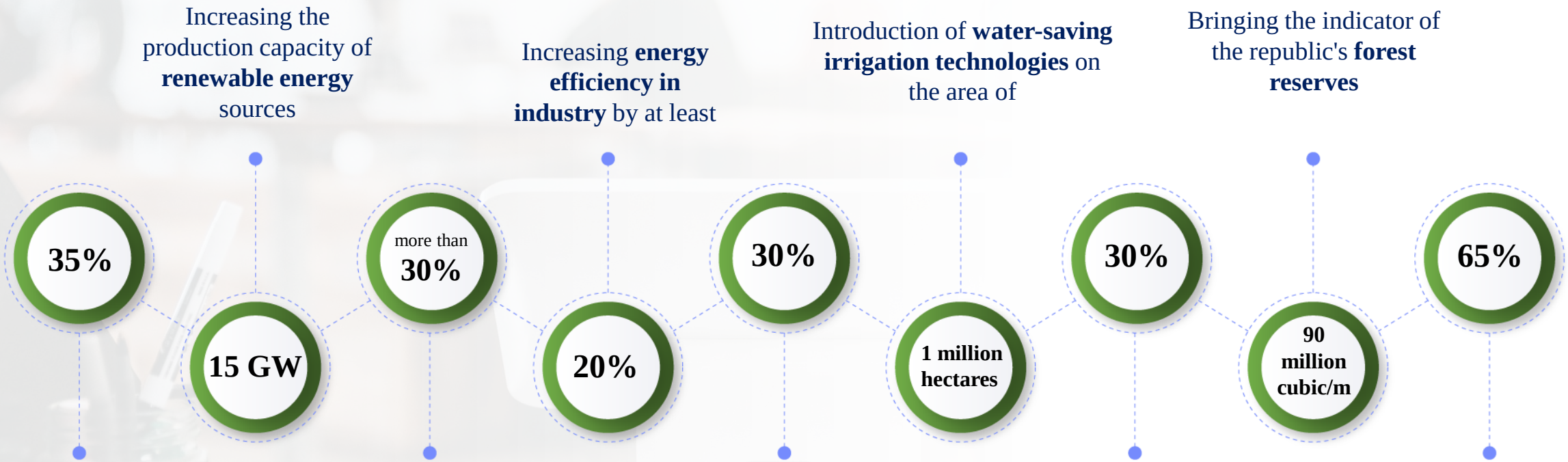
“Green” transformation in Uzbekistan and prospective directions of cooperation with German partners

NATIONAL PRIORITIES FOR THE TRANSITION TO A “GREEN” ECONOMY

Long term growth is based on transformation to Green Growth Model

- Energy Sufficiency and Efficiency **- Agriculture (land, water, etc)**

- Green Urbanization **- Green transportation and green buildings**



Reduction of **greenhouse gas emissions** per unit of GDP by 2030

Increasing the production capacity of **renewable energy** sources

Share of **renewable energy sources** in total electrical energy production

Increasing **energy efficiency in industry** by at least

Reducing **energy intensity** per unit of gross domestic product

Introduction of **water-saving irrigation technologies** on the area of

Expansion of **green zones** in urban areas

Bringing the indicator of the republic's **forest reserves**

Increasing the level of recycling of **domestic waste**

PRIORITY DIRECTIONS OF GREEN GROWTH PROGRAM

Sustainable and efficient use of natural resources

Strengthening the resilience of the national economy to natural disasters and climate change

Ensuring “green” and low-carbon development of the national economy, in particular in industry

Introducing innovation and attracting effective “green” investments

Developing sustainable and inclusive “green” urbanization

Supporting the population and its places of residence most affected during the transition to a "green" economy

Capacity building and development of human capital,

Establishment of favorable political environment and effective institutions for transition to green economy

Increasing external and internal flows of green financing

CURRENT AND PLANNED PROJECTS IN THE FIELD OF “GREEN” TRANSFORMATION

- With the EBRD, **National program to reduce methane emissions**
- Investment projects in oil and gas, agriculture, and wastewater sectors

- The draft Law of the Republic of Uzbekistan **“On limiting the emission of greenhouse gases”**
- To record of GHG emissions, set targets for reducing GHG emissions by industry, and introduce mechanisms for support to reduce GHG emissions

- Uzbekistan and Japan, the **Joint Credit Mechanism** (JCM),
- To attract modern “green” technologies aimed at reducing GHG emissions in economic sectors.

- MEF, World Bank, EBRD, **Long-term strategy for decarbonization** of the economy in Uzbekistan

- **“Green certificates” system**, by July 2023
- To confirm that products are produced from renewable energy sources and using environmentally friendly technologies.

- A modern system of **monitoring, reporting and verification** (MRV)
- Continuous monitoring of all sources of GHG at sectorial, regional and entity level.

PRIORITY AREAS FOR COOPERATION

“Green” transformation

Establishment of cooperation on the development of **green energy** in the country with a view to setting up production of solar panels and components

The country has high potential in renewable energy sources

- **98.5%** of renewable energy comes from solar energy
- **320** sunny days per year
- Estimated solar energy potential at 51.0 billion tonnes of oil energy;

A strong demand for solar energy technology in the country

- Solar power plants with a capacity of **4 GW** by 2026 and **7 GW** by 2030
- Solar panels on social facilities and public institutions by **219.4 MW**, on business buildings and facilities **742.7 MW**, on private homes by **200 MW**

$422,0 million

Import of solar panels and solar water heaters (2020-2022)

PRIORITY AREAS FOR COOPERATION

“Green” transport development

Construction of a high-speed railway line for passenger transportation between Tashkent and Samarkand.

Estimated cost of project

$3-6 billion

Currently on the Tashkent-Samarkand railway section, passenger trains move together with goods trains on the shared railway lines, which causes a number of problems:

- inability to take full advantage of train speeds, increasing the delivery time of goods (capacity **90 km/h**, in fact **60 km/h**)
- limitations on goods train travel times have a negative impact on their productivity *(delivery time from Tashkent to Marokand averages* **13 hours**, *but can be reduced to* **5 hours**)
- movement of **1 high-speed passenger train** on a given section limits the movement of **3 goods trains**; the railway crossings cause traffic jams and inconvenience to the public

PRIORITY AREAS FOR COOPERATION

“Green” urban planning

cooperation in the **development of master plans** aimed at **creating a sustainable infrastructure**

select one area (Shakhrisabz district and city of Kashkadarya region)

develop its **master plan** and implement the projects **on the basis of PPP** with specialized German companies

Energy-efficient building materials

40% of energy consumption in the country comes from **for buildings and structures**

320 390 **energy consumption** of existing buildings is **320-390 kW/m2.**

150 220 this figure is an average of **220 kW/m2** worldwide, and **150 kW/m2** in Europe.

The current domestic market potential is insufficient to cover the growing demand for energy efficient building materials.

Annual local production capacity of only heat-saving materials is 42 thousand tons covering 74% of domestic demand

“Green” technologies in agriculture

Providing greenhouse entities with heat pumps that work on the basis of renewable energy

1147 Greenhouses

250 Construction material producing enterprises

Install geothermal (ground heat) **heat pumps** working on the basis of renewable energy, first of all, in greenhouse entities