



UNEVOC

United Nations
Educational, Scientific and
Cultural Organization

International Centre
for Technical and Vocational
Education and Training



UNESCO-UNEVOC in Action

Biennial Report 2016-2017



moving

This Biennial Report gives a comprehensive overview of UNESCO-UNEVOC's activities in technical and vocational education and training over the biennium 2016-2017.

forward

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Preface



In a globalized world faced with rapid digital developments and innovations, high levels of youth unemployment, and a growing demand for green skills that contribute to the global sustainable development agenda, the importance of TVET has never been emphasized more.

Indeed, the increasing appreciation of what TVET has to offer is demonstrated by its inclusion as one of the action areas identified in the Sustainable Development Goals. Thus the stage is set for action-oriented programming and strategic reforms to enable TVET to realize its potential. The new UNESCO Strategy for TVET (2016–2021), officially launched in July 2016 in Bonn, Germany, aims to support Member States to enhance the relevance of their TVET systems and ensure that all young people and adults have the skills required for employment, decent work, entrepreneurship and lifelong learning. The Strategy sets out three priority areas, namely: youth employment and entrepreneurship; equity and gender equality; and the transition to green economies and sustainable societies. Its launch at an event organized by the UNESCO-UNEVOC International Centre for TVET affirms the International Centre's role, and that of the UNEVOC Network, as a potent force for transforming TVET globally.

However, the launch of the Strategy was not the only important strategic event to take place during the biennium. The global TVET community also gathered in Tangshan, China, to discuss emerging trends in TVET and review the progress made since the Third International Congress on Technical and Vocational Education and Training in 2012 that had produced the Shanghai Consensus.

UNESCO-UNEVOC continues to support Member States in transforming their TVET systems to meet the challenges and realize the opportunities that TVET presents. Guided by UNESCO-UNEVOC's Medium-Term Strategy (2015–2017), our concerted efforts to engage in priority thematic areas in all regions were facilitated through capacity development for policy support, knowledge development and production, and knowledge management and sharing. These became the hallmark of our engagements with TVET systems and institutions in the Member States during the biennium. In

2016, UNESCO-UNEVOC initiated its flagship TVET Leadership Programme, aimed at building the capacity of TVET leaders and managers to become change agents in their respective institutions and countries. Over the two years since its inception in 2016, the UNEVOC TVET Leadership Programmes have trained sixty-eight leaders from more than forty countries around the world.

Together with UNESCO Headquarters, UNESCO Field Offices and other UNESCO Institutes, our engagements to improve TVET systems and devise responsive programmes have continued. During this biennium, we have also engaged with key international experts in implementing our core thematic actions.

UNESCO-UNEVOC's work continues to be enriched by the strong support of the Government of the Federal Republic of Germany, particularly through the Federal Ministry of Education and Research (BMBF) and the Federal Ministry for Economic Cooperation and Development (BMZ), which have extended programmatic expertise as well as financial contributions. I wish to extend my sincere gratitude to the Government of Germany for its continued support for the work of UNESCO-UNEVOC.

Much like the outgoing biennium and the preceding period, we continue to advance the role of TVET to address the multifarious challenges our Member States confront in the context of a global framework for achieving the Sustainable Development Goals.

A handwritten signature in blue ink, appearing to read 'Shyamal Majumdar', with a horizontal line extending to the right.

Shyamal Majumdar
Head of UNESCO-UNEVOC

Overview of UNESCO-UNEVOC

UNESCO-UNEVOC is UNESCO's specialized centre for TVET and an integral component of UNESCO's international programme on TVET.

The International Centre serves as a hub for the worldwide UNEVOC Network, and its activities focus on a number of thematic priorities identified by UNESCO's TVET Strategy (2016–2021). UNESCO-UNEVOC implements its activities at the national, regional and international levels in close collaboration with the Organization's Section for Youth, Literacy and Skills Development based in Paris, France, and UNESCO Field Offices and Institutes, as well as through the UNEVOC Network.

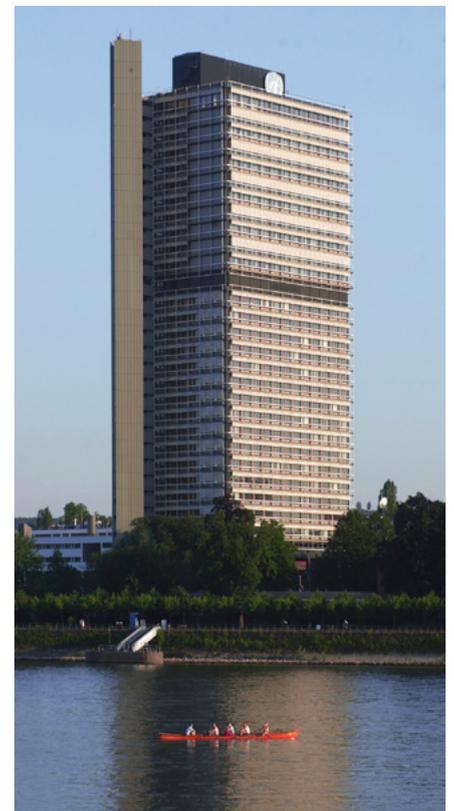
UNESCO-UNEVOC continues to support
Member States in transforming their
TVET systems to meet the challenges and
realize the opportunities that TVET presents.

From 2015 to 2017, UNESCO-UNEVOC's actions in TVET were implemented to realize the objectives set out in the UNEVOC Medium-Term Strategy (2015–2017). UNESCO-UNEVOC assisted UNESCO's Member States through:

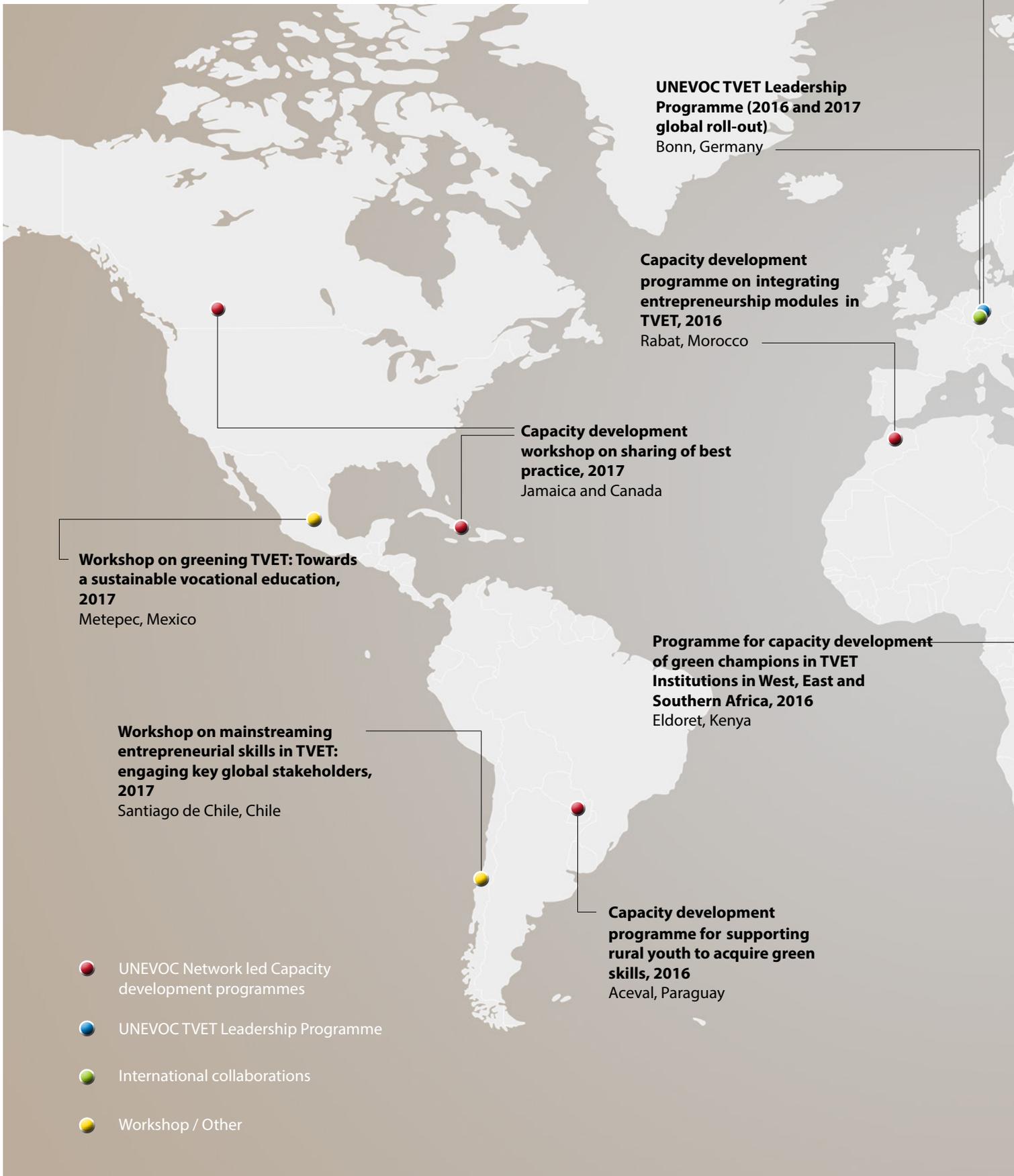
» **Capacity development for policy support.** UNESCO-UNEVOC supports and strengthens the capacities of Member States to develop their TVET systems to ensure equal access for all and the relevance, quality and effectiveness of TVET programmes. This also includes the development of guiding documents, tools and other policy instruments to assist the capacity development of TVET institutions in the Member States.

» **Knowledge development and production.** UNESCO-UNEVOC mobilizes the available knowledge, expertise and capacities of UNEVOC Centres. It rallies the support of the Network to engage its members in collaborative research projects and develop Promising Practices to foster learning, and to contribute to the conceptualization and development of TVET guidelines, indicators, standards and resources in an effort to expand the knowledge base in TVET.

» **Knowledge management and sharing.** UNESCO-UNEVOC informs and initiates dialogues about global TVET trends from around the world. To make TVET more responsive to and aligned with the challenges and prospects that the changing world of work demands, there is a constant need for innovation; UNESCO-UNEVOC offers a platform for the sharing of new ideas and practices related to contemporary TVET issues.



Selected activities at a glance



Launch of UNESCO's Strategy for TVET, 2016

and

Experts forum: Researchers meet Practitioners with World Youth Skills Day Observance, 2017

Bonn, Germany

Workshop on building institutionalized partnerships between education and the world of work, 2016

Amman, Jordan

Training of Trainers in industrial hydraulics and pumps and geospatial information, 2016

Tehran, Iran

Youth mentoring programme as part of the WorldSkills International competition and conference, 2017

Abu Dhabi, United Arab Emirates

UNESCO Global Conference. Skills on the move: Global trends and local resonances, 2017

Tangshan, China

Capacity development programme on enhancing TVET capacity for youth employment and entrepreneurship for sustainable development, 2016

Bangkok, Thailand

Experts' meeting on TVET systems for sustainable development: innovations and best practices in quality assurance of TVET in South Asia, 2016

Colombo, Sri Lanka

Southern Africa regional forum on improving the quality of TVET teachers through training and greening TVET, 2017

Lilongwe, Malawi

Capacity development programme for TVET Leaders, 2016

Suva, Fiji

UNEVOC TVET Leadership Programme for Southern and Eastern Africa, 2017

Harare, Zimbabwe

Frameworks

guiding UNESCO-UNEVOC's activities

UNESCO-UNEVOC's engagements and programmes during this biennium have sought to pursue the strategies outlined by the global community in the Sustainable Development 2030 Agenda, UNESCO's Recommendations for TVET (2015) and the UNESCO TVET Strategy (2016–2021).

The Sustainable Development Goals (SDGs) call for a more interconnected approach to human development. The inclusion of TVET-related targets in SDG 4 'Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all' highlights the importance of TVET in the education sector and its potential to reinforce efforts to attain employment, social development, social equity and gender equality, and environmental sustainability. Consistent with the SDGs, UNESCO revised and updated the Recommendation concerning TVET, adopted by its General Conference in 2015, to reflect change and global priorities, with a focus on areas for reform in TVET, namely: policies and governance; quality and relevance; monitoring and evaluation; research and knowledge management; and international cooperation.

UNESCO Strategy for TVET (2016-2021)

This significant shift in the global policy landscape catalysed the development of UNESCO's new strategy for TVET for 2016–2021. The strategy is aligned with the targets identified in SDG 4 and foresees a role for TVET in the achievement of other goals, such as SDG 5 on gender equality, SDG 8 on employment or SDG 13 on combatting climate change. The UNESCO TVET Strategy (2016–2021) guided the implementation of UNESCO-UNEVOC's First Medium-Term Strategy (2015–2017) and the development of its Second Medium-Term Strategy (2018-2020).

The UNESCO TVET Strategy, endorsed by UNESCO Member States and adopted by UNESCO's Executive Board in April 2016, focuses on equipping all young people and adults with the skills required to secure decent employment and develop entrepreneurial and innovative mind-sets, as well as the tools necessary to become active citizens in an equitable, inclusive and sustainable society. It sets out three priority areas:

- » Fostering youth employment and entrepreneurship;
- » Promoting equity and gender equality;
- » Facilitating the transition to green economies and sustainable societies.



UNESCO-UNEVOC Medium Term Strategy (2015-2017)

UNESCO-UNEVOC's activities for the period 2015 to 2017 were guided by its First Medium-Term Strategy (MTS-1), which was developed in line with the normative instruments and strategic directions of UNESCO in the realm of TVET. The activities were delivered through the following support areas:

- » Capacity-building for policy support;
- » Knowledge development and production;
- » Knowledge management and sharing.

An external evaluation of UNESCO-UNEVOC's implementation of the First Medium-Term Strategy found that the International Centre had, on the whole, successfully supported these areas, but it also stressed the importance of engagement for the UNEVOC Network to promote the thematic priorities identified in the MTS-1. Details of UNESCO-UNEVOC's engagements under each of these strands follow in this report.



| TVET Strategy Launch in Bonn, Germany



Launch of UNESCO's Strategy for TVET

UNESCO's Strategy for TVET (2016–2021) was officially launched in Bonn on 15 July 2016 at the World Youth Skills Day 2016. Over 140 TVET stakeholders from more than thirty-five countries met at an event organized by UNESCO-UNEVOC to explore future areas of collaboration in implementing the Strategy. In line with the three priority areas set out by the Strategy, participants from the UNEVOC Network and international and national organizations, as well as other key partners discussed issues related to green transitions, gender equality, and youth employment and entrepreneurship in interactive workshops. The event successfully identified areas for collaborative working and was an impetus for the development of Network activities in 2017 and beyond.

Greening TVET

for integrating ESD and climate change actions



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Over the course of the biennium, UNESCO-UNEVOC's engagements in greening TVET included developing strategic partnerships, improving the capacities of UNEVOC Centres and Member States, and building the knowledge resources that reinforce orientation towards greater sustainability and institutional applications.



In terms of synergies and partnerships, the UNEVOC Network's active engagement in greening TVET initiatives has facilitated its becoming part of the global Partners Network of UNESCO in the implementation of the Global Action Programme (GAP) on Education for Sustainable Development (ESD). This Network is a global community of practice driving ESD actions. Under this partnership, the UNEVOC Network contributes to the global objective of transforming the teaching and training environment, with a focus on TVET settings, and establishes greater synergies with other global partners.

| Teacher mentoring and peer learning programme in Hong Kong, China

UNESCO-UNEVOC's activities in this period focused on supporting leaders, teachers and trainers in implementing institutional greening approaches through various capacity-building interventions resulting in institutional policy changes. A guiding resource titled *Greening Technical Vocational Education and Training – A Practical Guide for Implementing ESD in Institutions* was published in August 2017. The guide aims to inform TVET stakeholders about the practical steps that can be taken to address skills demand in the transition to green economies and societies. It also helps in determining the needs of TVET teachers for an effective integration of knowledge and skills around sustainability in their courses. In addition to the development and launch of the guide, a Teacher Mentoring and Peer Learning programme was piloted in collaboration with The Education University of Hong Kong, China, in June 2017. Informed by existing practices and limitations in TVET, a group of teachers and educators from Asia-Pacific countries identified areas for the integration and effective delivery of generic green skills. Based on the ensuing discussions, this programme will be developed further to provide a model for green skills integration, and to identify teachers' capacity development needs.

The whole-institution approach to greening TVET has also guided various capacity development programmes over the biennium. While some of these activities were led by UNESCO-UNEVOC, other programmes were initiated and developed by the UNEVOC Centres, highlighting the determination of institutions in the network to transform. An example of such a programme was a management-oriented workshop on Greening TVET for Sustainable Development organized in June 2017 by CONALEP, a UNEVOC Centre in Mexico, and in collaboration with the German Federal Institute for Vocational

Education and Training, which enabled a greater understanding of five important approaches for ensuring sustainability within a whole-institution context; Greening the campus, greening curriculum and training, greening research, greening community and workplace, and greening institutional culture.

Programmes conducted by UNESCO-UNEVOC, in collaboration with other UNESCO field offices and UNEVOC Centres, tackled the strengthening of professional capacities at different levels. A module on greening TVET was developed and used in the training of Southern and Eastern Africa TVET leaders at a Regional TVET Leadership Programme held in Harare, Zimbabwe (October 2017). Other programmes provided opportunities for:

- » Raising teacher awareness and creating effective learning processes to integrate sustainability into African UNEVOC Centres (Green Teacher Champion programme held in Eldoret, Kenya (October 2017);
- » Improving the understanding of planning and monitoring green TVET institutions, as well as greening curricula and training, with a focus on technology-driven skills development in renewable energy fields in Thailand (November 2017) and Canada/Jamaica (October 2017);
- » Launching a special Youth Mentoring programme, which targeted young people and was supported within the WorldSkills process in Abu Dhabi (October 2017). UNESCO-UNEVOC mentored about sixty young people on greening TVET in the context of a 'doing more with less' approach, and raised awareness on the skills demand for green jobs.



Alferdo Xavier Rello Rodarte, Mexico, on the Greening TVET – Practical Guide

"This guide enables an understanding of establishing an action plan, and knowing about activities carried out in different institutions around the world to systematically respond to the challenges of climate change in a bottom's up approach."

As a result, over 200 TVET institution stakeholders and young people in more than 20 countries have increased their greening TVET capacities and understanding of the issue. To date, 12 UNEVOC Centres¹ have developed concrete initiatives and programmes aimed at greening their respective institutions.

UNESCO-UNEVOC also undertook various knowledge development activities to improve the knowledge base in the field of greening TVET. The results of a study conducted by UNESCO-UNEVOC in 2017 highlighted the lack of a coherent TVET and skills development agenda in the National Action Plans of 31 countries. This study will be expanded to include more countries, examining the critical role of TVET and the skills agenda in developing appropriately trained human resources to achieve the climate action targets. Moreover, a further study was launched to identify emerging jobs and skills needs in the solar energy sector. Both of these resources will be published in 2018.

¹ China, Fiji, Malaysia, Philippines, Kenya, Nigeria, Mexico, Paraguay, Canada, Jamaica, Barbados and Tunisia



| Greening TVET workshop in Metepec, Mexico

Promoting ICT in TVET



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UNESCO-UNEVOC's work on promoting information and communication technologies (ICTs) in TVET has continued to focus on a greater integration of ICTs in instructional design and pedagogy as the most critical element in reorienting TVET.

However, the integration of such learning-augmenting technologies in TVET has presented certain challenges – one of which is the disparity between the skills demanded by industry and the competencies of the TVET teachers to impart these to their students. The constraints faced by teachers to integrate new technologies, content and delivery techniques into their pedagogy are largely the result of their limited exposure to these new developments as well as gaps in their own training, which is demonstrated by their inability to assimilate these changes.



International training programme on ICT in TVET in Manila, Philippines



| ICT in TVET project inception workshop in Bonn, Germany

To address this problem, UNESCO-UNEVOC organized an Experts' Meeting on ICTs in TVET in Bonn in March 2016. This meeting served as an inception workshop for a project funded by the OFID where the experts discussed the development of a Teachers' Guidebook to improve quality in TVET using ICTs. This Guidebook is aimed at supporting TVET teachers with tools to integrate ICTs into TVET, to improve access, raise standards, and transform teaching and learning as a result. Selected UNEVOC Centres contributed to case studies and the content development of this guidebook, which is expected to be published in 2018. This project benefitted from the support of the OPEC Fund for International Development.

In December 2016 UNESCO-UNEVOC also co-organized a training programme in collaboration with the Colombo Plan Staff College (CPSC) in Manila, Philippines, and the UNESCO Regional Office for the Asia-Pacific region

in Bangkok. Aimed at improving the competencies of TVET teacher trainers within the networks of the TVET teacher training institutions of the CPSC and UNESCO, the five-day programme further addressed the competency gaps of teachers through identifying pedagogical approaches and technology-based resources. The programme built on teachers' existing capacities to strengthen their vocational pedagogy. This programme enabled 23 TVET teachers to develop a better understanding of the broader basis for improving TVET quality using ICTs in teacher training, identified the appropriate technologies and digital learning resources, and facilitated an active learning approach using ICTs.

UNESCO-UNEVOC's work on promoting ICTs in TVET and supporting teachers and pedagogy was complemented by activities aimed at increasing the conceptual understanding of Open Educational Resources (OER) as a means

to both widen access to learning and improve its quality. As part of this process, UNESCO-UNEVOC engaged the UNEVOC Network at the second World OER Congress in September 2017 (organized by UNESCO, the Government of Slovenia and other partners, such as the Commonwealth of Learning). More than 550 participants, including 30 ministers from 111 UNESCO Member States, contributed to the development of the 'Ljubljana OER Action Plan'. This plan presents 41 recommended actions to mainstream OER and enable all Member States to build knowledge societies and achieve the targets stipulated in Sustainable Development Goal 4 pertaining to education quality and lifelong learning.

In preparation for the World Congress, and in collaboration with the holder of the UNESCO Chair on OER at Fontys University of Applied Sciences in the Netherlands, UNESCO-UNEVOC conducted a study on the potential of OER in and for TVET, which was presented at the Congress. Four UNEVOC Centres from Croatia, Germany, Madagascar and Slovakia contributed their views on the prospects for OER in TVET in their respective countries and institutions. Based on this study and the deliberations at the Congress, it is evident that both the understanding and use of OER among TVET practitioners are just beginning to take shape. There is, however, a growing interest in benefiting from the promised gains of OER and realizing their potential.



| OER Congress in Ljubljana, Slovenia

Mainstreaming entrepreneurship in TVET



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It is increasingly recognized that in order for TVET systems to respond to the changing work environment, they need to cater for a broad range of skills, in addition to job-specific competencies, in particular by promoting entrepreneurial skills and mind-sets.

One of the targets of Sustainable Development Goal 4 on Education is to strengthen 'skills for employment, decent jobs and entrepreneurship'. In line with the UNESCO TVET Strategy (2016–2021), youth employment and entrepreneurship is one of the core thematic priorities for UNESCO-UNEVO's activities. During the course of the outgoing biennium, the work of UNESCO-UNEVO in this area focused on supporting TVET institutions in the Member States and the UNEVO Network to develop and implement effective strategies to strengthen entrepreneurial skills in TVET.

In 2017 UNESCO-UNEVOC launched a new global programme on Mainstreaming Entrepreneurial Skills in TVET. Understanding various potential areas for improvement and learning from existing practices are considered key, and the programme gives special attention to addressing the capacity development needs of TVET teachers and managers. An online survey was conducted with the UNEVOC Network and the existing literature was reviewed, leading to the development of a discussion paper that documents global trends and presents different ways in which entrepreneurial skills are mainstreamed in TVET policies and programmes (to be published in 2018). In December 2017, UNESCO-UNEVOC and Duoc UC – a UNEVOC Centre in Chile, together with UNESCO's Section for Youth, Literacy and Skills Development and the UNESCO Regional Bureau in Santiago – organized an Experts' Consultation Meeting on the place of entrepreneurship in TVET. The participants included experts from UNEVOC Centres and relevant organizations from different regions². Strategies for mainstreaming entrepreneurial skills in TVET policies and programmes were discussed, along with the changing roles of TVET teachers and the implications for their training, while a forum was provided for sharing country experiences. A framework for more in-depth country case studies was developed, which prepared the ground for further work to be carried out through the following biennium.

2 Spain, Mexico, Brazil, Egypt, Barbados, Peru, Paraguay, Chile, India and Canada.



| Regional forum in Seychelles

During the biennium, UNESCO-UNEVOC also encouraged regional dialogues and collaboration in order to develop capacities for strengthening entrepreneurial skills in TVET.

In March 2016, during a regional forum organized by the UNESCO Regional Office for Eastern Africa (in partnership with UNESCO-UNEVOC, the Seychelles National Commission for UNESCO and the Ministry of Education of Seychelles), over 50 TVET stakeholders in Eastern Africa discussed ways to develop young people's skills to equip them for work and entrepreneurship. Six UNEVOC Centres from Eritrea, Ethiopia, Mauritius, Nigeria, Seychelles and Tanzania participated in the forum and UNESCO-UNEVOC contributed to discussions on ways to enhance regional dialogue and cooperation in TVET. The event yielded a set of recommendations, referred to as the 'Mahe Process to strengthen TVET in Eastern Africa', calling for the integration and improvement of teaching entrepreneurship-related skills in TVET, facilitating the transition



Luis Cateura, Paraguay

"Entrepreneurial education shouldn't only be about how to set up your own business; it is about change of mind-set. It can help young people to be proactive, motivated and gain confidence."

to self-employment, developing and strengthening partnerships with the private sector, and supporting sustainable funding mechanisms for youth enterprise start-ups.

A UNEVOC Network Capacity Development Programme was also organized by the UNEVOC Network in the Arab States, with the support of UNESCO-UNEVOC. Led by ENSET, a UNEVOC Centre in Morocco, this capacity development programme aimed at integrating entrepreneurship into the TVET curricula through blended learning. More than 30 TVET managers and teachers from Algeria, Lebanon, Mauritania, Morocco and Tunisia were trained over a four-day period in November 2016 in the areas of teaching entrepreneurship and developing MOOCs³ focusing on entrepreneurial skills in TVET.

3 Massive Open Online Courses (MOOCs)



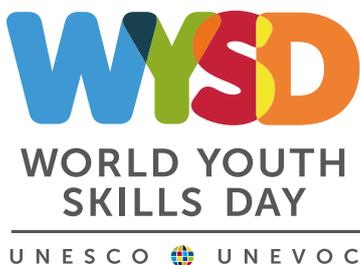
| Workshop in Santiago, Chile

Mobilizing youth to promote skills development



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Young people constitute a crucial target group for TVET, and, in line with UNESCO's Operational Strategy on Youth (2014–2021), UNESCO-UNEVOC pays particular attention to helping young people engage in the promotion of skills development and ensuring that their perspectives are reflected in the policy discussions and programmes that affect them.



World Youth Skills Day

15 July 2016/2017

World Youth Skills Day is a UN-recognized initiative that aims to raise awareness about the importance of ensuring that all young people have access to good-quality TVET and skills development opportunities. Given its mandate and outreach through the UNEVOC Network, UNESCO-UNEVOC has made a point of observing this Day and using it to highlight the importance of equipping young people with the skills required for work and life the world over.

On the occasion of the World Youth Skills Day 2016, UNESCO-UNEVOC organized an event in Bonn that attracted 140 TVET stakeholders. As well as providing an opportunity to launch the UNESCO Strategy for TVET (2016–2021), this event gave a platform for youth representatives to discuss how to leverage youth engagement and dialogue on issues that affect them.

More than 50 UNEVOC Centres from around 40 countries organized special activities for World Youth Skills Day 2017. From workshops on green skills development for young people in Mexico, to exhibitions and workshops to showcase the skills of TVET students in Ghana, these activities focused on promoting skills development for young people in line with current dynamic trends in technology and the demand for sustainable skills. UNESCO-UNEVOC and the European Centre for the Development of Vocational Training (CEDEFOP) also jointly organized a debate in Bonn that brought together UNEVOC Members and experts, as well as youth representatives, from around the world to discuss ways to make TVET more attractive to young people.

Skills in Action Photo Competition

UNESCO-UNEVOC launched the Skills in Action Photo Competition as part of the celebrations for World Youth Skills Day 2017. The competition attracted more than 250 submissions from all over the world, and highlighted the ways in which TVET is empowering young people in their communities, with a focus on the three main thematic areas of the UNESCO TVET Strategy (youth employment and entrepreneurship; equity and gender equality; and the transition to green economies and sustainable societies).



Mr Bishoka Mulmi, Nepal
Youth participation in traditional handicrafts
Second Prize
CC BY-NC-SA 3.0 IGO © UNESCO-UNEVOC/Bishoka Mulmi



Ms Eytayo Oyelowo, Nigeria
Female Aircraft Engineer
First Prize
CC BY-NC-SA 3.0 IGO © UNESCO-UNEVOC/Eytayo Oyelowo

Gender equality in TVET

In line with UNESCO's global priority on gender equality, the UNESCO-UNEVOC International Centre has been promoting discussions to shed light on issues of gender inequality in TVET, with a particular focus on women's participation in this sector – the aim being to build a stronger knowledge base founded on good practice that will help guide targeted policies and programmes.

As part of the UNESCO TVET Strategy (2016–2021) launch in Bonn in July 2016, a panel discussion was organized to discuss gender equality in the context of the SDGs and the new UNESCO TVET Strategy. The debate aimed at highlighting key challenges for the promotion of gender equality in TVET, as well as in general education and training, and labour market participation. The discussions also focused on the potential of TVET to promote social and gender equity, particularly in terms of entrepreneurship, economic empowerment and social inclusion. The panel included participants from UN organizations and GIZ and UNEVOC Centre representatives.

On International Women's Day in March 2017, UNESCO-UNEVOC organized a social media campaign on Twitter, Facebook and its TVET Forum featuring a call to action. The International Centre successfully reached out to the global community, highlighting the key actions required to better equip women to deal with the changing world of work. A number of UNEVOC Centres also organized various activities at their respective institutions.

Mr Emmanuel Nduwayezu, Rwanda
TVET: Skills that shape a better destiny
Social Media Award
CC BY-NC-SA 3.0 IGO © UNESCO-UNEVOC/Emmanuel Nduwayezu

The UNEVOC Network

The UNEVOC Network consists of approximately 250 Centres across 165 UNESCO Member States, dedicated to promoting international collaboration and partnership among global TVET stakeholders.

It serves as a platform for mutual capacity-building and the exchange of knowledge and innovations in TVET through research and evidence-based activities. The Network comprises of TVET stakeholders representing ministries, national agencies, TVET training institutions, and universities and research institutes from around the world.



| UNEVOC Network participants during the 2016 TVET Leadership Programme

UNEVOC Network in Action

In order for TVET to achieve its transformative potential around the world, UNESCO-UNEVOC has supported UNEVOC Network members and associated stakeholders by raising their awareness of national and regional developments, and increasing their understanding of how TVET enables the development of sustainable societies and economies. Building on the momentum of the previous biennium⁴ and feedback from UNEVOC Centres about network engagement⁵, in 2016 and 2017, UNESCO-UNEVOC, together with the UNEVOC Network, engaged in various projects and activities with the aim of empowering UNEVOC Centres to become actors of change in their country, cluster or region.

⁴ For more information please see the Biennial Report 2014–2015: <http://www.unevoc.unesco.org/up/UNESCO-UNEVOC%202014-2015%20Biennial%20Report.pdf>

⁵ UNESCO-UNEVOC held an Experts' Meeting on strengthening network engagement in November 2015, the recommendations of which were used to inform ways to reinforce network engagement in this biennium. See <http://www.unevoc.unesco.org/go.php?q=UNESCO-UNEVOC+hosts+Expert+Meeting+in+Bonn+Germany>



Conference hosted by RVTTI, a UNEVOC Centre in Kenya
© UNESCO

Africa

The UNEVOC Network in Africa, comprising of 68 UNEVOC Centres, plays an important role in mainstreaming TVET in the regional discourse on human resource development, green skills development and promoting youth employment in the region.

UNEVOC Centres enabling a consolidated Network in West Africa

A key engagement priority over the course of this biennium has been the consolidation and strengthening of the Network in the region. An important dimension in enabling this has been the mutual partnerships and linkages of the UNEVOC Centres, as well as efforts by the UNESCO-UNEVOC to synergize regional programming with other UNESCO initiatives in the region.

It is in this context that UNESCO-UNEVOC, in collaboration with the UNESCO IIEP Pôle de Dakar and its Platform for Expertise in Vocational Training (PEFOP), organized a UNEVOC Network meeting in December 2016 in Dakar, Senegal. The meeting, attended by 25 TVET experts, representing seven UNEVOC Centres in Francophone West Africa, helped participants gain an understanding of UNESCO's Strategy for TVET (2016–2021) and the priorities defined under the Sustainable Development Goals for TVET in the region. UNEVOC Centres pledged to ensure a stronger connection with the UNEVOC Network as a basis for implementing joint activities in areas such as greening TVET and the development of leadership capacity.

UNEVOC Network fostering action on key thematic priorities

Over the course of the biennium, UNEVOC Centres in the region have engaged in collaborative activities across the priority thematic areas. For example, the University of Nigeria, a UNEVOC Centre, developed a case study in addition to assisting in the content development of a forthcoming publication on the use of ICTs to improve teaching and learning outcomes in

TVET. UNEVOC Centres across Africa have also been actively highlighting the importance of developing young people's skills. As part of the World Youth Skills Day 2017, UNEVOC Centres in Cameroon, Ghana, Kenya, Madagascar, Nigeria and Mozambique, among others, organized skills competitions, discussions and training programmes focused on highlighting the importance of youth skills development. In the area of greening TVET, UNEVOC Centres in the region conducted various activities, including an International TVET and Interdisciplinary Research Conference in Kenya, hosted by RVTTI – a UNEVOC Centre in Kenya. This conference, focused on the theme of 'TVET for Accelerated Sustainable Technology', gave participants the opportunity to become acquainted with UNESCO-UNEVOC's greening TVET initiatives. The RVTTI also organized a UNEVOC Network Capacity Development Programme in 2017, entitled 'Capacity Development of Green Champions in TVET Institutions in West, East and Southern Africa'. The programme's content was developed and delivered in collaboration with two other UNEVOC Centres: The Yaba College of Technology (Nigeria) and the Council for TVET (Ghana). More than 40 participants from UNEVOC Centres in Botswana, Kenya, Ghana and Nigeria received training as part of the programme. In addition, UNEVOC Centres from Malawi, Namibia, South Africa and Zimbabwe also participated in the Southern African Regional TVET Teacher Training and Greening TVET Forum in Malawi, in April 2017.

Cluster Coordinating Centres⁶ in Africa: Human Resource Development Council, Botswana; Rift Valley Technical Training Institute, Kenya; National Board for Technical Education, Nigeria; and National Directorate for Professional Technical Education, Mozambique

⁶ Cluster Coordinating Centres are designated UNEVOC Centres that actively support UNESCO-UNEVOC to organize events and facilitate networking in their respective clusters in the region

New UNEVOC Centres

During the biennium, 14 new institutions were inducted into UNEVOC Network from Africa, Latin America and the Caribbean, Europe and the Arab States:

Tknika in Basque Country – Spain

Tknika is a Centre for Research and Applied Innovation in VET, and is tasked with promoting innovation, creativity and entrepreneurship in the VET centres of the Basque Country (Spain).

National Centre for the Teacher training and education in engineering (CENAFFIF) in Tunisia

The CENAFFIF is a public institution under the Ministry of Vocational Training and Employment of Tunisia.

Bow Valley College in Canada

Bow Valley College is the largest community college in Alberta, Canada. Every year it helps approximately 16,000 students from over 140 countries access vocational learning, including 5,000 online learners.

The Fund for Financing Vocational Training / Fonds de Financement de la Formation Professionnelle (3FTP) in Senegal

3FTP supports the financing of training for workers in companies and professional organizations. It funds both individual training applicants and vocational training centres, and provides equality assurance and accreditation.

Technical and Vocational Education and Training Authority (TVETA) in Kenya

The TVETA is mandated to promote access, equity, quality and relevance in TVET in Kenya.

Duoc UC in Chile

Duoc UC is a private, professional, non-profit institute and one of the biggest and more important institutions of higher education in Chile. It focuses on the 'learning by doing' model.

National Council for the Federal Network of Vocational, Scientific and Technological Education Institutions (CONIF) in Brazil

CONIF is comprised of a group of thirty-eight Brazilian federal institutions of Vocational, Scientific and Technological Education, present in all of its federating units.



iHuB in Ukraine

iHuB innovation and entrepreneurship centre is a network of educational centres for innovation and entrepreneurship, with the aim of training and supporting start-ups in innovation across Ukraine.

Centre for Accreditation and Quality Assurance for TVET (CAQA) in Jordan

CAQA Jordan is a quality assurance and accreditation institution in Jordan, engaging in the regulation and development of the TVET sector.

Korean Council for University College Education (KCCE) in South Korea

The KCCE is an organization established by law to promote the sound development of tertiary-level technical and vocational education in Korea.

Instructor Training Centre for Technical and Vocational Research (ITC) in Iran

The ITC is affiliated with the Iranian Technical and Vocational Training Organization (Iran TVTO).

Directorate of Vocational Education and Training (GDVET) in Vietnam

The GDVET is a unit of the Ministry of Labour – Invalid and Social Affairs, which supports the Ministry in Vocational Education and Training.

Abu Dhabi Centre for Technical and Vocational Education and Training (ACTVET) in UAE

ACTVET is tasked with the establishment of policies and standards regulating TVET institutions in the emirate of Abu Dhabi.

Rift Valley Technical Training Institute (RVTTI) in Kenya

The RVTTI is an East Africa Community Centre of excellence in TVET, situated in Eldoret Kenya.

Asia and the Pacific

The UNEVOC Network in Asia and the Pacific continues to play a key role in building capacities, developing knowledge and fostering mutual exchange between the 60 UNEVOC Centres in the region. In particular, in this period, the role of the Cluster Coordinators exercised an important function in facilitating collaboration in the region.



| Capacity building programme in Bangkok, Thailand

Pushing for evidence-based measurement of outcomes of TVET

Member States in the region have shown an increased interest in strengthening the evidence for the benefits and outcomes of TVET. In response to this, UNEVOC Centres in the area with strong research capacities were mobilized through a collaborative research project. The project engaged UNEVOC Centres in dialogues on the need for investigating issues around the costs and benefits of TVET, and recommended a set of indicators and a model framework, not only for measuring the economic benefits of TVET, but also for considering the relevant social, individual and employer perspectives.

A reference framework for measuring the return on investment in TVET was developed in collaboration with the National Centre for Vocational Education Research (NCVER) in Australia and other UNEVOC Centres in the region, including the Philippines (TESDA), Malaysia (Ministry of Higher Education), the Republic of Korea (KRIVET) and Nepal (CTEVT). The framework serves as a reference tool to support the development of research and evidence-based initiatives to attract more investment in TVET.

Raising capacities in green skills and training approaches

Developing institutional capacities to manage the transition to green economies and societies has been a high priority during the biennium, as many of the Member States in the region, including Small Island Developing States (SIDS), are also highly vulnerable to the impact of climate change. The adaptation of practices at work and in day-to-day life is a critical step, and it is advocated that this should begin at the institutional level.

Issues around teacher competencies in green skills training, the buy-in of training schools' management in adopting a whole-institution approach to the greening of TVET and raising awareness about the skills demanded in green sectors were addressed through several interventions supported by UNESCO-UNEVOC.

The engagements ranged from the implementation of capacity-building programmes focused on greening TVET institutional approaches and the adaptation of curricula and training contents (e.g. the KRIVET-OVEC capacity-building programme in Bangkok, Thailand in November 2017), to facilitating teacher mentoring and peer learning on integrating green skills in TVET (hosted by the UNEVOC Centre at The Education University of Hong Kong, China in June 2017).

Policy learning and capacity development on quality assurance in TVET

Quality assurance in TVET has become a vital issue for the UNEVOC Centres in Southern Asia. This issue has become more relevant than ever on the heels of the development of the UNESCO Regional Guidelines for Quality Assurance of TVET qualifications. A fruitful exchange on this topic brought together experts from qualifications and TVET regulatory authorities in the Southern Asian cluster (India, Iran, Bangladesh, Pakistan, Afghanistan and Sri Lanka) to discuss various innovations and practices in quality assurance (Sri Lanka, February 2017). This provided a rich platform for policy learning and exchange on ways of promoting policy learning in quality assurance and qualifications systems, and how evaluation mechanisms can be improved in the context of the growing skills mobility in the sub-region. Similarly, quality assurance in TVET management was seen providing an impetus to increase the outcomes and relevance of TVET in the Pacific islands. Twenty-seven TVET leaders and managers from Fiji and Kiribati ministries and institutes were trained in quality assurance in TVET management to increase their administrative capacities. The workshop was informed by practices on quality management in the Australian TVET sector and supported by TAFE Queensland (Fiji, February 2016).

Cluster Coordinating Centres in Asia and the Pacific: NCVER, Australia (for the Pacific); KRIVET, Republic of Korea (for East and Southeast Asia); and TVEC, Sri Lanka (for South Asia)



| Workshop on quality assurance in Sri Lanka

Arab States

With 28 UNEVOC Centres in 19 countries of the region, the UNEVOC Network is engaging key regional stakeholders to frame a sustainable response to current and emerging skills challenges by mainstreaming TVET in their education systems, while at the same time promoting the quality of skills development to address issues such as youth employment. These engagements took the form of workshops, capacity development programmes and knowledge-sharing. UNEVOC Centres have also been engaging in cross-regional and international initiatives during this biennium, including a Collaborative Research project on Community Engagement in TVET (led by CEGEP Canada), and presenting the UNEVOC Network to the global TVET stakeholders as part of the WorldSkills Abu Dhabi 2017 events. Moreover, UNEVOC Centres in Egypt, Jordan, Mauritania, Morocco, Saudi Arabia and Sudan took the initiative in mainstreaming the role of skills development for young people by conducting activities to raise awareness of TVET for youth skills development as part of the World Youth Skills Day.



| Arab regional forum on TVET in Cairo

Arab Regional Forum on TVET – synergizing strategies for mainstreaming TVET

UNESCO-UNEVOC, key stakeholders in the region, including the Arab League Educational, Scientific and Cultural Organization (ALESCO), the Islamic Educational, Scientific and Cultural Organization (IESCO) and the UNESCO National Commission Egypt, joined together to organize an Arab Regional Forum on TVET in May 2016. This forum focused on discussing strategies to improve TVET in the Arab States and linking TVET policies and programmes with the requirements of industry. Among the key strategies identified as worth pursuing were the integration of TVET into the educational systems of the constituent countries, developing systematic approaches to updating TVET programmes, curricula and teaching methods, and developing adequate teacher training mechanisms for TVET teachers. Seven UNEVOC Centres from six Member States in the region participated in the forum, which concluded with a set of recommendations to support the policy reform processes in the respective countries.



| Capacity building programme in Morocco

Building institutionalized partnerships between education and the world of work

As part of the UNEVOC Network Capacity Development Programme, the National Commission for Human Resources Development in Jordan organized a workshop in December 2016 on fostering institutionalized partnerships between industry and TVET providers. The overarching objective of this workshop was to develop the administrative and technical capacities of the TVET institutions to develop linkages with industry in order to keep abreast of changing skill demands.

More than thirty participants took part in the meeting, including delegates from thirteen UNEVOC Centres in the region and a number of industry representatives. The programme also included the development of country reports that comprehensively reviewed the existing institutional partnership systems of Egypt, Iraq, Jordan, Libya, Tunisia and Yemen. The discussions focused on identifying good practice in these countries and the development of a guiding framework to build effective and sustainable partnerships between TVET institutions and the private sector. The European Training Foundation, GIZ and the International Labour Organization provided evidence-based input.

Cluster Coordinating Centres in the Arab Region: Ministry of Education, Egypt; Higher Industrial Training Institute, Lebanon; and ENSET, Morocco

Latin America and the Caribbean

UNEVOC Network activities in Latin America and the Caribbean in 2016 and 2017 focused on consolidating and strengthening collaborative work through workshops, conferences and capacity development programmes. The region has more than 35 UNEVOC Centres, and a number of these institutions emerged as key actors in promoting the work of the Network, taking the initiative in mobilizing and inspiring other UNEVOC Centres. These activities were conducted not only in tandem with UNEVOC Centres but also with stronger engagement from other UNESCO Offices in the region. For example, conferences on TVET as a means for Sustainable Development in the ANDEAN countries (Quito, Ecuador), organized at the initiative of SETEC, a UNEVOC Centre in Ecuador, and TVET for Sustainable Regional Development in the Caribbean (Montego Bay, Jamaica) were supported in collaboration with the UNESCO Offices in Quito and Kingston respectively. UNEVOC Centres in the region expressed particular interests in greening TVET and entrepreneurship. A workshop held in Metepec at the initiative of CONALEP, a UNEVOC Centre in Mexico, UNEVOC and the Federal Institute for Vocational Education and Training (BIBB), brought together Latin American UNEVOC Centres to discuss ways to green their institutions, while a workshop organized in Santiago jointly by UNESCO-UNEVOC and Duoc UC, a UNEVOC Centre in Chile, convened UNEVOC Centres from all over the world to discuss mainstreaming entrepreneurial learning in TVET. Lastly, UNEVOC Centres in the Caribbean collaborated with a UNEVOC Centre in Canada to discuss issues related to youth employment and skills development for the transition to a green economy. However, what ties all these events together is the renewed commitment from UNEVOC Centres in the region to finding new areas for collaboration, both within and outside of the region.



Cluster meeting during the Third International Conference on TVET in the Caribbean

Caribbean UNEVOC Centres come together to set the way forward

With the support of the UNESCO Cluster Office in Jamaica, UNESCO-UNEVOC invited 14 UNEVOC Centres from 11 Caribbean countries to participate in the Third International Conference on TVET in the Caribbean. The conference, held in Jamaica in May 2017, provided a platform for governments, academia, industry and development partners to share innovative practices in their fields. The conference was particularly timely as it took place at a time when the Caribbean TVET sector was facing a number of challenges, including the lack of a skilled workforce, skills mismatches in the labour market, high youth unemployment, the emigration of skilled labour, and climate and environmental vulnerability. With collaborative working and network creation in mind, a cluster meeting organized by UNESCO-UNEVOC successfully explored ways to further enhance the engagement of UNEVOC Centres in the Caribbean.

The conference was organized by the University of the West Indies, with the support of the Government of Jamaica, UNESCO, the University of Technology and HEART Trust/NTA in Jamaica, both UNEVOC Centres and other key partners.

Capacity development and networking at the heart of a programme in Paraguay

Access to the education and training that allows rural youth to have decent work opportunities is still limited in Paraguay. The Fundación Paraguaya, a UNEVOC Centre since 2013, uses innovative approaches to meet the learning needs of young people in rural communities. One example of such an activity is the recent UNEVOC Network Capacity Development Programme, which was implemented with the support of the TVET Academy, the Ministry of Education and Culture, and UNESCO-UNEVOC. The capacity development programme created agricultural curriculum videos and material to be uploaded on an online platform and used by teachers and students in rural schools. The content includes a focus on teaching sustainable practices in agricultural activities.

A workshop in Paraguay convened eight UNEVOC Centres from seven countries in Latin America⁷ to share experiences and thus enable participants to implement similar projects in their own institutions. The resulting videos were well received in

⁷ Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay and Uruguay.



Network meeting delegates with students in Paraguay

Paraguay and are already in use in twelve schools around the country, improving the quality of lessons for over 270 students. The UNEVOC Centres also used this opportunity to discuss global TVET developments and issues related to Latin America. Importantly, the cluster meeting was the first regional meeting held in Latin America since 2012.

Cluster Coordinating Centres in Latin America and the Caribbean: Fundacion Paraguaya, Paraguay; and Heart Trust NTA, Jamaica.



Workshop organized in Bonn, Germany
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Europe, CIS and North America

The Europe, CIS and North America region consists of 54 UNEVOC Centres across 41 countries. UNEVOC Centres in Canada and Germany have been instrumental in promoting North-South collaboration by engaging in cross-regional initiatives within the UNEVOC Network. These initiatives include collaborative research projects on work-based learning and community engagement in TVET, and capacity development workshops that include UNEVOC Centres from other regions of the UNEVOC Network. UNEVOC Centres in Europe have also engaged in finding avenues for mutual collaboration to ensure TVET's responsiveness to common challenges.

UNEVOC Centres in Canada promote cross-regional collaboration

In addition to their active engagements within their national contexts, UNEVOC Centres in Canada have been leading the way in promoting cross-regional and North-South collaborations. In its 2016 Annual Conference, as well as deliberating upon its future engagements in the context of the Sustainable Development Goals, Colleges and Institutes Canada (CICan) also invited representatives from other regions, including UNEVOC Centres, to attend. Furthermore, Bow Valley College Canada, together with Cégep de la Gaspésie et des Îles, Canada (CEGEP) and four UNEVOC Centres from the Caribbean (Heart Trust NTA and University of Technology from Jamaica, The TVET Council of Barbados, and T.A. Marryshow

College Grenada), has led the implementation of a UNEVOC Network Capacity Development Programme on strengthening institutional linkages between the UNEVOC Centres. While fortifying existing linkages between the six participating TVET institutions in Canada and the Caribbean, this programme also resulted in increased integration to facilitate future partnerships and joint activities.

Strengthening the UNEVOC Network in Europe through greater collaborations

Following a scoping workshop in September 2017 on strengthening the European UNEVOC Network through greater collaboration, UNESCO-UNEVOC conducted an extensive survey that invited the members of the European UNEVOC Network to share their views on the challenges faced in their respective contexts, as well as identifying their key thematic interests. This survey helped to highlight the opportunities for engagement within the UNEVOC Network through knowledge exchange and regional collaboration. The themes identified as key issues for further engagement were: greening TVET/green jobs; digitization/Industry 4.0/smart production; entrepreneurship and innovation; migration and skills; and the attractiveness of TVET. The survey results provided an important base for the 'European UNEVOC Network Consolidation Workshop' in March 2018 in Bonn, at which an action plan for the next two years was discussed, including concrete sets of activities by the European UNEVOC Cluster and bridging projects with other regions of the UNEVOC Network.

Capacity Development Programmes

UNEVOC TVET Leadership Programmes

In this period the UNESCO-UNEVOC International Centre aimed to strengthen national capacities and support capacity development activities to address the recommended actions of the Shanghai Consensus (2012). UNESCO-UNEVOC's capacity development activities have taken into account the different stages of development and needs of the various types of stakeholders in the UNEVOC Network.



TVET LEADERSHIP

VISION KNOWLEDGE SKILLS

Consistent with the recommendations of the Shanghai Consensus and the UNESCO TVET Strategy (2016–2021), UNESCO-UNEVOC designed the UNEVOC TVET Leadership Programme, the goal of which is to increase the leadership capacities of TVET leaders globally, within the UNEVOC Network and beyond. The lack of change leaders in TVET is considered a hindering factor for enhancing its relevance and making TVET systems responsive to economic, social and environmental changes. The programme addresses this perceived obstacle to TVET institutions' ability to respond to the shifting patterns of work and the development agenda. The programme is implemented at the global, regional and national levels.

In addition, the programme aims to equip TVET policy-makers and practitioners with guidance on shaping a vision, while giving them the knowledge and tools to improve their leadership functions in their respective institutions. This programme has been an annual event since its inception in 2016. To date, the global run of the TVET Leadership Programme from 2016 to 2017 has trained 44 TVET leaders from around the world, including 13 women.

The programme also benefits from collaborations with UNESCO headquarters and other partners.



| 2016 and 2017 UNEVOC TVET Leadership Programmes organized in Bonn



| Regional TVET Leadership Programme organized in Harare

Regional UNEVOC TVET Leadership Programme in Harare, Zimbabwe

The first Regional UNEVOC TVET Leadership Programme was conducted to give potential change leaders in the TVET sector in Eastern and Southern Africa a better understanding of the regional and global development agendas, and to help them use these opportunities to effect change in their institutions. Organized collaboratively by the UNESCO-UNEVOC and the UNESCO Regional Office for Southern Africa (ROSA), 24 TVET leaders from nine Eastern and Southern African countries were trained in Harare, Zimbabwe, in October 2017. The participants included senior-level TVET staff from governments, TVET colleges and TVET authorities across Namibia, Zambia, Mozambique, Zimbabwe, Madagascar, Malawi, Botswana, Kenya and Swaziland.

Institutional Leadership and Management Training Programme in Malawi

As part of UNESCO-UNEVOC's contribution to the success of the UNESCO-EU Skills and Technical Education Programme (STEP) in building capacity in the TVET sector in Malawi, UNESCO-UNEVOC has been addressing the capacity gaps of the management personnel in national technical colleges, community technical colleges and community skills development centres (CSDC). The project team has been working closely with key players from the Ministry of Labour, Youth, Sports and Manpower Development, the Technical, Entrepreneurial and Vocational Education and Training Authority (TEVETA), and the Skills and Technical Education Programme (STEP).



| Skills training in Malawi

To date, UNESCO-UNEVOC has conducted two streams of training needs analysis. The first identified the current gaps in generic institutional management skills of the relevant personnel in CSDCs. The second analysed the records of existing occupational profiles and the self-assessments of current competencies possessed by principals of TVET institutions, set against the new requirements of the job in a changed policy environment.

Following these steps, a string of Management Capacity Development activities will be implemented by UNESCO-UNEVOC with the EU-STEP project team in 2018. This will target the training of more than 100 principals, deputy principals, centre leaders and committee members in Malawi, alongside developing a handbook for managers.

During the biennium, UNESCO-UNEVOC continued to promote knowledge development and various activities to introduce new perspectives to the global TVET debates.



| The UNEVOC TVET Leadership Programme alumni 2016-17 come from across the globe

UNEVOC Network-led Capacity Development Programmes (2016-2017)

UNESCO-UNEVOC initiated the Capacity Development Programmes in 2015. These programmes were aimed at supporting UNEVOC Centres' exposure to innovative practices and building their capacities to deal with contemporary issues in TVET. They were based on proposals submitted by UNEVOC Centres that addressed the core thematic focus points and other relevant areas.

A snapshot of the UNEVOC Network Capacity Development Programmes implemented in the period 2016–17 is shown as follows:

2016

| Programme type | Programme | Implementing partners | Beneficiaries |
|-------------------------------|--|---|---|
| Training of Trainers | Training of Trainers in industrial hydraulics and pumps and geospatial information | Shahid Rajayee Teacher Training University (SRTTU), Tehran - Iran | 27 trainers from two UNEVOC Centres and their affiliated institutions in Iran and Afghanistan |
| Leadership Training | TVET Capacity Development Programme | TAFE Queensland, Australia | 29 TVET Leaders from four UNEVOC Centres in Fiji and Kribati |
| Training of Trainers | Integrating entrepreneurship modules in TVET | ENSET, Rabat - Morocco | 20 participants from seven UNEVOC Centres from Algeria, Lebanon, Mauritania, Morocco and Tunisia |
| ICT in TVET/ Teacher training | Using ICTs in teaching green agriculture | Fundacion Paraguaya, Paraguay | 40 teachers from Paraguay trained / Eight UNEVOC Centres from Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay and Uruguay sensitized |

2017

| Programme type | Programme | Implementing partners | Beneficiaries |
|------------------------------------|--|--|--|
| Greening TVET | Capacity development of green champions in TVET institutions in West, East and Southern Africa | Rift Valley Technical Training Institute, Kenya | 40 trainees from UNEVOC Centres from Botswana, Kenya, Ghana and Nigeria |
| Best practice sharing | Moving to action through collaborative capacity building | Bow Valley College, Canada | 14 trainees from six UNEVOC Centres from Canada, Jamaica, Barbados and Grenada |
| Greening TVET/ Leadership Training | Enhancing TVET capacity for youth employment and entrepreneurship for sustainable development: Developing active change agents in Asia-Pacific | KRIVET Republic of Korea and Office of the Vocational Education Commission (OVEC), Ministry of Education of Thailand | 40 experts from 14 UNEVOC Centres from Australia, Bhutan, China, Fiji, India, Iran, Mongolia, Myanmar, Philippines, Rep. of Korea, Samoa, and Thailand |

UNESCO-UNEVOC's Knowledge development activities

To ensure that TVET is more responsive to and aligned with the challenges and prospects presented by the changing world of work, there is a constant need for innovation and the sharing of new ideas on contemporary issues related to TVET.

Collaborative research projects

Collaborative research projects aim to bring together UNEVOC Centres with strong research expertise to conduct studies on contemporary trends and issues in TVET. Collaboration and the sharing of experiences are important components of these projects, as are the resources that can support UNEVOC Centres to take action. All collaborative research projects are led by UNEVOC Centres, with the support of UNESCO-UNEVOC. There were three ongoing collaborative research projects in 2016 and 2017.

Return on investment in TVET

The NCVET in Australia, in collaboration with UNEVOC Centres in the Asia and Pacific region, undertook a collaborative research project in 2016 on measuring return on investment (ROI) in TVET.

The research aimed to investigate the issues around the costs and benefits of TVET and develop a framework supported by a set of indicators that would not only measure the economic benefits of TVET, but also take the social, individual and employer perspectives into account. One outcome of this collaborative research has been the development of a framework for measuring ROI in TVET. Further work on developing a guiding document for using the ROI measurement framework was also undertaken by UNESCO-UNEVOC and NCVET in 2017, and is expected to be published in 2018. As TVET gains prominence in the international discourse, the framework and supplementary guidance document will enable TVET stakeholders to engage in research-related activities that contribute to informed policy discourse and the management of TVET systems/institutions.



Researchers from the UNEVOC Network discuss work-based learning

As part of an ongoing collaborative research project on 'Work-based learning as a pathway to competence-based education – Research and implementation strategies from a comparative and global VET perspective', UNESCO-UNEVOC and BIBB invited scholars from the UNEVOC network and beyond to gather in Bonn for a two-day workshop in June 2017. The workshop provided a global perspective on work-based learning as a pathway for competency-centred education and how this relates to empirical research. The workshop linked academic experts and institutions in the area of TVET across the world to share ideas about how research can be designed and conducted to improve work-based learning and take better advantage of its potential benefits, both for individuals and employers/sectors.

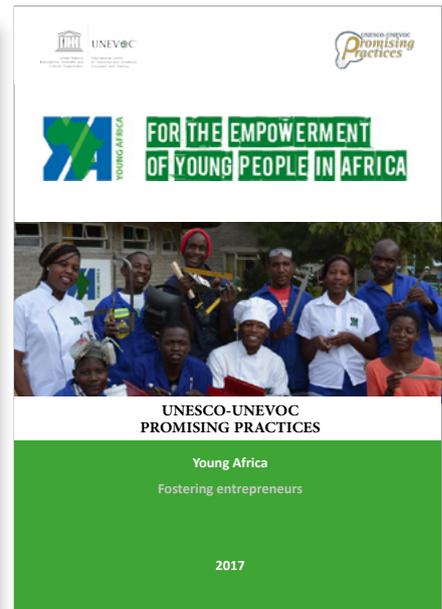
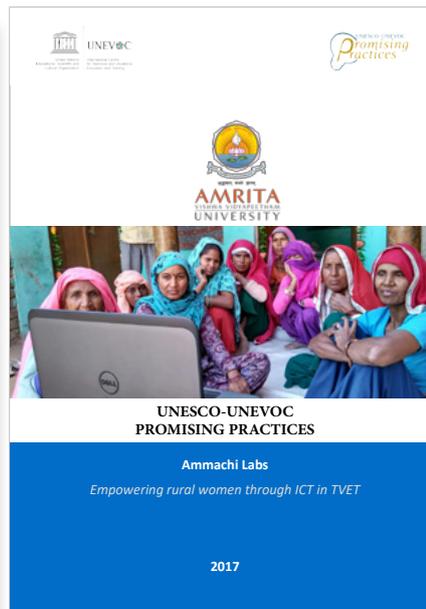
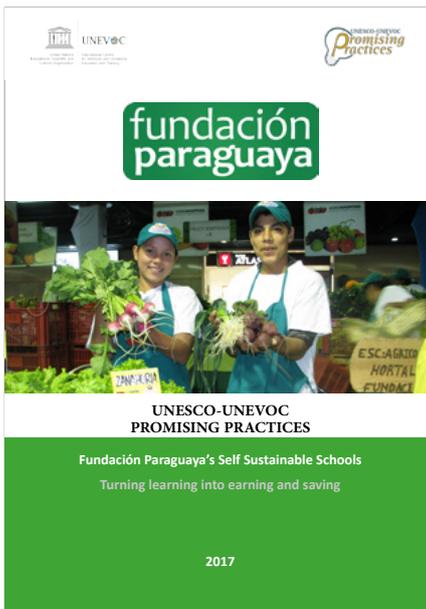
The discussions at this workshop were aimed at producing a research perspective that could be fruitful both for academic and educational purposes within the framework of the UNESCO TVET strategy (2016–2021). The results of the workshop and the papers will be published in 2018.

An analysis of community engagement in TVET

Under the leadership of Cégep de la Gaspésie et des Îles, Canada, in November 2017 UNEVOC Centres from across the world met in Quebec, Canada, to discuss and develop a research framework to study community engagement in TVET. The research project will enable participating UNEVOC Centres to evaluate the levels and types of community engagement at TVET institutions in different regions, and aims to produce an implementation-oriented analysis that will provide guidance for other TVET institutions interested in strengthening their community engagement.



UNEVOC Centres' participants in Quebec
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Promising Practices

The Promising Practices Database presents information on effective and innovative programmes and initiatives from different TVET areas and regions. The aim of the database is to share quick insights into selected practices, focusing on the key strategies used to make a difference and to promote TVET in a significant way.

During the biennium, UNESCO-UNEVOC collected and disseminated promising practices based on six criteria: impact; innovation and creativity; knowledge base; stakeholder engagement; monitoring and evaluation; and efficiency. Seven promising practices from around the world were published in 2017.

These are as follows:

- Australian Apprenticeships Ambassadors Programme. Changing Perceptions
- REACH. Building the skills of disadvantaged youth
- Young Africa. Fostering entrepreneurs
- Laboratoria. Transforming lives through code training
- Fundación Paraguaya's self-sustainable schools. Turning learning into earning and saving
- Ammachi Labs. Empowering rural women through ICT in TVET
- SSACI's workplace based experience. Aligning skills with industry needs.

www.unevoc.unesco.org/promising-practices

UNESCO-UNEVOC's Knowledge management activities

To make TVET more responsive and aligned with the challenges and prospects that the changing world of work demands, there is a constant need for innovation and the sharing of new ideas regarding contemporary issues related to TVET.

Virtual conferences

In addition to the ongoing discussions on the UNEVOC TVeT Forum, UNESCO-UNEVOC organized six virtual conferences during the biennium. Attracting a total of more than 1,100 participants, the moderator-driven discussions encouraged focused dialogue on crucial themes in TVET, while also aiming to gather valuable input from the TVeT Forum and the wider TVET community. Virtual conference synthesis reports are available online on the UNESCO-UNEVOC website, with a summary of the discussions and additional background information on the themes covered, including case studies and promising practices.

TVeT Forum

The TVeT Forum is a virtual community of TVET experts from around the world. Members hold discussions here, sharing knowledge and experiences on relevant issues for TVET policy-makers, researchers and practitioners. It is also used to announce international conferences and workshops, and to inform colleagues about publications and other resources.

At the end of 2017, the TVeT Forum had 5,367 members from more than 180 countries, an increase of 26 per cent over the previous biennium. Members come from a variety of professional backgrounds, including the fields of academia, policy and practice. Almost 3,000 messages were distributed over the course of the biennium.

www.unevoc.unesco.org/tvet-forum

World TVET database (TVET Country Profiles)

World TVET database reports provide concise, reliable and up-to-date information on TVET systems around the world. Country Profiles are compiled based on the information collected from a variety of national and international sources and thanks to the contributions of UNEVOC Centres.

In 2017, UNESCO-UNEVOC updated the structure of the Country Profiles to promote comparability, and included more information, such as TVET-related statistics, to give a more comprehensive picture of the sector in each country. All the country reports can be accessed in PDF format.

www.unevoc.unesco.org/worldtvetdatabase

Virtual conferences

Measuring the Return on Investment in TVET,
9-16 May 2016

Moderators: Phil Loveder and John Stanwick –
NCVER, Australia

Outreach: 231 participants, of which 42% were
females, from 63 countries.

Making youth entrepreneurship a viable path,
18-29 July 2016

Moderator: Claudia Pompa – Overseas Development
Institute

Outreach: 146 participants, of which 37% were
females, from 58 countries.

Sources of financing in TVET,
16-22 January 2017

Moderator: Christine Uhder - Groupe de recherche
et d'échanges technologiques (GRET)

Outreach: 222 participants, of which 38% were
females, from 81 countries.

Greening TVET in Latin America,
5-11 June 2017

Moderator: Irene Alvarado, Earth University,
Costa Rica

Outreach: 121 participants, of which 30% were
females, from 46 countries.

Pathways between TVET and further education,
23-27 October 2017

Moderator: Simon Field, Skills Policy

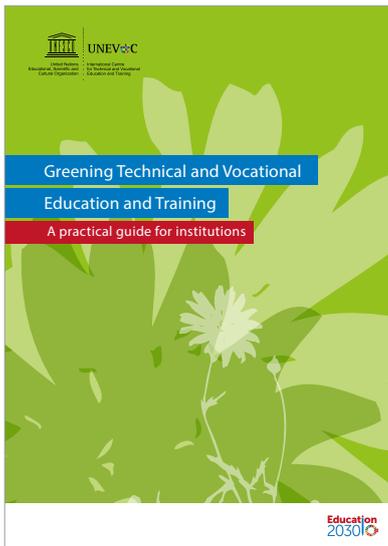
Outreach: 182 participants, of which 34% were
females, from 63 countries.

**An odyssey in the open education space.
Developing and using OER in TVET,**

9-18 November 2017

Moderator: Robert Schuwer, Fontys University of
Applied Sciences and Ben Janssen, OpenEd Consult

Outreach: 212 participants, of which 30% were
females, from 58 countries.



TVETipedia

TVETipedia is an online glossary of terms commonly used in TVET. The definitions are compiled from a wide range of resources, including glossaries, reports, academic articles and normative instruments published by national, regional and international stakeholders. At the end of 2017, the TVETipedia glossary contained over 1,000 definitions relating to 600 terms, 200 of which were added or updated during the biennium.

www.unevoc.unesco.org/tvetipedia

Publications

Greening Technical and Vocational Education and Training – A Practical Guide for institutions

Published in 2017, ISBN 978-92-3-100231-1

Using ICTs and Blended Learning in Transforming TVET

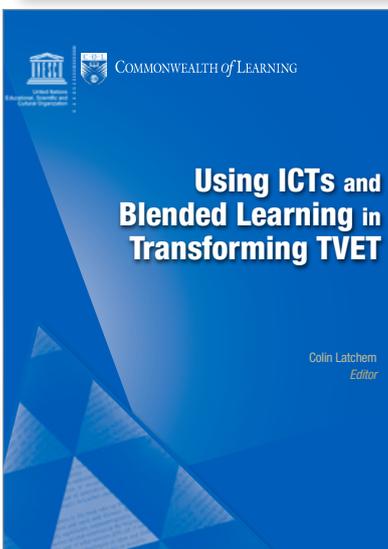
Published in 2017. This resource is a joint publication by UNESCO and the Commonwealth of Learning, and includes chapters contributed by members of the UNEVOC Network.

UNESCO ISBN 978-92-3-100212-0
COL ISBN 978-1-894975-85-8

Bulletins

The UNESCO-UNEVOC Bulletin is the online newsletter of UNESCO-UNEVOC and informs experts and institutions in the field of TVET about the Centre's activities. It also serves as a platform for UNEVOC Network members to report on their work. During the biennium, four issues of the Bulletin were distributed electronically in Arabic, Chinese, English, French, Russian and Spanish.

www.unevoc.unesco.org/bulletin



Shanghai Update

To keep track of the progress made following the UNESCO Third International Conference on TVET in 2012, UNESCO-UNEVOC, together with UNESCO's Section for Youth, Literacy and Skills Development, publishes a semi-annual newsletter, the Shanghai Update. Over the course of the biennium, 4 editions of the Shanghai Update have been developed, including a special edition marking the five years since the Third International Conference.

www.unevoc.unesco.org/publications



UNEVOC Network in Action (2012-2017) in Fulfilling the Shanghai Consensus

This aim of this report is to present the ways in which the UNEVOC Network has been contributing to the journey of TVET transformation through South-South and North-South cooperation, in pursuit of the objectives defined in the Shanghai Consensus (2012). UNESCO-UNEVOC, in collaboration with the UNEVOC Network, has achieved a number of milestones in supporting Member States to transform their TVET systems, which can be mapped against the recommendations made in the Shanghai Consensus (2012).

www.unevoc.unesco.org/up/Draft_UNEVOC-Network-in-Action.pdf

Partnerships and international collaboration

UNESCO-UNEVOC establishes synergies with development partners to coordinate common agendas in TVET and identify opportunities for collaboration. A number of joint programmes were successfully implemented during the biennium.

Research collaboration with CEDEFOP

In the implementation of a Memorandum of Understanding between UNESCO and CEDEFOP, UNESCO-UNEVOC held its first-ever joint activity with CEDEFOP, in which European-level research projects in TVET were discussed in the context of other regions' needs and gaps in existing knowledge. The first of a series of Research meets Practitioners events was held in Bonn, at which issues related to improving the image of TVET were debated. A research collaboration is also being discussed with CEDEFOP on the topic of the attractiveness of TVET.

Collaboration with partners for greening TVET and skills

To further on-going efforts in coordinating and promoting green skills development in TVET, UNESCO-UNEVOC collaborated with other UN agencies with a stake in the interlocking issues of green economies, green jobs and skills development. Through partnership activities with UNITAR on behalf of the Partnership for Action on Green Economy (PAGE), UNESCO-UNEVOC and UNEVOC Centres elevated the TVET-focused challenges into policy-oriented discussions within the PAGE network. UNEVOC co-organized a session on Policy-making in practice – Education and training as a catalyst at the PAGE ministerial conference (Berlin, November 2017) that brought together stakeholders in education, training and the environment to highlight the skills and training gaps preventing the transition to green economies in several sectors and how investment can be improved. A project pitch from a UNEVOC Centre in Nigeria (Yaba Technology College) was selected and presented at the session.



| Session at the PAGE meeting in Berlin, Germany



| TVET session at the Education Day of COP22 in Morocco

A further part of these efforts is to take forward the role that TVET and skills development play in combatting climate change. Awareness-raising events were held in Morocco (COP22, November 2016) and Bonn (COP23, November 2017), reaching a number of UNEVOC Centres and the general audience of the UNFCCC Conference of Parties process through focused group discussions at COPs Education Days and in collaboration with the UNESCO Task Force for Climate Change, the UN Alliance for Climate Change and the UNESCO ESD and Global Citizenship team.

In collaboration with the Platform for Advancing Green Human Capital (PAGHC) (comprised of the ILO, Asian Development Bank [ADB] and French partners, Agence Française de Développement [AFD] and the Ministère de la Transition Ecologique et Solidaire), UNESCO, through UNESCO-UNEVOC, coordinated a stream of activities during the biennium. This has resulted in the development of a Policy framework for decent jobs and skills in green economy in November 2017. This framework was discussed via the UNEVOC TVeT Forum and is designed to support country-level actions for assessing the viability of developing green human capital. From 2016 to 2017, special sessions during COP 22 and 23 were also successfully organized with PAGHC.

Collaboration activities with German partners

In collaboration with the ministries in its host country Germany, UNESCO-UNEVOC also collaborated in and facilitated several study visits that complemented learning opportunities to understand both German and international practices in TVET.

During the biennium various study visits were organized with GIZ and BMZ for TVET delegations from Vietnam, Myanmar, Armenia, Georgia and Azerbaijan. These visits facilitated an understanding of the UNESCO TVET Strategy and UNEVOC thematic programmes.

UNESCO-UNEVOC has also strengthened its collaboration with the GIZ Regional Collaboration for the Development of Vocational and Further Training (RECOTVET). One of the outcomes of this closer collaboration will be the development of a regional knowledge platform led by the Southeast Asia Ministers of Education Organization (SEAMEO) Regional Centre for Vocational and Technical Education and Training, supported by GIZ RECOTVET. The platform, to be launched in 2018, will include resources compiled by the regional centre together with UNESCO-UNEVOC, and will contribute to a better understanding of regional trends in skills development.

In collaboration with BMZ, the Head of UNESCO-UNEVOC, took part in a panel on Empowerment through Technical and Vocational Education and Training: Innovative Financing Options at the 49th Annual Meeting of the ADB in Frankfurt. The panel discussion looked at government and private sector contributions to TVET, explored incentives for and alternative approaches to financing, and presented examples of cooperation in the TVET sector in the Asia-Pacific region.

In collaboration with GIZ and BMZ, a number of experts were seconded to UNESCO-UNEVOC during the biennium. They supported the effective implementation of UNESCO-UNEVOC's work programmes and engagements with both the Africa and the Europe, CIS and North America networks.

In collaboration with the BiBB, UNESCO-UNEVOC hosted the visit of a senior delegation from the Swiss Federal Institute for Vocational Education and Training (SFIVET) to explore collaboration with the UNEVOC Network. Various programmes were also supported by BiBB in the context of its membership of the UNEVOC Network.

A German-Africa dialogue organized by the Permanent Delegation of Germany to UNESCO heightened the African delegation members' awareness of UNESCO's cooperation programmes in TVET, including those implemented by UNESCO-UNEVOC. A half-day session was held in Paris on 20 September 2017 where UNEVOC presented the priority programmes and the results of developing the capacities of African institutions, TVET leaders and teaching personnel, supported by German ministries.

Collaboration with World Skills International

Held as part of the WorldSkills Abu Dhabi 2017 event, UNESCO-UNEVOC actively participated in a conference with the theme of 'Skills strategies for a globalized world', organized as a platform for shaping the global skills agenda. The discussions addressed the changing skills demands of the globalized world and their effect on the way people live, learn and work, as well as the required responses. Key international stakeholders engaged in skills development and TVET – including UNESCO-UNEVOC, the British Council, the International Labour Organization (ILO) and the European Commission – participated in the conference, which saw fifteen panel sessions delve into pivotal issues and challenges that will define the future skills agenda at a global level.



| WorldSkills Conference 2017 in United Arab Emirates

Collaboration activities with the United Nations in Bonn

The United Nations are currently represented in Bonn, with about 20 UN agencies supporting individual governments to plan for a sustainable future, working in the fields of climate change, land degradation, biodiversity and ecosystem services, wildlife conservation, volunteerism, health, human security, disaster risk reduction and tourism, as well as education and training.

UNESCO-UNEVOC, together with all the agencies representing the United Nations in Bonn, commemorate UN Day annually. UN Day marks the anniversary of the establishment of the UN on 24 October 1945. During the outgoing biennium, UNESCO-UNEVOC participated in two UN Day celebrations in Bonn, using them as a platform to inform the public and other stakeholders about its work, and how it strengthens sustainable development efforts globally.

Inside UNESCO-UNEVOC



UNESCO-UNEVOC Team

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Caroline Bajer, Administrative Officer
Max Ehlers, Associate IT Officer
Wouter de Regt, Associate Publications Officer
Carolin Schaulandt, Assistant Administrative Officer and Human Resources
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Aldrich Mejia, Programme Assistant - IT and Multimedia Developer
Zubair Shahid, Programme Assistant - Knowledge Development
Asheh Takeh, Assistant to the Head of Office

Katerina Ananiadou, Programme Specialist (until June 2016)
Josiane Blanc-Mannheim – Assistant to the Head of the Office (until March 2017)
Barbara Trzmiel, Associate Project Officer (from March to July 2016)
Alexandra Liakh, Programme Assistant (until June 2017)
Fan Yang, Trainee (until August 2017)

Experts on Loan

Imke Kottmann (until March 2016)
Johannes Fleischle, GIZ (from September 2016 to June 2017)

External consultants and experts

In order to carry out its tasks, UNESCO-UNEVOC involves experts, consultants, and contractors from various fields to contribute to the work. We would like to express our sincerest gratitude for their services and contributions in enriching the work of UNESCO-UNEVOC.

Interns and volunteers

During 2016 and 2017 eighteen university students participated in the UNESCO-UNEVOC internship programme, gaining valuable professional experience and contributing to the work of the Centre:

Hayoung Park (Republic of Korea), Mina Basla (Egypt), Lena Blos (Germany), Moonjung Shin (Republic of Korea), Riqui Li (China), Rebecca Florisson (Netherlands), Jose Jara-Alvear (Ecuador), Jose Bolanos (Costa Rica), Rosa Castaneda (Peru), Jiyeon Ha (Republic of Korea), Sofia Andera (Greece), Rumeng Shi (China), Yao Chen (China), Tao Tao Yue (China), Yassine Essafi (Morocco), Hyeon Han Kang (Republic of Korea), Oluwatosin Awolola (Nigeria), Firas Etaki (Syria)

Financial report

In the biennium 2016–2017, UNESCO-UNEVOC had the following budget at its disposal:

| | 2016 in US\$ | 2017 US\$ |
|---|------------------|------------------|
| Programme funds (regular UNESCO budget) | 194,500 | 77,200 |
| Programme and Operating funds (Funds-in-Trust)* | 1,323,324 | 1,297,921 |
| Total | 1,517,824 | 1,375,121 |

*Note: Funding was received in Euro and converted into US\$ at the official UN exchange rate on the date of payment

Abbreviations

| | |
|-------------|---|
| AFD | Agence Francaise de Development |
| ALESCO | Arab League Educational, Scientific and Cultural Organization |
| BiBB | Federal Institute for Vocational Education and Training |
| BMBF | German Federal Ministry of Education and Research |
| BMZ | German Federal Ministry for Economic Cooperation and Development |
| CEDEFOP | European Centre for the Development of Vocational Training |
| CICan | Colleges and Institutes Canada |
| CIS | Commonwealth of Independent States |
| COP | Conference of Parties United Nations Framework Convention on Climate Change |
| CPSC | Colombo Plan Staff College |
| CSDC | Community Skills Development Centres |
| ESD | Education for Sustainable Development |
| ETF | European Training Foundation |
| GAP | Global Action Programme |
| IAWG | Inter-Agency Working Group on TVET |
| ICT | Information and Communication Technology |
| IESCO | Islamic Educational, Scientific and Cultural Organization |
| ILO | International Labour Organization |
| KRIVET | Korea Research Institute for Vocational Education and Training |
| LAC | Latin America and the Caribbean |
| MOOC | Massive Online Open Courses |
| MTS | Medium Term Strategy |
| OER | Open Educational Resources |
| PAGE | Platform for Action on Green Economy |
| PEFOP | Platform for Expertise in Vocational Training |
| RECOTVET | Regional Centre for Vocational and Technical Education and Training |
| ROI | Return on Investment |
| SDG | Sustainable Development Goals |
| SIDS | Small Island Developing States |
| STEP | Skills and Technical Education Programme |
| TEVETA | Technical, Entrepreneurial, and Vocational Education and Training Authority |
| TVET | Technical and Vocational Education and Training |
| UNESCO IIEP | UNESCO Institute for International Education Policy |
| UNESCO ROSA | UNESCO Regional Office for Southern Africa |
| VET | Vocational Education and Training |
| WYSD | World Youth Skills Day |



United Nations
Educational, Scientific and
Cultural Organization

UNEVOC

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