

# Science Diplomacy and Sustainable Development Goals (SDGs): Case of Kyrgyz Republic



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## Introduction

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth - all while tackling climate change and working to preserve our oceans and forests. (United Nations 2015)

# Science Diplomacy and Sustainable Development Goals

According to Raymond Saner, "Implementing the SDGs at global level requires ingenuity and willingness to cooperate on all sides of the multiple global divides: be that-rich/poor, developed/developing, northern/southern hemisphere, state-led/market-led economies, democracies/non-democracies, and high science-technology/low technology/science countries." (Saner 2015)

Countries are embarking on a laudable and difficult journey. Sustainability – consisting of social, economic and environmental sustainable development- is expected to be implemented as a policy package. Successful implementation inevitably means aiming for

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maximum efficiency and effectiveness of current social and physical infrastructure conditions as well as searching for new technologies to make these ambitious but absolutely needed goals a reality for the benefit of global survival and constructive future global development.

Poor and under-developed countries will need transfer of technology from highly developed industrialised developed countries and all countries will be in need of new technologies to make the SDGs become a sustained reality on a global level. Sharing technology for the benefit of humanity can be achieved through science diplomacy.

Science Diplomacy should be considered as a means to reduce the many imbalances and as a vehicle to lift humanity up towards sustainable growth and development. Saner has given examples for applying Science Diplomacy and suggestions for using it creatively in achieving SDGs. While he has suggested measures that are not country specific, it is possible to develop country specific plans for harnessing Science Diplomacy for achieving SDGs.

## SDGs and Kyrgyzstan

Kyrgyzstan works closely with UNDP (United Nations Development Program) in its efforts to "focus on developing capacity of institutions and communities using analytical tools (NHDRs and MDG reports), human rights-, gender equality-and youth-based approaches".

The Kyrgyz national development agenda recognizes the significance of water issues. It states that access to safe water and adequate sanitation largely influences the effectiveness of healthcare. Much attention is given to water supply, sanitation, and hygiene issues, which are vital for the entire population of Kyrgyzstan, especially for children. The Government defines its policy on these issues, especially in the regions, water availability is necessary for the development of agriculture. Consequently, SDG on clean water and sanitation and all its targets are significant for the sustainable development agenda of Kyrgyzstan.

Kyrgyzstan's "green economy" strategy considers all natural assets as factors of production and provides for a transition to a resource-efficient and low-carbon development based on the rational use of natural resources and promotion of low-waste or no-waste methods of production and consumption. This is complemented by growing use of renewable energy sources: solar, wind, water, geothermal sources, and biofuel. Since sustainable development planning implies taking environmental threats and risks into consideration, adaptation to climate change is becoming increasingly relevant.

The Government approved a draft law on the State strategic planning system, which is currently under consideration by Parliament (Zhogorku Kenesh or Supreme Council). This bill aims at harmonizing all matters related to the initiation, development, review, approval, implementation, monitoring, evaluation, and adjustment of public policy instruments at all levels. It sets out the organization and basic principles of strategic planning, the system of public strategic planning documents and the responsibilities of those involved in the strategic planning process.

Within the State's forecasting system, methodologies were adopted for strategic planning on sustainable development and for assessing and cataloguing public policy instruments, in line with the strategic planning framework.

The agenda of achieving SDG 7 on affordable and clean energy in Kyrgyzstan overlaps with other SDGs and their targets, as the country is striving to build a "green economy" (SDG 8), thus promoting responsible consumption and production (SDG 12), addressing climate change (SDG 13) and life on land (SDG 15) issues. The energy sector is one of the most important in the Kyrgyz economy, accounting for roughly 3.9 percent of GDP and 16 percent of industrial production. In contrast to neighbouring countries, Kyrgyzstan has small amounts of natural reserves of fossil fuels, but enjoys large amounts of water resources and an abundant supply of hydropower. This is recognized as one of development opportunities for the country, already reflected in the Government's development strategy for the energy sector for 2012–2015.

In terms of infrastructure and sustainable transport development (SDG 9, target 9.1), similarly to Kazakhstan, Kyrgyzstan's strategic objective is to become a regional transit-hub, reflecting the geographical position of the Central Asian countries. The national development strategy contains specific infrastructure measures to turn Kyrgyzstan from a "transport deadlock" into a "transit" country. Planned construction of railways is going to give impetus to the development of regional economies, and addresses the problem of access to mineral deposits. All this will increase employment and improve economic well-being of the population, providing additional transport links between the North and the South of the country. An important priority for Kyrgyzstan is the development of the tourism industry and aspiring the status of a major regional centre of tourism and recreation, meeting modern requirements. All this involves building transboundary infrastructure to promote and deepen trade relationships with the SPECA countries, and improve the economic conditions in the country and the subregion (target 9.1).

The high dependence of the Kyrgyz Republic on foreign economic relations is primarily due to the small size of the domestic market and the relative lack of resources and capital goods. At the same time, the high degree of openness of Kyrgyzstan's economy makes it very vulnerable to global price fluctuations. The tightening of the external borders of the Eurasian Economic Union may exacerbate the situation.

Consequently, in pursuing the SDG agenda, Kyrgyzstan has aligned its priorities with SDG 8 on decent work and economic growth, reduced inequalities on interstate levels (SDG 10) as well as SDG 17 on partnerships for achieving the goals. These SDGs prove their relevance in terms of targets 8.a on providing aid and support in terms of sustainable trade development for the developing countries and targets 17.10, 17.11, 17.12 increasing the integration of the country in the world trading system.

SDG 9 on industry, innovation, and infrastructure is given priority. Specifically, the targets on enhancing scientific research and encouraging innovation (9.5) and assisting the diversification of industry and providing policies for such development (9.b) are relevant for Kyrgyzstan's sustainable development priorities. These are expected to affect the achievement of the environmental agenda of the country (notably SDG 13).

Due to increased migration, traditional family ties have weakened. Women increasingly choose education that leads then to taking lowerpaying jobs. Salaries in traditionally "female" occupations are usually 2.5 times lower than those in traditionally "male" ones. Men also experience the consequences of stereotypes, notably that they should be the "bread-winners". Kyrgyzstan became the first country in Central Asia to adopt its own National Plan on the implementation of UN Security Council Resolution 1325 on Women, Peace, and Security. It is piloting the UN's 7-Point Action Plan on women's equal participation in decision-making bodies and their role in peacebuilding, conflict prevention and resolution, as well as the protection of women and girls from violence. Both correspond to the National Gender Equality Strategy (2012-2020) and the subsequent Action plan.37 In this sense, providing quality education (SDG 4) is the cornerstone of achieving gender equality (SDG 5), improving the economic conditions of all groups and reducing inequalities (SDG 10).2 (UNECE 2017)

# **Kyrgyzstan's Transitions to Green Economy**

According to UNPEI "Kyrgyzstan, where the mountains cover over 65% of the territory, has been called the Switzerland of Asia. Independence from the Soviet rule and the transition from the former command economy to a free market economy in the 1990s had severely disrupted agriculture and increased rural poverty, which today comprises three-quarters of the country's poor. The Agricultural sector, which produces abundant cotton, tobacco, wool, and meat, remains the backbone of the economy that is

slowly recovering. Poverty is highly concentrated with 30% of the population living below the national poverty rate. The poor of necessity rely on natural resources to feed themselves and thrive, placing an increasing burden on the land. Decades of ecological mismanagement has left the 7% of arable land strained due to inefficient use and pollution of water resources, land degradation and improper agricultural practices. An estimated 60% of Kyrgyzstan's land is affected by topsoil loss mainly because of man's impact of excessive logging for fuel wood and house building.." (UNPEI 2015)

Eradicating poverty remains a challenge. While the Millennium Development Goals helped to lift more than one billion people out of extreme poverty, the Sustainable Development Goals aim to keep them out of poverty. To reduce poverty development needs to be both socially and environmentally sustainable. The United Nations Development Programme (UNDP) is ambitious to help countries like Kyrgyzstan to build their capacity to integrate environmental considerations into development plans and strategies, including sustainable use of natural resources, and to ensure that natural wealth is used to improve people's lives.

The introduction of a Green economy is leading a new trajectory of sustainable development to ensure the balanced approach to its three components: economic, environment and social. The initiative of "green" is based on three main principles: highlighting natural ecosystem services, providing "green" jobs and policies to people, and achieving sustainable development through market mechanisms.

With the joint UNDP-UN Environment Poverty Environment Initiative, the Kyrgyz Republic have been steered to a path of better natural resource use, poverty reduction, promotion of environmental sustainability and addressing the intertwined challenges of the Sustainable Development Goals. Green economy creates jobs and generates incomes for the most vulnerable and gives them an opportunity to take an active role in local economic activities. In UNDP's "Green village" initiative in Ugut and Ak-Muz

villages of Naryn oblast practical "Do it yourself" trainings and "green" agricultural technologies were provided to local communities, enabling 1,400 residents to raise greenhouse crops and produce fresh vegetables year-round. The initiative further oversaw installation of solar water heating systems and energy-efficient LED streetlights.

In this fashion, Kyrgyzstan has demonstrated its potential to use alternative energy sources and thrive in the transition to "green" economic growth of resource-effectiveness and low-carbon development, which will complement economic, social and environmental policies.

Green economy is an important tool for achieving Kyrgyzstan's sustainable development. The Sustainable Development Goals represent the priorities for the economy and catalyze what markets should be delivering for people and societies. This will engender a better-managed system, where all levels of society are striving toward achieving the common goals set by the Government. (UNPEI 2015)

### Conclusion

According to UNESCO "Science, due to its international and universal nature, has the power to cross borders and connect different peoples, communities, and societies. Science diplomacy builds on this power of science, using science as a tool to achieve foreign policy objectives where, not only the research outcomes, but also science itself as a process and way of communicating, may serve to promote peace and sustainable development.". (UNESCO 2016). It is hoped that Science Diplomacy will enable Kyrgyzstan to achieve SDGs and make further progress.

#### References

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