UPDATE 2023

UNITED NATIONS
TURKMENISTAN

COMMON COUNTRY ANALYSIS

TURKMENISTAN

CONTENTS:

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INTRODUCTION

The new generation Common Country Analysis (CCA) refers not only to a document/report, but rather to the ongoing analytical function of the United Nations system in programme countries. The CCA is being updated to identify actual or anticipated shifts in national development landscape. It serves to provide an updated public analysis by the UN to stakeholders and partners, helping the UN and partners identify course corrections that might be needed in implementation of the United Nations Sustainable Development Cooperation Framework (UNSDCF). The regularly updated analysis also allows the UNCT to engage with government and other relevant stakeholders in policy dialogue and advocacy about pathways towards achieving the SDGs.

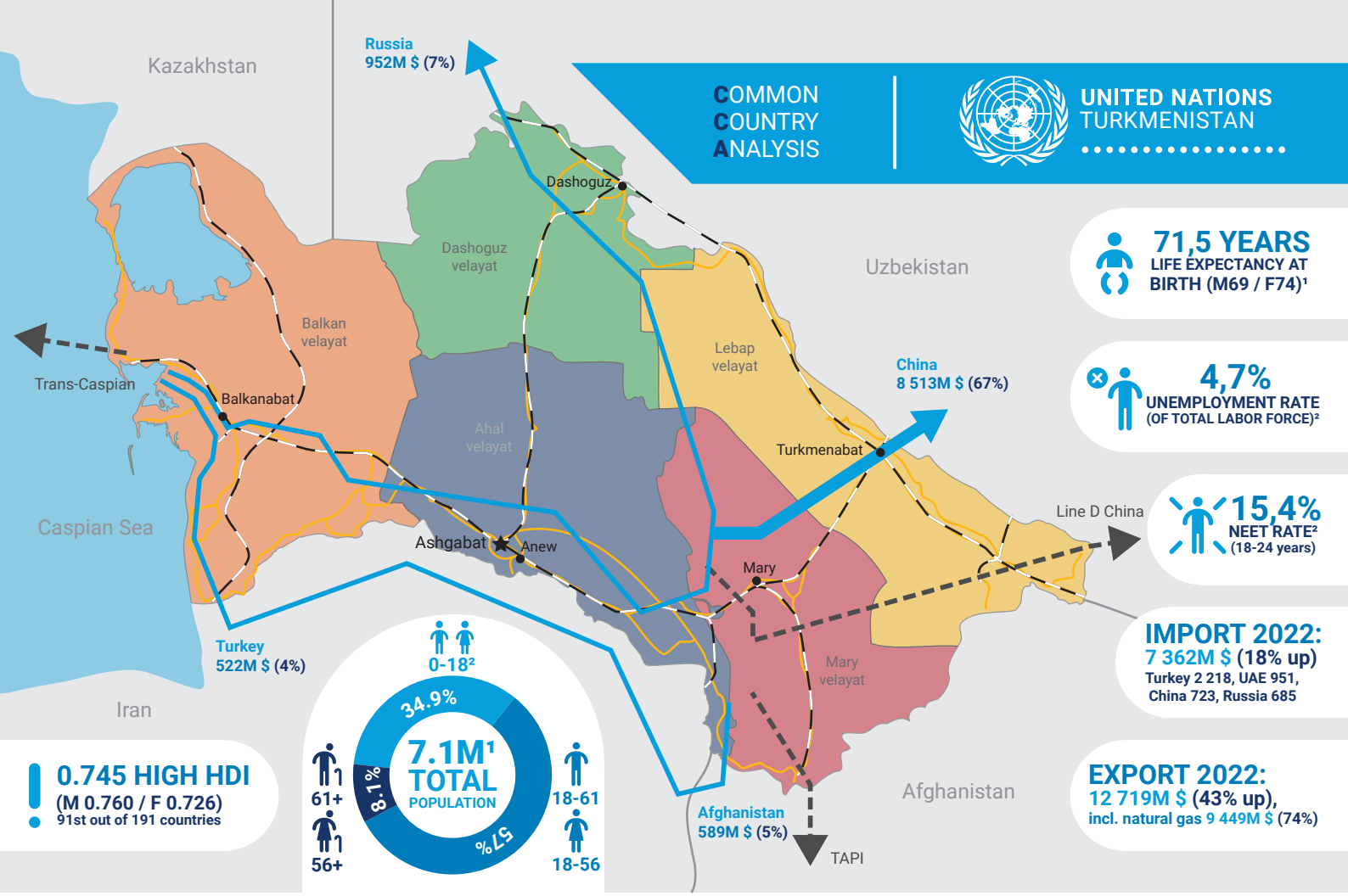
In 2023, the UN Country Team continues presenting the findings of the Country Analysis as the combination of the following evidence products:

- Country Situation Update providing developmental trends to identify gaps in SDG financing around 5P (People, Prosperity, Planet, Peace and Partnerships) dimensions
- Results Groups Factsheets covering five outcomes of the UNSDCF for 2021-2025 to facilitate the discussions of the joint results and work plans around SDG acceleration areas
- Policy Briefs to inform policy dialogues and joint proposals for SDG financing to support the National Commitments to SDG Transformation, fully aligned with Turkmenistan's Strategies and Programmes and UN SDG transitions and submitted to the 2023 SDG Summit.

The current package of the Policy Briefs covers areas of just green energy transition, digital public infrastructure development and SDG financing in Turkmenistan. It complements 2022 CCA update which, following the 2030 Agenda LNOB principle, used the advantage of the new data from the two population-based surveys (on Persons with Disabilities and Women's Health and Family Status) to uncover the situation of the groups most at risk of being left behind as defined in the initial CCA.

Some changes in data and indicators are possible after receiving additional feedback from the government following the UN Country Team presentations at the UNSDCF Results Groups and the UNSDCF Steering Committee Meetings.

COUNTRY SITUATION UPDATE



Macroeconomic Forecast for 2023/24	2022	*2023*	*2024*
Real GDP growth (PSED 2022/28), %	6.2	*6.5*	*6.6*
Real GDP growth (IMF)[3], %	1.6	*2.5*	*2.1*
Consumer Prices, yoy (IMF), %	11.2	*5.9*	*10.5*
Current Acc. Balance (IMF), % of GDP	7.1	*3.4*	*1.8*
Real Sector[1,2]	2020	2021	2022
GDP current prices, bln USD	45.8	50.0	56.5
Production of natural gas, bcm	69.8	83.8	94.4
Manufacturing value added, % of GDP	16.3	15.9	14.7[5]
Average wage, by sex (M/F), TMT	1907/ 1712	2170/ 1882	2376/ 2088
Proportion of informal employment in total employment, by sex (M/F)	17.9/ 29.4	18.3/ 29.9	18.2/ 29.7
Public Sector[1,2]	2020	2021	2022
Total government revenue, % of GDP	13.6	13.9	16.4
Share in public expenditures spent on, % - Education	28	28.8	28.7
- Health	10.1	11.6	10.2
- Social assistance and Pension Fund	23.4	24.4	28.8
Total budget balance, % of GDP	0.1	0.6	3.4
External Sector[1,2]	2020	2021	2022
Import, mln USD	5926	6249.7	7362
Export (without oil), mln USD	6617	8860	12719
Export of natural gas bcm/mln USD	34/4416	46/5855	43/9449
Official exchange rate USD/TMT	3.5	3.5	3.5
Monetary and Financial Sector[1,2]	2020	2021	2022
Central Bank interest rate, %	5	5	5
Ratio of the bank's capital and assets, %	6.9	7.3	7.9
Total credits by credit institutions, bln TMT (share to private sector,%)	94.1/ 6.7%	109.4/ 8.0%	117.7/ 7%
Domestic public debt, % of GDP	4.5	4.1	0

KEY HIGHLIGHTS:

- Turkmenistan is an upper-middle-income country with significant revenues from exports of hydro-carbon resources, mainly natural gas (74% of export revenues in 2022).
- The Statistics reports the real GDP growth at 6.2% in 2022 and 6.3% in Jan-Sep 2023. The IMF[3] estimated the real Turkmenistan GDP growth at 1.6% in 2022 forecasting it at 2.5% in 2023.
- In 2022, economic activity was driven by the hydrocarbon sector securing net exports (current account balance of 7% of GDP). This further helped to accumulate sizeable foreign exchange reserves to near $40 bln at end-1H or 50% of GDP, according to Fitch[4], and improve the fiscal balance (surplus over 2% of GDP in 1H).
- Turkmenistan's import coverage ratio (import to GDP) is the lowest in the region, reflecting shrinking manufacturing sector (14,7% of GDP, estimate of SDG indicator 9.2.1), supressed FDI (2% of GDP) and household consumption. It can be attributed, at least partially, to the existing parallel market exchange rate, creating economic distortions, constraining investment and inflating consumer prices.
- In 2022, inflation continued reaching double digits. Tariffs for utilities, highly subsidized to all income groups, showed no changes, while prices on essential food were raising. With social benefit not adjusted fully to inflation, gender gaps and high informal employment (30% for women and 18% for men) improvements in the social safety net and poverty measurement are necessary.
- Improved fiscal balance (surplus over 2% of GDP in 1H) should further sustain social expenditures, however additional resources are needed to address high out of pocket health expenditures (77% according to World Bank).
- According to December 2022 Census, in Turkmenistan total population reached 7,057,841 people (14% increase compared to the latest official figure) with 47.1% of urban and 52.9% of rural residents.
- The IEA estimates that in 2022 Turkmen oil and gas methane emissions amounted to around 5 million metric tons representing 3.6% of methane emissions from the global energy sector.

PROSPERITY

• The Presidential Programme of Socio- Economic Development for 2022-2028 (PSED) envisages 47% growth of GDP by 2028 to be backed up with the increase in natural gas production by 59% (to 116 bcm with export amounting to 65 bcm compared to 43 in 2022).

• In 2022, economic activity was driven by the hydrocarbons sector benefitting from still-high global energy prices. This secured net exports (current account balance of 7% of GDP). In 2023, it further helped accumulating sizeable foreign exchange reserves (according to Fitch, rose to near $40 bn at end-1H or 50% of GDP) and improving fiscal balance (surplus over 2% of GDP in 1H).

• In 2022, Turkmen gas exports to China rose by 51% year on year to near $10bn. Such a high commodity dependence and export market concentration (76% of gas export goes to China) makes the Turkmen economy vulnerable. With significant reallocation of Russian pipeline gas trade, Turkmen Government explores markets of EU, Iran and Iraq. Diversification of the economy remains an issue.

• According to the Cabinet of Ministers, in 2022 and Q1-3 2023 GDP grew by 6.2%.

• An absolute decrease in gross investment in 2021-2022 and depressed household consumption (in H1, the retail trade turnover increased by 9.3%) result in lower aggregate domestic demand. With the underutilized production capacity, this may negatively influence mid-term prospects of the labour market and, in turn, household consumption, further reducing its contribution to GDP.

The lack of progress on economic diversification creates dependence of Turkmenistan's economic performance from undiversified demand for gas and global energy prices. As the world gradually shifts away from fossil fuels towards greener energy sources, this likely will limit revenues from the sector keeping Turkmen economy anchored to a low-growth trajectory. To sustain prosperity, the Government needs to consolidate the budget, unify exchange rates and further diversify the economy implementing structural and industrial policies and attracting investment, including in just green energy transition. The national economic strategies translated in industrial policies should be consistent with comparative advantages.

PEOPLE

• In Q1-3 2023, 75% of the state budget expenditures (Tier I) were spent on social needs. In 2021, spending on education comprised 3.9% of GDP, on social assistance – 1.9% and on health — 1.6% of GDP. The new social services piloted with the UN support continued to support the most vulnerable people enhancing equity.

• According to MICS 2019, 67% of all the households receive at least some kind of social transfers. However, the size of the benefits is neither adequate nor adjusted to inflation. In 2022, minimum wage, pensions, stipends and social allowances were increased by 10% while consumer prices raised by over 11%. Likely, consumer prices have adjusted to the parallel exchange rate degrading the purchasing power of incomes earned in national currency.

• In 2022, average earnings of employees increased less than inflation while demonstrating a sizable gender gap. Moreover, significant part of labour resources, especially women, was not attached to the labour market. The NEETs rate (18-24 years) at 15.4% and informal employment at 30% for women and 18% for men require labour market improvements.

• In 2022, the state ensured food security creating reserves of essential food subsidizing prices for wheat and bread. Last year the imported volumes increased over two times: 95 thousand tons of wheat flower, along with 48 thousand tons of wheat and 14 thousand tons of rice. Despite government subsidies, the prices on essential food continued raising.

While the spending power has been improving, there is no evidence on the performance of income transfers. To prevent vulnerable households from expanding negative coping strategies it remains critical to improve monitoring of their well-being, introduce national poverty measurement and assess the current design of the social safety net programmes.

PLANET

• Turkmenistan's potential hydrocarbon resources are estimated at more than 71 billion tons of oil equivalent, including more than 50 trillion cubic meters of natural gas. The IEA estimates that Turkmen oil and gas methane emissions amounted to around 5 million metric tons in 2022 or 3.6% of methane emissions from the energy sector globally. 75% of emissions from oil & gas activities can be reduced, and more than half of that — or close to 1.5% of the global emission — at zero net cost.

• In September 2023 at the UN General Assembly in New York, the President renewed Turkmenistan's commitments to achieve zero growth in greenhouse gas emissions by 2030, and in the long term, to significantly reduce emissions annually. Energy transition should be supported with the development of Carbon Neutrality Roadmap by 2052. Investment needs required to attain net-zero by 2052 should be assessed, mapping the way for PPPs to deliver low-carbon solutions.

With the international support the country should embark on reducing methane emissions. Establishing a Centre for Climate Technologies for the Central Asia in Ashgabat with the UN support is important for technology transfer for climate action and energy transition.

PEACE

• With the UN support the country conducted important regional dialogues on food security, climate change and financing the water recourse management. According to UNEP, Degree of integrated water resources management implementation (SDG 6.5.1) in Turkmenistan is the highest in Central Asia.

• In September 2023, the Parliament adopted Laws on accession to the Agreement on the establishment of the International Anti-Corruption Academy as an International Organization; Basic Multilateral Agreement on International Transport for Development of the Europe-the Caucasus-Asia Corridor (TRACECA).

Shaping a viable high-growth strategy is a priority for Turkmenistan to avoid the middle-income trap, while sustaining progress in achieving the national SDGs requires further promotion of human rights, equity and gender equality.

PARTNERSHIPS

• In July, the President instructed to prepare a Memorandum on the foreign trade regime of Turkmenistan for WTO accession. The UN is seen an important partner for generating evidence on trade facilitation and reducing trade barriers.

• The construction of the fourth branch (Line D) of the Central Asia-China gas pipeline, TAPI and of Trans-Caspian gas pipeline is actively promoted along with gas supply diversification.

• The public finance reform supported jointly by the IFIs and UN and linked to the integrated national financing framework (INFF) is needed for SDG financing. In cooperation with IFIs, design of innovative SDG financing mechanisms (blended finance, pooled funds etc), adjustments in legislation and timely actions with regard to transition finance and carbon markets are required.

The following priority areas of joint UN and other development partners interventions with multiplier effects need to be accelerated and costed as part of the SDG Financing Strategy:

• strengthening human capital by advancing health and transforming education, integrated social protection for the most vulnerable and investments in jobs, including youth employability;

• improving food security, water and biodiversity management, early warning systems and climate action, including shaping the just green energy transition and establishing the Regional Climate Center;

• enabling structural transformation, entrepreneurship and PPPs, innovations, digital public infrastructure, including data systems, transport corridors and diversification of trade on the way to the WTO.

These acceleration areas are fully aligned with Turkmenistan's Strategies and **National Commitments to SDG Transformation** submitted at the SDG summit.

Sources:

[1] Statistics Committee
[2] SDG Database
[3] IMF WEO
[4] Fitch
[5] Estimate

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SDG SUMMIT 2023

RESULTS
GROUPS
FACTSHEETS

COMMON COUNTRY ANALYSIS

UNITED NATIONS TURKMENISTAN

UNSDCF RESULTS GROUP 1

People-centered governance and rule of law

I. Sustainable Development challenges at a glance

		Value	Year	Trend
5 GENDER EQUALITY	Demand for family planning satisfied by modern methods (females aged 15-49), %	79.6	2019	●
	Seats held by women in national parliament, %	25.73	2022	↗
	Extent to which legal frameworks address human and labour rights, including gender equality and non-discrimination on the basis of age, sex, disability, ethnicity, religion, political opinion, economic or other status	3	2022	↗
	Proportion of ever-partnered females (15+ years) subjected to violence by a current or former intimate partner in the previous 12 months, by form of violence, %: total, physical, sexual, psychological	5.4 3.0 0.9 3.4	2021	●
	Share of women in managerial positions, %	22.4	2022	→
8 DECENT WORK AND ECONOMIC GROWTH	Labor force participation rate, %	80.3	2022	→
	Proportion of informal employment in total employment, by sector and sex (female/male), %	29.7/18.2	2022	→
	Average monthly earnings of employees, by sex, age, occupation and persons with disabilities (female/male), manat	2088/2376	2022	→
10 REDUCED INEQUALITIES	**Ombudsman's Office to effectively handle appeals in accordance with the Paris Principles**		2022	→
11 SUSTAINABLE CITIES AND COMMUNITIES	Annual mean levels of fine particulate matter, microgram/m³	0.15	2022	→

↑ On track
↗ Improving
→ Stagnating
↓ Decreasing
● No target

Note: SDG colour-coding

		Value	Year	Trend
16 PEACE AND JUSTICE STRONG INSTITUTIONS	Population who feel safe walking alone at night in the city or area where they live, %	93	2019	●
	Birth registrations with civil authority (children under-5), %	99.9	2019	↑
17 PARTNERSHIPS FOR THE GOALS	**Nationalized SDG Indicators that have disaggregated data (where relevant) available to report, %**	70	2022	↗
	Population and household census data used for development of national socio-economic programmes and strategies	yes	2022	↑
	Statistical Performance Index (0–100 best)	72.3	2023	↗
	SDG Performance Country Ranking	91/166	2023	↗

II. Results in 2023

2nd VNR prepared and presented at the HLPF 2023

National accounts system integration with the SNS 2008 **methodology advanced**

National SDG data platform **opened for public**

Population Census 2022 results released and **National Report prepared** for publication

National CRVS system review was conducted, and **recommendations prepared**

Mid-term assesment of the NAP on **human rights 2021-2025** conducted

New National Action Plan on child rights for 2023-2028 has been **approved**

Commitment to promote reproductive health and **women rights** at the High-level ICPD30 Conference in Geneva was reiterated

Central Bureau of Forensic Medicine of Turkmenistan was supported in **obtaining an ISO/IEC 17025:2017 standard certificate** on competence, impartiality, and consistent operation of laboratories

National Reports to the UN Treaty Bodies prepared on the **Universal Periodic Review (UPR)** and the **International Covenant on Economic, Social and Cultural Rights (ICESCR)**

National Action Plan of Turkmenistan draft to **combat trafficking in persons** developed and submitted to the Government

Domestic Violence **study evidence** uptake resulted in **developed Roadmap** for implementation of the **Survey recommendations**

Bachelor's program in the specialty **«Social work»** opened in **2 state universities**

Independent monitoring of **working conditions** in the cotton harvest and 3 ILO missions conducted to advise the Government on the ways to **strengthen conformity** with ILO Convention No.105 on **Abolition of Forced Labour** and ILO Convention No.182 on **Worst Forms of Child Labour** and to strengthen labour market governance

UNSDCF RESULTS GROUP 1

People-centered governance and rule of law

III. Contributions to achieving the Results

Note: SDG colour-coding

Importance of outputs

Probability of achieving: Very likely to be achieved | Likely to be achieved | Unlikely to be achieved

Resources, USD: Required | Available

SDG SUMMIT 2023 HLF
Turkmenistan National Commitments to SDG Transformation

		Required	Available
Output 1.1	The state institutions of Turkmenistan equipped with knowledge, skills and tools to introduce the systems of digital government, document management, and provision of efficient services to the population using 'one stop shop' principles	890 972	880 972
Output 1.2	Sectoral ministries and agencies are able to integrate a system of strategic planning, targeted budgeting and financing to achieve the SDGs, considering the interests of children, women, people with disabilities and other vulnerable groups	278 723	204 479
Output 1.3	Civil service system provides conditions for establishing the pool of highly competent, motivated, impartial civil servants, who develop, plan and implement evidence-based, human centered public policy	260 077	260 077
Output 1.4	Government, including law enforcement agencies and other state institutions develop, and equipped with tools and skills to effectively implement programmes and mechanisms in the field of human and labour rights and gender equality on the basis of recommendations from UN treaties and mechanisms and ILO supervisory bodies and feedback from civil society, including workers' and employers' organizations and relevant population groups	877 224	847 224
Output 1.5	Ministries and agencies of Turkmenistan have sufficient capacities to collect and analyze disaggregated data, taking into account the priorities of state policy and the SDGs for the development of people-centered policies and programmes	788 700	496 645

Outcome 1:

By 2025, people have access to more effective, innovative, and transparent public administration based upon the rule of law, human and labour rights, gender equality and quality data

Required	Available
3 095 696	2 689 397

Source: Report on Mid Term Review of UNSDCF, 2023 (UNCT survey)

IV. Key policy messages for accelerating SDG transformations

- Accession to Optional Protocols (OPCAT and CRC) and capitalizing on UPR 4th cycle process and dialogue with the HR Council in 2023
- Include the violence definition (GBV, violence against children etc) into the national legislation
- Advance human rights education for ALL and education for justice and crime prevention
- Improve capacity of Ombudsman Office with establishing child rights function and suporting with Global Alliance of National Human Rights Institutions (GANHRI) accreditation
- Implement the SG'c Call to Action for Human Rights
- Further develop digital public services and build a competent civil service
- Realize the potential of individuals and societies and secure the human rights of everyone amid the new demographic realities within the membership of Turkmenistan to the UN Commission on Population and Development
- Develop the national youth participation mechanism in policy and decision-making processes
- Improve data availability for developing evidence-informed policies
- Ensure availability and use of disaggregated data for published Populations Cnesus results
- Implement the NAP on child rights 2023-2028
- Develop national strategic planning and Evaluation Capacities for better monitoring of SDGs, planning and budgeting

Sources: 1. Turkmenistan SDG Database, 2. Sustainable Development Report 2023, 3. MICS 2019

COMMON COUNTRY ANALYSIS

UNITED NATIONS TURKMENISTAN

UNSDCF RESULTS GROUP 2
Economic diversification, trade and investments

I. Sustainable Development challenges at a glance

		Value	Year	Trend
5 GENDER EQUALITY	Ratio of female-to-male labor force participation rate, %	76.9	2020	→
	Number of entrepreneurs, disaggregated by sex M/F, %	67.5/32.5	2022	↗
8 DECENT WORK AND ECONOMIC GROWTH	**Annual growth rate of real GDP per employed person, %**	102.9	2022	↗
	Unemployment rate (of total labor force), %	4.7	2022	↗
	Proportion of informal employment in total employment by sex M/F, %	18.2/29.7	2022	↗
	Fatal and non-fatal occupational injuries (per 100K workers): total, female	15.4 3.57	2022	↗
	Total amount of Credits provided by credit institutions to enterprises and population, mln TMT	109k	2021	↑
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Household that have access to the internet at home, %	48.9	2019	↗
	Manufacturing value added as a proportion of GDP and per capita, %	14.7	2022	↗
	Relative connectivity (compared to the Netherlands, worst 0–100 best)	68	2021	↑
	Articles published in academic journals (per 1K population)	0.0	2020	↓

↑ On track
↗ Improving
→ Stagnating
↓ Decreasing
● No target

Note: SDG colour-coding

		Value	Year	Trend
10 REDUCED INEQUALITIES	Human Development Index (HDI)	0.745	2022	↗
	Inequality-adjusted HDI	0.619	2022	↗
16 PEACE AND JUSTICE STRONG INSTITUTIONS	**Share in public expenditures spent in total, on education, health, social assistance and Pension Fund, %**	67.7 28.7 10.2 28.8	2022	↗ ↗ → ↗
	Total budget balance, % of GDP	3.4	2022	↗
	Turkmenistan exports, mln USD	14 670.1	2022	↗
17 PARTNERSHIPS FOR THE GOALS	Number of fixed broadband internet subscribers, including mobile	2 683 598	2022	↗
	Foreign Direct Investment (FDI) to GDP, %	2.3	2022	→

II. Results in 2023

Trade information portal developed and launched, providing information on **step-by-step trade** procedures for **25 categories of export-import products**

Analysis of **legislation** and institutional architecture for the **WTO accession** conducted

26 National Laws translated into English as part of the preparation of the **Memorandum on the Foreign Trade Regime** (MFTR)

Digital banking platform development for **online financial services** advanced

5 civil servants trained on **trade policy** at the World Trade Institute

13 out of 15 organizations integrated in the **«Single Window for Export-Import Operations»** system

Technical and institutional capacity in the fisheries and **aquaculture sector** strengthened

Development Finance Assessment and **SDG Costing training** conducted to enable SDG Financing Strategies formulation as part of the **Integrated National Financing Framework (INFF)** implementation

Capacity of 20 government officials developed and the legislation reviewed on **Public-Private Partnerships mechanisms** for the SDG implementation

Capacity of the State Committee on Statistics strengthened to enable **transition to 2008 SNA**: **2 surveys** conducted (on supply and use tables and on tourism satellite issues) and the **Working Group on Financial Accounts** functional

Statistical Business Register software developed to ease registration of **legal entities and individual (private) entrepreneurs**, including women

COMMON COUNTRY ANALYSIS

UNITED NATIONS TURKMENISTAN

UNSDCF RESULTS GROUP 2
Economic diversification, trade and investments

III. Contributions to achieving the Results

Note: SDG colour-coding

Importance of outputs

Probability of achieving: Very likely to be achieved | Likely to be achieved | Unlikely to be achieved

Resources, USD: Required | Available

SDG SUMMIT 2023 HLPF
Turkmenistan National Commitments to SDG Transformation

		Required	Available
Output 2.1	Regulatory and institutional changes developed on simplifying doing procedures and expanding access to information, innovative technology and financing for private sector, particularly SMEs and women entrepreneurs	636 112	636 112
Output 2.2	Human, institutional, and R&D capacity of public institutions and private sector strengthened for effective realization of the comprehensive programmes on diversification and digitalization of all sectors of economy with the focus on vulnerable groups	1 467 180	1 621 682
Output 2.3	Innovative and diversified financial (fiscal, insurance, and investment) and banking instruments are available to support dynamic development of green economy	1 273 162	1 273 162
Output 2.4	Policies and regulatory changes aimed at fostering favorable climate in order to attract private capital and foreign investments and to support trade are developed	95 000	95 000
Output 2.5	Institutional capacity of public institutions is strengthened in regard to collection, analysis, and availability of disaggregated quality data on economic development, trade, private sector development, and investments	526 566	526 566

Outcome 2:

By 2025, conditions for sustainable and inclusive economic diversification are strengthened with competitive private and financial sectors, enhanced trade and investment promotion, and the adoption of new technologies

Required	Available
3 998 020	4 152 522

Source: Report on Mid Term Review of UNSDCF, 2023 (UNCT survey)

IV. Key policy messages for accelerating SDG transformations

- Support women and youth employability, including skilling
- Support agricultural reforms and rural development with focus on efficient resource use and food security
- Identify potential new sectors for diversification of the economy and markets with growing export opportunities
- Enhance digitalization of the economy
- Establish a national socio-economic research center to support implementation of the Programme-2052

- Advance WTO accession process
- Support MSMEs sector, including by strengthening capacities to comply with cross-border trade requirements
- Develop and implement industrial and structural policies and attract investment
- Advance Public finance management reform, including through technical assistance on MTBF and budget consolidation
- Develop financial markets
- Implement Turkmenistan's National Commitments to SDG Transformation

Sources: 1. Turkmenistan SDG Database, 2. Sustainable Development Report 2023, 3. MICS 2019

COMMON COUNTRY ANALYSIS

UNITED NATIONS TURKMENISTAN

UNSDCF RESULTS GROUP 3

Climate chanbe and disaster risk reduction (DRR)

I. Sustainable Development challenges at a glance

Note: SDG colour-coding

		Value	Year	Trend
6 CLEAN WATER AND SANITATION	**Number of nationwide (sectoral or community-based plans) investments and/or measures implemented for the sustainable and integrated management of land, water, biological diversity, energy and other natural resources taking into account gender aspects**	1	2021	↗
	Degree of integrated water resources management, score	64	2020	↗
	Population using safe drinking water services, %	99.9	2019	↑
	Population using safe sanitation services, hand-washing facility with soap and water, %	98.7	2019	↑
	Level of water stress: freshwater withdrawal of available freshwater resources, %	87.1	2021	↓
7 AFFORDABLE AND CLEAN ENERGY	Population with access to electricity, clean fuels and technology for cooking, %	100	2022	↑
	Energy intensity in terms of primary energy and GDP, tons of oil equivalent per 1000 TMT	0.161	2021	→
	Renewable energy in total primary supply, %	0.01[4]	2022	→
13 CLIMATE ACTION	**Gender-sensitive adaptation and mitigation measures implemented and scaled-up**	1	2021	↗
	CO_2 emissions from fossil fuel combustion and cement production, tCO_2/capita	13.2[2]	2021	→
	CO_2 emissions embodied in imports, tCO_2/capita	0.7[2]	2018	↑
	Planetary Pressures-adjusted HDI	0.632	2022	→
15 LIFE ON LAND	Mean area that is protected in terrestrial sites important to biodiversity, %	14.0[2]	2022	→
	Red List Index of species survival (0–1 best)	0.98[2]	2023	→
	Progress towards sustainable forest management, thousand ha	3.7	2022	↑
	Land that is degraded over total land area, %	17.7[4]	2022	↓
	Forest area as a proportion of total land area, %	8.8	2020	→

On track ↑
Improving ↗
Stagnating →
Decreasing ↓
No data ●

		Value	Year	Trend
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	**Knowledge products for sustainable development included in national education curricula, teacher education, student assessment, media and other public info**	3	2022	↗
	Amount of fossil-fuel subsidies per unit of GDP (production and consumption), %	0.15	2022	↗
11 SUSTAINABLE CITIES AND COMMUNITIES	**Land consumption / population growth rate**	99	2022	↗
	Velayats and communities implementing programmes to strengthen DRR, preparedness and response to climate-related hazards and natural disasters in line with the Sendai Framework for DRR, which are gender sensitive and have sex disaggregated data	0	2022	●
	Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated	99.9	2022	→

II. Results in 2023

Technical and advisory support to the Government **participation in the COP 28** provided

2 initial stages of the establishment of the **National GHG Inventory System** completed

Mapping of the **seismic risks** in Ashgabat on micro-district level completed

>700 specialists, >500 farmers and enterpreneurs strengthened their knowledge on **adaptation to climate change, waste management, energy conservation and renewable energy sources**

On the way to COP28
UN and partners engaged in promoting climate change solutions:
>500 young people in **4 national youth conferences**
>100 participants in the international **Climate Change and Food Security conference**, including IFIs and MPTF in advancing regional level solutions

National DRR Strategy focusing on the **rights and needs of children** and **Multi-Year Action Plan** completed and submitted for endorsement

Joint UN and Ministry of Education
«Green School» Program and the **Memorandum of understanding** for implementation prepared

National profile of Turkmenistan's **forests and forest sector** developed and published

Comprehensive analysis of the **DRR** system in the **agricultural sector** of Turkmenistan has been completed

>1 000 secondary school students, >100 teachers, >400 staff and volounteers of the NRCST strengthened the **capacities in DRR** in schools, **Gender and WASH** in emergencies, and took part in the simulation **activities related to earthquake**

Analysis of the **legislation** and recommendations for **harmonization with the UNECE** Industrial Accidents Convention and measures to reduce the **risk of man-made disasters** completed

Water, Sanitation, and Hygiene (WASH) Survey in health care facilities **completed**

New green standard
«Buildings of hotels and hotel complexes in Turkmenistan»,
5 new standards
for **energy saving** and **energy efficiency** and a draft **Concept of waste management** developed

COMMON COUNTRY ANALYSIS

UNITED NATIONS TURKMENISTAN

UNSDCF RESULTS GROUP 3
Climate chanbe and disaster risk reduction (DRR)

III. Contributions to achieving the Results

Note: SDG colour-coding

Importance of outputs

Probability of achieving: Very likely to be achieved | Likely to be achieved | Unlikely to be achieved

Resources, USD: Required | Available

SDG SUMMIT 2023 HLF
Turkmenistan National Commitments to SDG Transformation

		Required	Available
Output 3.1	The GoT is equipped with technical capacity and tools to develop and effectively implement policies and strategies in the field of climate change, with a focus on reduction of CO_2 emissions and adaptation	1 675 918	1 675 918
Output 3.2	National institutions, local communities, including women, children and vulnerable groups, and entrepreneurs/economic sectors are technically prepared for disasters and disaster response	935 154	915 154
Output 3.3	Government institutions, private sector, and civil society, trade unions and Union of Industrialists and Entrepreneurs, have capacity to apply innovations, digital technology and green solutions contributing to efficient use of energy, water, land and other natural resources, renewable energy and development of sustainable cities and green economy with active participation of women, children and vulnerable groups of population	1 510 567	1 282 567
Output 3.4	Capacities of the GoT and other stakeholders for climate analysis, assessment, monitoring, and reporting on climate change, environmental protection, and disaster risk reduction with focus on women, children and vulnerable groups is improved	2 073 603	2 073 603

Outcome 3:

By 2025, there is effective design and implementation of disaster risk reduction and climate adaptation and mitigation measures, enabling a more rational use of resources, increased resilience, and a «green» economy transition

Required	Available
6 195 242	5 947 242

Source: Report on Mid Term Review of UNSDCF, 2023 (UNCT survey)

IV. Key policy messages for accelerating SDG transformations

- Establish the Regional Center for Climate Change Technologies for Central Asia in Ashgabat using the UN Multi-Partner Trust Fund mechanism
- Develop and implement the UN Joint Programme on Supporting Just Green Energy Transition in Turkmenistan focused on methane abatement, develop Carbon Neutrality Road Map and enable its financing, including transition finance
- Advance energy efficiency and the use of renewable energy across economic sectors
- Advance green urban practices, planning and smart cities development
- Support actions on DRR, developing seismic contingency plan, resilient cities/rural areas concept
- Improve data collection tools and availability on environment and DRR

- Improve food security, water management and climate action
- Support the government in the establishment of the Regional Center for Climate Change Technologies for Central Asia in Turkmenistan
- Support the government partnerships aiming at the reduction of methane emissions in the country
- Sustain engagement of Youth in Climate Change
- Promote topics of green economy: «green city», «green school», «green hospital», «green building»
- Implement Turkmenistan's National Commitments to SDG Transformation

Sources: 1. Turkmenistan SDG Database, 2. Sustainable Development Report 2023, 3. MICS 2019, 4. UN estimate

COMMON COUNTRY ANALYSIS

UNITED NATIONS TURKMENISTAN

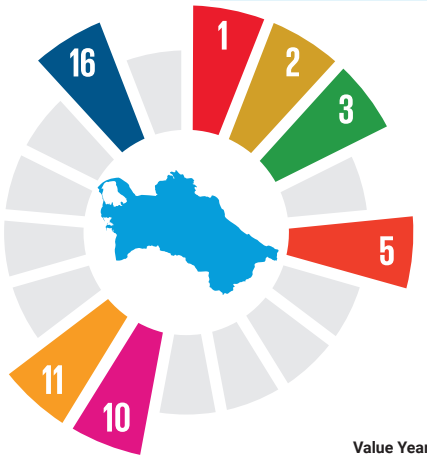
UNSDCF RESULTS GROUP 4
Inclusive health and social protection

I. Sustainable Development challenges at a glance

Note: SDG colour-coding

	Value	Year	Trend
Poverty headcount ratio at $2.15/day, %	0.5[2]	2023	↑
Number of people covered by social protection systems (including community-based social services), thsnd	998.6	2022	●
Households receive some kind of social transfers from the government, %	67	2019	↗
Household out-of-pocket expenditure (of current health expenditure), %	77.0	2020	↓
Children under-5 who are stunted, %	7	2019	↗
Women of reproductive age (15-49 years) who have their need for family planning satisfied with modern method, %	79.6	2019	↗
Maternal Mortality rate, per 100K live births	5[4] 1.7[1]	2020 2022	↗ ↗
Neonatal mortality rate (per 1K live births)	23.5	2020	↓
Mortality rate, under-5 (per 1K live births)	38.0	2019	→
TB incidence rate per 100k	29.9	2022	↑
Extent to which primary health care facilities and children's hospitals have integrated the IMNCI approach	Score 2	2022	↗
Mortality rate attributed to cardiovascular disease, cancer, diabetes, or chronic respiratory disease, %: total, male, female	21.9 26.5 17.8	2022	↗
Life expectancy at birth (M/F), years	71.5 (68.9/74.1)	2019	→
Universal health coverage (UHC) index of service coverage (worst 0–100 best)	73	2019	↗

On track ↑ | Improving ↗ | Stagnating → | Decreasing ↓ | No target ●



	Value	Year	Trend
Share of etraps providing early intervention services to children under-5, %	50	2023	↗
Human Development Index (HDI)	0.745	2021	↗
Inequality-adjusted HDI	0.619	2021	↗
Access to improved water source, piped (urban population), %	77.4	2020	↓
Share in GDP of public expenditures spent in total, on education, health, social assistance and Pension Fund, %	8.7 3.7 1.3 3.7	2022	↗ ↗ → ↗

II. Results in 2023

COVID-19

Virus sequencing technology
has been **introduced**

Surveillance training
program and a **COVID Vaccine Introduction and Distribution** Plan implemented

Software
for **epidemiological surveillance** implemented

Supplies:
laboratory tests, medical equipment, drugs for SARI were purchased

15 SES institutions
are equipped with **medical waste disposal** systems

19 SES institutions
are equipped with **mobile disinfection chambers**

Sentinel surveillance protocol
for **influenza and ARI** has been developed

Preventing the spread of infectious diseases

High-quality tests
for **HIV, viral hepatitis and STIs** were provided

Elimination
of **chronic hepatitis B** among children born after the introduction of **universal vaccination** has been confirmed

>150 doctors
of various specialties are certified in **HIV management** in accordance with **clinical protocols** for 2022

National clinical standards
for the **diagnosis and treatment of STIs** have been updated

Modern pan-genomic drugs
to **treat 3,500 patients** with viral **hepatitis C** supplied

Tuberculosis control

2 232
patients with **drug-sensitive** and

670
patients with **DR-TB** are taken on **treatment**
(as of 30/09/2023)

100% of patients
• with **TB** are tested for **rifampicin resistance**
• with **DR-TB** are tested for drug sensitivity to **2nd line drugs**

Treatment
of **889 patients** with **drug-resistant tuberculosis** supported

Electronic TB register
TBRRIS developed and **prepared for commissioning**

2 National guidelines
developed:
• on **systematic screening** and preventive treatment of tuberculosis
• on the **treatment of TB** in children and adolescents

NCDs

3rd STEPS study
on surveillance of **NCD risk factors** conducted

National strategy
and action plan for **mental health** developed and approved

Uninterrupted supply of drugs
for the treatment of **diabetes, cancer, cardiovascular diseases, chronic lung diseases, neurological diseases** ensured

Strengthening the health system

200
doctors are trained and apply skills in **psycho-social counseling** for victims of violence

110
clinical labs are being equipped with **modern equipment** and high-quality reagents for clinical tests

Survey on water, sanitation and hygiene
in health care facilities in Turkmenistan conducted

Bachelor programme
in the specialty **«Social work»** opened in 2 state universities to equip the new inclusive community based social services system with quality social workforce

Supplied emergency medications
for newborns and mothers

>10 000 women
at risk obtained access to **family planning services**

Protection
of **motherhood** and **childhood**

>300 women and children
of **Afghan and local communities** in villages of Ahal and Lebap velayats received **medical and legal services**

COMMON COUNTRY ANALYSIS

UNITED NATIONS TURKMENISTAN

UNSDCF RESULTS GROUP 4
Inclusive health and social protection

III. Contributions to achieving the Results

Note: SDG colour-coding

Importance of outputs

Probability of achieving: Very likely to be achieved | Likely to be achieved | Unlikely to be achieved

Resources, USD: Required | Available

SDG SUMMIT 2023 HLF
Turkmenistan National Commitments to SDG Transformation

		Required	Available
Output 4.1	The legislative, regulatory and financing framework for health and social protection is strengthened	1 509 412	1 442 844
Output 4.2	The system of data collection and analysis for monitoring and making managerial decisions is improved (disaggregated data on gender, age, social vulnerability)	426 241	306 252
Output 4.3	The system and mechanisms are strengthened to increase access to information about a healthy lifestyle, the prevention of morbidity, social protection, with a focus on women, children, adolescents, persons with disabilities, and other vulnerable groups	1 322 825	1 319 825
Output 4.4	The GoT has sufficient capacity for effective and sustainable implementation of the national programmes and strategies for MCH, PPP, RH, TB, HIV, AIDS, NCDs and infectious diseases	62 649 240	62 274 511
Output 4.5	Regulatory framework and technical capacities developed to introduce a system of social protection to provide quality, inclusive and social services at the community level	929 664	112 024

Outcome 4:

By 2025, quality, inclusive, and affordable health, education, and social protection systems

Required	Available
66 837 382	65 455 456

Source: Report on Mid Term Review of UNSDCF, 2023 (UNCT survey)

IV. Key policy messages for accelerating SDG transformations

- Move towards Universal Health Coverage (UHC) and monitoring progress
- Reduce out-of-pocket health expenditures
- Strengthen health system performance and digitalization for health
- Support surveillance, prevention and control of NCDs and NCD risk factors
- Accelerate tobacco control and achieve tobacco free country status by 2025
- Integrate the One Health approach to balance and optimize the health of people, animals and the environment
- Advance emergency preparedness for possible pandemics and disasters
- Advance health diplomacy
- Prioritize implementation of the Healthy Mother — Healthy Child — Healthy Future national strategy 2021-2025
- Improve adequacy of social benefits, social protection coverage and access to integrated social services at the district level
- Implement UN Joint Programme on Jobs and Social Protection conducting diagnostics of Social Safety Net using CODI and introduce national poverty measurement
- Implement Turkmenistan's National Commitments to SDG Transformation

Sources: 1. Turkmenistan SDG Database, 2. Sustainable Development Report 2023, 3. MICS 2019, 4. WHO

COMMON COUNTRY ANALYSIS

UNITED NATIONS TURKMENISTAN

UNSDCF RESULTS GROUP 5
Quality Education and Skills

I. Sustainable Development challenges at a glance

Note: SDG colour-coding

	Value	Year	Trend
Proportion of schools offering basic services, by type of service: Internet for pedagogical purposes (rural/urban), %	23.3/64.4	2022	↗
Children aged 36-59 months attending early childhood education, %:total, urban, rural	41 65 26	2019	↓
Children aged 36-59 months on track for literacy and numeracy, %: total, urban, rural	20 31 14	2019	↗
School children have both internet and computer, %: total, urban, rural	32 46 20	2019	●
State budget expenditure on education, share in GDP, %	3.9	2021	↗
Children and young people achieving min proficiency in reading/mathematics, %	81.8/70	2019	↗
Participation rate in organized learning (one year before the official primary entry age), %: total, male, female	47.6 46.9 48.3	2019	↗
Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months (female), %	40.4	2019	●
Ratio of female-to-male labor force participation rate, %	76.9	2020	→
Monthly earnings of employees, TMT: avarage, female, male, female with disability, male with disability	2 261.2 2 087.5 2 376.4 1 714.2 1 962.3	2022	→
Proportion of informal employment in total employment (female/male), %	29.7/18.2	2022	→

↑ On track
↗ Improving
→ Stagnating
↓ Decreasing
● No data

	Value	Year	Trend
Unemployment rate (of total labor force), %	4.7	2022	→
Proportion of youth (aged 15–24 years) not in education, employment or training, %	15.4	2022	→
Young women (age 20-24) not in education, employment or training (NEET), %	28.4	2019	●
Number of ALMPs designed and implemented for targeted non-hydrocarbon sectors, in line with international labour standards and gender equality concerns	2	2020	●
Extent of alignment of national labour laws, regulations in line with international labour standards	partially	2020	●

II. Results in 2023

Early learning

Methodological support on initiating half day **pre-primary preparation programme** provided

In-service training programmes on preparation of **trans-disciplinary specialists** for children of early age developed

Joint inter-ministerial provision on **early intervention** and multidisciplinary **support for 0-6 yrs. children with disabilities** and their families finalized and tested in Ashgabat

2 ILO missions conducted informing the Government on the ways to **strengthen conformity** with ILO Convention No.105 on **Abolition of Forced Labour**

Integration of Climate change adaptation into education

>1 000 secondary school students, >100 teachers , >400 staff and volounteers strengthened their **knowledge and skills in DRR** in schools, **gender aspects** during emergencies, **water supply, sanitation and hygiene** during emergencies, and took part in simulation **activities related to earthquakes**

14 250 teaching guides **provided** to the education system to **integrate climate change adaptation** into primary and secondary education

Curriculum and methodological manual on **adaptation to climate change** for preschool education developed

Quality education

>615 teachers strengthened their skills in **STEM teaching, Educational Robotics, EMIS, social-emotional learning and Gender equality** subjects

Piloting of an **Education Management Information System** (EMIS) for all schools in Ashgabat and selected schools in 5 velayats initiated

National concept of **inclusive education for 2023-2028** (IE) finalized and ready for endorsement

Text-to-speech voice developed enabling for all **visually-impaired people hearing** Turkmen texts on digital devices

3 gender-responsive education manuals for Teachers, Parents, and Students drafted and are currently under **review for endorsement** and publication

Skilling

>100 young people trained in **soft skills** and **digital skills**

Nearly 40 people affected by **migration** received reintegration support incl. **medical assistance, vocational training** and **equipment for income** generation activities

Nearly 900 people from **vulnerable groups of population**, including people with disabilities, unemployed youth, low-income families (55% female and 45% male) from Ashgabat, Ahal, Balkan and Mary regions were supported in building their **problem-solving, team building, leadership, networking, communication and management skills** through small-grant capacity building youth-led projects

3 ILO missions resulted in the inclusion of an **additional module in the LFS** and **labour market analysis** to formulate efficient measures for vulnerable population

COMMON COUNTRY ANALYSIS

UNITED NATIONS TURKMENISTAN

UNSDCF RESULTS GROUP 5
Quality Education and Skills

III. Contributions to achieving the Results

Note: SDG colour-coding

Importance of outputs

Probability of achieving: Very likely to be achieved | Likely to be achieved | Unlikely to be achieved

Resources, USD: Required | Available

SDG SUMMIT 2023 HLF
Turkmenistan National Commitments to SDG Transformation

		Required	Available
Output 5.1	Access to quality pre-school education for all children, including children with disabilities is increased	40 000	40 000
Output 5.2	Secondary education system is strengthened to ensure the quality of education with focus on life skills (social and emotional skills, creativity, problem solving, life skills) including prof. targeting for all children	65 000	65 000
Output 5.3	Capacities and mechanisms are in place to ensure the effective implementation of the national programme on inclusive education	25 000	25 000
Output 5.4	The system of vocational, primary, secondary, higher and continuous education is strengthened, and takes into account the needs of the labor market	723 939	723 939
Output 5.5	Employment services system is improved, including strengthened state employment services and expanded opportunities for private recruitment agencies	0	0
Output 5.6	Effective labour market regulation system developed, including improved labour market analysis and forecasting to formulate efficient active labour market measures for youth and vulnerable population	181 500	181 500

Outcome 5:

By 2025, the education and skilling system offers all people the skills and knowledge for employment success in a diversifying economy and enhanced social integration and resilience

Required	Available
1 035 439	1 035 439

Source: Report on Mid Term Review of UNSDCF, 2023 (UNCT survey)

IV. Key policy messages for accelerating SDG transformations

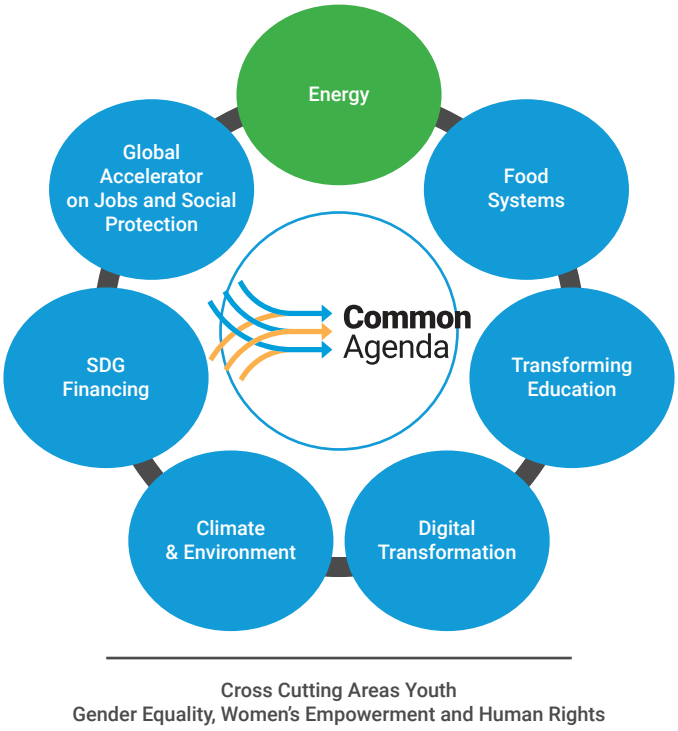
- Increase participation in pre-primary education, to boost early childhood development and learning
- Accelerate revision of teacher training and school curricula to increase efficiency of instruction
- Advance National Qualification System, including by taking into account informal education
- Invest in digitalization of education, ICT skills of students and teachers, digital Open Educational Resources (OER)
- Adopt a national concept of inclusive education to mainstream inclusion of people with disabilities at all education levels
- Fully develop and launch Education Management Information System (EMIS) to monitor, plan and manage education sector more effectively
- Support transitioning of youth, especially women, to the labour market
- Establish effective follow up and monitoring mechanism for the TES national commitments under the Result Group 5 of the UNSDCF
- Improve employment services system, incl. state services and private recruitment agencies
- Advance labour market regulation system, incl. improved labour market analysis and forecasting to formulate efficient active labour market policies (ALMP) for youth and vulnerable population
- Engage young people more in decision-making processes amplifying their voices at national, regional and global levels

Sources: 1. Turkmenistan SDG Database, 2. Sustainable Development Report 2023, 3. MICS 2019

POLICY BRIEFS

October 2023

SDG SUMMIT 2023
Turkmenistan National Commitments to SDG Transformation



Summit of the Future
Our Common Agenda

Just Green Energy Transition in Turkmenistan

1 Summary

Turkmenistan has achieved the SDG7 target on ensuring universal access to affordable, reliable and modern energy services and is making efforts on increasing substantially the share of renewable energy in the energy mix (target 7.2) and doubling the global rate of improvement in energy efficiency (target 7.3).

To fully achieve the SDG7 supporting the progress on the SDG13 the country needs forward-looking actions in Energy Transition to decouple economic growth and GHG emissions. Reducing emissions from methane is an essential part of Paris Agreement-compatible mitigation strategies. To achieve net-zero emissions, the energy needs to be clean and renewable. Securing a low-carbon future is a matter of justice, as poor people and regions are the most affected by climate change.

In Turkmenistan, in addition to actions on renewable energy and energy efficiency, four initiatives are critical to secure the 2030 Agenda while mitigating climate change:

- Reducing methane emissions by third by 2030;
- Achieving carbon neutrality;
- Enabling a hydrogen ecosystem;
- Ensuring a just transition to remove social obstacles to real transformative action.

Just and Green Energy Transition will create new jobs, stimulate growth and bring social and health benefits supporting achievement of the SDGs and diversification of Turkmenistan's economy.

Energy transition explained

Energy Transition is a continuing process requiring long-term energy strategies and planning, with a country-tailored focus on applying appropriated energy technologies to reach net-zero emissions.

According to the ILO, the just transition is defined as a transition from a fossil-fuel dependent to a green economy that is designed in a way that not only reduces our environmental footprint, but also addresses existing socioeconomic disparities and avoids creating new ones.

Methane is a powerful pollutant with a global warming potential over 80 times greater CO_2 during the 20 years after it is released into the atmosphere. It is responsible for around 30% of the rise in global temperatures. Methane is the primary component of natural gas, making oil and gas sector a major source of emissions.

«Carbon neutrality» is defined as a balance of anthropogenic emissions of GHGs and their removal. Achieving such a balance requires that all anthropogenic GHGs emitted be offset by an equivalent amount of GHGs removed, either through natural sinks or removal technologies such as Carbon capture and storage (CCS) / use and storage (CCUS), Bioenergy with CCS, direct air capture, and the like.

Hydrogen contains no carbon and deploying a hydrogen ecosystem could be an effective means of cutting GHG emissions and delivering the energy needed for SDGs. Implemented properly hydrogen could decarbonise otherwise hard-to-abate sectors such as heavy industry or transportation and can provide a solution for long-term energy storage.

2 Situation Overview and Rationale for Action

The state energy policy of Turkmenistan aims at uninterrupted and reliable energy supply to consumers, along with the expansion of export potential. Turkmenistan ranks 4th in the world in terms of natural gas reserves after Russia, Iran and Qatar. The total geological reserves in the country are estimated at 71.0 billion tons of conventional fuel. Natural gas reserves were the basis for the development of a large fuel and energy industry, which is the most important driver for the development of Turkmenistan's economy. In 2022, natural gas generated 74% of Turkmenistan's export revenues (**Table 1**).

Turkmenistan-Iran and Turkmenistan-China gas pipelines, which are of key importance for the development of the country's hydrocarbon sector, have been built and put into operation in the country. Another vector of diversifying energy supplies is the construction of the transnational Turkmenistan-Afghanistan-Pakistan-India (TAPI) gas pipeline, which will create an opportunity for neighbouring and other countries to access reliable, sustainable and modern energy sources.

All power plants are included in the state energy grid and operate on natural gas with the least negative impact on the environment compared to other types of fossil fuels. In 2018, the country's first combined cycle gas turbine power plant was commissioned on the territory of Mary Electric Power Station. Natural gas and steam are used as fuel for electricity generation by four gas and two steam turbines installed at the Station. As a result, the efficiency of the power plant increases by more than 1.5 times and the consumption of natural gas used as fuel is reduced. In 2019-2022, electricity production increased by 45% (from 22.5 to 32.6 TWh). Electricity exports for the same period increased 5 times.

Table 1. Gas and electricity production and export

Indicator	2020	2021	2022
Production of natural gas, bcm	70	84	94
Export of natural gas, bcm	34	46	43
million $	4 416	5855	9 449
Electricity production, mln kWh	27 019	30 238	32 600
Electricity export, mln kWh	5 530	7 544	9 399
million $	160	231	295
Total export, million $	7 690	8 860	12 719

Source: State Statistics Committee of Turkmenistan

> Turkmenistan plans to achieve zero growth in greenhouse gas emissions by 2030, and in the long term, to significantly reduce emissions annually, both at the expense of its financial resources and with the technical and financial support of international organizations.
>
> The President of Turkmenistan, Serdar Berdimuhamedov

In Turkmenistan, for many years households used gas for free and there were limits on the free use of electricity. Only since the beginning of 2019 payments for electricity and gas have been introduced with tariffs remaining at a very low level.

The State Programme of Turkmenistan on Energy Saving, 2018-2024 defines the main priorities of energy policy and their implementation that is closely linked to the implementation of the SDGs, especially 1, 2, 8, 9, 12.

- In 2020, a Programme for the Development of Energy Diplomacy of Turkmenistan, 2021-2025 was adopted, aimed at increasing Turkmenistan's cooperation with international organizations in the field of energy.
- In 2021, the Law of Turkmenistan «On Renewable Energy Sources» came into force. Construction of a multi-type solar and wind power plant with a capacity of 10 MW has begun in the Gyzylarbat etrap of the Balkan velayat with putting into operation in 2024. In November 2022, Masdar and the State Energy Corporation «Turkmenenergo» signed an agreement on the development of a 100 MW solar photovoltaic (PV) installation project.
- In 2022, a Roadmap for 2022-2023 for the development of international cooperation in hydrogen energy was developed. The same year the Hydrogen Energy Centre was opened at the International University of Oil and Gas named after Ya. Kakaev.

As Turkmenistan's 2nd Voluntary National Review of the SDG's presents[1], the entire population has access to affordable electricity and uses mainly clean fuels (natural gas) and technologies (SDG indicators 7.1.1 and 7.1.2 were achieved before 2015). In 2021, the energy intensity of GDP was 0.161 tons of oil equivalent per thousand manat[2], bringing an increase from 0.153 in 2020 COVID-19 year level.

The Ministry of Energy manages 12 power stations with the capacity of 7 GW, seven distribution companies, construction company and the Institute of Energy. He said that the government is upgrading the infrastructure persistently. Since 2013 eight gas turbine power plants were built in three regions of the country, including one in Mary. In 2022, a Gas Turbine Repair and Maintenance Center, licensed by General Electric, was established. There are four grids heading North to export electricity (in 2021, 7.5 TWh out of 30.5 TWh produced was exported). To diversify exports, the Ministry completed the construction of the Turkmen part of the international power transmission line Turkmenistan-Afghanistan-Pakistan. The first stage of the modern Akhal-Balkan ring energy system, connecting the central and western regions of the country, is completed. There are also plans to install an electricity cable across the Caspian Sea to export electricity to Europe. At the same time, attention should be paid to modernizing electricity infrastructure as in 2021 around 2.4TWh or 31% of the electricity exported that year was lost due to an inefficient electricity grid.

1 VNR-2023 Turkmenistan Report

2 Energy intensity is expressed in megajoules per unit of purchasing power parity GDP in constant 2017 USD. SDG indicator 7.3.1 is related to Indicator 9.4.1: CO_2 emission per unit of value added and Indicator 13.2.2: Total greenhouse gas emissions per year.

As **Table 2** indicates, Turkmenistan prioritizes expanding renewable energy by investing in solar energy. According to the World Bank 's ESMAP project (2021), average theoretical solar PV potential in Turkmenistan is about 4.4 kWh/m²[1]. Presumed country area proportion to be covered by PV plants producing the equivalent of yearly electricity consumption is 0.025% (LCOE solar PV generation could be $0.1/kWh). At the same time the World Bank analysis suggests that the technical wind offshore power potential in Turkmenistan exceeds 70 GW, which is 10 times the capacity of all power plants in the country in 2022.

Table 2. Electricity Generation in 2022

	GWh	%	Renewable generation being installed*, GWh
Non-renewable	32 600	100	
Reneweable	3	0.01	215
Hydro and Marine	3	0	0
Solar	0	0	209
Wind	0	0	6
Bioenergy	0	0	0
Geothermal	0	0	0
Total	32 603	100	215

Source: IRENA, *UN RCO estimate

Solar energy is at a frontier of a radical energy transformation. The Solar PV and storage is already one of the cheapest forms of electricity. By 2030, solar farms and system storage will be cheaper in terms of generation costs everywhere except Northern Europe. In 2020, fossil fuels produced 62% of electricity. This percentage will drop to 21% in 2050, with solar power accounting for 56% of production[2]. As the cost of solar energy falls below $10 per MWh in the next few years, it will be cheaper to synthesize hydrocarbons from CO^2 and water vapor than to extract them from the ground, process them, and transport them. Synthetic fuels are cheap, local, and carbon neutral.

The evidence suggests that while a global irreversible solar tipping point may have passed where solar energy gradually comes to dominate global electricity markets, uncertainties arise over grid stability in a renewables-dominated power system, the availability of sufficient finance in underdeveloped economies, the capacity of supply chains and political resistance from regions that lose employment. Policies resolving these barriers may be more effective than price instruments to accelerate the transition to clean energy.

As COP-28 approaches, attention on international energy transition and climate action is increasing — and it is clear that the world is not yet on track to achieve the climate goals. As the window to limit climate warming to 1.5 degrees closes, a new report from the International Energy Agency, UN Environment Programme, and Climate and Clean Air Coalition underscores the critical benefits of methane reductions for near-term climate progress as broader decarbonization efforts occur.

Curbing methane emissions carries significant benefits for public health and individuals' livelihoods. It also brings direct economic benefits. Targeted methane emission reduction in Turkmenistan can be translated to the following benefits:

12 000	averted premature deaths a year due to ozone exposure
1.1	million tonnes of crop loss avoided
1	billion hourss of lost labour due to heat exposure by 2050 reduced
3	USD billion in direct econimic benefits

This intervention alone has a potential to bring results of a global level significance. Turkmenistan's investments in forward-looking actions in other areas of Energy Transition are crucial for enabling sustainable development and climate resilience, creating new jobs, stimulating growth and harvesting more social and health benefits.

In the following sections the policy paper presents results so far and policy options in all four areas — methane emissions, carbon neutrality, hydrogen ecosystem and just transition — and provides recommendations.

1 World Bank 's ESMAP project (2021)
2 The momentum of the solar energy transition, October 2023, Nature

3 UN with Partners in Action and Policy Options

UN have been long standing partner for Turkmenistan's initiatives in energy sector with UNDP-led technical support to the Government of Turkmenistan in preparation of NDCs[1]. Working group for coordinating the NDC process with all stakeholders coordinated by the Ministry of Environmental Protection is in place. The NDC was approved by the Decree of the President of Turkmenistan on May 12 and submitted by the MFA to the Secretariat of the UNFCCC at the end of May 2022. The NDCs focus is energy sector, industry, agriculture and waste. The 2010 NDCs of 66.4 mln metric tons of CO^2 equivalent is used as a baseline (CH4 share is 41.3%), the 2030 target is more than two-fold larger — 135.8 mln metric tons. Approved NDC seems to have a more cautious approach with Business as Usual (BAU) scenario targeting reduction of the GHG emissions by 2030 by 20% of the 2010 baseline. This comes at no surprise given Turkmenistan's plans for GDP growth by 47% in 2028 compared to 2022, with dynamically growing transportation, electricity, industry, especially fuel sector. In other words, the NDC implies that GHG will grow 20% slower than GDP. However, no consideration is given to low-carbon technologies advancements in 20 years. Moreover, the NDCs report does not mention relevant ongoing oil and gas sector activities on methane emission reduction. The First Gas-to-Gasoline (GTG) Plant and the plans to build phase 2 of GTG are not mentioned. First GTG plant built in 2019 based on Haldor Topsoe technology transforms 1.8 bcm of natural gas into 600 thousand tons of gasoline and 150 thousand tons of LNG per annum having brought 350 million $ of export revenues in 2022.

The UN within the UNDP project «Sustainable Cities in Turkmenistan: Integrated Green Urban Development in Ashgabat and Avaza» supported developing the regulatory legal acts on energy efficiency and renewable energy sources, including the National Strategy for the Development of Renewable Energy of Turkmenistan for the Period until 2030, the Law of Turkmenistan «On Renewable Energy Sources» and the draft of the new Law of Turkmenistan «On Energy Efficiency and Energy Saving». UNDP is supporting preparation of the National Waste Management Strategy.

As part of the implementation of the National Strategy of Turkmenistan for the Development of Renewable Energy until 2030, the following measures will be taken:

- comprehensive analysis and drafting proposals for granting tax preferences to investors in the renewable energy sector;
- carrying out research work to assess the capacity of installations for the use of renewable energy sources required to meet Turkmenistan's obligations under the Paris Agreement;
- development of mini- and micro- power grids in remote areas.

In addition to actions on renewable energy and energy efficiency front, the following four initiatives with UN and other development partners support are critical to secure the 2030 Agenda while mitigating climate change:

- Reducing methane emissions by third by 2030;
- Achieving carbon neutrality;
- Enabling a hydrogen ecosystem;
- Ensuring a just transition to remove social obstacles to real transformative action.

1 Nationally determined contributions (NDCs)

3 UN with Partners in Action and Policy Options

UN have been long standing partner for Turkmenistan's initiatives in energy sector with UNDP-led technical support to the Government of Turkmenistan in preparation of NDCs[1]. Working group for coordinating the NDC process with all stakeholders coordinated by the Ministry of Environmental Protection is in place. The NDC was approved by the Decree of the President of Turkmenistan on May 12 and submitted by the MFA to the Secretariat of the UNFCCC at the end of May 2022. The NDCs focus is energy sector, industry, agriculture and waste. The 2010 NDCs of 66.4 mln metric tons of CO^2 equivalent is used as a baseline (CH4 share is 41.3%), the 2030 target is more than two-fold larger — 135.8 mln metric tons. Approved NDC seems to have a more cautious approach with Business as Usual (BAU) scenario targeting reduction of the GHG emissions by 2030 by 20% of the 2010 baseline. This comes at no surprise given Turkmenistan's plans for GDP growth by 47% in 2028 compared to 2022, with dynamically growing transportation, electricity, industry, especially fuel sector. In other words, the NDC implies that GHG will grow 20% slower than GDP. However, no consideration is given to low-carbon technologies advancements in 20 years. Moreover, the NDCs report does not mention relevant ongoing oil and gas sector activities on methane emission reduction. The First Gas-to-Gasoline (GTG) Plant and the plans to build phase 2 of GTG are not mentioned. First GTG plant built in 2019 based on Haldor Topsoe technology transforms 1.8 bcm of natural gas into 600 thousand tons of gasoline and 150 thousand tons of LNG per annum having brought 350 million $ of export revenues in 2022.

The UN within the UNDP project «Sustainable Cities in Turkmenistan: Integrated Green Urban Development in Ashgabat and Avaza» supported developing the regulatory legal acts on energy efficiency and renewable energy sources, including the National Strategy for the Development of Renewable Energy of Turkmenistan for the Period until 2030, the Law of Turkmenistan «On Renewable Energy Sources» and the draft of the new Law of Turkmenistan «On Energy Efficiency and Energy Saving». UNDP is supporting preparation of the National Waste Management Strategy.

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1 Nationally determined contributions (NDCs)

3.1 Reducing methane emissions

Estimates today suggest that methane emissions from Turkmenistan's oil and gas activities account for 3.6% of all methane emissions from the global oil and gas sector. According to IEA Methane tracker, 93% of methane emissions in Turkmenistan is generated by the energy sector. Turkmenistan has a key opportunity to tap into this methane potential.

According to the International Energy Agency, almost 75% of these emissions can be mitigated, and over half of that at no net cost. This is because methane — the main component of natural gas — is a wasted energy resource that could otherwise be sold or used to generate energy. Turkmenistan's methane emissions represent enough lost energy resources to meet the country's domestic electricity needs five times over. When the value of this lost methane is accounted for, addressing emissions has an economic and climate incentive.

Considering the existing data on high methane emission in Turkmenistan, UN organized a series of consultations between the government agencies, IMEO and UNEP. It resulted in a roadmap with concrete steps, a training on methane emissions mitigation for relevant stakeholders from the government and national oil and gas companies was conducted in January 2023.

In 2023, the advocacy of UN and other development partners resulted in the approved Roadmap for Turkmenistan's accession to the Global Methane Pledge and the implementation of the Paris Agreement. Now together with USAID, US Embassy the World Bank, other development partners and private sector the UN RCO is coordinating efforts on piloting methane reduction.

In September 2023, the President Serdar Berdimuhamedov renewed Turkmenistan's commitments on climate action at the UN General Assembly in New York. Recently the efforts to introduce low-carbon technologies and join the Global Methane Pledge have been strongly emphasized at various high-level meetings by Gurbanguly Berdimuhamedov, the Chairman of Halk Maslakhaty.

Regional Center for Climate Technology in Cental Asia (RCCT-CA)

UN environment United Nations Environment Programme | CTCN UN Climate Technology Centre & Network UNFCCC Technology Mechanism

Service Area 1: Technical Assistance

Service Area 2: Knowledge Sharing and Capacity Building

Service Area 3: Outreach, Networking, Stakeholder Engagement and Leveraging Financing

Impact Area: Mitigation Technologies

- Technology Roadmaps and Actions Plans for NDC Implementation
- Methane Emissions Reduction

Applying Digital Technologies

- Energy Efficiency (EE)

  Energy Access — Generation, Transmission and Distribution

  Industrial Sector

  Building and Commercial Sector

  Transport
- Renewable Energy (RE)

  Solar (PV and CSP)

  Wind

  Hydro

  Biomass

  Hydrogen etc.
- Circular Economy

www.ctc-n.org

In parallel, following Turkmenistan's commitments at the UNFCCC COP-26 and COP-27, UN RCO facilitated a series of consultations between environmental agencies and ministries in Central Asia and with the UN Climate Technology Centre and Network (CTCN) about establishing the Regional Center for Climate Change Technologies for Central Asia here in Ashgabat. The budgeted concept note presented to the Government and potential donors. An MoU with the Government is ready to speed up its establishment (using the COP mechanism). The Center's Impact Area of Mitigation Technologies is heavily focused on technology transfer, which is critical for curbing methane leakages and energy transition in all Central Asia countries. The Center will serve as a regional platform for fostering implementation of bankable «green energy» projects, reducing evidence gaps, developing capacity for applying best international practices in climate change mitigation technologies.

The UN RCO advocates with the MFA and development partners to support the Center through the UN Multi-Partner Trust Fund mechanism. Such pooled funding mechanism offers numerous benefits, among others providing:

- flexible, transparent mechanism to mobilize resources and channel them to cooperation priorities;
- leveraging finance and consolidating contributions in coordinated action at the regional or country level from multiple partners;
- reduced transactions costs and harmonized reporting.

UNEP's IMEO data represents an opportunity for collaboration and action by Turkmenistan. One of the main sources of data is from the Oil and Gas Methane Partnership 2.0 (OGMP 2.0). Encouraging operators, including national companies, to join the OGMP 2.0 will improve transparency across the sector. To further improve methane data, UNEP's IMEO funds direct measurement studies of methane emissions around the world. Measurements in Turkmenistan would provide valuable insight on the sources and magnitude of methane emissions in the country, and would place Turkmenistan among a small set of nations with a measurement-based baseline of its methane emissions.

Finally, UNEP's IMEO launched the Methane Alert and Response System (MARS) to provide key information from satellites to stakeholders in governments and companies that is needed to act on major emissions sources. As satellites continue to observe emissions in countries like Turkmenistan, collaborating with UNEP and its partners on MARS can empower Turkmenistan to identify near-term climate wins and access the necessary support to take advantage of them.

This suite of data-driven solutions offers a powerful opportunity for Turkmenistan to engage on methane emissions and tap into concrete benefits not only for the climate, but human health and prosperity.

3.2 Achieving carbon neutrality

«Carbon neutrality» is defined as a balance of anthropogenic emissions of GHGs and their removal. Achieving such a balance requires that all anthropogenic GHGs emitted be offset by an equivalent amount of GHGs removed, either through natural sinks or removal technologies such as Carbon capture and storage (CCS) / Carbon capture, use and storage (CCUS), Bioenergy with carbon capture and storage (BECCS), direct air capture, and the like[1]. This perspective assumes that the natural carbon cycle will remain stable and will not become a net emitter of GHGs. Ensuring such stability would require that global warming be limited to 1.5-2°C above pre-industrial levels.

National commitments made to date to address climate change are insufficient to keep global warming below a 2°C increase above pre-industrial temperatures. With the acceleration of climate change there are growing calls to take serious action to reduce the carbon intensity of the energy system. The window of opportunity to prevent climate change with a smooth transition has narrowed and more radical policy options are becoming necessary and require financing. Many countries and regions consider achieving carbon neutrality by the end of this century as a stepping-stone to delivering on their climate commitments, but there has yet to be a full reckoning of the implications of that approach for delivering on the 2°C objective let alone the remainder of the 2030 Agenda

1 UNECE Technology Interplay under Carbon Neutrality Concept

for Sustainable Development. UNECE considers that integrated solutions are possible but that they involve bold action on resource management, reducing the environmental footprint of existing systems, and pursuing fundamental transitions. Continuing with current market models means that achieving the 2030 Agenda will involve making trade-offs among the various goals. The pressure on policymakers to weigh the trade-offs in one direction or another will intensify as there is growing tension between delivering on energy security and enhanced quality of life expectations and mitigating climate change.

There are several non-exclusive possible approaches to delivering carbon neutrality:

1. Improve end-use energy efficiency and productivity cost-effectively to minimize the primary energy supply needed to meet demand (covering all sectors based on energy and resource services provided, including organization of urban environments and rationalization of subsidies and institution of a real price on GHG emissions);

2. Reduce losses in transformation, transmission, and distribution (reduce methane emissions, improve power generation efficiencies, improve total system efficiency);

3. Shift to low or no carbon primary energy sources;

4. Capture CO_2 emissions through faster deployment of carbon capture, use and storage (CCUS) and direct air removal technologies;

5. Promote research and innovation in clean hydrogen and develop hydrogen infrastructure);

6. Broad deployment of smart technology for systemic decarbonisation that meets quality of life criteria; and/or

7. Manage carbon sinks, notably forests and oceans.

In each of these areas there will be a set of technology and policy options, and the costs of the options will vary for each country. In an ideal world the options will accumulate to a point at which carbon neutrality is achieved at least cost for the region.

UNECE Carbon Neutrality Toolkit[1] includes a series of technology briefs showing interplay of low- and zero-carbon technology options. The key advantage of the toolkit is in providing technology agnostic approach. In combination with UNESCAP's NEXSTEP[2] modelling it brings a comprehensive picture for solving energy transition trilemma — ensuring simultaneously energy security, affordability, sustainability. For instance, emissions modelling allows examining economic performance of technology options and to prioritize a pathway. Such a pathway is not set in stone. As time goes and input parameters change, it can be reevaluated. NEXSTEP results help policymakers to identify economically attractive technologies for better allocation of resources for energy transition. As of now majority of Central Asia countries are using the tool.

Achieving carbon neutrality requires significant investments. But the cost of inaction is greater. And the consequences of climate change disproportionally hit first the most vulnerable populations and then transfer to future generations. So, such investment is a crucial enabler of sustainable development and securing a low-carbon future is a matter of justice.

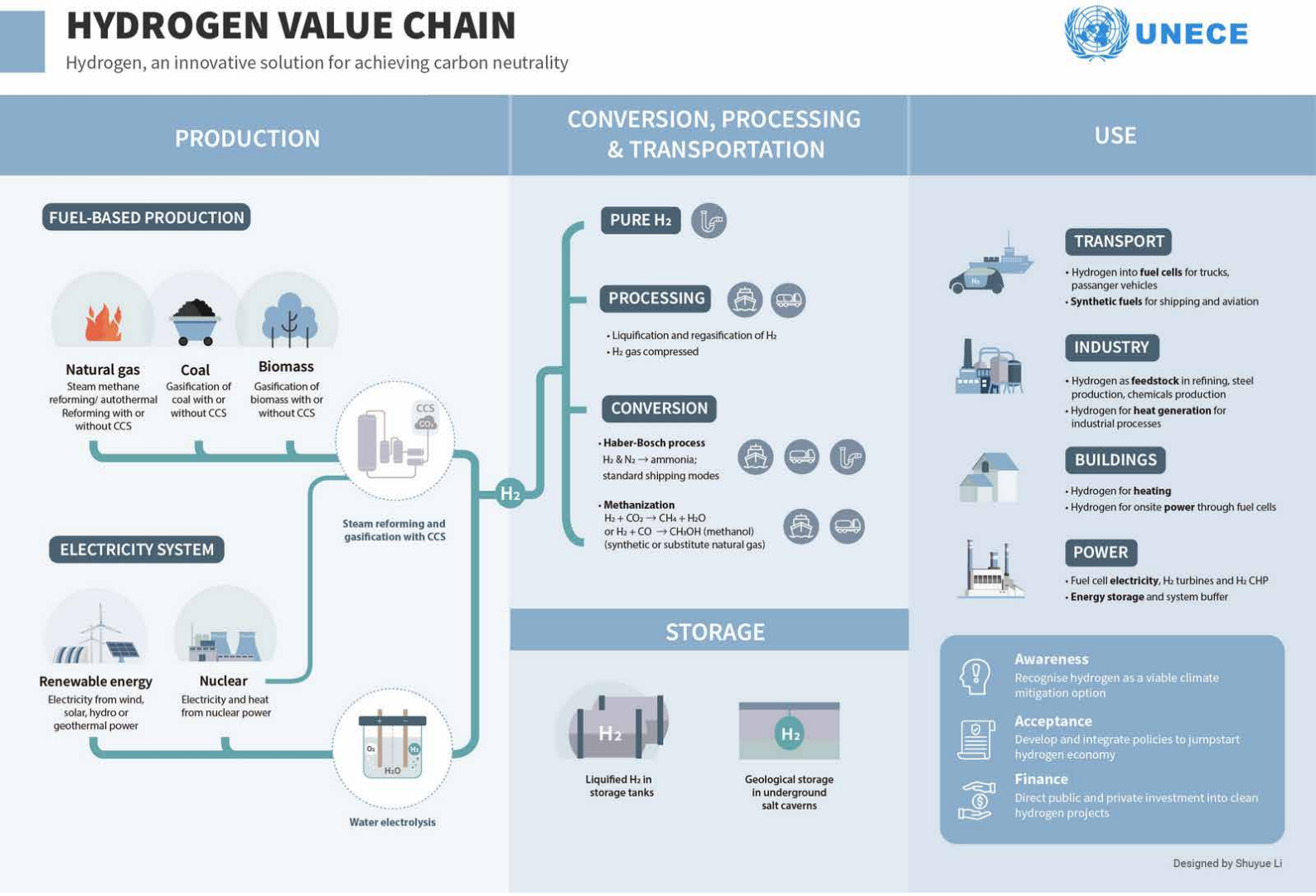
1 UNECE Carbon Neutrality Toolkit
2 UNESCAP National Expert SDG Tool for Energy Planning (NEXSTEP)

3.3 Enabling a hydrogen ecosystem

Hydrogen contains no carbon and deploying a hydrogen ecosystem could be an effective means of cutting GHG emissions and delivering the energy needed for sustainable development. Implemented properly hydrogen could decarbonise otherwise hard-to-abate sectors such as heavy industry or transportation and can provide a solution for long-term energy storage. It is not new — it has been produced and used in huge quantities for many years. In a future «hydrogen ecosystem», it would be used even more in transport, homes, industry, and power generation as part of an integrated, service-based society. By 2050, hydrogen could meet up to 24% of the world's final energy demand and, if produced from zero carbon energy sources, could deliver significant decarbonisation of the energy system[3].

3 UNECE Hydrogen Task Force

3.3 Enabling a hydrogen ecosystem



Source: UNECE Carbon Neutrality Toolkit

Despite its vast potential to decarbonise energy, high costs and unclear policy and regulatory frameworks are obstacles to institution of a hydrogen ecosystem. There is need for coordinated action within and among UNECE member States to enable full commercialization of hydrogen projects and infrastructure.

Hydrogen does not exist in nature as a free element and must be produced, transported and stored before being converted to electricity, heat, or feedstocks. 95% of hydrogen is produced from natural gas or other hydrocarbons and is used to make fertilizers and other chemicals. Significant quantities of CO_2 are released during production but could be captured and stored (CCS). Hydrogen also can be produced by electrolysis of water. Low or no carbon electricity used for the electrolysis can produced from renewables or from nuclear power. None of the types of hydrogen is truly zero carbon, but they can contribute to achieving carbon-neutrality. To find the most cost-effective, least-emissions pathway, the world would need to find an optimum combination. Such an inclusive approach suggests a need to deploy renewable and nuclear energy capacity for various 'power to X' processes, including water electrolysis, and to develop large-scale carbon capture, use and storage (0) projects for the coal and gas that is the source of current hydrogen production. Five key regulatory challenges have been identified:

1. For a hydrogen ecosystem to develop, a shared vision including carbon pricing is essential;

2. Hydrogen's categories should not be defined arbitrarily, but through life cycle analysis;

3. Policies must de-risk commercial hydrogen projects to attract project finance;

4. Procurement standards and clear targets can jump-start hydrogen uptake;

5. Work on international alignment and standards harmonization must accelerate.

Existing gas infrastructure is key for hydrogen to emerge as a new fuel. There is large potential to enhance the interplay between renewable energy and natural gas as renewable energy sources are abundant and gas infrastructure is well developed. Many integrated energy models suggest that the future energy system will rely on efficient interplay between electrons (electricity) and molecules (gas). It will be important to identify potential opportunities for sector coupling and integration to better understand how and where hydrogen can be produced cost-effectively.

For Turkmenistan, rich in natural gas, one of the pathways is to produce hydrogen combined with carbon capture, use and storage (CCUS) technologies. UNECE developed two scenarios for Turkmenistan:

1. Minimum Scenario

- 10% of the increase in solar and wind electricity generation during 2020-2040 is used for hydrogen production;
- renewables installed capacity addition by 2040 is 1 GW;
- 10% of the increase in natural gas production by 2040 is used for hydrogen production.

2. Maximum Scenario

- 50% of the increase in solar and wind electricity generation during 2020-2040 is used for hydrogen production;
- 25% of the technical potential for offshore wind on a fixed foundation is realized (17.5 GW);
- renewables capacity factor is — 35%;
- 30% of the increase in natural gas production by 2040 is used for hydrogen production.

In both scenarios, it is assumed that hydrogen production by electrolysis of water will require 55 kWh/kg H_2 of electricity, and hydrogen production by steam methane reforming will require 5.3 m3 /kg H_2 of electricity. The amount of CO_2 released during the reforming process, which must be stored, is estimated as 10 kg CO_2 / 1 kg H_2.

The results of the potential assessment are summarized in **Table 3**.

Table 3. Resource potential of hydrogen production in Turkmenistan by 2040

	MINIMUM SCENARIO	MAXIMUM SCENARIO
Renewable electricity for hydrogen, GWh per year	306.6	17 630
Natural gas for hydrogen, bcm per annum	9.609	28.827
Hydrogen by water electrolysis using solar and wind electricity, thousand tons per annum	6	321
Hydrogen from methane by SMR + CCUS, thousand tons per annum	1 813	5 439
Hydrogen total, thousand tons per annum	1 819	5 760
Required capacity of CCUS systems, $MtCO_2$ per annum	18	54

Source: UNECE

Under the accepted assumptions, the main long-term opportunity for hydrogen production in Turkmenistan is steam methane reforming in combination with CCUS.

This is determined by the significant proven natural gas reserves in place and the growth rate of its production. The key constraint and condition in this case is the outstripping development of CCUS industry — even in the minimum scenario, it is necessary to create CCUS facilities with a total capacity of 18 $MtCO_2$ per annum.

The cost of hydrogen from natural gas consists of the cost of raw materials (for Turkmenistan, as a gas producing country, this is the cost of natural gas production), as well as the cost of CCUS. According to the IEA (2019), for gas

producing countries, the natural gas cost was approximately 30% of the blue hydrogen cost. With the gas production cost at the level of $20-99 per thousand m³, the blue hydrogen production cost can be estimated at $1.6-2.0 per kg of hydrogen.

The cost of hydrogen produced by electrolysis using renewable electricity will depend on the present value of renewable electricity in new large projects developed in Turkmenistan. As of October, no major renewable energy projects have yet been installed; it will be possible to estimate the cost of hydrogen after the implementation of the first of them. According to IEA calculations, with an electricity price of about $0.1/kWh25, the number of electrolyzers capacity utilization hours of about 1500-2000 hours per year, CAPEX of electrolyzers of $450 USD/kW at a discount rate of 8%, the hydrogen present value will be about $6-8/kg.

Turkmenistan has no access to the open sea. But available infrastructure and efforts in developing transport corridors create opportunities for investigation of hydrogen export opportunities to EU and China by pipeline, road, and rail transport.

Turkmenistan can pilot producing low-carbon hydrogen and start using it in the transport sector, as well as enter export projects in the future. A prerequisite for competitiveness is the readiness for international certification of hydrogen, which will require increased openness to the international community and management of the natural gas carbon footprint.

3.4 Ensuring a just transition

Under the umbrella of The National Program for the Socio-Economic Development of Turkmenistan in 2022-2052, the Presidential Programmes on socio-economic development for 2022-2028 and other relevant policy frameworks mentioned above the UN Joint Programme will work in two inter-linked result areas:

1. Supporting implementation of the Roadmap for 2023-2024 for the development of international cooperation aimed at exploring Turkmenistan's accession to the Global Methane Pledge and the implementation of the Paris Climate Agreement at the national level. Conducting seminars and methane measurement research jointly with the International Methane Emissions Observatory (IMEO) of the United Nations Environment Programme (UNEP), informing improvements of the relevant national legislation. Holding seminars and round tables with the participation of international institutions to raise awareness on Global Methane Pledge (GMP), including active participation at the next Global Methane Forum, taking place in Geneva in March 2024. Establishing cooperation with foreign partners in the preparation of pilot projects in the field of reducing methane emissions. Organizing specialized internships for employees of ministries and sectoral departments of Turkmenistan in the world's leading research centers and companies involved in the implementation of GMP. Finalizing NDC Implementation Action Plan including gap analysis, assessment of resource needs, prioritization of activities, documenting, updating the NDC in advance of 2026, capacity development.

2. Developing Turkmenistan's Carbon Neutrality Road Map until 2052 and enabling financing, including transition finance. It will include policy dialogues, convening high-level national working group, capacity development in areas of energy transition. The Road Map will integrate the NDC implementation action plan to bring a comprehensive strategic document to ensure energy security, affordability and sustainability. It will be based on the underlying evidence generation using UNECE Carbon Neutrality Toolkit and UNESCAP's NEXSTEP modelling. GHGs emissions modelling will allow examining economic performance of technology options to prioritize a pathway for better allocation of investments in green energy transition while evaluating carbon pricing and energy subsidies. Relevant capacities of government will be developed to strengthen Turkmenistan's participation in the UNECE's Committee on Sustainable Energy, specifically in its subsidiary bodies comprising the Group of Experts on Gas, on Coal Mine Methane and Just Transition, on Renewable Energy, on Energy Efficiency, on Sustainable Resource Management, on Cleaner Electricity Systems. Turkmenistan's participation to the recently launched Task Force on Hydrogen will be ensured to support the development of a sustainable hydrogen ecosystem. Required expertise will be mobilized to develop the new Hydrogen Road map for 2024-2025 and assess the potential to develop the hydrogen economy, combined as well with carbon capture, use and storage (CCUS) technologies. Investment needs required to attain net-zero by 2052 will be assessed, mapping the way for Public-Private Partnerships (PPPs) to deliver

low-carbon solutions. The use of the UNECE PPP PIERS methodology will attest to the overall sustainability of PPP and infrastructure projects. In cooperation with MDBs, innovative financing mechanisms (green bonds, blended finance, Multi-Partner Trust Funds, National Clean Climate Fund, transition finance, etc.) and required adjustments in legislative frameworks to enable them will be proposed.

The Joint Programme will advise the Government on timely actions with regard to transition finance and carbon markets, including Carbon Border Adjustment Mechanism (CBAM).

Transition finance is a concept where financial services are provided to high carbon-emitting industries — such as coal-fired power generation, steel, cement, chemical, paper making, aviation and construction — to fund the transition to decarbonization.

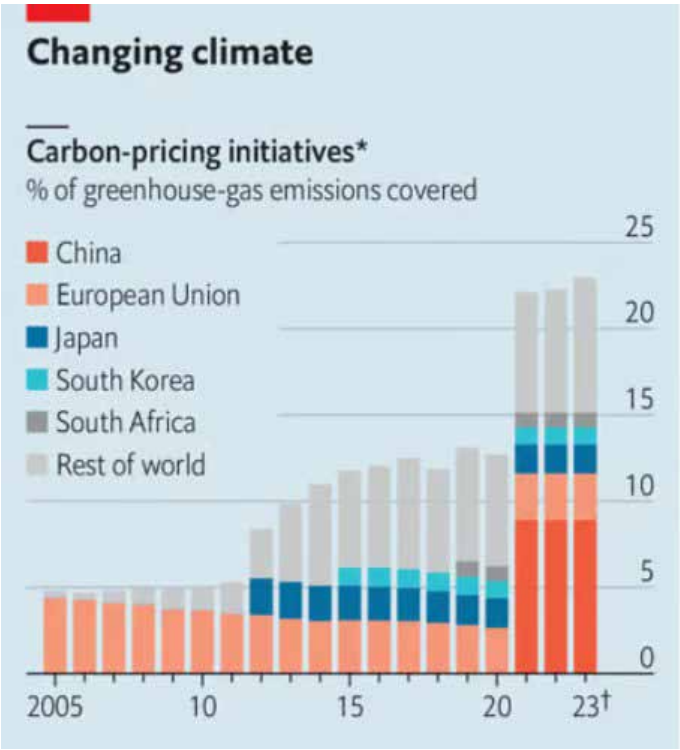
Carbon markets and its schemes (emission trading, carbon credits and tax, etc.) could potentially play a significant role in leading to decarbonization and incentivizing the reduction of GHGs, eventually achieving the Net Zero. According to UNEP's Emissions Gap Report, modelling studies estimate that use of carbon markets can reduce 4-5 $GtCO_2eq$ per year by 2030[1]. The Task Force on Scaling Voluntary Carbon Markets estimate the number could be even higher, up to 8-12 $GtCO_2e$ per year. With full use of market mechanisms, the potential cost savings for NDC implementation are estimated at 40-60%[2].

Carbon pricing initiatives are growing rapidly around the world. About a quarter (23%) of global emissions are now covered, up from just 5% in 2010. From 2026, the EU will introduce tariffs on carbon-intensive products, pushing suppliers to go green.

But the most important thing is the inclusion of China in the carbon price system. So far, in China, emitting a ton of carbon dioxide costs about $10, compared to $80 in Europe and $30 in California, America. But the very fact of participation in emissions trading is important here, especially since Chinese volumes are the largest in the world.

This market could potentially grow by many hundreds of billions of dollars. Russia will only benefit from the emergence of a global emissions market with clear rules. Previously, a number of economists calculated that Russia could earn up to $50 billion a year from the sale of greenhouse gas emission quotas.

The European Union (EU) is set to strengthen its climate mitigation framework with the adoption of the first carbon border tax in the world targeting the carbon content of imported products. This innovative policy measure, called the Carbon Border Adjustment Mechanism (CBAM), is due to launch in October 2023 and set to become a key pillar of European climate policy.



Source: The Economist

The EU is already a global leader in climate regulation having introduced its carbon pricing policy in 2005, the EU Emissions Trading Scheme (EU ETS), to encourage decarbonisation. We anticipate that the introduction of the new policy measure could spur more stringent climate regulation in other countries.

The new scheme will force companies that import into the EU to purchase so-called «CBAM certificates» to pay the difference between the carbon price paid in the country of production and the price of carbon allowances in the EU ETS. It has the potential to incentivise the EU's trading partners to scale up their own carbon pricing, or risk losing the demand from the world's largest trading bloc.

1 UNEP Emission Gap Report 2021
2 Ibid

4 Recommendations

- Start reducing methane emissions by about a third by 2030 in parallel with conducting seminars and methane measurement research jointly with the International Methane Emissions Observatory (IMEO) of the United Nations Environment Programme (UNEP).
- Encourage national oil and gas companies to join UNEP's IMEO Oil and Gas Methane Partnership 2.0 (OGMP 2.0) and collaborate with UNEP and its partners on Methane Alert and Response System (MARS) to identify near-term climate wins and access the necessary support to take advantage of them.
- Take active participation at the next Global Methane Forum, taking place in Geneva in March 2024, and join the Global Methane Pledge to have access to technology transfer, technical assistance, specialized internships and funding to curb methane emissions. Engage wit UNEP's Climate & Clean Air Coalition (CCAC), one of the key implementers of the GMP. To receive funds and technical assistance, just submitting a letter directed to UNEP's Executive Director is required.
- Establish Regional Center for Climate Change Technologies in Central Asia (RCCT-CA) in Ashgabat with a dedicated window for energy transition.
- Finalize NDC Implementation Action Plan engaging international experts to conduct a gap analysis, assessment of resource needs, prioritization of activities, documenting, updating the NDC in advance of 2026 and capacity development.
- Target attaining net-zero by 2052 develop Turkmenistan's Carbon Neutrality Road Map until 2052 as a comprehensive strategic document to ensure energy security, affordability and sustainability using UNECE Carbon Neutrality Toolkit and UNESCAP's NEXSTEP modelling. Continue exploring and investing in renewable energy (especially solar and wind) to achieve net-zero emissions by 2052.
- Ensure Turkmenistan's participation in the UNECE's Committee on Sustainable Energy, specifically in its subsidiary bodies comprising the Group of Experts on Gas, on Coal Mine Methane and Just Transition, on Renewable Energy, on Energy Efficiency, on Sustainable Resource Management, on Cleaner Electricity Systems.
- Join Task Force on Hydrogen and develop the new Hydrogen Road map for 2024-2025 assessing the potential to develop the hydrogen economy, combined as well with carbon capture, use and storage (CCUS) technologies.
- Assess investment needs for attaining net-zero by 2052 and map the way for Public-Private Partnerships (PPPs) to deliver low-carbon solutions. Use the UNECE's PPP and Infrastructure Evaluation and Rating System (PIERS) methodology[1] to attest to the overall sustainability of PPP and infrastructure projects in energy sector.
- In cooperation with UN and IFFs design innovative financing mechanisms (green bonds, blended finance, Multi-Partner Trust Funds, National Clean Climate Fund, etc).
- Improve legislation, including required adjustments in legislative frameworks to enable financing of energy transition, and develop secondary legislation on PPPs.
- Energy transition as a priority area for joint UN and other development partners interventions with multiplier effects needs to be costed as part of the SDG Financing Strategy linked to the integrated national financing framework (INFF) enabling SDG financing.

1 UNECE PPP and Infrastructure Evaluation and Rating System (PIERS)

- After developing the project document in consultation with the relevant line ministries allocate resources and implement the UN Joint Programme on Supporting Just Green Energy Transition in Turkmenistan (UNECE, UNEP, UNDP, UNOPS and IFIs) covering most of the above recommendations to trigger forward-looking actions in Energy Transition to decouple economic growth and GHG emissions in Turkmenistan while getting ready to transition finance and carbon markets mechanisms, including Carbon Border Adjustment Mechanism (CBAM). Develop the full-fledged joint project document based on the proposal submitted to the Government by the UNCT in Turkmenistan in June 2023.

Implementing the above recommendations in Turkmenistan will allow paving the way to a low-carbon future helping the most vulnerable people and regions that are the most affected by climate change. Just green transition policies should support workers and communities affected by the phasing out of polluting activities. Just and Green Energy Transition will create new jobs, stimulate growth and bring social and health benefits supporting achievement of the SDGs and diversification of the economy in Turkmenistan.

The policy recommendations are fully aligned with Turkmenistan's Strategies and Programmes and the National Commitments to SDG Transformation submitted at the SDG summit.

SDG SUMMIT 2023

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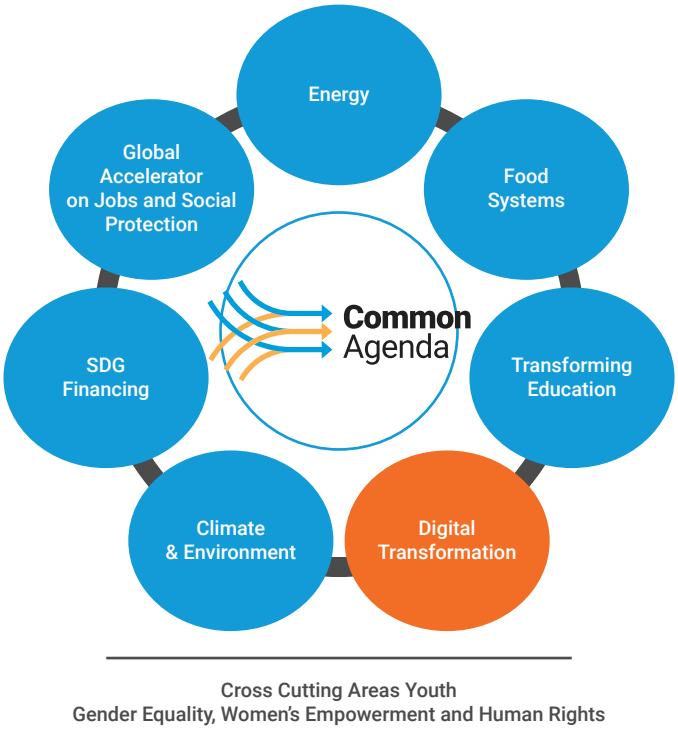
October 2023

SDG SUMMIT 2023
Turkmenistan National Commitments to SDG Transformation



Summit of the Future
Our Common Agenda

Developing Digital Public Infrastructure in Turkmenistan

1 Summary

Accelerating progress toward the Sustainable Development Goals (SDGs) requires inclusive digital transformation. Digital Public Infrastructure (DPI) can maximize the opportunities for digitalization to support the SDGs and reduce the risks that digital technologies may bring.

In Turkmenistan, despite strides made in digital development, including high attention from leadership of the country, there remain significant gaps and issues that need to be addressed, including:

- Limited Digital Infrastructure and Access
- Cybersecurity and Data Privacy Concerns
- Digital Skill Shortages
- Inadequate E-Government Services
- Lack of Quality Data and Comprehensive Registers.

The United Nations is actively supporting the Government of Turkmenistan in its digital transformation journey through collaborative efforts aimed at advancing sustainable development and inclusive digital progress. Today's decisions by Turkmenistan on how to build its DPI will have lasting consequences on their opportunity to grow and innovate, and to achieve the SDGs by 2030. As new technologies advance at an exponential rate, there is an acute opportunity for entire communities to benefit from a growing array of life-changing digital solutions — from digital cash transfers to e-health — given proper investments in their own DPI.

Digital Public Infrastructure explained

Global evidence across countries shows that leveraging core components of the overall financial ecosystem including payment infrastructure, digital identity, and data exchange in tandem with existing banking networks, provide an impetus to advance financial inclusion while also increasing usage and adoption of financial services. These core components or infrastructure enablers are referred to as Digital Public Infrastructure (DPI).

Rather than taking a siloed approach to designing and implementing digital solutions, DPI emphasizes people-centered and interoperable digital building blocks at a societal scale. This approach allows local digital ecosystem players to innovate on top of these blocks, fostering new services for people. With rights-based and people-centric DPI approaches, countries can advance a range of development objectives and respond better during crises.

By 2030, the UN High Impact Initiative[1] (HII) on DPI aims to catalyze the collective action necessary, working with leaders and scalable models to unlock targeted support for DPI implementation and strengthening in 100 countries by ensuring that DPI is safe, accessible, affordable, green, financed, and future ready. Accordingly, this HII has identified and prioritized five key pillars that combine global initiatives with commitments from individual countries and organizations in support of this objective:

1. Universal Safeguards: DPI must be people-centric and respect human rights and fundamental freedoms.

2. Innovations for Last-Mile Inclusion: Benefits of DPI should be made accessible for all people, including those living in remote regions and those with disabilities that limit access by conventional means.

3. Affordable & Open: To realize the benefits of DPI, countries must have access to affordable, safe, and scalable technologies, along with the technical expertise required for design, deployment, and evolution of DPI.

4. Sustainable & Green: DPI can be leveraged to establish global digital ecosystems that enhance transparency, data sharing and innovative green financing.

5. Financing DPI for Sustainable Development: Rights-based and inclusive DPI requires enhanced and coordinated financing to accelerate deployment and aid states in their implementation efforts.

1 https://www.itu.int/initiatives/sdgdigital/digital-public-infrastructure/

2 Situation Overview and Rationale for Action

In Turkmenistan, despite strides made in digital development, including high attention from leadership of the country, there remain significant gaps and issues that need to be addressed urgently:

- Limited Digital Infrastructure and Access: As of 2021, Turkmenistan faced challenges related to limited internet access and outdated digital infrastructure. Only 38.1% of the population use internet at the beginning of 2022[2], primarily in urban areas, leaving many citizens disconnected from the digital world. This digital divide exacerbates disparities in accessing online education, employment opportunities, and government services.
- Cybersecurity and Data Privacy Concerns: The digital landscape in Turkmenistan lacks comprehensive and transparent legislation and mechanisms for safeguarding cybersecurity and protecting data privacy. This vulnerability exposes citizens and businesses to potential cyber threats and compromises trust in online interactions.
- Digital Skill Shortages: The workforce in Turkmenistan requires upskilling to meet the demands of the digital age. Although in recent years, there was significant bust of population, especially among youngster learning IT skills, like software development, there is a still lack of IT skills in only a small

2 https://datareportalcom/reports/digital-2022-turkmenistan

- percentage of the population possessed adequate digital skills, hindering the country's ability to fully harness the potential of digital technologies for economic growth.
- Inadequate E-Government Services: While Turkmenistan has taken steps to digitize government services, there remain challenges in delivering efficient and user-friendly e-government solutions. According to UN E-government development index (EGDI), Turkmenistan is ranked 137 out 193 countries in 2022. It was 158 in 2020. Most of government services are still not available online, limiting convenience and efficiency for citizens.
- Lack of Quality Data and Comprehensive Registers (Databases): Turkmenistan faces a significant deficit in accurate and up-to-date data across various sectors. This data deficiency hampers evidence-based policymaking, efficient resource allocation, and effective program evaluation. Without robust data and comprehensive registers, it becomes challenging to monitor progress not only in digital transformation initiatives, but all areas of social economic development. Tracking key performance indicators, and making informed decisions becoming very hard. Implementing comprehensive data collection and data management systems and fostering data-sharing mechanisms among government agencies, businesses, and research institutions will be essential to support informed decision-making and drive the digital transformation agenda effectively. This includes efforts to ensure data accuracy, security, and compliance with international data standards.

According to UN E-government Knowledgebase[1] Turkmenistan Ranked 137th country in the world, with a total of EGDI (E-Government Development Index) was 0.4808. In 2020 Turkmenistan was 158th and EDGI index was only 0.4034. It is observed some improvement in just 3 years. According to EGDI study, strong side of Turkmenistan digital development are Human Capacity (0.6783) and Telecommunication Infrastructure (0.3555) factors, with a weak index of the Online public services, only 0.1765. Adopting comprehensive approach to Digital Public Infrastructure by cooperation with international agencies, can help Turkmenistan to make a significant progress in digital development.

Building Blocks of Digital Transformation

Access: Only about 67% of the population are covered by 4G mobile network, that is far below the CIS and Europe average. Nearly 2% of the population do not have access to mobile connectivity at all. Despite high percentage of mobile telephone users (99%), only 25% of them are active mobile broadband subscribers. Fixed broadband usage is less than 0,2 per 100 inhabitants. Among the reasons for low Internet penetration are high connectivity prices (both mobile and fixed broadband Internet access remains unaffordable for an average Turkmenian citizen) and low quality of Internet connection (Ookla data indicates, that in February 2023, median fixed Internet connection speed was 2.3 Mbps, mobile Internet connection was 4.9 Mbps).[2]

Adoption: Estimated percentage of Internet-users (21%) is far below Europe and the CIS average. This hinders the development of e-Government and e-Commerce. Neither disaggregated data on digital inclusion, nor data on digital skills is available.[3]

Value Creation: Turkmenistan is ranked 137th in the United Nations EGDI and lags far behind the sub-regional, regional and world averages. Within the sub-indices Turkmenistan has low scores for Telecommunication Infrastructure Index and Online Services Index, while on Human Capital Index Turkmenistan outperforms the world and regional averages, but remains behind the sub-regional average.[4]

1 https://publicadministration.un.org/egovkb/en-us/Data/Country-Information/id/177-Turkmenistan
2 ITU Data Hub
3 Digital Development dashboard, ITU
4 UN E-Government Knowledgebase

National Commitments to SDG Transformation: Make the digital transformation work for everyone (SDG 9)

Digitalization is a top priority for Turkmenistan. The country is undergoing a significant transition towards digital transformation to leverage the potential of technology for economic advancement, social progress, and enhanced governance. The Government has made significant progress in strategic framework adoption and made significant investments in infrastructure. Enhanced investment in digital infrastructure has to happen to ensure efficient and transparent public administration. Therefore, Turkmenistan will:

- Strengthen the institutional framework and enhance legislation and policies for digital transformations in public sector through the full use of available digital technologies for establishment of a comprehensive Digital Public Infrastructure (DPI), provision of digital services to the population and promoting digital inclusivity;
- Develop various digital registries for population dynamics, business, health, land and water cadastre, etc;
- Implement a comprehensive capacity development program for the population and government employees;
- Continuously improve the quality-of-service provision through public digital platforms, particularly in areas such as education, healthcare, and social protection;
- Foster support for innovative and technological businesses by advancing the legislative framework and governance practices. This includes the development of startup and venture investment ecosystems;
- Invest in systems that introduce technology to simplify international mobility, including for the benefit of the national tourism industry;
- Maximize the use digital mechanisms to streamline border management processes while upholding the principle of non-discrimination, respecting the right to privacy and protecting personal data;
- Continue urban development to conform to smart city standards.

https://sdgs.un.org/national-commitments-leadorg-list?leadorg=Turkmenistan

Key Digitalization Priorities[1]

Short-term digitalization priorities of Turkmenistan could be found in the State Program for the Development of the Digital Economy for 2021-2025 and in various sectoral strategic documents, such as the Program for the Development of the Foreign Economic Activity for 2020-2025, while the Foreign Trade Strategy for 2021-2030, the Program of the Socio-Economic Development for 2022-2028 provide an overview of the medium-term of digital transformation perspectives.

The strategic objective of Turkmenistan's digital development is to support further development of the ICT sector and to bridge urban-rural digital divide, which is implemented in the following directions:

- Creating enabling environment for digital development (introduction of modern information and communication technologies, further development of ICT infrastructure, creating infrastructure and standards to combat cyber threats, adjustment of the legal framework);
- Introducing e-Governance and digital public services;
- Developing human capital (awareness raising in the matters of digital economy and cyber security, training of ICT professionals and enhancing their skills);
- Digitalization of the economy (with particular focus on e-Commerce, energy, transport, agriculture, finance, health, education sectors, environmental protection, support of local start-ups).

1 UNECE-ITU scoping study on digital transformation priorities and technical assistance needs of the programme countries in the UNECE region, 2023

To create an enabling environment for digital transformation Turkmenistan focuses on adjusting legal framework. An inventory of legal documents governing the transition to the digital economy and inventory of provided services and relevant legislation were conducted in 2021 - 2022. By 2026, Turkmenistan plans to adopt legislation to allow establishing GIS data centres.

ICT infrastructure. Turkmenistan claims that in addition to digital TV service and broad email service, 3G and 4G mobile networks and fibre-optic networks were developed to ensure universal Internet coverage. Thus, Turkmenistan recognizes the need to continue installing of transmitting and receiving equipment to improve Internet speed. By 2026, Turkmenistan aims at establishing a Single Data Centre and GIS Data Canters. At the same time, quality of the Internet access, both mobile and fixed, remains low. By 2029, Turkmenistan aims at modernization of the existing CDMA mobile communication system and moving to the GSM communication standard.

In the field of information security, the following measures are being prioritized by Turkmenistan: regularly enhancing ICT skills, information and cyber security skills of ICT professionals, establishing specialized schools in Ashgabat and regions and providing training for ICT specialists in coding and cyber security, establishing ICT-related curricular in higher educational institutions, raising awareness to improve digital literacy and online safety skills.

3 UN with Partners in Action and Policy Options

The United Nations (UN) is actively supporting the Government of Turkmenistan in its digital transformation journey through collaborative efforts aimed at advancing sustainable development and inclusive digital progress. The UN works closely with Turkmenistan to provide technical assistance, capacity building, and knowledge sharing in areas such as digital public infrastructure development, digital governance, and e-government services. These initiatives aim to strengthen Turkmenistan's digital resilience, improve the quality of public services, and enhance the country's overall digital ecosystem. Additionally, the UN supports the government in promoting digital literacy and ensuring that the benefits of digital transformation reach all segments of society, thereby contributing to the achievement of the Sustainable Development Goals (SDGs) and fostering a more inclusive and equitable digital future for Turkmenistan's citizens.

The Program of the Socio-Economic Development for 2022-2028 underlines the need to continued cooperation with the United Nations, including with UNDP, UNICEF, UNFPA, WHO, ITC, UNCTAD, FAO and the UNECE in the transport and trade sectors, the International Monetary Fund, the World Bank, the Asian Development Bank, the Islamic Development Bank, the United States Agency for International Development and other international financial organizations, to further improve the work of the economic sectors and introduce positive international practices, to continue implementing joint projects in the fields of environmental protection, social sphere, and governance, digital systems and digital services, e-tax, securities circulation, statistical reporting modernization.

> As Turkmenistan's 2nd Voluntary National Review of the SDGs presents[1], Proportion ofpopulation covered by a mobile network is 98% (100% in urban and 96% in rural areas, see SDG indicator 9.c.1).

The Concept of the Development of the Digital Economy in Turkmenistan, 2019–2025 and the State Programme for the Development of the Digital Economy in Turkmenistan, 2021-2025 are being implemented.

Given the current state of digital transformation, ongoing projects and priorities, sector-specific capacity building and knowledge sharing (national and regional webinars, trainings, study visits) was articulated by public officials as the major technical assistance need. The topics of interest include:

1 VNR-2023 Turkmenistan Report

Innovation	• **emerging technologies, in particular AI, Big Data, M2M, Cloud technology, GIS technology;** • **establishment of data processing centre (detailed roadmap);**
Urban Development	• **smart sustainable cities development, intelligent systems;** • **sustainable green energy;**
Trade	• **adjusting the legislation to the WTO Agreement;** • **familiarizing with the work of the UNECE Inland Transport, Trade Facilitation and Sustainable Energy Committees (study visit);**
Cybersecurity	• **training portal for children and the youth** • **legal framework addressing online fraud**
Statistics	• **digital skills data collection and processing**

UN in Turkmenistan has been actively engaged with the Government of Turkmenistan to support their ambitious agenda to develop digital public services in accordance with the State Programme for Development of Digital Economy for 2021-2025.

Support of Sectoral Digital Transformation[1]

Trade Facilitation. Medium-term objectives of Turkmenistan in the area of trade facilitation include: digitalization of foreign trade by 2030; improving state regulation of foreign trade by simplifying and digitizing the measures on monetary and financial control, customs procedures, certification of goods and services by 2030; effective use of the capacities of the Turkmenbashi International Seaport and creation of a developed system of services by 2030 through the introduction of electronic document circulation, electronic ordering and cargo control; introduction of a digital system in transport and logistics sector to expand capacity of foreign transportation of goods and cargo, to expand multimodal logistics and to further develop transport and transit corridors by 2027; introduction of e-Commerce by 2028. Turkmenistan also intends to improve and digitalize national system of standardization and certification of goods and services.

Short-term goal set in the Program for the Development of Foreign Economic Activity of Turkmenistan for 2020-2025 is to strengthen economic cooperation with foreign countries and international organizations by means of introduction of digital technologies in foreign economic activity (in the banking, financial, tax, transport, customs spheres). The Digital Economy Development Program for 2021-2025 further specifies this objective:

1. Establish and digitalize quality transportation logistics system, which includes technical capabilities to monitor, analyse and forecast all types of transit cargo;

2. Apply digital devices to efficiently manage urban and rural supply chains.

By 2025 Turkmenistan intends to finalize implementation of a «Single Window» digital system (ASYCUDA Single Window by UNCTAD) to ease the exports in goods and services with particular focus on: simplification of registration procedure of foreign economic transactions by the State Commodity and Raw Materials Exchange of Turkmenistan; monitoring of foreign economic operations (incl. customs clearance of goods, accounting for cash transactions, registration of quality certificates, registration of long-term export contracts, licensing); improving exchange of information between customs, banking, exchange organizations with the use of digital technologies; simplifying registration procedures for various types of enterprises, including joint ventures, representative offices and branches of foreign companies, to attract direct investments. Technical assistance needs of Turkmenistan include introduction of modern methods of management and record-keeping.

1 UNECE-ITU scoping study on digital transformation priorities and technical assistance needs of the programme countries in the UNECE region, 2023

In April 2023, the International Trade Center and UNCTAD launched in Turkmenistan a Trade Facilitation Portal (www.infotrade.gov.tm) under the EU-supported «Ready4Trade Central Asia» project. The Portal will reduce the time and costs for trade across borders by guiding businesses through import, export, and transit requirements; giving access to agreements, laws, regulations, forms, and documents; as well as sharing international trade statistics covering more than 25 product groups, with a focus on the agri-food sector.

In 2021, UNDP and UNCTAD successfully implemented ASYCUDA (Automated System for Customs Data) system in Turkmenistan. UNDP, UNCTAD and the Ministry of Foreign Affairs of Turkmenistan in October 2021 signed a MoU on joint cooperation on assistance in implementation of the Single Window for Export-Import Operations in Turkmenistan. The Project «Implementing the Single Window» (2021-2023) entirely funded by the Government of Turkmenistan aims to ensure the effective implementation of the Single Window principle through simplifying and harmonizing interagency business processes between the State Customs Service of Turkmenistan and the state control authorities in the course of import/export operations.

Environmental Protection. In the long-term perspective Turkmenistan prioritizes implementation of the green economy principles and preservation of natural systems. Implementation of the «Smart City» concept, radical transformation of the waste management system, increase in the use of renewable energy sources and efficient use of natural resources are seen as measures to achieve these priorities. In this regard, Turkmenistan prioritizes creation of a national information system for management of natural resources with particular focus on digitalization of geological exploration, introduction of environmentally friendly innovative technologies for the extraction, processing and ultra-efficient use of mineral raw materials. Turkmenistan's short-term (by 2025) goal is to use modern geospatial systems and big data to protect environment, improve crop yields without damaging soil and use natural resources efficiently. By 2024, Turkmenistan is planning to launch a sattelite for remote sensing of the Earth and informed decision-making in agriculture, oil and gas sectors and monitoring the environment. It is envisaged that the remote sensing satellite will carry out environmental and legal control of oil fields, pipeline corridors and oil refineries, including detection of oil spills.

In March 2022, UNDP and «Turkmenaragatnashyk» Agency under the Agency for Transport and Communications of the Cabinet of Ministers of Turkmenistan signed a MoU to accelerate digital transformation in Turkmenistan aiming to strengthen the country's digital capacity in statistics, banking, finance, customs, civil registration and other public services. Following the signing of the MoU, the three-year project «Assistance in the Implementation of a Pilot System of Interdepartmental Electronic Information Exchange in Turkmenistan» with total budget of 2.5 mln. USD fully funded by the Government was launched in February 2023. The project aims at developing and deploying an Electronic Data Interchange (EDI) System. This system will be built on X-road, an open-source software and ecosystem solution that provides unified and secure data exchange between organizations.

The UNDP Project «Promotion of Digital Public Services in Turkmenistan» (2020-2023) aims to pilot digitalization of the civil registration system and contribute to the creation of a Unified State Register of Civil Status Records for the Ministry of Adalat of Turkmenistan.

Energy. By 2028, Turkmenistan intends to introduce an automatic system for detecting the leakage of hazardous substances and to automate a system for recording transportation and consumption of oil and gas. Turkmenistan's short-term objectives include the introduction of digital gas, water and electricity metering systems. Following the launch of the sattelite for remote sensing of the Earth (planned for 2023-2024), Turkmenistan is going to create digital maps of power lines, poles, and transformer substations, processing and storage of collected data to monitor technical condition of energy objects.

Transport. By 2028, Turkmenistan intends to introduce intelligent transport system and to ensure the use of electronic traffic frequency recording systems and automatic vehicle weight and dimensions measurement systems on highways. Another digitalization objective is to create an information system to manage the transport sector and the car service market.

Statistics. By 2030, Turkmenistan aims at creation of a Unified Statistical Information System. Heading to this purpose, in the medium-term Turkmenistan intends to introduce an electronic method of collecting data from respondents, i.e., electronic data collection (by 2025) and to ensure electronic exchange of documents between the databases of the ministries and other relevant bodies (by 2029).

The UNDP Project «Strengthening the institutional, statistical and information-technical capacity of the State Statistics Committee» (2021-2023) supports creation of the Unified Business Register for the State Statistics Committee of Turkmenistan (Turkmenstat). The project also focuses on strengthening the information and technical capacity of Turkmenstat, aimed at improving the quality of statistical data, conceptual transition to the 2008 System of National Accounts and expanding the scope, degree, detail and quality of national accounts and complementary economic statistics, on increasing the capacity of Turkmenstat for statistical reporting to measure the progress of the SDGs.

Other priority areas for digital transformation include: urban development, housing (development and implementation of «Smart Home» and «Smart City» projects, introduction of smart water, gas and electricity meters); land management (creation of a unified system of state land cadastral data; development of digital maps of arable lands with the use of GIS, creation of a unified digital system of land resources, land quality and diversity of crops), healthcare (using electronic data in healthcare services, providing online diagnostics and offering telemedicine services); education (further introducing digital learning and equipping schools with necessary hardware and software); financial sector (introduction of blockchain technology, improve financial literacy of the population) and justice.

The UN projects in that areas include development of Digital Civil Registry (UNDP with the Ministry of Justice), development of digital banking services (UNDP with the State Bank for Foreign Economic Affairs), building capacities of civil servants on digitalization (UNDP with the State Academy for Civil Service).

In 2023, with UNICEF supported piloting of an Education Management Information System (EMIS) was initiated for all schools in Ashgabat and selected schools in five velayats. 180 teachers strengthened their skills in using digital educational resources for interactive child-centred teaching. 25 specialists of Ministry of Education strengthened their skills in using EMIS. In addition, 27 teachers strengthened their skills in teaching STEM subjects through Educational Robotics activities using a developed Manual for Educational Robotics. The National Educational Robotics Competition of Turkmenistan was organized with the participation of 254 boys and girls representing all regions of the country. To leave no one behind, Turkmen text-to-speech voice was developed enabling all visually-impaired Turkmen-speaking people to hear texts in Turkmen on computer and digital devices.

Information Integrity on Digital Platforms

The Secretary-General launched his Policy Brief on Information Integrity on Digital Platforms in June 2023, linked to the Our Common Agenda Report. It calls for urgent action to address the proliferation of hate, mis- and disinformation in the digital space, which currently affects sustainable development. It proposes a set of principles and recommendations as an entry point for consultations on the development of a UN Code of Conduct for Information Integrity on Digital Platforms. This voluntary Code would guide Member States, but more specifically, big tech/digital platforms and other groups in their work to make the digital space more inclusive and safer for all, hence supporting efforts to advance the SDGs.

UNESCAP, UNFPA and UNICEF with RCO engagement supported Turkmenistan civil registration and vital statistics (CRVS) stakeholders from the Ministry of Adalat (Justice), Ministry of Health and Medical Industry, Ministry of Internal Affairs, State Statistics Committee and State Migration Service in examining current processes for birth and death registration and the production of vital statistics. Stakeholders identified gaps and determined areas for improvement, using the CRVS Systems Improvement Framework as the methodological guide. The findings of this assessment shared with the Government to inform plans to digitize the current civil registration system to improve the efficiency and accuracy of CRVS data.

WHO is supporting the country in implementing the Strategy for the Development of the National

Health Information System (HIS) in Turkmenistan for 2019-2025. The MOH has developed and rolled out a COVID-19 vaccination registry in selected sites. A digital system to report the aggregated number of doses of routine vaccines administered and the use of vaccine supply to deploy in all districts is being developed. The Department of Digital Systems and Cybersecurity of the Ministry of Health and Medical Industry was established to lead the digitalization of healthcare and support the ministry's intranet network and the Data Processing Centre (central data repository). WHO has intensified its collaboration with the Central Asian countries, including Turkmenistan, through the CARINFONET network on health statistics, to exchange information and experience on HIS with other countries in the sub-region.

To provide additional technical support on DPI integrating existing expertise, the UNCT in Turkmenistan submitted a proposal to the Government on «Accelerating digital governance for citizen-centric digital services and population policies». The project will assist Turkmenistan in strengthening its institutional, technical, and policy capacities to provide digital services to its citizens by developing and deploying the main data registers and fully addressing cyber threats and risks. The main result areas are as follows:

- Result area 1: Improved policies in selected areas through enhancing the digitalization of the public administration. The focus of digitalization will be further improvement/ development of main registers and pilot e-services. Targeted main registers (not limited to) are Population Registry, Business Registry, Health sector registers, Land and Water Cadastre
- Result area 2: Strengthened institutional framework for a digitally inclusive public sector and established and deployed a comprehensive capacity development programme for digital governance in the country
- Result area 3: Improved cybersecurity and data protection practices and policies.

FAO together with partners are leveraging funding to establish a strong framework for digital agriculture in Turkmenistan, creating a foundation for the integration of digital technologies in agriculture and contributing to the overall advancement of the sector through the project «Seeding Digital Agriculture in Turkmenistan».

4 Recommendations

To support the Government of Turkmenistan in advancing digital transformation and addressing the challenges and opportunities in this domain, especially for those who may be left behind, we recommend the following:

- Ensure Information Integrity on Digital Platforms:

Turkmenistan's relevant stakeholders should participate in consultations on the development of a UN Code of Conduct for Information Integrity on Digital Platforms[1] and adhere to and implement the Code when finalized.

- Strengthen Institutional Capacity:

Enhance the capacity of national institutions to effectively respond to the evolving needs and demands of the digital age. This includes investing in workforce development, promoting digital literacy, and establishing dedicated government authority responsible for driving digital transformation initiatives in the country.

- Enact and Update Strategic Framework and Digital Legislation:

Improve and update national legislation to comprehensively address the issues surrounding digital transformation. This should encompass data protection, cybersecurity, intellectual property rights, and regulations to foster innovation while safeguarding citizens' rights and privacy.

- Strengthen Digital Public Infrastructure:

Invest in the development and maintenance of a robust and secure digital public infrastructure. This includes development of national strategic plan, follow international standards and best practices, expanding high-speed internet access to population, heavily invest in capacity development, upgrading and modernizing government IT systems, and fostering the adoption of emerging technologies like 5G, cloud computing, and Internet of Things (IoT) for efficient public service delivery.

1 Policy Brief on Information Integrity on Digital Platforms

- Inclusive Digital Participation:

Promote the inclusive participation of a diverse range of stakeholders in the digital ecosystem. Engage not only with tech experts but also with marginalized groups, youth, and women, ensuring their perspectives and needs are integrated into digital policies and strategies.

- Enhance Accountability Mechanisms:

Establish robust accountability mechanisms to hold duty bearers in the digital sphere accountable for their actions and decisions. This can include transparent reporting structures, regular audits, and the appointment of digital ombudspersons to address grievances.

- Results-Oriented Digital Planning and Monitoring:

Foster a results-oriented approach to digital transformation by setting clear goals, benchmarks, and key performance indicators (KPIs). Regularly monitor and evaluate progress toward these goals to ensure that digital initiatives are effectively contributing to economic growth, social inclusion, and improved quality of life for all citizens.

- Improve Turkmenistan's birth and death registration as part of the civil registration and vital statistics (CRVS), including:
  - Developing a web-based registration platform that can operate on standard computers connected to the Intranet, in addition to providing computer hardware and intranet connectivity to facilitate data transfer in rural areas.
  - Increasing the number of staff, and improve staff efficiency through training opportunities, particularly for ICD-10 coders.
  - Implementing all necessary improvements following client-centric approaches.
  - Service providers should ensure that information should only be entered once into a digital registration platform, usually at the health institution where the vital event occurred. Data can then be instantaneously transferred to civil registry offices and the Statistical Committee, streamlining the regular production of vital statistics and ensuring the quality of data. Service providers should enable a digital platform that tracks all issued medical certificates of birth or death in real-time, automatically creating a report at the request of the user which can be used to follow-up on vital events that have not yet been registered.
  - Develop the project documents in consultation with the relevant line ministries allocate resources, leverage funding and implement the UN Joint Programmes on «Accelerating digital governance for citizen-centric digital services and population policies» and «Seeding Digital Agriculture in Turkmenistan».

By implementing these recommendations, Turkmenistan can pave the way for a more inclusive and equitable digital transformation that benefits its entire population while safeguarding their rights and interests.

The policy recommendations are fully aligned with Turkmenistan's Strategies and Programmes and the National Commitments to SDG Transformation submitted at the SDG summit.

SDG SUMMIT 2023

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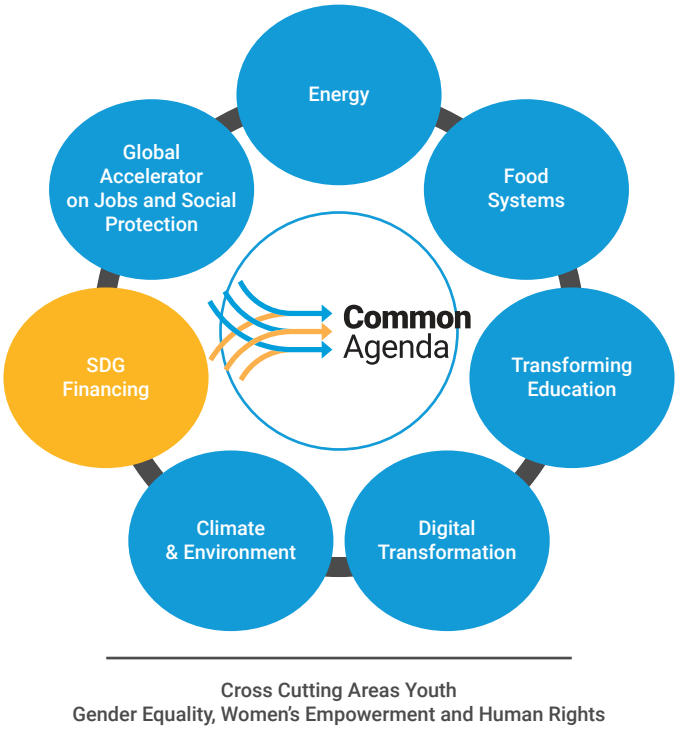
October 2023

SDG SUMMIT 2023

Turkmenistan National Commitments to SDG Transformation



Summit of the Future

Our Common Agenda

SDG Financing in Turkmenistan

1 Summary

The Government of Turkmenistan is fully committed to implementing the agreements and commitments reached during the three major international conferences on Financing for Development, including those formulated in the Addis Ababa Action Agenda of the III International Conference on Financing for Development. These commitments are integral part of the Agenda 2030 for Sustainable Development and serve as a practical framework to implement SDGs through sustainable financing — one of the crucial means of the goals' implementation.

Currently, the Government with support from the UN is implementing the early stages of establishing Integrated National Financing Frameworks (INFFs)[1], addressing the policy, structural, and capacity needs of different INFF implementation stages simultaneously.

Introducing the INFFs in Turkmenistan will contribute to a targeted SDGs implementation and support national initiatives in the development finance area, such as the transition to effective medium-term budget planning with a link to the state planning system, the development of a holistic approach to the mobilization of public and private resources, both national and international, as well as to strengthening of the dialogue between the Government, the private sector, civil society, development partners and other stakeholders.

1 https://inff.org/

Financing for Sustainable Development explained

The Financing for Development process[1] is centered around supporting the follow-up to the agreements and commitments reached during the three major international conferences on Financing for Development: in Monterrey, Mexico in 2002; in Doha, Qatar in 2008; and in Addis Ababa, Ethiopia in 2015. The process also follows up on the financing for development-related aspects of the outcomes of major United Nations conferences and summits in the economic and social fields, including the 2030 Agenda and the Sustainable Development Goals (SDGs).

As per the commitments made by the UN Member States under the Addis Ababa Action Agenda, the national sustainable development plans and strategies are supported by the introduction of Integrated National Financing Frameworks — or INFFs.

A country's sustainable development strategy lays out what needs to be financed. INFFs spell out how the national strategy will be financed and implemented, relying on the full range of public and private financing sources, both national and international. INFFs are a planning and delivery approach to help countries strengthen planning processes and overcome obstacles to financing sustainable development and the SDGs at the national level.

1 https://financing.desa.un.org/about/what-financing-sustainable-development

2 Situation Overview and Rationale for Action

The Government of Turkmenistan attaches great importance to the creation of a national strategy for financing sustainable development goals, coordinated with the main priorities of the country as part of efforts to create Integrated National Financing Frameworks.

As per commitments to achieve all 17 Sustainable Development Goals by 2030, since 2016 Turkmenistan has launched the process of nationalization of SDG targets and indicators, adapting global goals to the local context and integrating them into the state policy of the country, thereby defining key areas of economic, social and environmental development of the country by 2030[2].

2 https://fineconomic.gov.tm/ru/sdgs

SDG financing: Resource mobilization at the national level will remain a major source for financing sustainable development in Turkmenistan

Considering the rapid growth of Turkmenistan's economy, the government will extensively use its internal potential for funding and financing nationally adopted Sustainable Development Goals and priorities, according to the «leaving no one behind» principle. The Government will utilize the Development Finance Assessment results to develop and implement the Integrated National Financing Frameworks. Moreover, a modern banking system, comprehensive insurance services, strong and effective public finance planning and management system, all operating together under an evidence-based Integrated National Financing Framework, will support the transition to a green, diversified, and sustainable economy. Investments in human capital and people-oriented education, healthcare and social protection will remain the priority areas for public financing. As a concrete fiscal target for coming years, the government of Turkmenistan committed to maintaining its spending on the social sector of the economy at more than 70% of the state budget.

FROM THE NATIONAL COMMITMENTS OF TURKMENISTAN TO SDG TRANSFORMATION[3] (SDG SUMMIT-2023)

3 https://sdgs.un.org/national-commitments-leadorg-list?leadorg=Turkmenistan

Addis Ababa Action Agenda financing policy areas

PUBLIC FINANCE (AAAA Action Areas A and C):

- Public revenue
- Public borrowing
- Public expenditure
- Public investment
- Illicit Financial Flows
- International Development Cooperation

PRIVATE FINANCE AND INVESTMENT (AAAA Action Areas B):

- Commercial investment
  - Private investment
  - Impact investment
- Non-commercial
  - Remittances
  - Philanthropic giving

MACROECONOMIC/SYSTEMIC CONDITIONS (AAAA Action Areas E and F):

- Debt sustainability
- Macroeconomic and financial sector stability

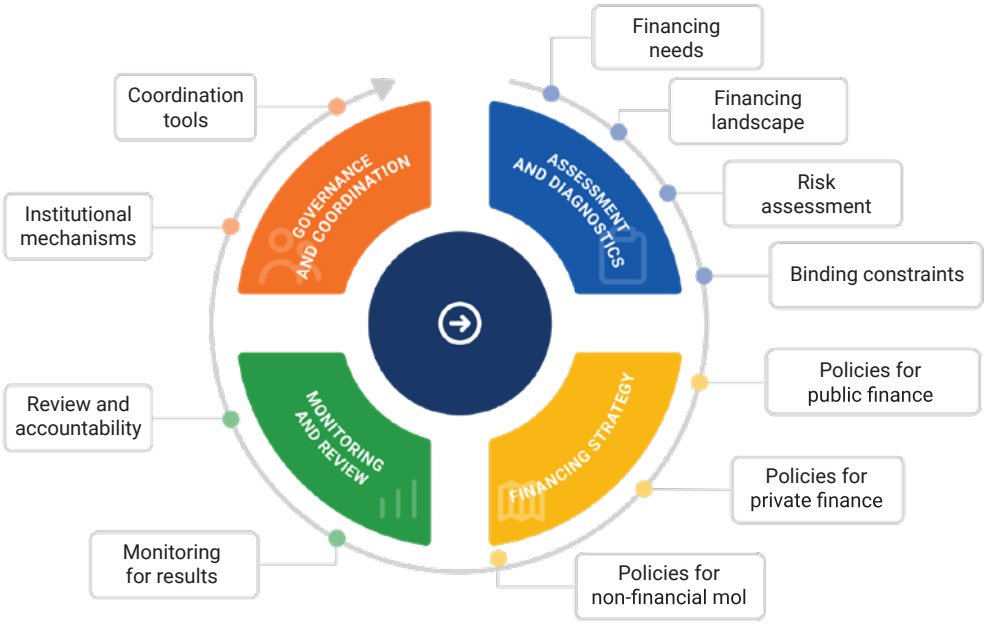
In order to timely and fully implement the 2030 Agenda for Sustainable Development, it is necessary to secure financing for sustainable development, and in this matter, Turkmenistan fully supported the Addis Ababa Action Agenda of the third International Conference on Financing for Development and attaches great importance to financing sustainable development. The country actively participates in global platforms for financing for development, including the ECOSOC forums. Within the framework of the First Caspian Economic Forum[1], held in August 2019, a presentation on financing for development was held with the participation of IFIs, the Government of Turkmenistan, international and regional banks, and academia. The Ministry of Finance and Economy of Turkmenistan and the UN signed a Memorandum of Understanding on Cooperation in Achieving Sustainable Development Goals in Turkmenistan, which covers seven areas of the Addis Ababa Agenda and provides a solid foundation for expanding the strategic partnership between Turkmenistan and the UN to accelerate financing for the 2030 Agenda.

As per the commitments made by the UN Member States under the Addis Ababa Action Agenda, the national sustainable development plans and strategies are supported by the introduction of integrated national financing frameworks — or INFFs.

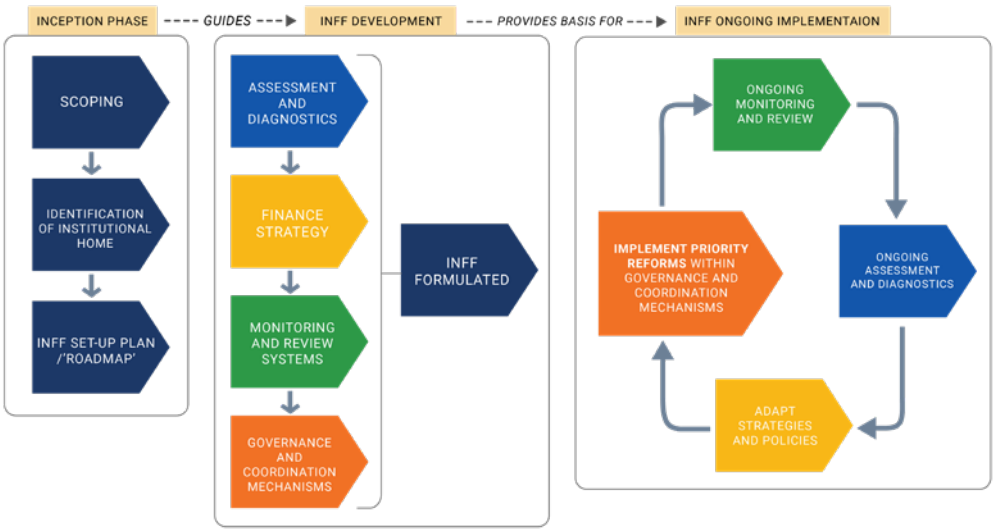
A country's sustainable development strategy lays out what needs to be financed. INFFs spell out how the national strategy will be financed and implemented, relying on the full range of public and private financing sources, both national and international. INFFs are a planning and delivery approach to help countries strengthen planning processes and overcome obstacles to financing sustainable development and the SDGs at the national level.

1 General information on the First Caspian Economic Forum can be found at https://www.mfa.gov.tm/en/

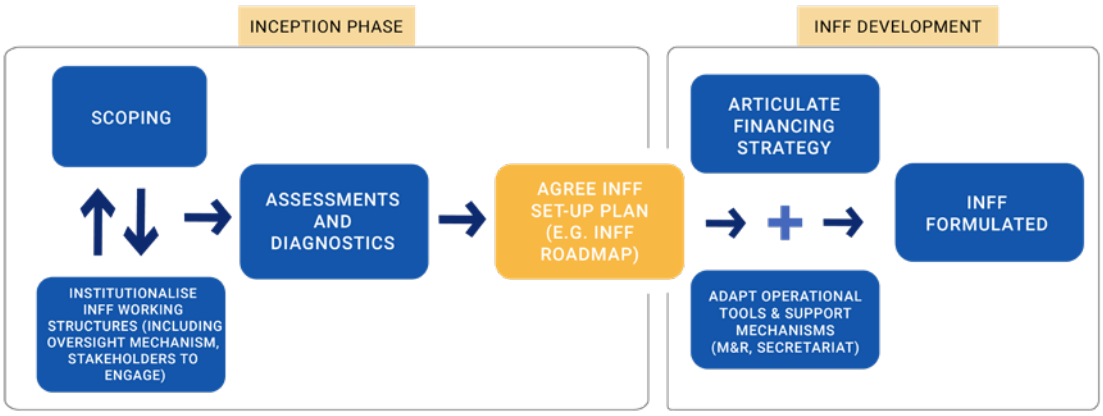
INFFs wheel: building blocks and steps



INFFs stages: from inception to implementation



Schematic overview of INFF development stages in Turkmenistan



Turkmenistan is implementing an early stage of the INFF — Assessment and Diagnostics, under which the development finance assessment (DFA) in Turkmenistan has been finalized in 2023 and the report along with the recommendations submitted for the government's consideration. The DFA, prepared in consultation with all major stakeholders in the country, including IFIs, allows to shaping further the broader financing for sustainable development policies and to introduction of the INFF Roadmap and Financing Strategy in Turkmenistan.

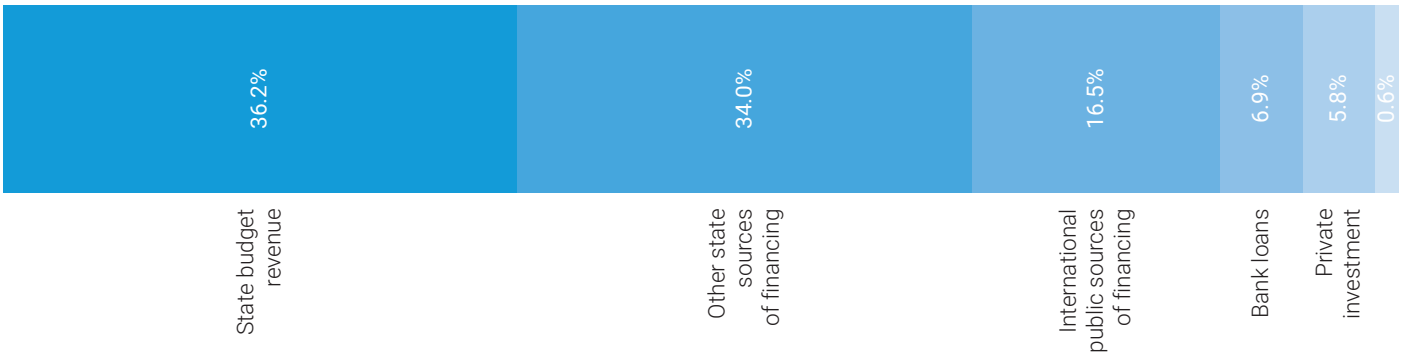
The key Country Development Finance Data, including from Turkmenistan's 2nd Voluntary National Review of SDGs Implementation are represented in Annex 1.

Key DFA findings

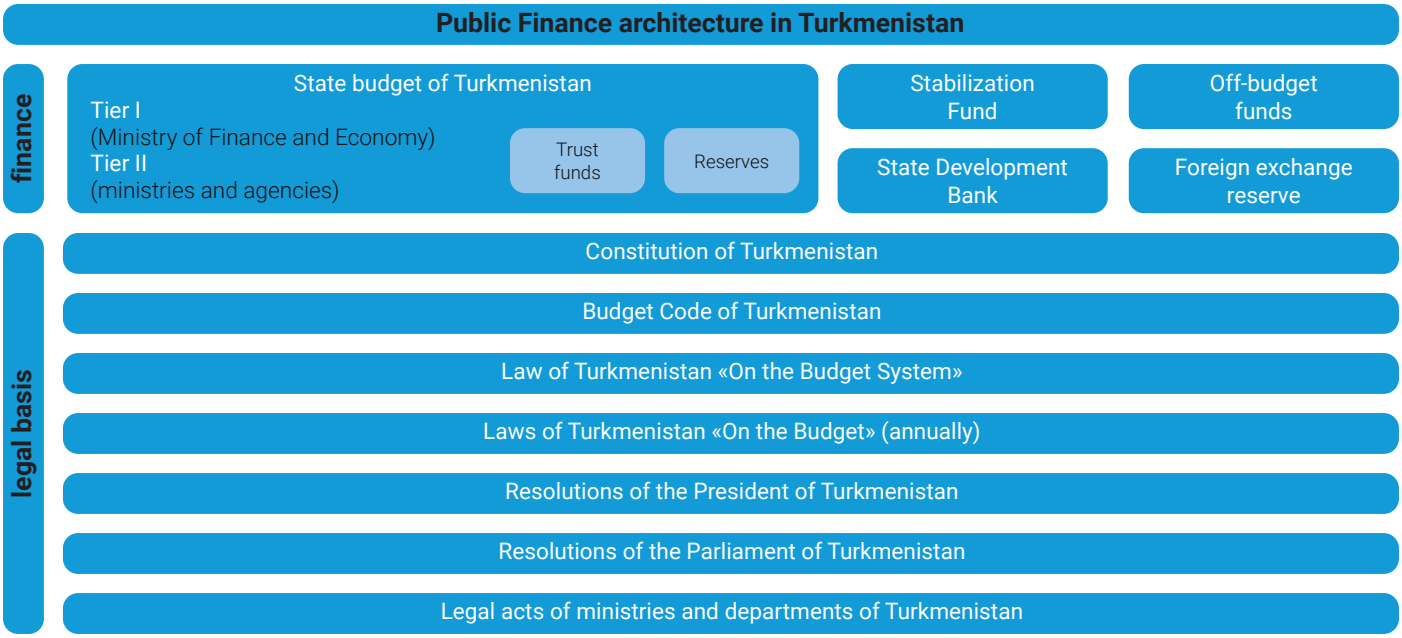
Main financial flows analyzed by the DFA (million manats)

Sources of financing sustainable development	2019	2020	2021
Internal public	**27 670.7**	25 951.6	N/A
External public	**99.8**	363	691.0
Internal private	**31 518.2**	30 402.0	
External private	**4 412.9**	3 473.9	47.3
Total:	**63 702.5**	**60 190.5**	
% of GDP:	**40.2**	37.5	

Share of individual components in the total amount of development finance, 2020, % (million Turkmen manats)



Public Finance Architecture in Turkmenistan



3 UN with Partners in Action and Policy Options

In May 2020 Ashgabat hosted the «International Seminar on Financing the SDG implementation: the role of Integrated National Financing Frameworks (INFF)»[1]. The final document of this international seminar was circulated as an official document of the 74th session of the UN General Assembly.

By decree of the President of Turkmenistan in 2017, a national working group was established to implement the Sustainable Development Goals in Turkmenistan and analyze information, recommendations, and the implementation of its indicators. Taking into account the specifics of the SDG financing issues and the need to carefully study various approaches to this issue, including the implementation of INFFs for SDG financing, as well as to facilitate the work of the National Working Group on SDGs, the joint UN-Government of Turkmenistan expert working group (JEG) on SDG financing has been established[2].

Under the auspices of the experts group on SDG financing, the UN and the national experts are being equipped with the relevant knowledge and familiarized with best practices in SDG financing and INFFs. After the establishment of the group in 2021, there were several training and workshops for the national and UN staff on INFFs and its building blocks, financial data and instruments, sustainable financing principles, national and regional financial landscapes, country examples of INFF implementation, including the most recent workshop on SDG costing methodologies to develop and bridge two important assessments — investment needs and financing landscape assessments[3].

Turkmenistan is implementing an early stage of the INFF — Assessment and Diagnostics, under which the development finance assessment (DFA) in Turkmenistan has been finalized in 2023 and the report along with the recommendations submitted for the government's consideration[4]. The DFA prepared in consultation with all major stakeholders in the country, including IFIs, and will allow to shaping further the broader financing for sustainable development policies and introduces INFF Roadmap and Financing Strategy in Turkmenistan. The DFA recommendations were included in Turkmenistan's 2nd Voluntary National Review of SDGs Implementation (2023).

Important elements and recommendations for further reforms in public finance were provided under the Integrated SDG Insights Report (SDG Push) by UNDP. Being a technical tool to inform the preparation for SDG Summit, this report suggested, among others, the important policy recommendations building on the UN Secretary General's SDG Stimulus to Deliver Agenda 2030[5].

To support the government policies of expanding pre-school education coverage in Turkmenistan, UNICEF implemented costing exercise for SDG 4.2 investment needs and equipped decisionmakers in the government with crucial financing estimates to select an appropriate mixture of policy options versus public funding. This exercise resulted in adoption of costed Operational Plan for Introducing 1-Year Quality Pre-Primary Preparation in Turkmenistan.

1 https://turkmenistan.un.org/en/46810-international-seminar-financing-sdg-implementation-role-integrated-national-financing
2 https://turkmenistan.un.org/en/135862-joint-expert-group-financing-sdgs-agrees-roadmap-towards-establishment-national-integrated
3 https://turkmenistan.un.org/en/230557-un-and-government-turkmenistan-held-seventh-meeting-joint-expert-group
4 https://www.undp.org/turkmenistan/news/undp-promotes-financing-sustainable-development
5 https://www.un.org/sustainabledevelopment/wp-content/uploads/2023/02/SDG-Stimulus-to-Deliver-Agenda-2030.pdf

In June 2023, UNCT developed and submitted to the Government the concept for UN Joint Pogramme (JP) on Improving of Public Finance Management (PFM) system to enhance SDGs financing in Turkmenistan. The JP intends to shift the way public funds are invested and spent, and to align public finance expenditures with national development priorities and SDGs. This entails the facilitation of coordination between different financing policies within the country's PFM system and the provision of space to consider trade-offs and synergies to maximize their impact on the acceleration of SDGs achievement in Turkmenistan. In pursuit of this strategy, the JP offers new approaches to enhance the effectiveness and efficiency of PFM system, which is the key source of financing the country's development. Under the umbrella of The National Program for the Socio-Economic Development of Turkmenistan in 2022-2052, and anchored at the Budget Code adopted in 2014 and the Presidential Programmes on socio-economic development of the country in 2019-2025 and 2022-2028 respectively, the JP will work in three inter-connected dimensions:

- development of strategic planning legislation and framework with SDG targets reflected and monitoring and evaluation structure incorporated;
- introduction of the medium-term budgetary framework (MTBF) in budget planning and execution. Most national/sectoral development programmes align well with the SDGs but lack financial strategies and specific targets and indicators to measure the progress. The introduction of MTBF is expected to facilitate a macro-fiscal framework that would enable connecting financing and planning policies with longer-term objectives, including the SDGs;
- introduction of sectoral results-based budgeting and costing of financing needs of programmes to enhance effective sectoral financing and to nurture the culture of results-orientation in PFM, switching away from input-based financing, thus building capacities to replicate the approach in other sectors.

Under the umbrella of the UNSDCF for 2021-2025, the National Program for the Socio-Economic Development of Turkmenistan in 2022-2052, the Presidential Programme on socio-economic development for 2022-2028 and other relevant policy frameworks the UNCT proposed the Government to implement 10 Joint Programmes that are fully aligned with Turkmenistan's Strategies and Programmes and the National Commitments to SDG Transformation submitted at the SDG summit.

The existing elements of INFF in Turkmenistan and recommendations for its further development are reflected in Annex 2.

To leverage additional resources for achieving the SDGs, the UNCT advocates with the MFA and development partners to implement Joint programmes, especially in the area of climate change adaptation and mitigation, through the UN Multi-Partner Trust Fund mechanism. Such pooled funding mechanism offers numerous benefits, among others providing:

- flexible, transparent mechanism to mobilize resources and channel them to cooperation priorities;
- leveraging finance and consolidating contributions in coordinated action at the regional or country level from multiple partners;
- reduced transactions costs and harmonized reporting.

4 Recommendations

1. Expedite implementation of the Integrated National Financing Frameworks:

- Referring to and building on the National Commitments of Turkmenistan to SDG Transformation (SDG Summit-2023), include «INFF development and implementation» as a concrete result in the national medium-term development planning, specifying the timelines, responsible national agencies, implementing partners, and budgets. Ensure the embedding of concrete activities to support INFF development and implementation into sectoral programmes, strategies and action plans
- Explore and utilize the global INFF guidance and companion recommendations, see at inff.org. Contextualize them to national context and sectoral needs. In this regard, use existing and establish new experts platforms to build capacity and learn approaches
- Identify/establish and empower INFF Institutional Home (oversight national agency/body). Develop terms of reference for such a body, and introduce the governance and accountability framework. Develop, adopt, implement and monitor INFF Institutional Home action plans
- Conduct necessary mappings of existing assessment and diagnostic tools, risk assessments, key financial policy measures, stakeholders, political and socio-economic cycles, major financial and economic commitments, existing analyses, capacity building needs, etc., to inform further INFF implementation in the country
- To fully utilize the research and experts capacities of the development partners, ensure transparency and availability of financial and other related data
- Building on Development Finance Assessment recommendations, and the above mappings, formulate INFF Implementation Roadmap and develop SDG/Development Financing Strategy for Turkmenistan
- As part of the SDG Financing Strategy, ensure costing of the SDG transitions in priority areas for joint UN and development partners' interventions with multiplier effects
- Build the capacity of national experts, include sustainability principles in the educational system at all levels
- Prioritize domestic revenue mobilization for SDGs financing and implementation, utilizing INFFs with the PFM reform at the center.

2. Launch the Public Financial Management reforms:

- Introduce the medium-term budgetary framework (MTBF) in budget planning and execution, emerging from a clearly defined and spelled out medium-term fiscal framework (MTFF)
- Align the national medium-term fiscal targets with the country's commitments at the SDG Summit, and embed the Agenda 2030 results framework, i.e. SDGs, into national results frameworks. In this regard, develop and implement the Law on Strategic Planning referring to the SDG targets, monitoring and evaluation of SDG implementation in Turkmenistan
- Consolidate two tiers of the state budget to better monitor and address the country's developmental needs and priorities
- Introduce sectoral results-based budgeting and costing of financing needs of programmes assessing investment needs of the key sectors of the economy
- Allocate resources and implement the UN Joint Programme on Improvement of Public Financial Management system to enhance SDGs financing in Turkmenistan (UNDP, UNICEF, UNFPA, WHO and IFIs) covering most of the recommendations to trigger forward-looking actions in SDG financing.

3. Address SDG financing gap at the country level:

- Adopt and contextualize ESCAP's Ten Principles of Action to Bridge Asia-Pacific's Sustainable Finance Gap[1] to enable cooperation between governments, regulators, and private finance to efficiently scale-up financing and investment
- Bridge public and private finance through the introduction of Public-Private Partnerships (PPPs) to deliver SDGs in Turkmenistan. Use relevant tools such as the UNECE's PPP and Infrastructure Evaluation and Rating System (PIERS) methodology[2] to attest to the overall sustainability of PPP and infrastructure projects; ESCAP's infrastructure corridor simulator to calculate results for determining the most promising scenario for infrastructure corridor development
- In cooperation with UN and IFIs, design innovative financing mechanisms and instruments, such as «green bonds», blended finance tools, Multi-Partner Trust Funds, thematic funds (for example National Clean Climate Fund), etc., including required adjustments in legislative frameworks to enable financing of SDGs and PPPs
- Explore, contextualize and utilize recommendations from the Interagency Task Force on Financing for Development Annual Reports[3], «Our Common Agenda»[4] Report by the UN Secretary General and its Policy Briefs, outcome document sof the Summit of the Future (2024), and other UN global-level frameworks and commitments.

Implementing the above recommendations will pave the way to sustaining the SDG Financing in Turkmenistan, create new jobs, stimulate growth, and bring social and health, and other benefits supporting the achievement of the SDGs and diversification of the economy in Turkmenistan.

1 https://www.unescap.org/kp/2023/sustainable-finance-bridging-gap-asia-and-pacific
2 https://unece.org/ppp/em#accordion_0
3 https://financing.desa.un.org/iatf/home/
4 https://www.un.org/en/common-agenda

The policy recommendations are fully aligned with Turkmenistan's Strategies and Programmes and the National Commitments to SDG Transformation submitted at the SDG summit.

SDG SUMMIT 2023

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UPDATE 2023

UNITED NATIONS
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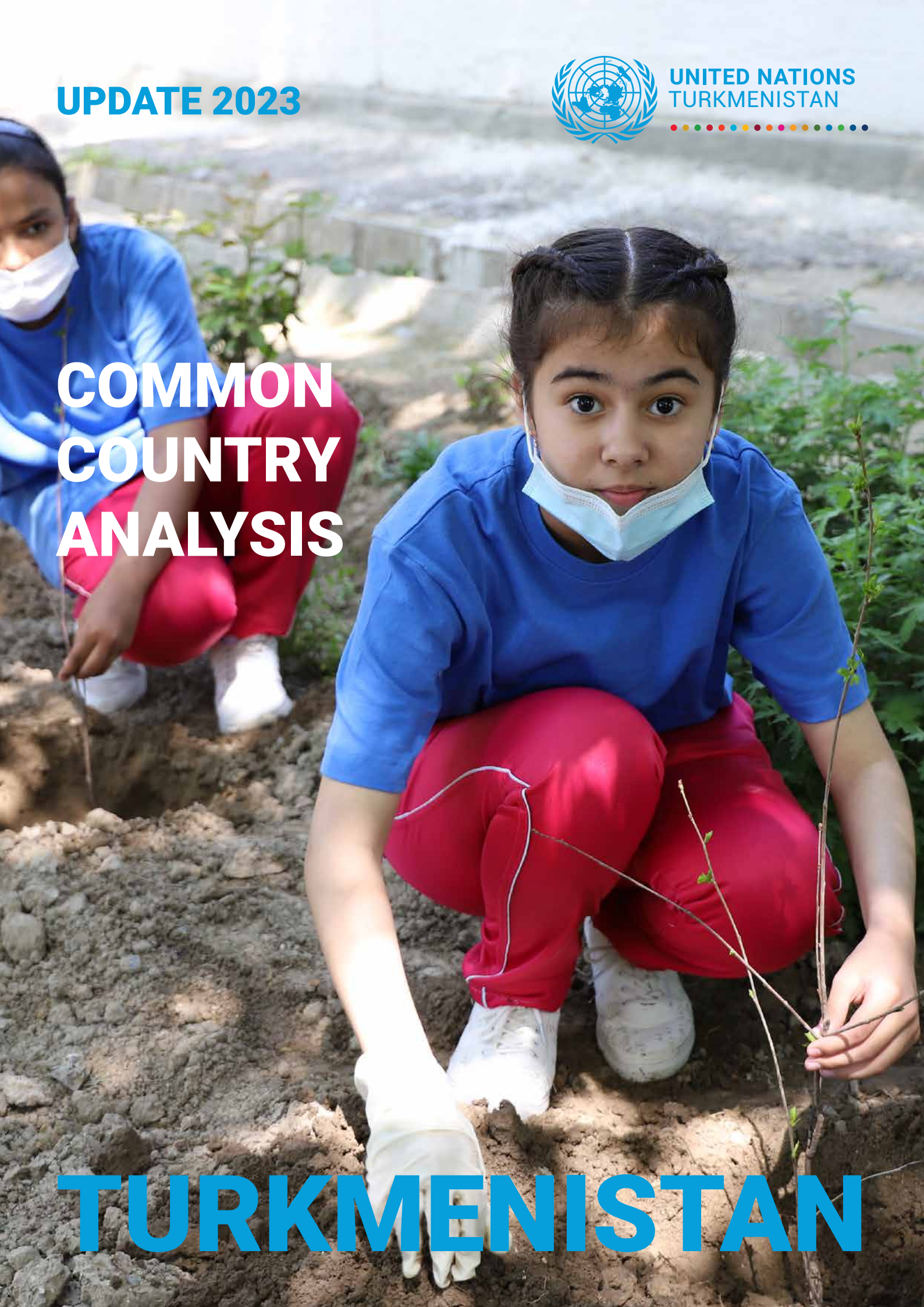

COMMON COUNTRY ANALYSIS

TURKMENISTAN