

UNIDO's inputs to the 2021 report of the United Nations Secretary-General for the 76th session of the General Assembly on the implementation of the Vienna Programme of Action (VPoA) for the Landlocked Developing Countries (LLDCs)

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I. UNIDO progress made in LLDCs: Fundamental transit policy issues

1. In 2020, UNIDO finished the implementation of a **regional project in Africa** entitled “Testing and inspection assessment tool for effective trade facilitation” which assessed and identified technical gaps required for testing and inspection that hindered the effective implementation of trade between transit countries and proposed immediate- and medium-term corrective measures. The project aimed at creating an e-learning tool with modules to be used for trade purposes between transit countries on topics such as quality infrastructure, inspection services, trade facilitation, and testing, including text books, good practice case studies, exercises, library of additional readings, short video clips, and multiple-choice assessments per module. The tool developed in this project is expected to be applied to trade between Ethiopia and Germany as well as trade between Kenya and Uganda.

II. UNIDO progress made in LLDCs: Infrastructure development and maintenance (incl. transport, energy, ICT)

2. In 2020, UNIDO obtained accreditation to the **Green Climate Fund (GCF)** and started discussing several readiness proposals in LLDCs such as: Ethiopia, Bolivia, Afghanistan, Armenia, Kyrgyzstan, Zambia and Zimbabwe, among others. UNIDO under the Department of Energy expects for the projects under development to generate high-impact interventions to promote clean energy transition, deep industry decarbonization, circular economy-based business practices, resilient urban and agricultural infrastructure, and digital and frontier technologies for climate action.
3. Under the **Transfer of Environmentally Sound Technologies (TEST)** component of a Global Environment Facility (GEF)-funded project on knowledge-based management and governance of the Niger Basin and the Iullemeden-Taoudeni/Tanezrouft Aquifer System (ITTAS), UNIDO promotes resource efficiency in industries. In 2020, a comparative analysis of the regulatory framework for the prevention of water body pollution in the 9 riparian countries was carried out and industrial pollution hot spots were identified in close cooperation with the Niger Basin Authority. In Chad, Burkina Faso, Mali, and Niger, industries to be engaged in the TEST have been identified and an initial engagement has been launched.
4. Through the **Industrial Energy Efficiency Accelerator programme**, UNIDO supports developing countries, including LLDCs, in the mainstreaming of energy management standards and solutions in industrial processes. Through a series of dedicated efforts which include providing industries — both large and small — with the latest knowhow, the Accelerator aims to drive momentum for industry, investors and policymakers to embrace energy efficiency. Over the past decade, UNIDO has mainly worked in medium-income countries, but is currently expanding also to relevant LLDCs with energy-intensive industries. So far, the programme has achieved cost-savings on company level to an extend of USD 600 million. It has contributed to around 11,5 million direct tCO₂ reductions. In 2020, the activities were further expanded.



5. Through the **Global Cleantech Innovation Programme (GCIP)**, UNIDO has supported local entrepreneurs in developing countries to commercialise their cleantech innovations. The GCIP catalyzes investment to support and accelerate start-up entrepreneurs towards the development and commercialization of their innovative ideas. Between 2014 and 2018, more than 865 start-ups have been mentored. UNIDO aimed to expand the geographic scope of GCIP to twenty-five countries by end of 2020, including in LLDCs such as: Zambia, Uganda, and Mali.
6. In February 2020, the third edition of the **World Small Hydropower Development Report (WSHPDR 2019)** was published. The report is a comprehensive publication on the use and opportunities presented by small hydropower, and provides a rich overview of the small hydropower sectors of 166 countries and 20 regions, covering most LLDCs. The report also provides consultation and strong support for decision makers, developers, engineers and academics to accelerate small hydropower development worldwide. UNIDO is also working on the finalization of the **Small Hydropower Technical Guidelines (SHP/TGs)** to provide Member States with better guidelines on improving SHP-related policies, to better integrate state of the art SHP technologies in national contexts.
7. Co-hosted by UNIDO and the UN Environment, and part of the Technology Mechanism of the UNFCCC, the **Climate Technology Centre & Network (CTCN)** is a multi-stakeholder partnership that supports capacity building and technical assistance in developing countries, including LLDCs. The Centre provides assistance on a wide range of climate change adaptation and mitigation issues, from agriculture, disaster-preparedness and energy to industry, transport, water and waste management. To date, the CTCN has provided technical assistance in LLDCs, such as:
 - (i) The Lao Ministry of Natural Resources and Environment requested assistance from the CTCN to determine and create a cost-benefit analysis for ecosystem-based adaptation approaches for six of its cities (Luang Prabang, Vientiane, Paksan, Thakek, Savannakhet and Pakse). The CTCN helped to identify possible sustainable urban resilience approaches, and with the assistance of other partners, helped Lao PDR to develop a submission to the Green Climate Fund. The technological assistance strengthened the Nationally Determined Contribution of Lao PDR, the water resource information systems for climate change adaptation, and increased the resilience of urban development and infrastructure.
 - (ii) The CTCN also assisted Burkina Faso, Mali and Niger to improve access to affordable, reliable, and sustainable energy through mainstreaming gender in new energy policies.
8. During 2020, UNIDO further supported the **"Promotion of green electric mobility (e-mobility) solutions for urban transport in Bhutan and the wider Hindukush-Himalaya region"** in partnership with the Gross National Happiness Commission (GNHC), the Prime Minister's Office, the Thimphu City Council/City Bus Service, and other key stakeholders in the transport and power sector. The project supports the transition towards an intelligent and green public transport system, including a Bus Rapid Transport (BRT) system in the city of Thimphu. The aspirations of the Government include the transition towards electric vehicle solutions. The UNIDO project is supporting the Government in piloting e-buses and related infrastructure in the city of Thimphu.



9. In the area of transport infrastructure, as part of a public-private development project in **Zambia**, UNIDO in collaboration with the United States Agency for international Development (USAID), Italian Agency for Development Cooperation (AICS) and HP Foundation have advanced the Mashrou3i project through an online workshop in Northern Technical College (NORTEC) in Ndola, Zambia from 22 June to 26 June 2020. During the two-day online workshop, 22 participants from the Zambian Industrial Training Academy (ZAMITA) have undertaken the course, led and coordinated by HP LIFE Master Trainer and an entrepreneurship & MSME Development Expert. The project is developed under the umbrella of the UNIDO Programme for Country Partnership (PCP) in Zambia, with a focus on industrial skills development in the transport and heavy equipment sector.
10. The Republic of **Moldova**, through the Energy Efficiency Agency (EEA), requested UNIDO's support to increase the competitiveness and productivity of industries in Moldova by promoting the growth of the cleantech sector. In January 2020, UNIDO started the implementation of a project to support the transition to a low-carbon economy in Moldova by promoting clean technology innovations and entrepreneurship in SMEs and start-ups through the development of a vibrant cleantech ecosystem to create green jobs and industries.
11. Also in January 2020, UNIDO started the development of an innovation ecosystem and support infrastructure, including a Digital Education and Innovation Centre (DEIC) in **Azerbaijan**. The project is being implemented at the request of the Ministry of Transport, Communications and High Technologies of Azerbaijan to promote innovation ecosystem building, facilitate competitiveness of innovative enterprises, and to capacitate stakeholders to understand the potential of the transformation to 4th Industrial Revolution(4IR).
12. UNIDO organized an awareness-raising virtual workshop in **Burundi** on 4 August 2020, as part of the ongoing GEF-funded project: "Promotion of Small Hydro power for Productive Use and Energy Services in Burundi". The workshop, with the participation of the Ministry of Hydraulic, Energy and Mines, aimed at sensitizing institutional decision makers on business-based public and private partnerships (PPP) for the deployment of renewable energy - small hydropower mini-grid systems in the country. The workshop allowed for a well-balanced participation from public and private sectors, enabling direct interactions that could lead to joint solutions to the country's challenges in the renewable energy sector.
13. UNIDO also continued to address the economic and food insecurity in rural communities of **Armenia** through strengthened livelihoods, creation of sustainable economic opportunities and capacity building. In 2020, in the framework of "Enhancing Human Security and Building a Resilient Society in the Disadvantaged Communities of Armenia", UNIDO established technical and financial assistance food processing facilities to secure job creation in rural communities. Additional support was provided in order to install solar water heaters. Those devices showcase renewable energy applications that can successfully reduce production cost, increase processing volume and make products more competitive. Furthermore, an economic model for sustainable plastic waste management is under

development and implementation. This tool was specifically designed to address the main challenges experienced by the targeted communities.

III. UNIDO progress made in LLDCs: International trade and trade facilitation

14. UNIDO continued its support to LLDCs through the **Inter-Agency Cluster on Trade and Productive Capacity**, which is led by UNCTAD and is operated by FAO, ITC, ILO, UNDP, UNEP, UNIDO, UNOPS, WTO and the five UN Regional Commissions. In 2020, the Cluster initiated and coordinated a major joint effort by FAO, ILO, UNCTAD, UNDP and UNIDO to provide a rapid response to the COVID-19 challenges by articulating (in the framework of the COVID-19 MPTF call) an inter-agency service package on socio-economic recovery, in particular around preserving rural livelihoods through value chain development. The Cluster signed a declaration at the Deputy Director General level to support via joint-programming the survival and resilient recovery of micro-, small-, and medium-sized enterprises. Joint-projects and country programme proposals, including in LLDCs, were elaborated immediately after the release of the joint-declaration, showing outstanding example of the rapid response capacity and cooperation efficiency for the trade sector.
15. Strengthening the productive capacities of SMEs and SMIs operating in the pharmaceutical and biomedical field is the new initiative of the Government of **Burkina Faso**. The initiative is part of the implementation of the National Industrialization Strategy (SNI) and its fight against the pandemic crisis. In April 2020, the Government requested UNIDO's technical assistance for the operationalization of this initiative. The expected areas of cooperation include capacity building, upgrading and expansion of U-Pharma production capacity. The collaboration is foreseen to open up long-term prospects for UNIDO's support to establish a pharmaceutical techno pole in Burkina Faso.
16. In 2020, UNIDO started the implementation of two projects in **Armenia**:
 - i) a joint-project with UNDP and other Institutions in Armenia in supporting the Government's efforts to prevent further spread of COVID-19 and enhance local SMEs' resilience in a post-pandemic context. This is being achieved through a national project that started in June 2020 in order to build local capacities of SMEs in the textile, garment and shoe sectors for producing medical gear and other PPEs, as well as related supplies that comply with both international and national health standards.
 - ii) the third phase of a project aiming at "Improving the competitiveness of export-oriented industries in Armenia through modernization and market access". Building on the results of previous phases of the project, the third phase aims to ensure (a) the sustainability and scale-up of the business service provision to various subsectors of light industry (e.g. pattern making, fashion illustration, production planning, and virtual prototyping), and (b) the spillover effect of achieved impact to larger scope of manufacturing enterprises and start-ups in the country.
17. In 2020, training courses continued through the **UNIDO Knowledge Hub**, an interactive training platform on trade which provides a number of online trainings destined to improve skills in developing

countries, including LLDCs. Taking into consideration unstable and weak internet connection, the trainings are designed in a simple, yet interactive way, which allow for a self-paced learning experience and provide trainees with a certificate upon successful completion. As of 2020, the UNIDO Knowledge Hub hosted nine training courses on Quality Infrastructure and Trade, Quality Policy, E-Commerce, Industry 4.0, Impact Investment (available in English, French and Chinese), and International Business Alliances.

18. In 2020, UNIDO continued supporting “Employment Creation in Mongolia” by upgrading several value chains to international standards food and non-food livestock products. UNIDO, in cooperation with FAO, organized various capacity building activities to support leather and textile value chain and enhance meat and dairy sector, including through Food Safety Management System practices. On-line training and learning content were used widely and during COVID-19 pandemic. More than 1,000 users enhanced their skills via new on-line courses. These capacity building activities covered conformities of international standards (such as: ISO, HACCP, HALAL and FSSC 22000 as well as GHP, GMP and GDP for the factories).
19. **Rwanda** responded to COVID-19 through beneficiary companies of the UNIDO - Korea International Cooperation Agency (KOICA) - National Industrial Research and Development Agency (NIRDA) project garment industries such as: African Sewing Club, Weya Creations, New Kigali Designers and Outfitters Ltd, Gahaya Links Ltd and Ambara Uberwe Nawe cooperative. The companies reoriented their product lines towards face masks manufacturing to prevent the spread of COVID-19. With newly acquired machines, companies increased their production capacity allowing Kigali Sewing Clubs to produce over 10,000 face masks and Weya Creations to produce between 4,000 and 5,000 masks a day. Certain factories were also able to transform their businesses via the acquired machines by manufacturing new products post COVID-19 pandemic (such as clothes, shoes, etc.).
20. In 2020, UNIDO supplied and installed processing equipment for four wineries and one juice processing facility in Western **Uganda** (worth over USD 600,000 and funded by the GEF). UNIDO supported job creation, especially for women, by upscaling the processing capacity of agro-industrial facilities (such as SILGAD Investments Limited who increased their monthly production capacity of wine from 2000L to 15000L, employing 36 persons, of which 30 are female youths). The Ministry of Agriculture, Animal Industry and Fisheries and its partners recommended to seek avenues for replicating the project model to other regions in Uganda.
21. In 2020, UNIDO finalized the implementation of a project in **South Sudan** aiming at “Enhancing Social Stabilization and Cohesion through Supporting Agro Value Chain Development” by establishing an agro-processing training center. This center was designed for the daily activities of the Standards Department of the South Sudan National Bureau of Standards (SSNBS) for formulating, adopting and harmonizing the quality standards for agro-products and related trainings. Additionally, a communal food processing workshop for edible oil processing was established for the use of internally displaced persons (IDPs) and the host communities, in order to contribute to their income generation. Within this project, 18 Training of Trainers (ToTs) were trained on food safety, quality standards, and hygiene



in the agro processing sector (12 out of 18 ToTs training sessions were conducted for 244 beneficiaries, as a start, expecting them to become service providers through their respective institutions for raising awareness on food safety measures and standards in order to facilitate market access and trade in the future).

22. In the field of international trade and trade facilitation, UNIDO also supports its Member States, including LLDCs, via regional programmes and projects. The “**West Africa Competitiveness and Quality Infrastructure Project**” (WACQIP) is the regional component of the “West Africa Competitiveness Programme” (WACOMP). This project is currently being implemented in the West African region, which includes three LLDCs (Burkina Faso, Mali and Niger). This project entails two components: a “Quality component” and a “Business Environment and Competitiveness component” with the aim to enhance the countries’ integration into the regional and international trading system.
23. During 2020, a **Quality Infrastructure Study** has been conducted in several West African countries, including in Burkina Faso, Mali and Niger, to identify the needs along four regional value chains (cassava and derivatives, mango, textiles and garments, and ICT as cross-cutting value chain). The finalization of the study led to the identification of priority actions to be implemented at regional level and the updating of the work plan based on these identified needs. To this end, a list of 64 draft standards to be harmonized at regional level has been validated, 16 laboratories in the region (one for each country) have been selected and will be accompanied towards international accreditation, an ECOWAS Certification Mark (ECOQMARK) is being developed and will be used to promote quality in the region. These structures are supporting the development of intra-regional and international trade and are key to LLDC’s connectivity to regional and global markets.
24. UNIDO, in collaboration with ECOWAS and UEMOA, successfully supported the drafting, development, and adoption of two **ECOWAS standards (ECOSTANDs)** on barrier masks for non-sanitary use, as well as on hydro-alcoholic gels. The adoption of these two regional standards was commended by the ECOWAS Heads of States during their 57th Ordinary Session, in September 2020. The two adopted ECOSTANDs aiming at fostering regional trade have become the benchmark in all countries in the West African region, including LLDCs. Such regional responses allow LLDCs to better participate and integrate in intra-regional trade. They benefit from an infrastructure that they could not afford to build up alone. A typical example is the accreditation. A National Accreditation Body is usually afforded by advanced economies. However, a regional system, such as the West African Accreditation Body, covering the 8 WAEMU/UEMOA countries, laboratories and other conformity assessment bodies in Burkina Faso, Mali, and Niger can support obtaining such accreditations at affordable costs.

IV. UNIDO progress made in LLDCs: Regional integration and cooperation

25. The **Africa Industrialization Week (AIW2020)** was held in November 2020, in collaboration with the UN Economic Commission for Africa (ECA), the African Union Commission (AUC), the AfroChampions Initiative, the African Union Development Agency (AUDA-NEPAD) and the Government of Niger. Under the theme “Inclusive and sustainable industrialization in the AfCFTA era”, the event featured a series of 29 highly interactive virtual panel discussions and attracted over 2,500 participants drawn from a multi-stakeholder base comprising AU Member States, Regional Economic Communities, and African LLDCs, among others. UNIDO Director General participated in several sessions to deliberate on ways to accelerate Africa’s industrialization and rally the desired political momentum, resources and partnerships towards an Africa-Industrialization drive in light of the start of the African Continental Free Trade Area (AfCFTA). The AIW2020 commemorations were capped by a High-Level Session on 20 November 2020 attended by Heads of State which are also Champions of the Third **Industrial Development Decade for Africa (IDDA III)**, including thus H.E. Mr. Mahamadou Issoufou, President of Niger, which was honoured as AfCFTA Champion for driving the industrialization agenda on the continent.
26. The **Forum on Globalization and Industrialization¹ (FGI)** consists of a series of annual forums jointly organized by UNIDO, the Kiel Institute for the World Economy (IfW Kiel) and the Kiel Centre for Globalization (KCG). The FGI highlights the areas where stakeholders are already working together and provides a platform for discovering new avenues of cooperation on the issues related to industrialization, global trade and investment. In the age of technological and international trade uncertainty, FGI2020 was held as a high-level virtual event with over 370 participants. It addressed the challenges and opportunities of globalization and industrialization within the COVID-19 crisis.
27. The **Global Network of Regional Sustainable Energy Centres (GN-SEC)** has further expanded its activities in 2020. Under this programme, UNIDO supports regional economic commissions (RECs) in the establishment of regional sustainable energy centres to implement their regional energy and climate policies. The network comprises eight operating centres in Africa, Pacific, Caribbean, Central America and the Hindukush-Himalaya operating with approval from more than 108 Ministers of Energy. Currently, the network expands to Central Asia and Central Africa. The GN-SEC covers most of the LLDCs. Through cross-border approaches and methodologies, the centres complement and accelerate national efforts in the areas of policy and regulation, capacity development, knowledge and data management, awareness raising, as well as the promotion of investment, innovation and entrepreneurship.
28. In 2020, the **Renewable Energy and Energy Efficiency Capability for the Hindu Kush Himalaya (REEECH)** has become fully operational under the GN-SEC programme. Hosted by the International Centre for Integrated Mountain Development (ICIMOD) in Nepal, the REEECH aims to improve access to sustainable energy services in the Hindu Kush Himalaya (HKH) region, including LLDCs such as

¹ UNIDO Forum on Globalization and Industrialization <https://www.unido.org/FGI>



Afghanistan, Bhutan, and Nepal. The creation of the REEECH responds to the urgent need for enhanced south-south and triangular cooperation on sustainable energy mountain issues. The establishment of the REEECH stems from the 2016 high-level seminar on “Accelerating sustainable energy for all in LLDCs through Innovative Partnerships”, organized jointly by UNIDO, UNHRLLS and the Government of Austria as contribution of the implementation of the Vienna Programme of Action for the LLDCs.

29. On 23 June 2020, UNIDO and the Economic Cooperation Organization (ECO) organized a regional meeting to validate the feasibility and viability of a **Clean Energy Centre for the ECO region (CECECO)**, as part of the GN-SEC. The meeting was held online due to the COVID-19 outbreak. Together with international partners, LLDCs representatives from ECO Member States, namely Azerbaijan, Kazakhstan, Kyrgyzstan, and Uzbekistan, participated in the meeting to review the results of CECECO baseline and feasibility assessments. The final documents provided concrete recommendations regarding the institutional and technical design of the center. The results of the workshop will be submitted to the ECO’s one of the decision-making bodies for consideration and adoption.
30. To strengthen regional technical capacities to create a common market for renewable energy and energy efficiency products and services, UNIDO is supporting the **Economic Community of Central African States (ECCAS)** in the establishment of the **Centre for Renewable Energy and Energy Efficiency for Central Africa (CEREEAC)** as part of the GN-SEC. During 2020, a baseline and needs assessment, as well as a project document on the 1st operational phase were developed in close coordination with ECCAS and its Member States. With the establishment of the CEREEAC, the GN-SEC will cover the entire African continent, including LLDCs such as: Burundi, Central African Republic, Chad, and Rwanda.
31. UNIDO and the Republic of **Uzbekistan** have signed a Joint Declaration for an initial period of four years. The Joint Declaration commits UNIDO and Uzbekistan’s Ministry of Economic Development and Poverty Reduction to promote cooperation in various areas, including, amongst others, industrial policy, green industry, a circular economy, renewable energy and energy efficiency, agro-industrial clusters and light industry modernization, with the aim of contributing to inclusive and sustainable industrial development and the 2030 Agenda for Sustainable Development. The Joint Declaration will also facilitate the implementation of the "Industrial Development Strategy of the Republic of Uzbekistan until 2030" and will be accompanied by a road map for its operationalization.
32. On 19 June 2020, UNIDO Director General and the Permanent Representative of the Republic of **Azerbaijan** in Vienna discussed cooperation modalities in the areas of digitalization and 4IR. In particular, Azerbaijan seeks UNIDO’s technical expertise within the Phase II of the OSCE Project “Promoting Green Ports and Connectivity in the Caspian Sea Region”, implemented in 2020-2023. The activities focus on “greening” selected seaports in the Caspian and Black Sea Region, establishment of a common digital trade platform, among others. New areas of cooperation have been included into the planned Cooperation Framework between UNIDO and Azerbaijan for 2021-2025.



33. UNIDO delivered a speech at the 2020 **Afghanistan** Conference on Peace, Prosperity and Self-reliance, in November 2020, highlighting the organization's programmatic support and operations through the ongoing Country Programme for Afghanistan and in line with UNIDO strategy for post-conflict/crisis situations. UNIDO is supporting the country in particular through creating an enabling environment for nourishing, developing and expanding MSMEs that are a vital instrument for employment generation, especially for vulnerable groups, and for improving stability in the country.
34. The third edition of the "Latin American Circular Economy Forum" was held on 17 November 2020, in **Paraguay**, with the purpose of inspiring, energizing and activating the community to promote the transition towards circular economy in Latin America. The event registered more than 1140 participants and 20 global speakers, including UNIDO, and established a space for dialogue and exchange of knowledge and experiences around Circular Economy. The event also contributed to the formulation of a circular economy roadmap and the promotion of other related initiatives that are being developed in the country. Through the MiPYME COMPITE programme, UNIDO with the EU and other partners, aim to improve the competitiveness of MSMEs in Paraguay.
35. On 5 October 2020, UNIDO organized the digital edition of the **Bridge for Cities** event jointly with the Finance Center for South-South Cooperation (FCSSC). The event placed particular emphasis on green, social and technological innovations to respond and recover from the COVID-19 crisis and acted as an accelerator for the SDGs, through two Mayors roundtables. Mayors from across the world, including LLDCs (such as Kazakhstan), exchanged knowledge, concrete actions and success stories, with the aim to facilitate city-to-city networking and tangible partnerships.

V. UNIDO progress made in LLDCs: Structural economic transformation

36. Under the umbrella of the Programme for Country Partnership (PCP) **Ethiopia**, in 2020, UNIDO continued the activities within national projects and supported SMEs to respond to COVID-19 challenges through distributing PPEs to individual businesses of macro leather clusters; disseminating awareness-raising audio clips about COVID-19 and related prevention measures in local languages in SMEs; and supporting leather clusters to continue their businesses while repurposing their production lines by adding disposable and reusable masks to the roster of products.
37. Also in **Ethiopia**, after the formulation of the National Entrepreneurship Strategy, the project "Productive work for youth and women through SMEs promotion in Ethiopia" further supported Ethiopia's entrepreneurial ecosystem. Thus, selected financial and non-financial service providers were capacitated to provide more qualitative services to SMEs, in particular to young and women entrepreneurs operating in the agro-industry, textile and leather sectors. A total of 25 meso-level organizations: 7 Universities, 3 Banks, 4 MFIs, 4 Regional Bureaus of Trade and Industry, 4 Federal level Organizations, 3 Centers of Excellence (CoE) were selected after the assessment of their capacity to participate to the capacity building component of the project (Training of Trainers – ToT).



38. The programming activities for the Programme for Country Partnership (PCP) **Zambia** gained traction and were significantly intensified in 2020. Among others, UNIDO conducted the PCP Industrial Diagnostic Study, in coordination with numerous relevant stakeholders. Endorsed by the Government in July 2020, the study identified the main opportunities and bottlenecks for advancing inclusive and sustainable industrial development (ISID) in Zambia. The industrial focus areas with the most potential for development impact were selected (mainly three focus areas: value addition, skills development, and policymaking) and potential development partners and opportunities for synergy were mapped while considering the socio-economic landscape of Zambia.
39. In October 2020, through the COVID-19 Response and Recovery Multi-Partner Trust Fund (COVID-19 MPTF), UNIDO in partnership with UNDP, UN Women and UNICEF started the implementation of a project in **Armenia**. The aim is to “Accelerate women’s empowerment for economic resilience and renewal: the post COVID-19 reboot”. Key objective of the project is to address gender equality and the empowerment of women by supporting creation of new sources of income and livelihood opportunities for vulnerable women affected by COVID-19. To achieve this goal, UNIDO will provide entrepreneurial knowledge and skills to young women through its signature “Innovation, Development and Entrepreneurship for All” (IDEA) programme and facilitate women-led SMEs access to Revolving Fund to realize their business ideas. Under the project, 40 young women will be trained, and 30 women-led enterprises will receive financing through the Revolving Fund.
40. The programming phase of the Country Programme in **Armenia** is moving steadily. The CP planned for 2021- 2025 aims to provide tailored solutions to revitalize the country’s industrial sector in the post-pandemic period. In 2020, UNIDO conducted a country diagnostic study focusing on the state of the Armenian industry. Results of the study has shown that despite the country’s challenges, Armenia has potential for economic expansion, especially in light of the recent Government’s reforms focused on ISID. One of the most important findings was that Armenia is the transportation hub in the region and a transit partner of the European Union (EU) and the Eurasian Economic Union (EAEU).
41. Within the Country Programme for **Moldova** (2019-2023), UNIDO has prepared a project proposal on “Development of Innovation, Entrepreneurship and Technology Transfer (IET) platforms for strengthening linkages between research and industry in Moldova”. In May-June 2020, a study of the innovation ecosystem in the country was conducted to assess the existing innovation systems and linkages among stakeholders in three regions: Chisinau, Balti and Cahul. The study serves as a basis for further digitalization of Moldova, transfer of technology into traditional sectors of economy and reduction of the negative impact of the COVID-19 crisis in a sustainable manner.
42. In October 2020, UNIDO started the development of the Country Programme in **Niger**. The Government requested UNIDO to develop the following priority areas: Institutional capacity building (Industrial policy support and governance), Agro-industry and agribusiness development, Renewable Energy, Energy Efficiency and Environment, Empowerment of vulnerable communities, Development of industrial infrastructure supporting cross-border production of value chains and regional economic integration, the development of Small and Medium Enterprises (SMEs) and the private sector.



43. In West Africa, LLDCs are negatively affected by climate change and reduced access to natural resources which undermine community relations and jeopardized economic activities of vulnerable smallholders. In **Mali**, UNIDO successfully trained 270 women in technical skills such as agro-ecology, transformation of agricultural waste into compost and production of bio-fertilizers; production of livestock feed from organic waste and fodder plants; recycling plastic waste in utility or ornamental products and finally restoration and reforestation of degraded areas. In addition, the related project addresses critical business challenges faced by underserved women by enhancing their skills in financial literacy, business management, marketing and entrepreneurship. In the same vein, women's groups benefitted from equipment allowing them to improve their operations and enhance their productivity. By the end of project 20 women's groups will be funded via mobile banking and monitored in order to sustain their green and agro processing IGAs.
44. In **South Sudan**, UNIDO continued working with the Government to support its efforts to transition from food assistance to food security in the region of Bahr el Ghazal, through a project aiming at strengthening local value chains for rural smallholders. In 2020, the project focused primarily on enhancing value addition at the project supported Agro-Processing Centers through improving access to value chain technology, launching the manufacturing, branding and packaging of new local products. The project also built the capacity of meat value chain operators through training for butchers in health and hygiene, occupational health and safety, and slaughtering best practices.
45. In 2020, UNIDO also supported LLDCs in complying with the **Montreal Protocol**:
- i) In **Armenia**, UNIDO started assistance for the establishment of technical working groups for developing a new project document, under the coordination of the Ministry of Environment, for submission to the Multilateral Fund for the implementation of Montreal Protocol.
 - ii) UNIDO assisted **North Macedonia** to translate obligations of the Kigali Amendment of the Montreal Protocol into the national environmental policy and regulatory framework. The draft framework has been submitted to the National Parliament.
46. In 2020, UNIDO supported LLDCs to accomplish the targets of the **Minamata Convention** on Mercury, especially through Artisanal and Small-scale Gold Mining (ASGM):
- i) In **Mongolia**, the GEF financed PLANET GOLD project led by UNIDO supported the implementation of the National Action Plan on Artisanal-and-Small-scale-Gold-Mining (ASGM) developed by the country, while contributing to national actions under the Minamata Convention on Mercury. The project continues to contribute to innovation in ASGM, piloting mercury-free gold processing technologies and supporting national capacity building for the elimination of mercury from the supply chain of gold sector.
 - ii) In **Bolivia**, UNIDO and the Ministry of Environment obtained the approval from the Green Environment Facility (GEF) grant of \$200,000, which will allow the preparation of a Full-Size Project with a GEF grant of \$ 6,583,500. The programme will support fostering ASGM formalization; enhancing the access to financing through the attainment of better gold prices; promoting the uptake of mercury-free technologies; and knowledge building and local capacity building support. In 2020,



UNIDO engaged a team of local consultants to gather and analyze information at the national level and develop the project document rationale on small scale gold mining. Government institutions, civil society organizations, NGOs, private sector actors and mining cooperatives have been continuously engaged and consulted throughout the process.

iii) In **Burkina Faso**, UNIDO assessed and selected two project sites (Tonka-la Mine and Gnikpiere with a total of 3,000 beneficiaries), including the validation by the counterparts and main stakeholders. Other activities took place, such as: a) the review of existing ASGM policy framework and institutional capacity; b) the review of existing financing instruments including successes and failures for artisanal mining; c) design of a mercury-free processing plant, and d) the development of training materials to facilitate access to the international gold markets.

iv) In **Nepal**, UNIDO started a new project in collaboration with the Ministry of Forest and Environment and the Federal Handicraft Association introducing available techniques to reduce mercury pollution within the gold plating sector, which is the major mercury emission source in the country. Testing of mercury free technologies is ongoing while assisting the country's transition to greening its industry.

v) In **Rwanda**, UNIDO agreed and signed agreements with executing agencies in the country to undertake Minamata Initial Assessments (MIAs), which are designed to prepare countries to start implementation with the review and identification of gaps in existing national legislation related to mercury and development of a national mercury profile that includes major sectors that use mercury as well as a summary of major emission and release source types.

vi) As a member of the Joint Needs Assessment for **Zimbabwe** (JNAZ), a consortium of the African Development Bank (AfDB), the World Bank and the UN, UNIDO supported the updating of the Mining Sector Note (Note 6) led by the World Bank, and the Environment and Climate Change Note (Note 18) jointly led by the WB and UNDP. A number of 4 new sector notes were initiated in 2020 to include the Manufacturing Sector Technical Note led by UNIDO and supported by the WB and the AfDB.

47. During the reporting period, UNIDO continued to support LLDCs to fulfill with the requirements of the **Stockholm Convention on Persistent Organic Pollutants (POPs)**, especially through technical projects, as following:

i) In **Bolivia**, UNIDO project on polychlorinated biphenyl (PCB) management was able to finalize the inventory of PCB-contaminated equipment and wastes, in 2020. An analytical service provider was hired to confirm the samples suspected of containing PCBs. With these results, the Terms of Reference will be prepared for the international tender to eliminate PCBs.

ii) The UNIDO project on mercury-free solutions for the environmentally sound management of waste in **Paraguay** made important progress on drafting PCB-related regulations and produced three specific guidance pamphlets for practitioners. There was also considerable progress regarding the inventory of PCB-contaminated equipment and wastes. Additionally, the Government of Paraguay invited UNIDO to peer review a draft "Proposal for Updating the National Environmental Policy of Paraguay".

iii) In **Mongolia**, demonstration of best available techniques (BAT) and best environmental practices (BEP) in Open Burning Activities created resource efficient waste management systems to reduce U-POPs emissions. So far, major outputs include the completion of the construction of the landfill facility at the Tsagaan Davaa dumpsite, the approval of the amended Law on Waste, the introduction of the



financing mechanism and incentive systems on waste management, and capacity building and awareness raising activities.

iv) UNIDO provided technical assistance to Savannakhet Province in **Lao PDR** under the GEF-funded project 'Piloting innovative financing for climate adaptation technologies in medium-sized cities'. The project aims to increase the resilience of cities by adopting climate change adaptation solutions through innovative private financing mechanisms. Under another GEF-funded project aimed at reducing Greenhouse Gas Emissions in the Industrial Sector through Pelletization Technology, UNIDO facilitated transfer of technical know-how in collaboration with Ministry of Industry and Commerce, and the Ministry of Science and Technology. Through an additional project, UNIDO also facilitated the preparation of the second demonstration of best available techniques and best environmental practices (BAT/BEP) within the Thakhek district, in Khammouane Province. Additionally, UNIDO engaged the services of an international hazardous wastes treatment company to decontaminate transformers containing PCBs owned by the state's electric entity.

v) UNIDO assisted **Botswana** in the establishment of technical working groups and the identification of the priority areas for the inventory of POPs chemicals, including development of inventory guidelines tailored for the country's circumstances. UNIDO also assisted with the development of the Expression of Interest (EOI) for the selection and engagement of the consultancy firm that will undertake the POPs inventory.

48. In 2020, UNIDO further supported **capacity building** structures in the field of environment:

i) The **Afghan-Korean Vocational Training Centre** was equipped with refrigeration and air conditioning servicing equipment. The Training Centre will offer refrigeration maintenance courses using more environmentally friendly but flammable refrigerants. A GEF project to promote energy efficiency in the cold chain has been approved by the National Parliament and will establish the project team in the National Environmental Protection Agency.

ii) Two new training centers were established in **Uganda** (added to the four training centers that were previously created). An End User programme aiming to reduce refrigerant consumption and save energy under a holistic approach continued to reach out to end users. Furthermore, an awareness campaign was launched to reduce the quantity of counterfeit refrigerants in the country.

iii) In **Botswana**, UNIDO supported centers of excellence through the provision of service toolkits accessed by Refrigeration and Air Conditioning (RAC) service technicians. Equipment was successfully procured and distributed to three centers of excellence. The RAC technicians and national end-users were sensitized on the availability of the tool kits, while two representatives of the centers were offered a Cool Training in Germany to deepen their knowledge on cooling technologies.

iv) In **Malawi**, three centers of excellence were equipped with necessary refrigeration tool kits, including portable recovery units, recycling kits, refrigerant identifiers, recovery cylinders, vacuum pumps and accessories and spare parts in Lilongwe, Blantyre and Mzuzu. A guideline on good refrigeration practices was also developed and refrigeration technicians were trained on good servicing practices, including the safe use of the new generation of refrigerants such as those involving hydrocarbon technologies.

VI. UNIDO progress made in LLDCs: Means of implementation

49. In the fight against the pandemic, UNIDO constructed its **Response Framework to COVID-19** building on three pillars, namely to i) prepare and contain, ii) respond and adapt, and iii) recover and transform. Under the third pillar to “recover and transform”, the UNIDO also launched the **COVID-19 Industrial Recovery Programme (CIRP)** aiming to provide targeted support to least developed, low- and lower middle-income countries. The approach supports governments in restructuring their industrial sector in order to transform and adapt to the changing realities. The particularity of the CIRP is that it also focuses on meeting regional and international needs in post COVID-19 recovery phase.
50. Through governmental counterparts, UNIDO has also rolled out a **series of surveys to assess the impact of COVID-19** in LLDCs such as: Lao PDR, Rwanda, and Zambia, among others. For example, surveys were conducted to assess i) SMEs and the manufacturing sector in the sub-Saharan Africa (SSA), ii) the impact of COVID-19 pandemic on the SMEs in the food-processing sector (survey conducted by UNIDO/FAO/AUDA-NEPAD), iii) the policy response of ministries of industry (and similar) to mitigate the impact of COVID-19 on industry, and iv) enterprise-level impact of COVID-19 (survey conducted by UNIDO and the AfDB). The results aimed to support policy making processes in developing countries to respond to the pandemic.
51. In the context of the green-post-COVID-19 recovery paradigm, UNIDO has increased its support for the energy transition in developing countries, including in LLDCs. Various **webinars and awareness activities** through the flag-ship programmes, such as the Global Network of Regional Sustainable Energy Centers (GN-SEC), Private Financing Advisory Network (PFAN) and Global Cleantech Innovation Programme (GCIP) were undertaken. Several GN-SEC centers (e.g. ECREEE, CCREEE) have published policy briefs and guidelines on sustainable energy aspects of the COVID-19 pandemic. Programmes, such as GCIP and Industrial Energy Efficiency Accelerator, play an important role in support of the green COVID-19 recovery plans in developing countries. The Private Financing Advisory Network (PFAN) programme supported so far 126 projects, which led to a total investment of USD 1,7 billion. The network offers a one-to-one business coaching to promising climate adaptation and clean energy projects in low- and middle-income countries, at no cost to the project developer. PFAN has a strong portfolio in LLDCs, particularly in sub-Sahara Africa and Asia.
52. UNIDO continued its support to LLDCs to conduct evidence-based policymaking for trade integration by enhancing the features and data tools of its **Industrial Analytics Platform² (IAP)**. In 2020, the IAP played a vital role in UNIDO's first response to the COVID-19 crisis by providing timely and relevant analysis of, among other topics, the global trade's early disruptions in the first half of the year. Since their publishing, the analytical pieces gathered over 100,000 views and have been frequently referenced or republished by other stakeholders, including the World Economic Forum. Additionally, the IAP now offers the feature to benchmark countries to regional groupings, including among many others, the LLDC grouping. This update will allow countries to identify how they compare to their grouping across the dimensions of inclusive and sustainable industrialization.

² Industrial Analytics Platform available at <https://iap.unido.org/>



53. In October 2020, UNIDO launched a new online tool, the **SDG-9 Industry Tracker**³ – an innovative data tool that monitors performance and progress towards SDG9 targets for nearly 130 economies. The launch was a joint effort with the United Nations Sustainable Development Solutions Network (SDSN) to showcase how a holistic approach and data tools are vital for achieving the 20130 Agenda for Sustainable Development in a post-COVID-19 world. With this Tracker, the IAP helps countries build capacity towards evidence-based decision-making by tracking manufacturing value-added, employment, emissions, and technological progress against economies worldwide. Among the LLDCs, available data for all SDG 9 industry-related indicators are available for Ethiopia, Nepal, Niger, and Zambia. This reveals important data gaps in LLDCs in terms of industrial statistics.
54. In addition to the six SDG indicators under its custody, throughout 2020 UNIDO collected and disseminated detailed structural **industrial statistics** with global coverage, including for LLDCs, providing complete information on structural transformation and the roles of different sectors, including mining and manufacturing for economic development. UNIDO also enhanced its short-term statistical products with worldwide coverage, as useful tools for monitoring sectoral developments, including of the economic impacts of the COVID-19 crisis. In 2020, UNIDO launched phase II of a technical cooperation project to **enhance statistical capacities in industrial statistics** in countries in Eastern Europe and Central Asia countries, with the objective of producing policy-relevant indicators of industrial performance. Among its beneficiary countries, there are eight LLDCs: Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Republic of Moldova, Tajikistan, Turkmenistan and Uzbekistan.
55. The UNIDO **Programme for Country Partnership (PCP)** approach is aimed at triggering a long-term development process for the achievement of the SDGs under the full ownership of the implementing country, has continued to expand its business model, at the request of its Member States. Throughout 2020, UNIDO continued operationalizing PCPs covering four LLDCs: Ethiopia (implementation phase), Kyrgyzstan, Rwanda and Zambia (programming phase).
56. UNIDO also implements several **Country Programmes (CPs)**, supporting mainly industrial policy development and statistics; SME development; trade facilitation and enterprise competitiveness; promotion of energy access and environmental management in LLDCs, such as: Afghanistan, Armenia, Rwanda, Moldova, among others. In 2020, the UNIDO Executive Board approved the development of new Country Programmes, including in Burundi and Uganda. The CPs developed in 2020 will take into account COVID-19 challenges while the CPs under implementation are expected to reformulate activities in order to adapt to the new realities caused by the pandemic on the ground.
57. In 2020, for accelerated implementation of the VPoA and its Roadmap, UNIDO continued:
- i) Its **external coordination via inter-agency cooperation**, including through: a) UNIDO Director General's participation at the High-Level Political Forum (HLPF) virtual side event entitled "UN Roadmap for Accelerated Implementation of the Vienna Programme of Action (VPoA) for LLDCs in the

³ Industrial Analytics Platform SDG-9 Industry Tracker available at <https://iap.unido.org/data>



Decade for Action and COVID-19 era”, on 9 July 2020, b) UNIDO Director General’s participation at the Annual Ministerial Meeting of Foreign Ministers of LLDCs, on 23 September 2020, and c) the Inter-Agency Consultative Group (IACG) meetings on LLDCs held on 12 November and 23 June 2020.

ii) Its **internal coordination** with its Field Offices to raise awareness, common understanding of support and ways to enhance cooperation opportunities in LLDCs. In 2020, the UNIDO Africa Field Offices Annual Regional **Workshop** was organized virtually on 14-15 December 2020, and included a coordination session on the implementation of the VPoA and its Roadmap.