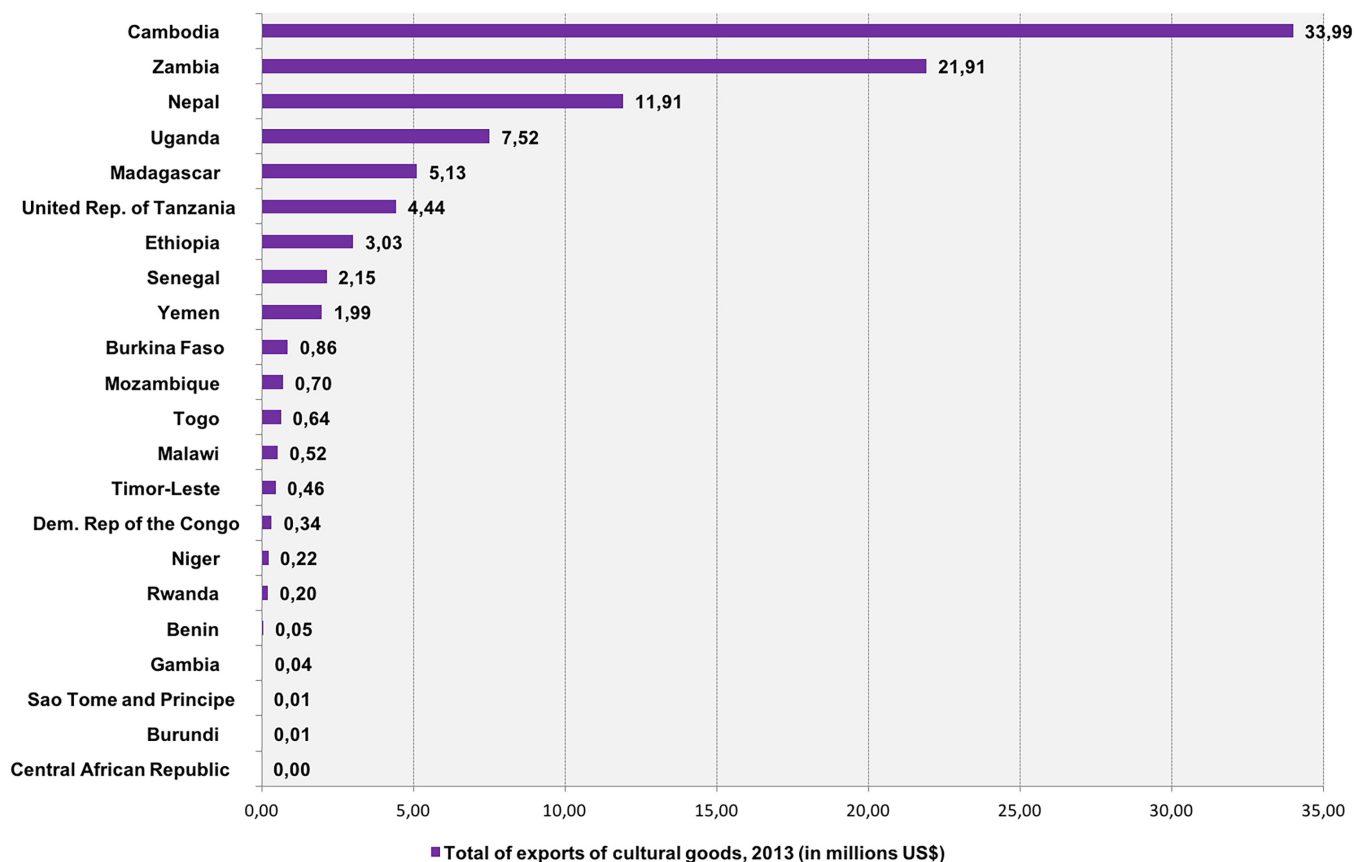
8 The TVET strategy is available at <http://unesdoc.unesco.org/images/0024/002438/243804e.pdf>

➤ CULTURE: A CATALYST FOR POVERTY ERADICATION AND SUSTAINABLE DEVELOPMENT

Culture is a powerful agent for sustainable development. Its critical role in building sustainable cities and communities, ensuring sustainable consumption and production patterns, promoting environmental sustainability, strengthening resilience against disasters, mitigating climate change and building peaceful and inclusive societies is fully integrated

in the 2030 Agenda for Sustainable Development. Indeed, achieving these goals will be impossible without drawing upon the strength and creative potential of the world's diverse cultures, and engaging in dialogue to ensure that all members of society benefit from sustainable development.

Figure 3: Value of exports of cultural goods, selected LDCs in 2013



Source: UIS Culture Trade statistics database, 2016



© UNESCO
Reconstruction of World Heritage mausoleums of Timbuktu (Mali)

Cultural and creative industries (CCI) are one of the most dynamic and fastest-growing sectors of the world economy, contributing to sustainable economic growth, income generation and the creation of decent jobs. New data produced by the UNESCO Institute for Statistics (UIS) show that the export of cultural goods worldwide reached approximately US\$ 212.8 billion in 2013, which more than doubled from 2004. CCI also generate US\$2.2 billion a year, i.e. 3% of world GDP, and employ 29.5 million people (1% of the world's active population).⁹ CCI revenues exceed those of telecom services and employ more people than the car industry of Europe, Japan and the USA combined (29.5 million jobs vs. 25 million).¹⁰ In Mali, the culture sector accounted for 5.8% of employment in 2004 and 2.4% of GDP in 2006, including in the informal component (accounting for 57 % of the national economy).¹¹

Cultural and natural heritage, including UNESCO inscribed World Heritage sites, is an important asset for sustainable economic development, which attract investments and ensure green and locally-based jobs. Activities associated with the stewardship of cultural and natural heritage often make use of local resources and skills and preserve local knowledge systems and infrastructures. Furthermore, sustainable cultural tourism is an economic driver which enhances the international profile of destinations, enables resource creation to increase competitiveness and strengthens local communities.

9 New EY report on cultural and creative industries (CCI), Cultural Times – the First Global Map of Cultural and Creative Industries, launched UNESCO, the International Confederation of Societies of Authors and Composers (CISAC) and EY (formerly Ernst & Young) on 3 December 2015.

10 Ibd

11 The economy of culture in Mali, IBF for the European Commission, January 2007.

LDCs have yet to take full advantage of the benefits that cultural and creative industries, cultural and natural heritage, and sustainable tourism have to offer.

LDCs have yet to take full advantage of the benefits that cultural and creative industries, cultural and natural heritage, and sustainable tourism have to offer. According to UNESCO's Institute for Statistics, in 2013, LDCs accounted for less than 0.1% of the total global exports of cultural goods.

UNESCO is actively supporting the LDCs to fully harness the contribution of culture for sustainable development by providing capacity building to the LDCs to integrate culture into sustainable development frameworks. Through initiatives like the European Union funded project "Strengthening the system of governance for culture in developing countries", technical assistance missions were deployed and follow-up activities were supported to establish legal and institutional frameworks for the development of dynamic culture sectors in Burkina Faso, Cambodia, the Democratic Republic of the Congo, Haiti, Malawi and Niger. Under the "International Fund for Cultural Diversity" (IFCD), UNESCO supported projects that were implemented by public authorities and NGOs from Benin, Burkina Faso, Cambodia, Chad, the Democratic Republic of the Congo, Lao People's Democratic Republic, Madagascar, Malawi, Mali, Mozambique, Niger, Senegal, Togo and the United Republic of Tanzania. Projects covered a wide range of areas, from the formulation and implementation of cultural policies, to capacity-building of cultural entrepreneurs, mapping of cultural industries and the creation of new cultural industry business models.

UNESCO is also providing technical assistance and capacity building support to the LDCs to integrate culture into urban planning and development processes, to improve the living conditions of local populations and preserve the social fabric of societies. According to the World Bank, cities are the drivers of the global economy, with more than 80 percent of global GDP generated in them. By 2030, 70 percent of the world's population is expected to live in cities. This rapid and large-scale urbanization process poses a number of challenges that call for a sustainable management system for urban planning and development, particularly in the LDCs. Culture represents a strategic resource for local development, since the regeneration of historic centres, the sustainable redevelopment of urban areas and the promotion of local cultural and creative industries result in more inclusive, resilient and sustainable cities.

In the framework of the 1972 World Heritage Convention, UNESCO has implemented a number of projects that foster local sustainable development and the safeguarding of cultural heritage in a number of cities in the LDCs, including in Afghanistan, Cambodia, Haiti, Madagascar, Mali, Myanmar, Nepal, Niger, Timor-Leste and Uganda. Similarly, in the framework of the implementation of the 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions, the Organization has trained local and national authorities in the field of cultural and creative industries from 17 African LDCs, with the aim of strengthening technical and institutional capacities to promote participatory and evidence-based policy-making, as well as to boost the creation, production, distribution and enjoyment of cultural expressions in the region.

In terms of educational achievement, it is widely recognized that the ways in which people learn, acquire and transmit knowledge are closely linked to the geographical, historical, cultural and linguistic context in which they live. Therefore, educational strategies that take cultural diversity into account and promote creativity are more likely to be effective in providing quality education and in endowing citizens with the necessary skills to meet the challenges faced by contemporary societies. In addition, the full and equal participation of all people in cultural life helps to foster social cohesion.

In 2015, UNESCO completed the reconstruction of the 14 World Heritage mausoleums of Timbuktu that were destroyed in 2012. The rehabilitation of the cultural heritage of Timbuktu is crucial for the people of Mali and represents a factor of reconciliation and lasting peace.

Culture also has an enormous potential to generate dialogue among members of society, to strengthen civil society and to promote mutual understanding, peace and reconciliation. Culture must also be taken into account when developing emergency responses to ensure that they are effective and adapted to the relevant cultural context and to prevent the illicit trafficking of cultural objects or the destruction of cultural heritage.

UNESCO is also working to foster peace, mutual understanding and reconciliation through culture in a number of LDCs. In the words of UNESCO's Director-General, Irina Bokova, "culture and heritage are not about stones and buildings – they are about identities and belongings. They carry values from the past that are important for the societies of today and tomorrow. [...] We must safeguard heritage because it is what brings us together as a community; it is what binds us within a shared destiny." Three legally binding international treaties reinforce the idea of heritage as a reservoir of identity and meaning: the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict; the 1970 UNESCO Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property; and the 1972 World Heritage Convention. These conventions also highlight the fact that attacks on cultural heritage translate directly into attacks on our shared identity.

Heritage is not targeted by chance: by destroying bridges, temples, mosques, churches, shrines, manuscripts and libraries, and by looting and engaging in the illicit trafficking and sales of cultural objects, the attackers aim to break the connections to the past, as well as the identify and values of communities. Cultural heritage was recognized as an international security issue in UN Security Council Resolution 2199 (February 2015), which explicitly recognized the links between illicit trafficking in cultural property and the financing of terrorism. Since the adoption of the Resolution, UNESCO has played a leading role in ensuring its effective implementation by providing support and assistance to Member States, mobilizing international organizations for a coordinated response, organizing capacity-building workshops for national experts (particularly for customs and police units as well as heritage managers) as well as neighboring, transit and destination countries, establishing documentation projects of cultural heritage, and launching a global awareness-raising campaign (#Unite4heritage), as well as providing regular analysis and recommendations to UN Sanctions and Monitoring Teams.

➤ COMMUNICATION AND INFORMATION: A CATALYST FOR POVERTY REDUCTION AND SUSTAINABLE DEVELOPMENT



© Stephen Mukobeko 2013
Mobile phones have become useful tools to promote sustainable development and social cohesion in LDCs.

Freedom of expression is an indispensable element for the promotion of and maintenance of democratic processes, good governance, and the rule of law in the LDCs.

Freedom of expression is an indispensable element for the promotion of and maintenance of democratic processes, good governance, and the rule of law in the LDCs. It is also imperative for fostering citizen participation in sustainable

development processes. UNESCO's work in this area contributes to SDG 16 on promoting peaceful and inclusive societies, ensuring public access to information and protecting fundamental freedoms. It focuses on fostering free, independent and pluralistic media in print, broadcast and online media; protecting the safety of journalists; and supporting media development in the LDCs.

Through UNESCO's International Programme for the Development of Communication (IPDC), the Organization is supporting media development in a number of LDCs through a grant-making process. The IPDC recently approved 51 new media development projects to be financed and implemented this year. In addition, six new special projects will be launched in areas such as the safety of journalists, combatting the radicalization of youth through the media and improving the media coverage of migration and refugees. From improving journalists' capacity for election coverage in Chad to conducting policy reform on community media in Nepal, the new set of IPDC-supported projects addresses a wide range of issues, with the most recurrent being the safety of journalists, capacity building for community media, coverage of elections, media self-regulation, media law/policy reform and access to information. The projects also have important gender-sensitive components.

UNESCO is also training up to 25,000 young people around the world on how to develop mobile applications to help solve developmental challenges confronting their communities. The Organization is also developing the skills of teachers to use ICTs effectively in the classroom, through the ICT Competency Framework for Teachers (ICTCFT). To improve the quality of and universal access to education, UNESCO is promoting the use of open-licensed Open Educational Resources (OERs) and assisting teachers to develop open-licensed Massive Open Online Courses (MOOCs).

➤ BUILDING RESILIENCE

The LDCs are highly vulnerable to the effects of climate change, disasters, global financial shocks and conflicts, all of which impact their ability to achieve sustainable development. In order to accelerate action towards achieving the IPoA Agenda and the 2030 Agenda, more attention is needed to develop human and institutional capacities in the LDCs through quality education and skills development; science, technology and innovation; enhanced access to communication and information; and ensuring that culture is an integrated part of all sustainable development strategies. It also calls for effectively protecting our marine and terrestrial ecosystems, which provide important

ecosystem services and can enhance natural resilience to the adverse impacts of climate change and reduce the vulnerability of people living in the LDCs.

In this vein, UNESCO is contributing to the relief and reconstruction efforts in LDCs in post-conflict/post-disaster situations. UNESCO's technical assistance and advisory services not only provide urgent support to assess damages and mitigate losses, but also support national authorities, international partners, and professional and civil society organizations in longer-term sustainable reconstruction ("building back better"), disaster risk

reduction, early warning systems, and peacebuilding institutions. UNESCO places its emphasis on the human and institutional dimensions of relief, recovery and reconstruction, with specialized strengths in education at all levels, media and press freedom, and mitigating threats to culture and World Heritage.

In the area of climate change, UNESCO is working to support the resilience of LDCs by implementing an integrated approach, encompassing climate change education and public awareness; water security; climate knowledge, including local and indigenous knowledge; culture; oceanographic activities and site-based climate change observatories. This is done in close cooperation

with its partners and stakeholders, and as a follow-up to the COP 21 Paris Agreement. The Organization is also promoting the sustainable use of marine and terrestrial ecosystems, including sustainable forest management, combating desertification, mitigating and adapting to climate change and halting biodiversity loss in the LDCs through its UNESCO sites (UNESCO World Heritage sites, Biosphere Reserves and Geoparks) to strengthen resilience in the LDCs. Considering that SIDS, which also include 9 LDCs, are particularly vulnerable to climate change, natural disasters and other external shocks, UNESCO is also providing special assistance to this group of countries through a dedicated SIDS Plan of Action which reflects the priorities of the Samoa Pathway outcome document.

➤ CONSERVING AND SUSTAINABLY USING OUR OCEAN FOR SUSTAINABLE DEVELOPMENT



© Antonio Abreu 2015
"No Plastic" campaign protects marine life in Sao Tome and Principe.

The ocean is a vital source of nourishment, especially for people in the world's poorest nations. Many people depend on fish as their primary source of protein. It also supports the livelihoods of many people living in the LDCs. The ocean also provides important benefits to economic sectors in the LDCs such as fisheries, energy, tourism, and transport/shipping, as well as 'non-market' benefits such as climate regulation, carbon sequestration, habitat and biodiversity, among many others. The protection and valorization of natural and cultural marine heritage sites can also contribute to sustainable development in the LDCs. Sadly, the health of the ocean is in peril and many of these economic, social, cultural and environmental benefits and opportunities may be lost. Scientific evidence shows that the impact of human activities, including overfishing, illegal fishing, industrial and agricultural waste, ocean acidification, and coastal development are seriously

affecting the health of our ocean. These factors endanger the very survival of many people living in the LDCs and impede efforts to achieve the Sustainable Development Goals.

The international community recognized the importance of the ocean in promoting sustainable development, with the adoption of SDG 14, which focuses on "Conserving and sustainably using the oceans, seas and marine resources for sustainable development." This stand-alone ocean goal acknowledges the standard-setting role of UNESCO's Intergovernmental Oceanographic Commission (IOC) through the "IOC Criteria and Guidelines on the Transfer of Marine Technology (TMT)" and covers the IOC mandate and programmatic activities through its various targets. Beyond SDG 14, a number of the other SDGs have direct or indirect relevance to the ocean, including SDG 2 on food security and improved nutrition, SDG 13 on climate change, SDG 4 on lifelong learning opportunities, SDG 8 on economic growth and productive employment, and SDG 11 on resilient and sustainable cities.

UNESCO's Intergovernmental Oceanographic Commission (IOC) is actively working with its partners and national stakeholders to support the LDCs in achieving SDG 14 and its related targets by promoting ocean research, observations, and services, and by facilitating the transfer of marine technology (TMT), with the aim of improving the management, sustainable development, and protection of the marine environment. Through its global network of training centers covering all coastal LDCs (Global Ocean Teacher Academy), IOC will continue to build the scientific capacities of nations in translating global ocean targets into national and regional actions in favour of marine and coastal management, pollution reduction, climate change adaptation and the development of ocean-based sustainable livelihoods. Global and regional marine assessment activities led by IOC will be aligned to the SDG requirement in terms of reporting the status of ocean

conditions. Capacities of LDCs will be increased to collect and analyse ocean data in support of the assessment of SDG progress at national and regional levels. It is also expected that the development of the Global Ocean Science Report

could provide important baseline data for the LDCs and potentially function as a monitoring framework to assess national and regional investments in marine research and related capacities.

➔ MANAGING OUR WATER RESOURCES FOR SUSTAINABLE DEVELOPMENT



© IUPAC
UNESCO actively supports the LDCs in addressing water related challenges by providing support for water research, water resources management, education and capacity building.

According to the 2015 UN World Water Development Report, coordinated by UNESCO's World Water Assessment Programme, the lack of water supply, sanitation and hygiene (WASH) takes a huge toll on the health and well-being of people living in the LDCs and comes at a large financial cost, including a sizable loss of economic activity in the LDCs. According to the Report, investments in water and sanitation services result in substantial economic gains; in developing regions the return on investment has been estimated at US\$5 to US\$28 per dollar. An estimated US\$53 billion a year over a five-year period would be needed to achieve universal coverage of WASH service provision—a small sum given this represented less than 0.1% of the 2010 global GDP.

The increase in the number of people without access to water and sanitation in urban areas is directly related to the rapid growth of slum populations in the developing world and the inability (or unwillingness) of local and national governments to provide adequate water and sanitation facilities in these communities. The world's slum population, which is expected to reach nearly 900 million by 2020, is also more vulnerable to the impacts of extreme weather events. It is however possible to improve performance of urban water supply systems while continuing to expand the system and addressing the needs of the poor.

According to the 2015 UN World Water Development Report, by 2050, agriculture will need to produce 60% more food globally, and 100% more in developing countries. Exploitation of new data sources, better models and more powerful data analysis methods, as well as the design of adaptive management strategies can help respond effectively to changing and uncertain conditions in the LDCs.

Nearly 3 out of 4 jobs of the global workforce (3.2 billion people) are moderately or highly dependent upon access to water and water-related services.

Water is also essential for decent jobs as illustrated by the 2016 UN World Water Report, which notes that “nearly 3 out of 4 jobs of the global workforce (3.2 billion people) are moderately or highly dependent upon access to water and water-related services”. Water stress and the lack of decent work can exacerbate security challenges, force migration and undo the progress made in the fight to eradicate poverty.

UNESCO, through its International Hydrological Programme (IHP) and its network of water-related chairs and centres is actively supporting the LDCs in addressing water related challenges through an integrated and interdisciplinary approach to watershed and aquifer management, which incorporates the social, environmental and economic dimensions of water resources, and promotes and develops international research in hydrological and freshwater sciences. This includes providing support for water research, water resources management, education and capacity building. IHP is also assisting in the assessment and management of transboundary groundwater resources, which for many of these countries is the main source of water. The Organization is also part of UN-Water and works closely with partner agencies to support countries in achieving SDG 6 and its targets through an integrated approach to freshwater resources management, and through the UN World Water Development Report, an important monitoring and reporting framework to measure progress on SDG 6.



We need to act urgently, with no delay until better times, to eradicate poverty, to save the planet, to combat inequalities and to accelerate human progress – this is the core of the Istanbul Programme of Action and the 2030 Agenda, which are both ambitious, and which we must take forward together, so let's get started now to deliver the promise of sustainable development, leaving no one behind.”

Irina Bokova, Director-General of UNESCO