

**Управление умениями во время меняющихся требований:  
Managing Skills in a Time of Changing Demands:**

**Онлайн-семинар по наращиванию  
потенциала в области технического  
и профессионального образования  
и обучения в Туркменистане**

**An Online Capacity Building Workshop  
on Technical and Vocational Education  
and Training (TVET) in Turkmenistan**

Национальная  
комиссия  
Туркменистана  
по делам  
ЮНЕСКО



**2 ноября 2021, Ашхабад, Туркменистан  
2 November 2021, Ashgabat, Turkmenistan**



# Workshop report

**Author:** Camille Courchesne, UNESCO Consultant

## Managing skills in time of changing demand in TVET

Ashgabat, Turkmenistan

November 2, 2021

### Introduction

This report follows from a one-day workshop organized by UNESCO through videoconferencing in Ashgabat, Turkmenistan, on November 2, 2021.

The objectives of the workshop as stated in the concept paper joined with the program were to:

- provide participants with a sound understanding of the main functions, components and applications of labor market information and intelligence
- build the capacity on the use of relevant evidence and information to better understand the changing nature of the skills needed by the labor market
- respond to these changes with appropriate policies and plans on education and training in Turkmenistan.

Those objectives are consistent with the 2021-2027 strategic plan of UNESCO which aim at providing:

- Skills for individuals to learn to work and live
- Skills for economies to transition towards sustainable development
- Skills for inclusive and resilient societies

About 40 people from different Turkmen institutions and organizations participated to that full day meeting<sup>1</sup>, with presentation made both in Russian (with English translation available) and English (with Russian translation available). Ms. Maryam Soltanzadeh, Programme Officer for Education at UNESCO Tehran Cluster Office, acted as workshop moderator.

As can be seen in the program presented in Annex 1, the workshop was divided in two parts. In the first part, participants from Turkmenistan had the opportunity to participate to a virtual panel and to present their organization, their vision regarding the development of skills in the country and their expectations regarding potential collaboration with UNESCO.

The list of the participants to the panel is provided in Annex 2.

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<sup>1</sup> An indicator of the interest of the participants was the fact that the participation rate was constant throughout the day.

The second part of the workshop was devoted to capacity building and six presentations were done in this regard by two experts: Mr. Camille Courchesne, UNESCO independent expert<sup>2</sup>, and Mr. Hiromichi Katayama, from UNESCO Headquarter in Paris. Other presentations in this second part of the workshop were about the work of UNDP and ETF in Turkmenistan. Mr. Guljahan Gochova, from UNDP, and Ms. Christine Hemschemeier and Mr. Ian Cuming, both from ETF, made the presentations.

Initially, the planned report was to present information regarding:

- Observations on the status of skills anticipation and labour market data analysis in TVET in Turkmenistan
- Report of most pressing challenges based on discussions with the participants of the workshop and proposed action plans
- Concrete recommendation for future actions in this area

However, following the workshop and considering that the information requested by UNESCO was not available on time for the workshop<sup>3</sup>, the first element of the above list cannot be addressed in this report and should be considered as an element of a future action plan.

Moreover, the dynamic of the workshop and the interventions of the participants have not permitted to understand how skills anticipation was done in Turkmenistan neither which information sources were used. Getting more information on these issues will be part of the recommendations at in the last section of this report.

Consequently, the revised plan of this report will be the following:

1. General information on Turkmenistan
2. Notes from the panel presentations by Turkmenistan representatives
3. The capacity building workshop and information on the work of UNDP and ETF in Turkmenistan
4. Report of most pressing challenges based on discussions with the participants of the workshop and proposed action plans
5. Concrete recommendation for immediate actions following the workshop

## **1.General information on Turkmenistan**

*With a population estimated at 5,8 million people in 2018 and a GDP per capita of 7 065 current US\$, Turkmenistan, located at the center of the Eurasian continent, has been classified as an upper-middle-income country since 2012. It borders Kazakhstan, Uzbekistan, Iran, Afghanistan, and, to the west of the country, the Caspian Sea, which offers abundant natural resources of gas and oil deposits.*

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<sup>2</sup> Copies of the presentation of Camille Courchesne are included in Annexes 3, 4, 5, 6 (\*to receive the presentation please contact UNESCO Tehran Cluster office)

<sup>3</sup> The results presented are coming from secondary sources. UNESCO did not receive information following its data request made before the date of the workshop. But, during the workshop, Dr Rustamova indicated that they will prepare a list of indicators covering the last 10 years and send it to UNESCO.

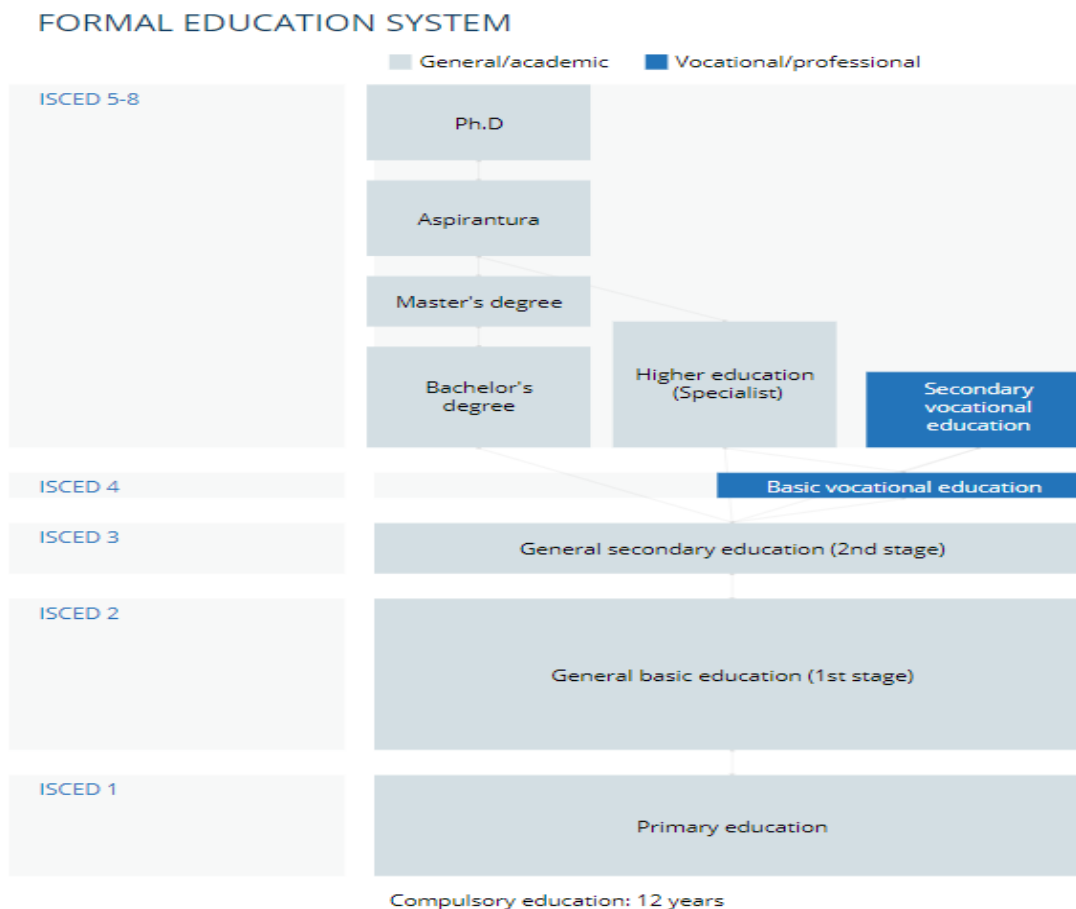
*Turkmenistan's gas reserves are estimated to be the world's fourth largest, representing about 10 percent of global reserves. In addition to cotton and natural gas, the country is rich in petroleum, sulfur, iodine, salt, bentonite clays, limestone, gypsum, and cement—all potential inputs to chemical and construction industries.*

(Source: <https://www.worldbank.org/en/country/turkmenistan/overview#1> (2021-11-13))

*The country is the world's fourth largest exporter of natural gas. Turkmenistan's other exports include oil, cotton, polymers, cotton, textile and vegetable products. Turkmenistan's main exports partners are China, Turkey, Italy, the United Arab Emirates, Afghanistan, Iran, Kazakhstan, the Ukraine, Poland and Hungary.*

(Source: <https://tradingeconomics.com/turkmenistan/exports> (2021-11-13))

UNESCO has recently published on the Internet the structure of the formal education system in Turkmenistan, including its TVET component.



Compiled by UNESCO-UNEVOC International Centre in 2021. For detailed insights on Turkmenistan education system, please see [ISCED Mappings](#) | UNESCO UIS.

Source: <https://unevoc.unesco.org/home/Dynamic+TVET+Country+Profiles/country=TKM> (2021-11-16)

## 2. Notes from the panel presentations by Turkmenistan representatives

This section presents information coming from the interventions made by the participants to the virtual panel<sup>4</sup>.

In her opening remarks, **Dr Rustamova, Executive Secretary of the National Commission of Turkmenistan for UNESCO**, indicates that since independence, 30 years ago, Turkmenistan has gone from an agricultural to an industrial society. Facing current decline in the global economy together with the need to pursue sustainable development, long term strategic education programs have to be put in place and TVET is a priority as industry base plans are being developed.

Youth are the vulnerable part of labour and they must be prepared to face and everchanging demand. There are skills mismatch in the labour market.

According to Dr Rustamova, the country needs to:

- Train the youth in professional trade
- Develop professional skills
- Develop lifelong learning

There is a need to start a national dialogue to develop professional training and continue the current effort to develop youth skills.

The following presentation was made by **Ms. Gulnabat Gurdova, Head of the Department of International Cooperation of the Ministry of Education of Turkmenistan**. She was glad to announce at the meeting that the regulation of state institution of vocational education was approved by presidential decree in October of this year. Turkmenistan has 42 vocational schools and 60 technical vocational schools. Apprenticeship is being implemented with 60% of theoretical training and 40% practical. The Ministry of Education of Turkmenistan has a Department of technical vocational education which coordinates the management of these educational institutions and provides educational and methodological support. The national classification of technical professional education has been developed in 2018 and contains about 422 types of professional specialties.

According to Ms. Gurdova, «improving the vocational education system, strengthening the material and technical base, introducing world standards that meet the requirements of today and taking care of the training of qualified professional personal are constantly under the patronage of the President of our government».

She concludes her presentation by indicating that Turkmenistan is always open for cooperation, particularly in the field of education, with UNESCO and other international organizations.

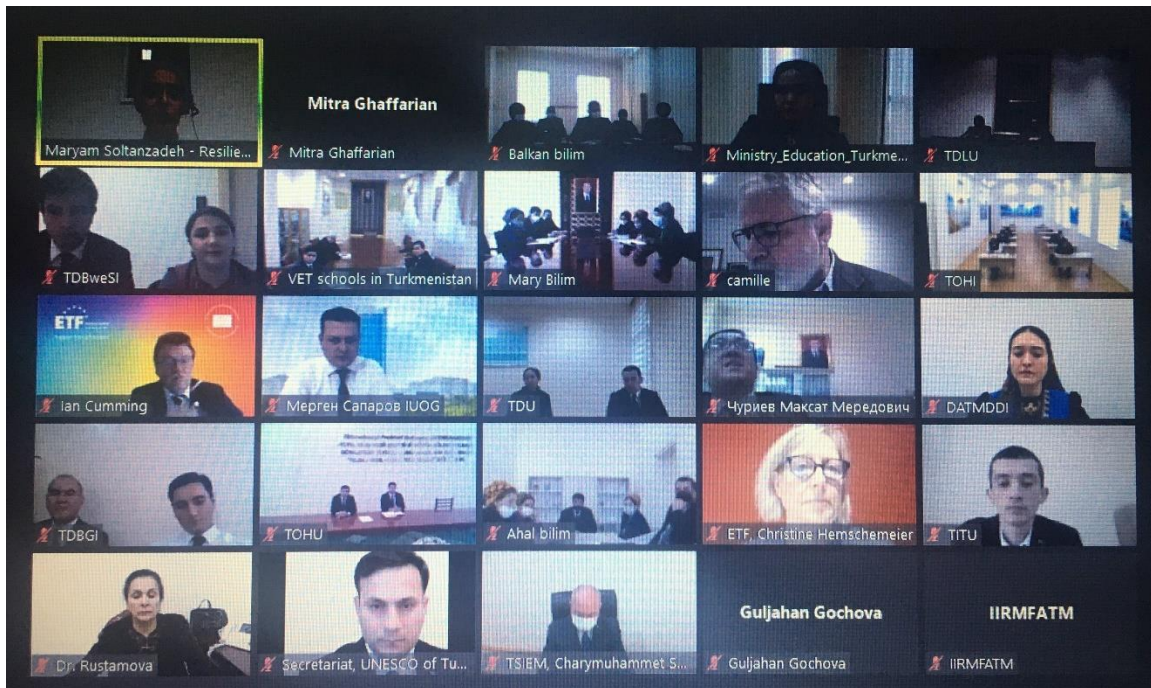
The next speaker was **Mr. Gulshat Yusupova, Vice-Rector for Academic Affairs of the Institute of International Relations of the Ministry of Foreign Affairs of Turkmenistan**. Mr. Yusupova presented the Institute, its programs, its activities and the extent to which it is involved in international cooperation. The Institute was created in 2008 and the mission of this higher

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<sup>4</sup> The list of the panel participants is presented in Annex 2

education establishment is to train highly educated specialists for the diplomatic service of the country. There are four faculties within the Institute: international relations, international law, international economic relations, international journalism. Training involves theory, practice and participation to several competitions. Trainers are active through lectures and publications.

According to Mr. Yusupova, «working with the international organizations gives us the opportunity to share and to solve problems mutually. It gives the opportunity to discuss more deeply about the teaching methods and other topics on which UNESCO is working».



Following was **Ms. Berdygyljeva Lyalya Meredovna, Chief Specialist of the Methodology Department Ministry of Labor and Social Protection of Turkmenistan**, who start her brief presentation by mentioning that the workshop subject was relevant and timely; it covers important issues, which command serious attention. We are having great expectations on its outcomes. She said that she would like to see the key provisions of the project. According to Ms. Meredovna, globalization and COVID pandemics make it important to create job opportunities for women and the youth, because those are having a great impact on quality and availability.

In particular, she raises the subject of connection between the labour market and training institutions (professions and qualifications). She stressed the importance of providing women, the youth and vulnerable groups with the relevant skills so they can compete on the labour market. The ministry can provide support for this project and it has already a network of administrative employment services units across the country. Regarding cooperation, the Ministry is ready for it and ready to provide assistance. There is currently cooperation with international bodies (UNDP, ILO, UNICEF...).

**Mr. Egendurdy Yagmurov, Director of the educational and Professional School of Infocommunication of the Institute of Telecommunications and Informatics of Turkmenistan**, indicates that his institution is training electrical mechanics, electronics, computer and network

operators... Faculty members have previous industry experience, and the school is hiring leading specialists from industries. Theoretical and practical classes are done in school. Internship is supervised and the school control the quality of that internship. Most of the graduates are employed by various communication companies or they continue studying or proceed to the armed service.

In his presentation, he mentioned that education should be developed according to business needs. This will enable the country to have a digital economy, essential to social and economic development where every citizen have access to mobile communication and the internet.

Mr. Yagmurov refers to the law of October 22, 2021, enacting provisions to regulate VET schools. The objective of the system is to develop a modern system of education in line with the national values.

**Mr. Rahymberdi Kerimov, entrepreneur, member of the Union of Industrialists and Entrepreneurs of Turkmenistan**, talked about the training of skills of young professionals regarding the requirement of the new labour market. He emphasized the importance of globalization, digitalization, the green economy transition and the development of the COVID sector on the creation of new jobs changing requirements in digital skills. He noted that the traditional system of education will not reflect these tendencies and new requirements, given that it takes 4 to 5 years to train the specialists needed. Furthermore, he mentioned the growing importance of communication and soft skills.

In Turkmenistan, according to him, representatives of businesses have difficulties in recruitment; graduates from TVET need to be retrained. Young specialists have high theoretical knowledge but lack practical skills. Today, he says, the level of skills required is higher than before, including soft skills. This is the reason why they are facing difficulties in adapting their knowledge to the reality of business. There is a need to develop apprenticeship and on the job training to help new recruits understand how the business is organized. Currently, union of entrepreneurs is cooperating with companies have organized working sessions on the subject of on-the-job training with the technical assistance of USAID, using specialized technical material provided by this organization.

The last speaker on the panel was **Mr. Gulgeldi Gulgeldiev, Director of the Ashgabat Construction Secondary Vocational School**. This school was first established in 1949 and it has become a technical vocational school in 1984. It has 100 students allocated to 14 areas of training. Mr. Gulgeldiev mentioned the importance of sharing experiences and inviting foreign guests in training schools, giving the example of a recent exchange with Singapore. The students of the school are also participating in TVET competition outside the country with good results. Another aspect that he mentioned was the importance of non-technical training for the students, giving, as an example, cultural development.

Since 2019, the school has been implementing a digital approach to training. It implies e-document exchange, video lessons and e-learning, developing an electronic database, an electronic exchange forum where students can ask questions to the teachers and an e-library with documents in the national language. He also refers to the development of e-learning within the country. Regarding development prospects, he concludes his presentation by referencing to



infrastructure improvement (fiber optic) and said that they are looking for methodological resources on teaching aids and material and improving their base for e-learning.

### 3.The capacity building workshop and information on the work of UNDP and ETF in Turkmenistan

The **capacity building workshop** involves six presentations. Four of these six presentations are included in annexes 3 to 6 of this report. They present information gathered from international best practices and examples from Canada about:

- Labour market observation
- Labour market information
- Skills forecasting
- Skills development governance



Two of the six presentations, made by Hiromichi Katayama, from UNESCO Headquarters, are not presented this report:

The first one is on the Use of non-traditional data (for Labour market observation).

This presentation explains how Big data analytics can be used to collect and analyze information about labour demand and the associated required skills by going through Internet employment ads databases. The presentation shows the benefits and caveats of this approach. UNESCO’s experience in Myanmar is used to illustrate the results that can be obtained when using these methods and their potential in linking skills to occupations and identifying occupations in demand.

The second one is regarding Skills development governance.



This presentation describes the work done by UNESCO on the subject of skills development governance in various countries and the various reports produced by UNESCO on this topic. The list of those reports is included in Annex 7.

At the end of his presentation, Mr. Katayama invited the participants to attend the UNESCO **Online International Conference on Transforming Technical and Vocational Education and Training (TVET) for successful and just transitions** that will be held Tuesday, 7 December 2021, 13:30 - 15:30 CET (high-level segment) and Wednesday, 8 December 2021, 13:30 – 15:30 CET (technical segment).

**UNDP and ETF activities in Turkmenistan were presented.** The representative of UNDP, **Mr. Guljahan Gochova**, mentioned in his presentation, entitled *TVET for the vulnerable*, that the organization is currently working in three areas:

- Sustainable development
- Democratic governance
- Climate and sustainability to natural calamities

In Turkmenistan, they are working with the Ministry of Labor and Social Protection in three areas:

- Eradication of COVID
- Democratic governance
- Rule of law and inclusive condition for all

The two projects activities, he referred to, are related to TVET and vulnerable youth targeting youth employment and the labour capacity of the youth, promoting entrepreneurship and the development of personal skills. UNDP will organize a meeting in Turkmenistan in coming December 2021 and is inviting workshop attendees to participate.

The last presentation of the workshop was from **Ms. Christine Hemschemeier and Mr. Ian Cuming** of European Training Foundation (ETF).

Mr. Ian Cuming spoke about an ETF strategic project for the next five years with partner countries from Central Asia. This project aims to understand the skills needed, to develop new ways to learn those skills in a context of lifelong learning. To do this resources are invested in creating information networks and networks of practitioners. Furthermore, there is the objective of creating a policy dialogue to develop, implement and monitor policy reforms., improving the quality of governance. ETF aims at developing a network of excellence for TVET centers.

Ms. Hemschemeier added that this project in partnership with EU will start in 2022 and be covering Central Asia countries. ETF is expecting an expansion about policymaking, policy development and administration. She also mentioned that, following requests from workshop participants, she will be sharing information with UNESCO on different subjects:

- On the job training
- Implementation of qualification systems

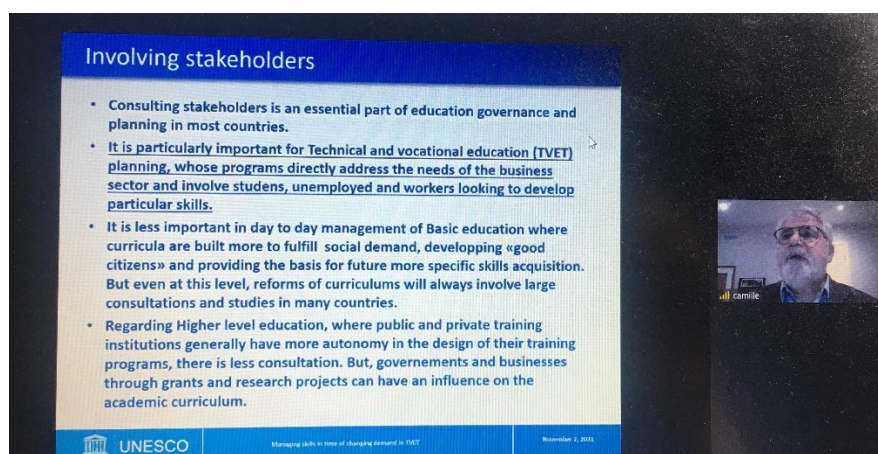
- Competency based approach
- Guidelines to Skills forecasting analysis

#### 4. Report of most pressing challenges based on discussions with the participants of the workshop and proposed action plans

Turkmenistan has recognized the importance of diversifying its economy and move from a natural resource based (mining and agriculture) economy to a more diversified and globally competitive industrial economy, involving new technologies and greener production processes. The impact of the COVID pandemics and the required adaptation of the Labour market mean that current skills development governance must be reviewed according to best international practices and by involving in particular the private sector but also other partners from the civil society.

Better monitoring tools have to be put in place; future required skills should be identified, and new training programs developed according to a lifelong learning approach that will require innovations in teaching, learning, and technology applications. This also means that qualification frameworks have to be updated. Moreover, job seekers should be trained accordingly, and career guidance mechanisms put in place for young people and unemployed.

As the country has identified its development goals and objectives (industrialization and building a digital economy), it is important to have a Human Resources Development Strategy or Plan in order to integrate the various actions and interventions that are made in the country either by national or international institutions toward those common goals. This plan could be the dynamic roadmap to guide those various actions and it could also define indicators of progress and monitoring. It should enable evaluation of the impact of the various actions and allow institutions concerned to proceed to corrective measures, if required.



The most pressing challenge is however to prepare in close collaboration with Turkmenistan authorities a thorough analysis of the current situation of Labour market observation in the country, describing available data and identifying data gaps in Labour market information. An action plan in Labour market observation development, according to international standards, should be the result of that intervention; this plan should also identify for each segment of

information the organization in charge of it and a timeframe of realization. If required regulations need to be changed, they should be identified.

The integration of the various Labour market data collected should be done within a Labour market observatory, located within an institution to be identified. This institution should have the capacity to work in close collaboration with its partners and the capacity to disseminate useful information through a Labour market information system.<sup>5</sup> This observatory should also be responsible of developing and managing a Skills forecasting system, including data mining tools, to evaluate future skills needs and collaborate with Ministry of Education in managing the TVET system on the basis of explicit rules.

Similarly, there is a need to update the review of the TVET system, considering the recent law of October 22, 2021, enacting provisions to regulate VET schools, the potential impact of the pandemics and the institutional changes implemented since the last review<sup>6</sup>. This review should present a full institutional picture of TVET governance (actors, regulations, orientations, programs, resources -human and financial-, planning) and education statistics; it should be completed by indicators of efficiency of the system and results of tracer studies if available.

Regarding the medium and long terms activities, more specifics actions should be derived from the National Human Resources Development Plan and developed in close collaboration with the Turkmenistan authorities.

## **5. Concrete recommendation for immediate actions following the workshop**

The concept note that was distributed with the agenda stated that:

*At the end of the workshop a list of actions which will be taken in 2022 and 2023 will be agreed in order to:*

- 1. improve the quality and relevance of existing labor market information.*
- 2. improve skills governance in the light of a wide range of public and private stakeholders in Turkmenistan; and*
- 3. improve the use of relevant evidence and information for the decision making on the policies and strategies of education and training in Turkmenistan.*

*UNESCO will provide technical support for the implementation and monitoring of the agreed actions in 2022 and beyond.*

Even if some activities were mentioned during the workshop, there was no formal agreement on a list of specific actions to be taken in 2022 and 2023.

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<sup>5</sup> This Labour information system could be an extension of the Job portal already developed by Ministry of Labour and actually in operation on the website of the ministry.

<sup>6</sup> See : ETF, *Turkmenistan - Overview of vocational education and training and the labour market - Update 2015*, 2015

However, taking into account the considerations made in the previous section and indications from the notes presented in sections 2 and 3 of the present report, some immediate actions can be identified.

**Action 1:** Documentation identified by the workshop presenters or requested by the attendees should be shared with the participants. (Annex 7)

**Action 2:** Invitations to the UNESCO December 7 and 8 workshops should be sent to the participants

**Action 3:** The most pressing action is to have direct communications to follow up on the collaboration opening with UNESCO made during the workshop; discussion should continue with Dr. Rustamova on potential collaboration between UNESCO and Turkmenistan regarding how to address the challenges identified in the previous section. These communications could also involve Ministry of Education and Ministry of Labour.

**Action 4:** Starting a review of available Labour market data and TVET system.

**Action 5:** Agree with Turkmenistan authorities on the development of a National Human Resources Development Strategy or Plan

*Managing skills in a time of changing demand in TVET*

*Ashgabat, Turkmenistan  
November 2nd 2021*

<b>Tuesday, November 2nd</b>			
Opening remarks 09h00 to 0910	UNESCO Tehran/ Turkmenistan National Commission	Welcome and General information on the workshop process	
Introduction 09h10 to 9h20	UNESCO representative	Objectives of the workshop UNESCO role and experiences in skill needs planning	What are we expecting following this workshop Description of the UNESCO strategies Examples of UNESCO intervention in various countries What UNESCO can do to help in Turkmenistan
<b>Session 1</b> 9h20 to 10h15	Keynote speech, panel	Ministry of Education, Ministry of Labour, TVET Institutions, Private sector representative	A vision for skills development in Turkmenistan – Current status of Labour market observation in Turkmenistan
10h15 to 10h30	<b>Coffee break</b>		
<b>Session 2</b> 10h30 to 11h30	Camille Courchesne UNESCO expert	Labour market observation: data and information collection (macro and micro)	Demand side Supply side Contextual information: Concepts and classifications Real-time data
<b>Session 3</b> 11h30 to 12h00	Hiromichi Katayama UNESCO expert	Use of nontraditional data	
12h00 to 12h30	Q and A and wrap up		
<b>Lunch break</b>			

<b>Session 4</b> 13h30 to 14h30	Camille Courchesne UNESCO expert	Labour market information system	What it is? What are the clients? What are the information needs? How do we disseminate the information?
<b>Session 5</b> 14h30 to 15h15	Presentation from UNDP and ETF		
15h15 to 15h30	<b>Coffee break</b>		
<b>Session 6</b> 15h30 to 16h15	Camille Courchesne UNESCO expert	Quantitative model- based projections (skills forecasts)	The framework The data The process The issues
<b>Session 7</b> 16h15 to 16h45	Camille Courchesne UNESCO expert / Hiromichi Katayama	Skills development governance	What is the meaning? What are the activities involved? Who should be involved? Can it be evidence based?
<b>Session 8</b> 16h45 to 17h00	UNESCO representative Speaker to be identified	Next steps and closing	



## **List of the participants from Turkmenistan to the first part of the workshop**

A welcoming speech delivered by Dr. Rustamova - Executive Secretary of the National Commission of Turkmenistan for UNESCO

### Participants to the panel (Session 1 of the Workshop)

- Gulnabat Gurdova - Head of the Department of International Cooperation of the Ministry of Education of Turkmenistan
- Gulshat Yusupova - Vice-Rector for Academic Affairs of the Institute of International Relations of the Ministry of Foreign Affairs of Turkmenistan
- Gulgeldi Gulgeldiev - Director of the Ashgabat Construction Secondary Vocational School
- Berdygulyjeva Lyalya Meredovna – Chief Specialist of the Methodology Department Ministry of Labor and Social Protection of Turkmenistan
- Egendurdy Yagmurov - Director of the educational and Professional School of Infocommunication of the Institute of Telecommunications and Informatics of Turkmenistan
- Rahymberdi Kerimov - entrepreneur, member of the Union of Industrialists and Entrepreneurs of Turkmenistan

## References to useful documentation following the workshop

This annex contains links for documents/publications that were recommended by different presenters during the meeting.

<https://www.etf.europa.eu/en>

<https://openspace.etf.europa.eu/>

Investing in career guidance

English: <https://unesdoc.unesco.org/ark:/48223/pf0000378215>

Russian: [https://unesdoc.unesco.org/ark:/48223/pf0000378215\\_rus](https://unesdoc.unesco.org/ark:/48223/pf0000378215_rus)

Funding skills development: the private sector contribution

<https://unesdoc.unesco.org/ark:/48223/pf0000261984>

Taking a whole of government approach to skills development

[https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---ifp\\_skills/documents/publication/wcms\\_647362.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_647362.pdf)

Pathways of progression: linking technical and vocational education and training with post-secondary education

<https://unesdoc.unesco.org/ark:/48223/pf0000265943>

OECD-UNESCO joint webinar in partnership with the World Bank, ETF and ILO: industry experience of TVET teachers in time of crisis: synthesis report (2020)

<https://unesdoc.unesco.org/ark:/48223/pf0000374749>

Skills development in the time of COVID-19: Taking stock of the initial responses in technical and vocational education and training

[https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---ifp\\_skills/documents/publication/wcms\\_766557.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_766557.pdf)

Skilling, upskilling and reskilling of employees, apprentices & interns during the COVID-19 pandemic: Findings from a global survey of enterprises

[https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---emp\\_ent/documents/publication/wcms\\_794569.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_794569.pdf)

Career guidance policy and practice in the pandemic: Results of a joint international survey

[https://www.cedefop.europa.eu/files/4193\\_en.pdf](https://www.cedefop.europa.eu/files/4193_en.pdf)

Entrepreneurship education crucial amid uncertainties of 4th Industrial Revolution (in Asia-Pacific) (2019)

<https://bangkok.unesco.org/content/entrepreneurship-education-crucial-amid-uncertainties-4th-industrial-revolution>

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<https://www.etf.europa.eu/en>

<https://openspace.etf.europa.eu/>

Investing in career guidance

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Russian: [https://unesdoc.unesco.org/ark:/48223/pf0000378215\\_rus](https://unesdoc.unesco.org/ark:/48223/pf0000378215_rus)

Funding skills development: the private sector contribution

<https://unesdoc.unesco.org/ark:/48223/pf0000261984>

Taking a whole of government approach to skills development

[https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---ifp\\_skills/documents/publication/wcms\\_647362.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_647362.pdf)

Pathways of progression: linking technical and vocational education and training with post-secondary education

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Skilling, upskilling and reskilling of employees, apprentices & interns during the COVID-19 pandemic: Findings from a global survey of enterprises

[https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---emp\\_ent/documents/publication/wcms\\_794569.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_794569.pdf)

Career guidance policy and practice in the pandemic: Results of a joint international survey

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Entrepreneurship education crucial amid uncertainties of 4th Industrial Revolution (in Asia-Pacific) (2019)

<https://bangkok.unesco.org/content/entrepreneurship-education-crucial-amid-uncertainties-4th-industrial-revolution>

Methodological guides on anticipation and matching of skills supply and demand produced by ILO, CEDEFOP and ETF (UNESCO was not involved in this, but our work has been built on these guides):

[https://www.ilo.org/employment/Whatwedo/Projects/WCMS\\_534345/lang--en/index.htm](https://www.ilo.org/employment/Whatwedo/Projects/WCMS_534345/lang--en/index.htm)

Forecasting Youth Skill Needs (info flyers) produced under EU-funded Network of Mediterranean Youth (Net-Med Youth) project:

<https://www.netmedyouth.org/sites/default/files/upload/files/Forecasting%20Youth%20Skill%20Needs%20-%20EN.pdf>

UNESCO normative instrument “Recommendation concerning Technical and Vocational Education and Training (TVET) (2015)”: <https://unesdoc.unesco.org/ark:/48223/pf0000245178>

UNESCO Strategy for TVET 2016-2021: “UNESCO will help Member States to identify and anticipate skills requirements to inform TVET policies, strategies and programmes and to create multi-level and multi-sectoral stakeholder platforms”

<https://unesdoc.unesco.org/ark:/48223/pf0000245239>

"UNESCO's Strategy for technical and vocational education and training (TVET) (2016-2021): progress and proposal on future directions" (submitted to the Executive Board in 2021)

<https://unesdoc.unesco.org/ark:/48223/pf0000378553?posInSet=13&queryId=140542d6-957c-4c6b-954b-3b06e8641147>

UNESCO Strategy for TVET 2022-2029: Transforming TVET for successful and just transitions: Discussion document (PDF format)

African Development Bank (AfDB) document on Labour market indicators

[https://www.afdb.org/sites/default/files/documents/publications/labour\\_final\\_signac\\_compressed.pdf](https://www.afdb.org/sites/default/files/documents/publications/labour_final_signac_compressed.pdf)