



OECD

**2022 Summer School in Central Asia  
Sustainable Infrastructure Programme in Asia (SIPA)  
21-23 September, Lake Issyk-Kul, Kyrgyzstan**



**SUMMARY REPORT**

On behalf of:



Federal Ministry  
for the Environment, Nature Conservation  
and Nuclear Safety

**IKI**  
INTERNATIONAL  
CLIMATE INITIATIVE



of the Federal Republic of Germany

## About the Sustainable Infrastructure Programme in Asia (SIPA)

Infrastructure is essential for economic development but accounts for about 60% of GHG emissions globally. Given the long lifespan of infrastructure assets, the investment decisions made today could lock countries into carbon-intensive development pathways for years to come. There is a once-in-a-generation opportunity to build back better and tackle the triple challenge of closing the infrastructure investment gap, stimulating a sustainable economic recovery while progressing towards long-term climate and development goals.

Well-developed infrastructure systems and services, such as mobility and electricity, underpin economic growth, productivity and well-being. Nevertheless, globally, infrastructure has suffered from chronic underinvestment for decades. Developing and emerging countries in Asia are witnessing an unprecedented uptick in infrastructure investment due to economic growth and their strategic location along major trade routes. National planning authorities have a central role in setting strategic directions, planning and developing infrastructure projects pipelines that generate high economic, social and environmental value, and ensuring the mainstreaming of green growth and climate goals into the infrastructure investment cycle.

With financial support from the Government of Germany, the Organisation for Economic Co-operation and Development (OECD) Sustainable Infrastructure Programme in Asia (SIPA) aims to help Central and Southeast Asian countries ensure the alignment of energy, transport and industrial infrastructure investments with low-emission development pathways compatible with the Paris Agreement and the Sustainable Development Goals. SIPA's activities target all stages of infrastructure development, from planning and design to financing and delivery. Its activities mainly involve six countries in Asia, including three countries in Central Asia (Kazakhstan, Mongolia and Uzbekistan) and three countries in Southeast Asia (Indonesia, the Philippines and Thailand). SIPA also engages at the regional level in Central and Southeast Asia through regional policy dialogues and seminars, including annual Summer Schools aimed at disseminating the knowledge of the Programme and forming a regional network of practitioners in the areas it covers.

## About the 2022 SIPA Summer School

The 2022 SIPA Summer School, convened jointly by the OECD and the University of Central Asia (UCA)'s Institute for Public Policy and Administration (IPPA), brought together 25 representatives of ministries, national agencies, and research institutes from Kazakhstan, Kyrgyzstan, Mongolia, Tajikistan and Uzbekistan, with responsibilities in national development and planning in the areas of economy and finance, infrastructure, energy, transportation and environment. Participants learned from international experts how to improve strategic infrastructure planning, evaluation and financing using various tools and international best practices. The Summer School participants were engaged in brainstorming, knowledge-sharing discussions and expert-guided group work to identify remaining gaps and good practices to align infrastructure investments with low-emission, resilient development pathways.

## Day 1: Introduction to sustainable infrastructure

Following welcome remarks by **Azamat Temirkulov** (Office of Economic and Political Research, Administration of the President of Kyrgyzstan), **Peline Atamer** (SIPA Head of Programme for Central Asia, OECD), and Professor **Christopher Gerry** (Dean of UCA's Graduate School of Development), the first day provided an overview and introduction to sustainable infrastructure, infrastructure governance, and the better alignment of policies with long-term climate and environmental goals.

**Virginie Marchal** (Senior Programme Manager of SIPA, OECD) and **Peline Atamer** introduced participants to sustainable infrastructure and the tools SIPA offers Central Asian countries to tackle the “triple emergency” of a widening infrastructure investment gap, recovery from the COVID-19 pandemic and environmental crises such as climate change and biodiversity loss.



### Session 1: Strategic infrastructure planning

**Virginie Marchal** opened the first session by emphasising opportunities for sustainable infrastructure development in Central Asia and the risks that regional economies face. She highlighted the importance of developing long-term low-emission strategies through cross-ministry collaboration, stakeholder consultation, and mainstreaming climate resilience in programmes and projects.

**George Safonov** (Climate Programme, Institute for Sustainable Development and International Relations IDDRI) provided an overview of the greenhouse gas (GHG) emission trajectories of Central Asian countries and stressed the urgent need to decarbonise sectors that jointly account for the largest share of GHG emissions, including energy, agriculture and transport. Regardless of the decarbonisation strategies that Central Asian economies adopt, it is crucial to foster favourable institutional set-ups capable of elaborating better strategies, plans and programmes and ensure their effective implementation.

**Catherine Gamper** (Team Lead of Climate Change Resilience, Environment Directorate, OECD) presented the rationale for and key concepts underpinning the mainstreaming of climate

resilience in infrastructure planning. She illustrated the climate change-related risks of physical damage and disruption of infrastructures and their functioning, and explained how the planning and development of high-quality, climate-resistant and green infrastructure could provide social and economic benefits. From a government perspective, it is essential to reform the planning process and define to which extent existing and planned infrastructure assets and systems are exposed to climate risks and natural disasters, and how such assessments should inform planning and investment decisions.

**Edwin Lau** (Head of the Infrastructure and Public Procurement Division, Public Governance Directorate, OECD) introduced the role of infrastructure governance in ensuring equal opportunities and access to infrastructure services for citizens. Better governance can improve public investment returns by improving the efficiency of governance procedures and reducing corruption risks, and attracting more private financing for sustainable infrastructure. The impacts of the COVID-19 pandemic are a sobering reminder of the need for sound management of increasingly interdependent infrastructure systems and better strategic planning. Governments need to integrate green objectives in strategic planning and strengthen enabling environments to encourage the private sector to invest in infrastructure projects aligned with long-term sustainability goals.

## **Session 2: Project evaluation (mitigation and adaptation)**

**Katharina Lotzen** (Advisor in Climate Risk Management of GIZ Climate Services for Infrastructure (CSI)) presented the [CSI project](#) and the [Public Infrastructure Engineering Vulnerability Committee \(PIEVC\)](#) Climate Risk Assessment Protocol for Infrastructure. The presentation included case studies of applying the methodology to a single infrastructure asset and several interrelated infrastructure facilities. One case study in Costa Rica illustrated how a step-by-step participatory approach to climate risk assessment for infrastructure assets informed the development of specific policy actions and legislative changes.



**Delegation of Tajikistan participated online from Dushanbe**

During the discussion, participants raised questions about the definition of green infrastructure, the role of public-private partnerships in financing sustainable infrastructure, the use of infrastructure governance indicators, and institutional measures for mitigating the effects of climate change. The delegation of Tajikistan invited other participants to engage with them further in regional cooperation and exchanges of experience, citing the country's potential for developing hydropower and electric public transport.

## Day 2: Technical session and introduction to national framework conditions to implement sustainable infrastructure

The second day started with an interactive technical session and guided group work on Strategic Environmental Assessment (SEA). In the afternoon, international experts presented critical elements of national framework conditions that enable sustainable infrastructure development, including the reform of fossil fuel subsidies, policies for managing a just transition, responsible business conduct principles for mobilising the private sector and frameworks and tools for decarbonisation in specific sectors.

### Session 3: Strategic Environmental Assessment

**David Annandale** (Senior Partner of DDA Consulting) and **Darko Annandale** (Junior Partner at DDA) facilitated the technical session on SEA. As defined by the OECD Development Assistance Committee, SEA is “analytical and participatory approaches to strategic decision-making that aim to integrate environmental considerations into policies, plans and programmes and evaluate the inter linkages with economic and social considerations.” Following an overview of SEA, participants were guided through group work exercises that contrasted the tool with Environmental Impact Assessment (EIA), examined the main stages of its implementation, and saw how SEA could provide a basis for the infrastructure planning process and development of policy documents. Participants had the opportunity to envision practical opportunities for SEA implementation in their countries through structured group work.

#### Expert-guided group work



Delegation of Uzbekistan



Delegation of Mongolia



Delegation of Kazakhstan



Delegation of Kyrgyzstan

#### **Session 4: Fossil fuel subsidies and the just transition**

**Yuliia Oharenko** (Energy Programme, International Institute for Sustainable Development, IISD) presented methodologies for estimating the volume and scope of fossil fuel subsidies used by the OECD and the International Energy Agency (IEA). She shared the results of fossil fuel subsidies valuation using the IEA price difference method in the countries of Central Asia and presented the results of a country-level study of Kazakhstan with targeted recommendations for reforming the fossil fuel subsidy policy. The study included an inventory of Kazakhstan's support measures and modelling of alternatives. It also included proposals to reallocate funds to counteract unfavourable impacts on lower-income, vulnerable households, such as direct support and measures encouraging energy efficiency and small-scale renewables development.

**Enrico Botta** (Environment Directorate, OECD) drew participants' attention to the challenge faced by policymakers of ensuring the transition to a low-emission economy while mitigating undesirable impacts on labour markets and regional disparities. Since many emissions-intensive industries are regionally concentrated and employ large proportions of local workers, the critical challenge is ensuring that new green policies do not exacerbate unemployment and regional economic disparities because of the concentration of job losses around industrial areas. For a just transition, especially in Central Asia, it is vital to consider both formal and informal employment. Informal workers are particularly vulnerable because they lack enforceable labour rights and are not eligible for employment benefits. Governments should engage in dialogue with affected industries and workers, promote reskilling, encourage the development of new skills through cooperation with universities and businesses, implement effective reforms in the labour market and improve business conditions. Early retirement packages for workers close to retirement can also be considered.

#### **Session 5: Responsible Business Conduct**

**Frédéric Wehrlé** (Senior Policy Analyst, Responsible Business Conduct (RBC) Centre, OECD) presented the OECD Due Diligence Guidelines and their role in supporting sustainable infrastructure development. Stakeholders in infrastructure development should take RBC's due diligence principles into account across the entire lifecycle of a project. They must be embedded into policies and management systems and used to identify and assess adverse impacts so they can be effectively prevented or mitigated. It is essential to track the implementation of RBC principles, communicate on addressing impacts, and provide mechanisms for remediation. The OECD, which houses the legal instruments and a wealth of policy guidance related to RBC, stands ready to support Central Asian companies in applying RBC principles.

#### **Session 6: Sectoral focuses**

**Guineng Cheng** (Team Lead, International Transport Forum, ITF) highlighted the importance of regional connectivity for boosting economic growth and achieving sustainability in Central Asia. He presented the ongoing SIPA analytical work on sustainable urban mobility in Tashkent and Ulaanbaatar, as well as the planned regional study on sustainable regional connectivity in Central Asia. ITF plans to assess current sustainable regional connectivity, as well as planned developments in Central Asia (2023-2024) to identify future infrastructure gaps, benchmark national freight transport policies against OECD best practices, and focus on opportunities to reduce CO2 emissions from the construction and operation of transport and logistics infrastructure. Based on the study

results, ITF will develop recommendations on how to close potential infrastructure gaps and improve the sustainability of current and future transport infrastructure and its use. The presentation also included an overview of a [2019 ITF study](#) on enhancing connectivity and freight in Central Asia. ITF noted the importance of institutional factors of connectivity (including the facilitation of border crossings, development of the institutional capacity to plan under uncertainty and regional cooperation mechanisms) that, in addition to the improved quality of physical trade and transport infrastructure, help reduce transport costs.

**Deger Saygin** (Industry Programme Lead, Clean Energy Finance and Investment Mobilisation (CEFIM) Programme, Environment Directorate, OECD) introduced the OECD's new “Framework for industry’s net-zero transition”. Given industry’s contribution to GHG emissions, its decarbonisation should be a core component of national low emission development strategies. The OECD developed a step-by-step approach to assist emerging and developing economies in accelerating their low-carbon investments aligned with a net-zero emission pathway. The Framework provides two specific outcomes for countries: (1) recommendations for improving the enabling conditions, and (2) financing solutions. Industries’s net-zero transition roadmaps should rely on a sound understanding of their characteristics and priorities and of key stakeholder roles related to decarbonisation activities.

### **Summary of discussion**

At the end of Day 2, participants discussed the introduction of SEA and the possibility of pilot studies in their countries, raising the challenges facing national administrations in terms of the absence of adequate local data and the complexity of the assessment process. Speakers suggested fully integrating economic, social and environmental impact assessment using different tools, including multicriteria analysis, which would make for broader-based feasibility studies. While acknowledging that collecting reliable, up-to-date local data is a consistent challenge, SIPA experts pointed out that there are many different techniques to harness existing forecasting and modelling tools for developing good proxies.

The discussion continued around the just transition and how to stimulate and finance the decarbonisation of GHG-intensive sectors, while averting worsening regional and social disparities and fostering dependence on support mechanisms. Some Central Asian countries have sizable mining sectors, and both speakers and participants shared awareness about the social impact of the promotion of green jobs on mining communities. Participants expressed interest in learning more about ongoing policy discussions related to the just transition. The OECD and UCA highlighted the importance of understanding the impact of decarbonisation on workers and households, and emphasised existing case studies on the experience of Germany and other OECD countries with post-industrial development. The delegation of Tajikistan expressed their interest in capacity building for enabling a just transition, citing the example of switching from coal-based thermal power plants to hydropower electricity generation in Dushanbe.

## Day 3: Technical session and innovative solutions to mobilise private finance

The final day featured an interactive technical session on the Sustainable Asset Valuation (SAVi) methodology and presentations on innovative solutions for mobilising private finance, including blended finance and green, social, and sustainability bond issuances.

### Presentation of the group work results



Delegation of Uzbekistan



Delegation of Mongolia



Delegation of Kazakhstan



Delegation of Kyrgyzstan

### Session 7: SAVi methodology

**Michail Kapetanakis** (Research Analyst, Public Procurement and Sustainable Infrastructure Policy, International Institute for Sustainable Development (IISD)) opened the technical session with a presentation on the Sustainable Asset Valuation (SAVi) methodology. SAVi is an assessment tool helping governments and investors direct capital towards sustainable, better value-for-money infrastructure projects. It monetises social, environmental and other benefits and costs and assesses how different project designs could maximise the net benefits of a given project. It applies simulation (systems thinking, system dynamics simulation, and project finance modelling), valuation (estimating the monetary value of economic, social and environmental externalities and risks), and customisation to reflect local conditions and needs. IISD presented case studies from previous applications of SAVi to illustrate the tool's value in assessing infrastructure projects in Albania, India, Indonesia and Senegal, as well as ongoing SIPA-funded assessments in Central Asia (Kazakhstan and Uzbekistan). The SAVi methodology reduces investment risks, increases the effectiveness of investments and maximises positive social and environmental impacts. During expert-guided group work, the participants explored how SAVi could be applied to a selected infrastructure project in their respective countries by analysing cause-and-effect relationships and identifying potential benefits and avoided costs.



## **Session 8: Access to green finance**

**Isabella Neuweg** (Environment Directorate, OECD) highlighted the growing interest in green finance in Central Asia and the importance of banking sector resilience to climate and environment-linked financial risks. She shared the results of a household-level survey in Kyrgyzstan, which demonstrated that households are in favour of supporting green finance despite low levels of trust in institutions and limited savings. The survey's results implied that the government of Kyrgyzstan should adopt a comprehensive framework embedding green finance into financial regulation and social protection. There is a need to improve financial literacy with a focus on green finance, expand the range of financial products and improve access to banking infrastructure.

## **Session 9: Innovative schemes and tools to catalyse private capital**

**Paul Horrocks** (Head of Unit for Private Investment for Sustainable Development, Development Cooperation Directorate, OECD) delivered a presentation on blended finance and how it can support sustainable development. Blended finance is the strategic use of concessional and non-concessional development finance to mobilise additional finance sources and catalyse sustainable development in developing countries. The effective application of blended finance depends on establishing risk transfer mechanisms and the strategic use of funds, facilities and debt instruments, in particular green, social, sustainability and sustainability-linked bonds, and guarantees. For example, in 2020 Thailand issued a sovereign sustainability bond that benefited from a phenomenon known as “greenium”. Greenium refers to the yield differential between green and conventional bonds whereby green bonds, compared to conventional bonds of the same tenor and from the same issuer, outperform their conventional ‘vanilla bond’ peers due to higher demand for green financial products among investors.

**Nelly Petkova** (Environment Directorate, OECD) provided an overview of the evolution of national environmental funds in Eastern Europe, Caucasus and Central Asia (EECCA). She highlighted the difference between traditional funds and specialised funds dedicated to clean energy with the growing potential to attract additional private sector funds. The main features of traditional environmental and clean energy funds were discussed, focusing on legal status and management systems, revenue sources, and spending programmes. Traditional funds are institutionally subordinate to the environmental authority, with revenue generated from charges on natural resource use, pollution, and production of environmentally-harmful products. Clean energy funds have a two-tier governance structure with a Supervisory Board and an Executive Board, whereas revenue comes from supporting clean energy production and the circular economy's products. Compared to traditional environmental funds, targeted clean energy funds have the potential to leverage additional private sector funds due to their innovative institutional arrangements, better focus and capitalisation, use of sophisticated financial instruments tailored to the needs of the market, their operational independence and mechanisms fostering strong accountability and transparency, supported by international partners.

**Douglas Herrick** (SIPA, Environment Directorate, OECD) emphasised the benefits of green bonds as a tool to finance sustainable infrastructure projects and pointed to growing opportunities in Central Asia to issue green bonds. Until recently, Central Asia had been a region with very little activity on green bonds but it has begun issuing several corporate and sovereign green bonds, notably in Kazakhstan and Uzbekistan. However, the region still faces several barriers to the broader adoption of green bonds, such as the lack of institutional capital and shallow pool of local investors,

underdeveloped local bond market infrastructure, unclear or undefined green finance regulatory frameworks, the lack of a pipeline of suitable, market-ready projects, and an unreliable investment environment for specific ‘green’ sectors. SIPA has begun its work on green finance in Central Asia with a project analysing the debt capital market and opportunities for green bond issuances in Uzbekistan.

**Valentina Bellesi** (Centre on Green Finance and Investment, Environment Directorate, OECD) explained the role of transition finance in promoting the transition to net zero. Transition finance focuses on the dynamic process of becoming sustainable, rather than providing a point-in-time assessment of what is already sustainable, to provide solutions for a whole-of-economy decarbonisation. While defining what is already sustainable has traditionally been the focus of sustainable finance initiatives, this approach is often criticised as being insufficient to facilitate the GHG emission reductions necessary to achieve the temperature goal of the Paris Agreement. Transition finance, on the other hand, can run the risk of sacrificing environmental integrity for inclusiveness, thus leading to greenwashing. No commonly agreed definition of transition finance currently exists, but market actors and jurisdictions have put forward different approaches and frameworks and issued financial instruments relevant to transition finance. Since they vary significantly in their level of environmental ambition and prescriptiveness, they have limited comparability and may increase uncertainty and transaction costs for international investors. The development and use of credible climate transition plans by corporate actors can help address these problems by providing robust entity-wide decarbonisation strategies. Increasing evidence shows that only a minority of companies are developing credible transition plans. The [OECD Guidance on Transition Finance](#) provides an overview of ongoing transition finance initiatives, identifies barriers and challenges to mainstreaming transition finance and presents key elements of credible corporate climate transition plans.

### Concluding discussion

The last day discussion centred around what types of activities can qualify for green financing and green finance challenges faced in Central Asia, such as poor access to finance due to the high-interest rates of commercial banks and the underdevelopment of financial institutions. It is necessary to introduce the concept of green and social bonds in the Central Asian context. Central banks should play a key role in creating domestic capital and promoting green finance. Governments should improve conditions for banks to participate in green financing solutions. In the case of Kazakhstan, the experience of establishing private ecological funds and a biodiversity preservation fund demonstrated that the private sector is willing to invest if it receives specific incentives, such as tax exemptions.



Participants receiving certificates

Attendees received certificates of participation and the OECD and UCA organisers announced details of the second SIPA Summer School in 2023, the launch of [the SIPA Central Asia online platform](#), and plans for activities in the coming months.