Addressing climate change — European Union and Central Asia

A cartoon summary

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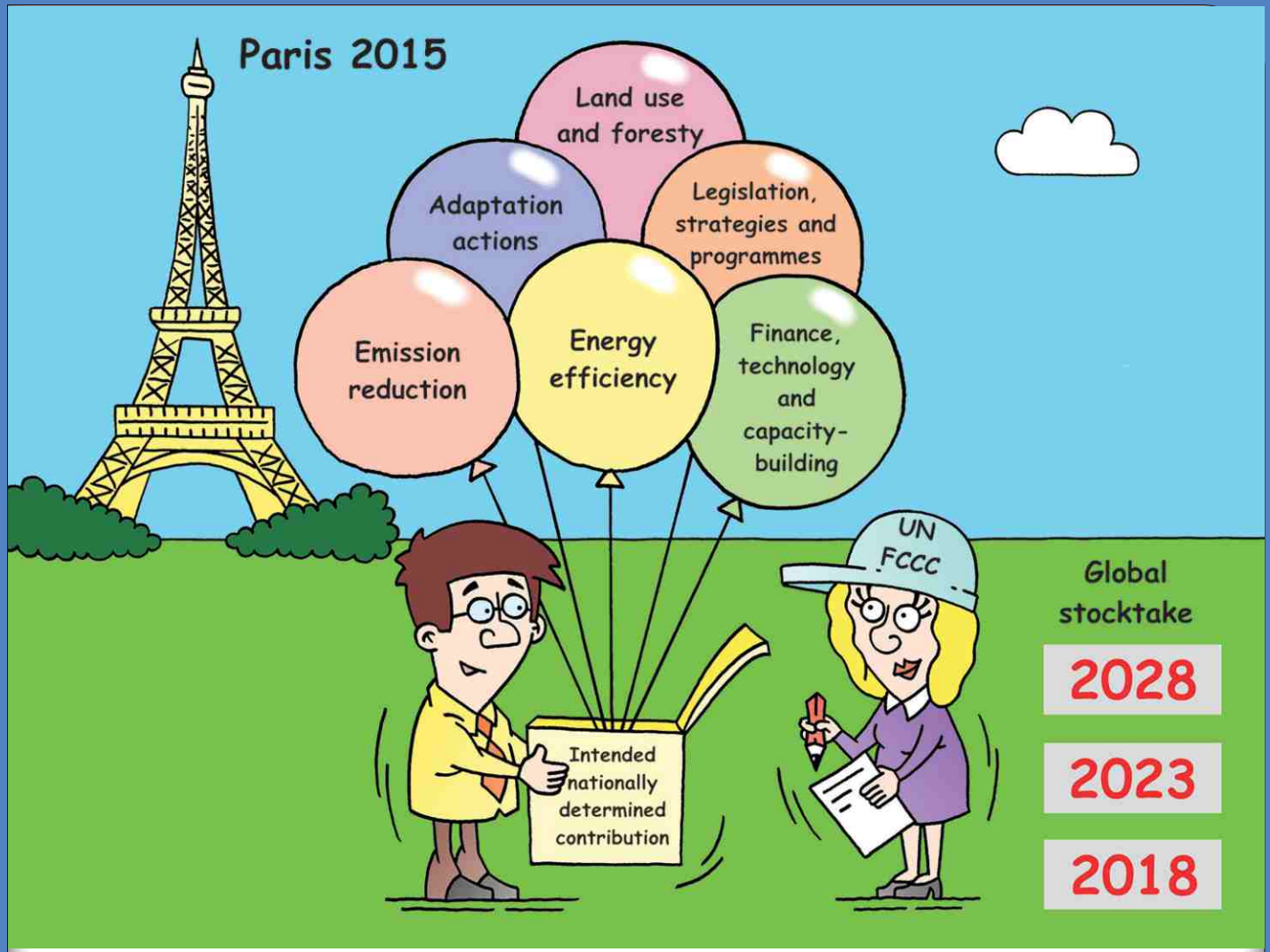
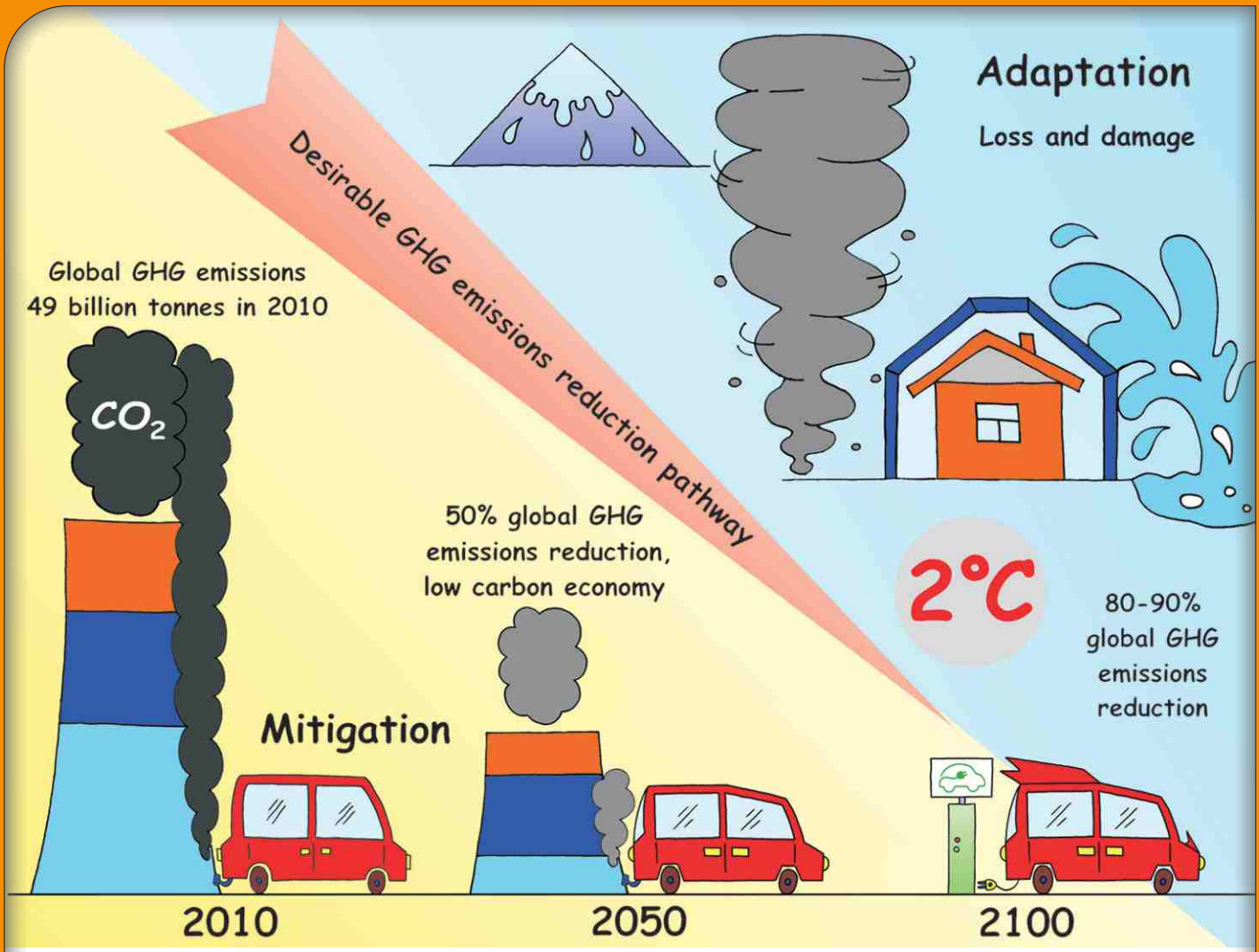
Climate change is a global challenge with global impacts. The responses to these challenges involve broad economic transformations, engineering innovations and behavioral changes. Success depends on ambitious action by many players throughout the world. Europe is taking the lead in regional climate action, and hopes to influence the global effort.

Successful implementation of the Paris climate targets will determine the path of climate warming. Achieving the long-term goal of remaining below 1.5-2°C warming involves ambitious action, especially by the largest emitters. The Paris Agreement opened for signature by the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in April 2016, and entered into force in November 2016.

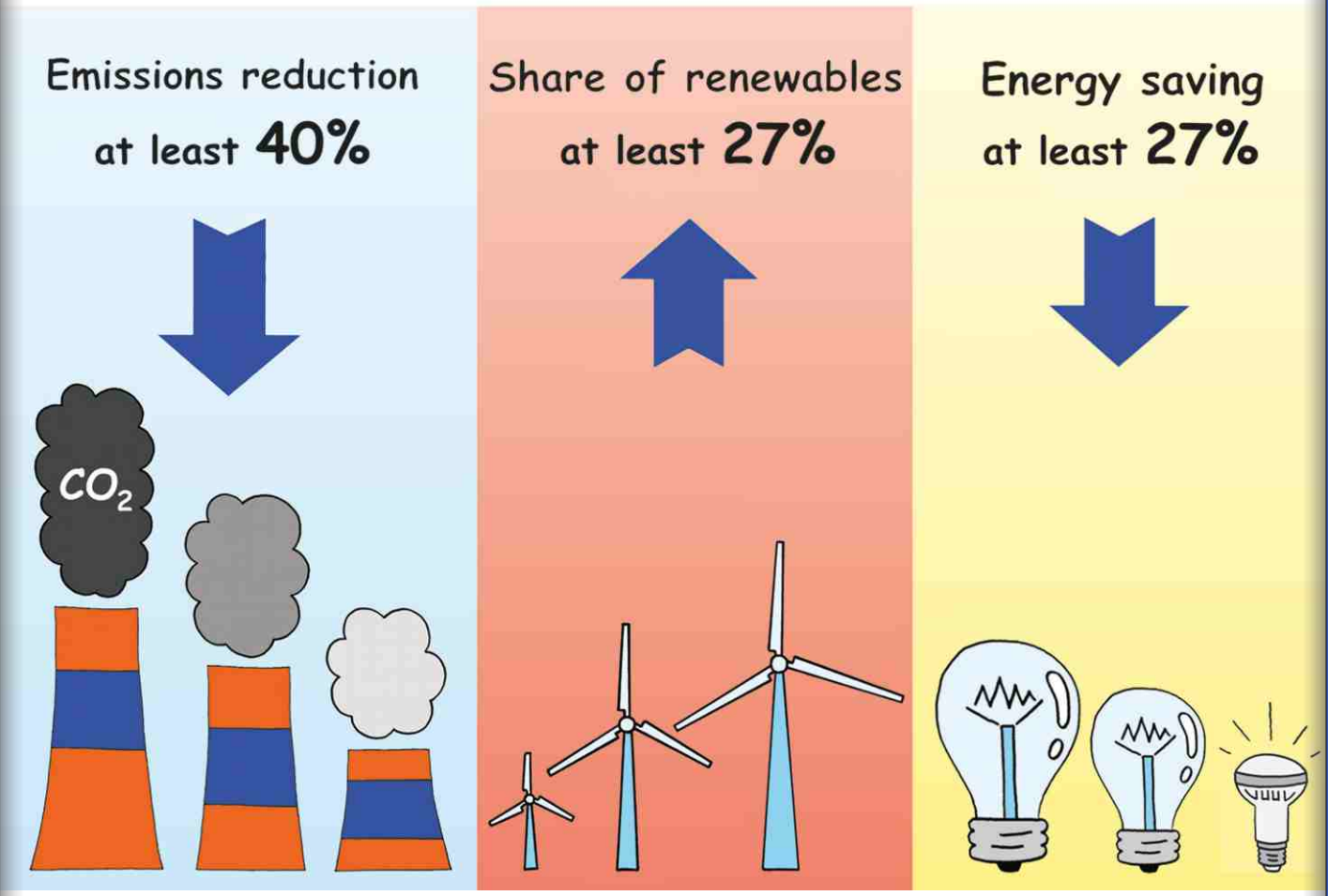


Hopes for successful implementation of the Paris 2015 climate agreement rest with the countries as they prepare and update their nationally determined contributions (NDCs). The countries are developing national commitments that suit their geographic, social and economic conditions. Global stocktaking to assess progress is likely to start in 2018 and proceed in five-year intervals.

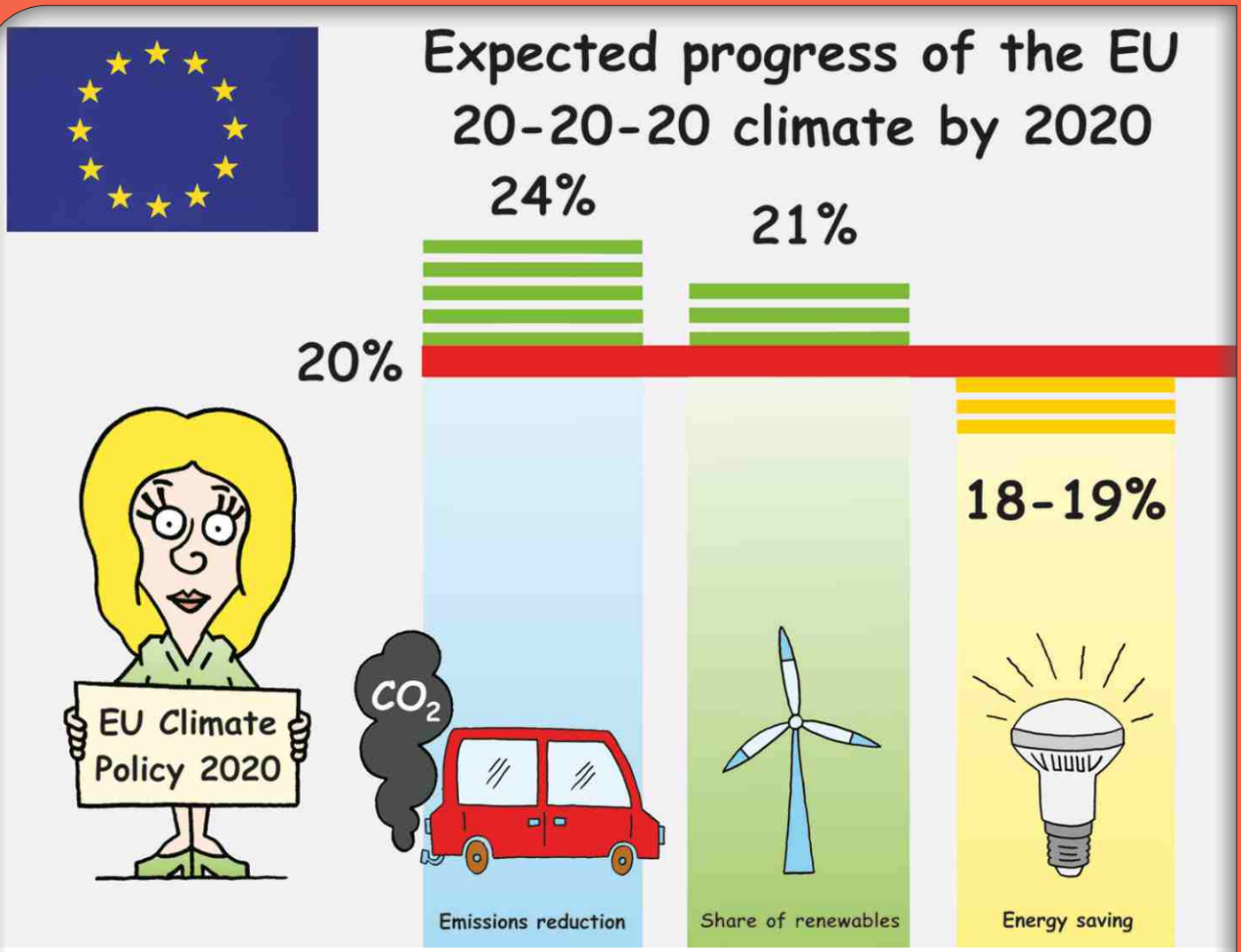


The Paris 2015 climate agreement is balanced between mitigation and adaptation, and is helping to set the right course for emissions reductions to 2050 and 2100. A highly ambitious global scenario may include greenhouse gas (GHG) reductions by as much as 50 per cent by 2050.

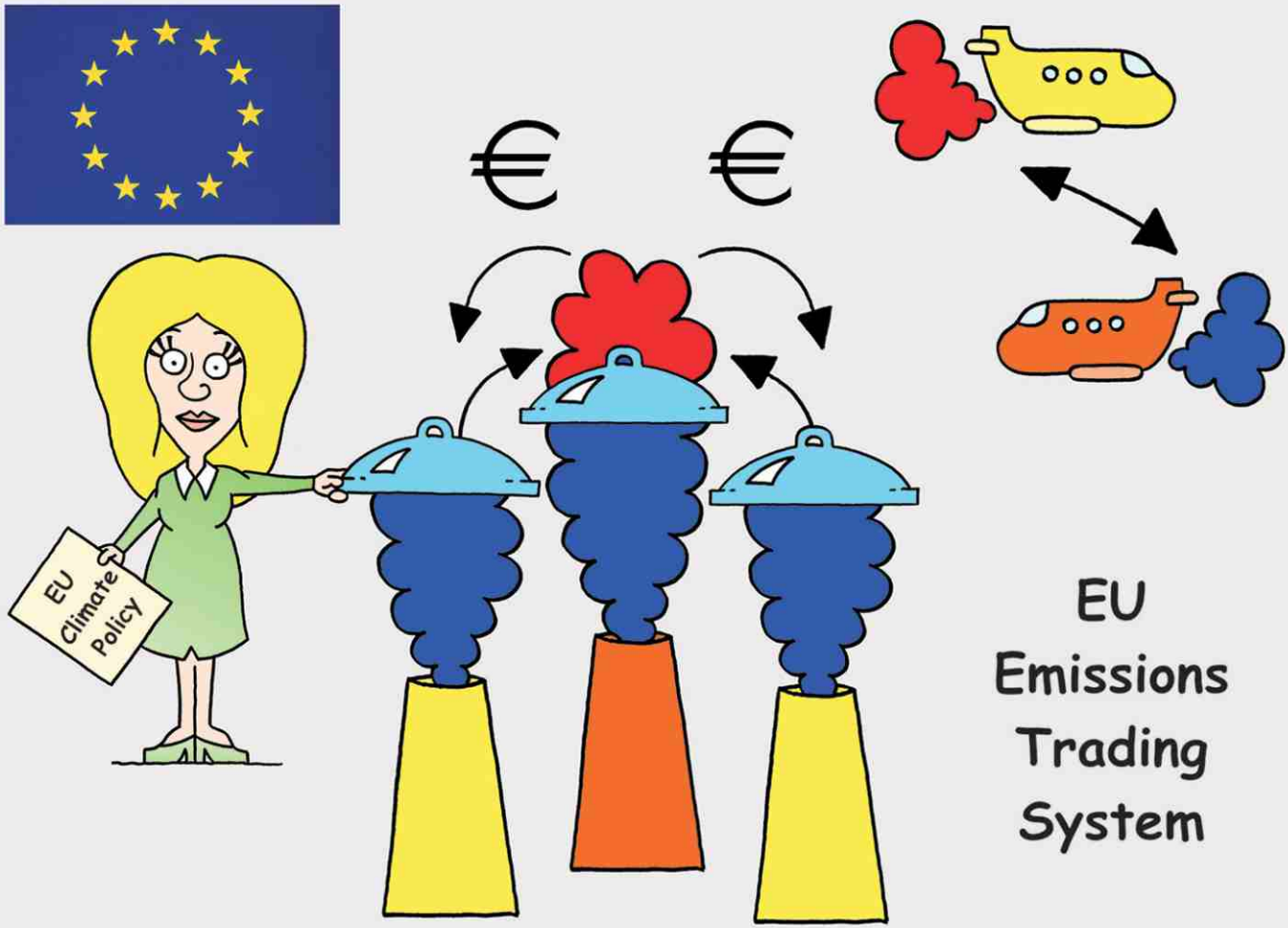
EU Climate Policy 2030



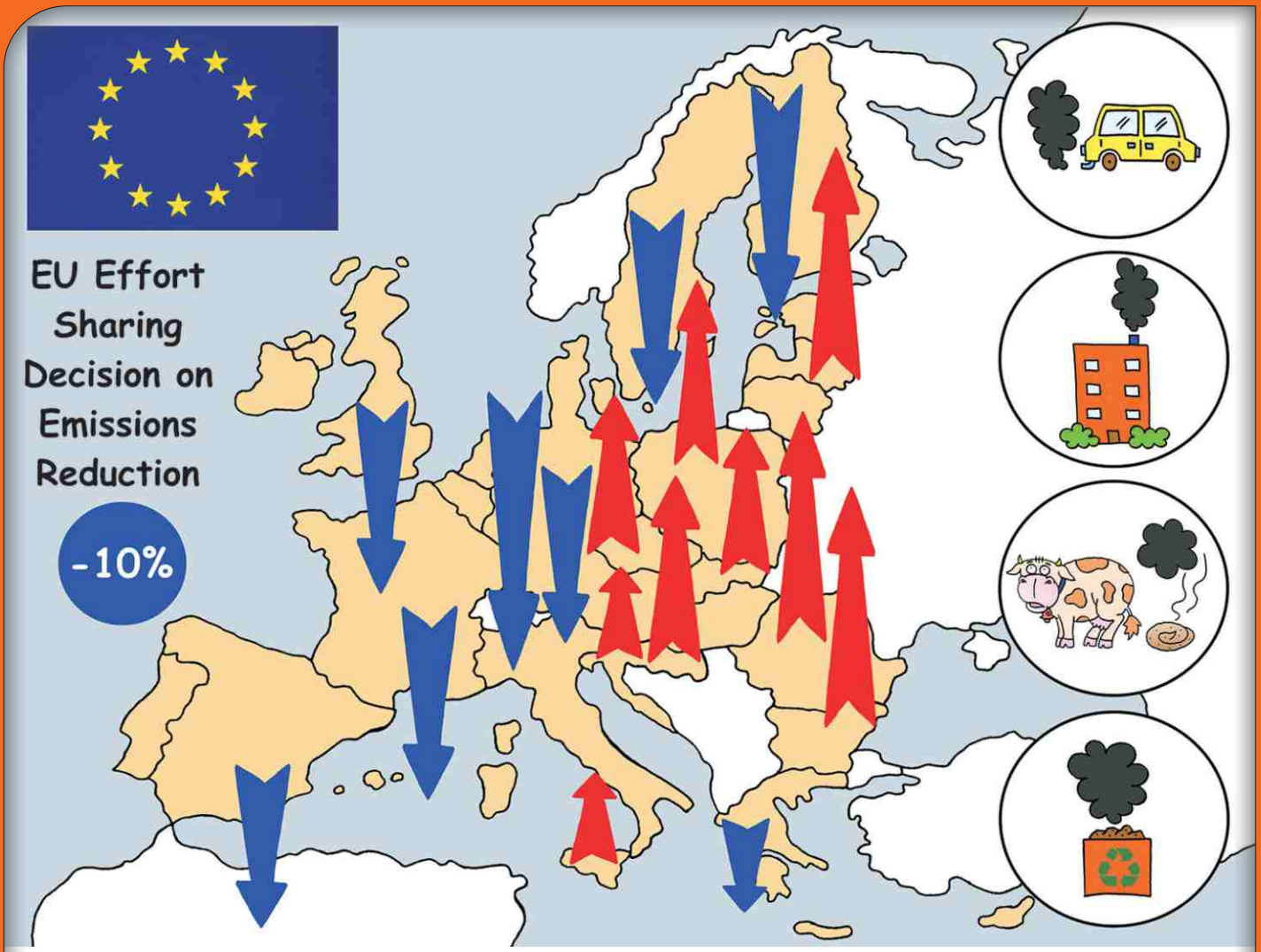
In 2014, the European Union (EU) agreed on a binding target to reduce greenhouse gas emissions by at least 40 per cent from the 1990 level by 2030. Renewable energy will play a key role in the transition to a competitive, secure and sustainable energy system in Europe, as will measures to increase the energy efficiency of buildings and cars.



The EU is on track to meet its targets for emission reductions and the share of energy produced from renewable resources while maintaining growth in its gross domestic product. The 20-20-20 targets represent an integrated approach to climate and energy policy designed to combat climate change, increase energy security, strengthen competitiveness and create jobs.

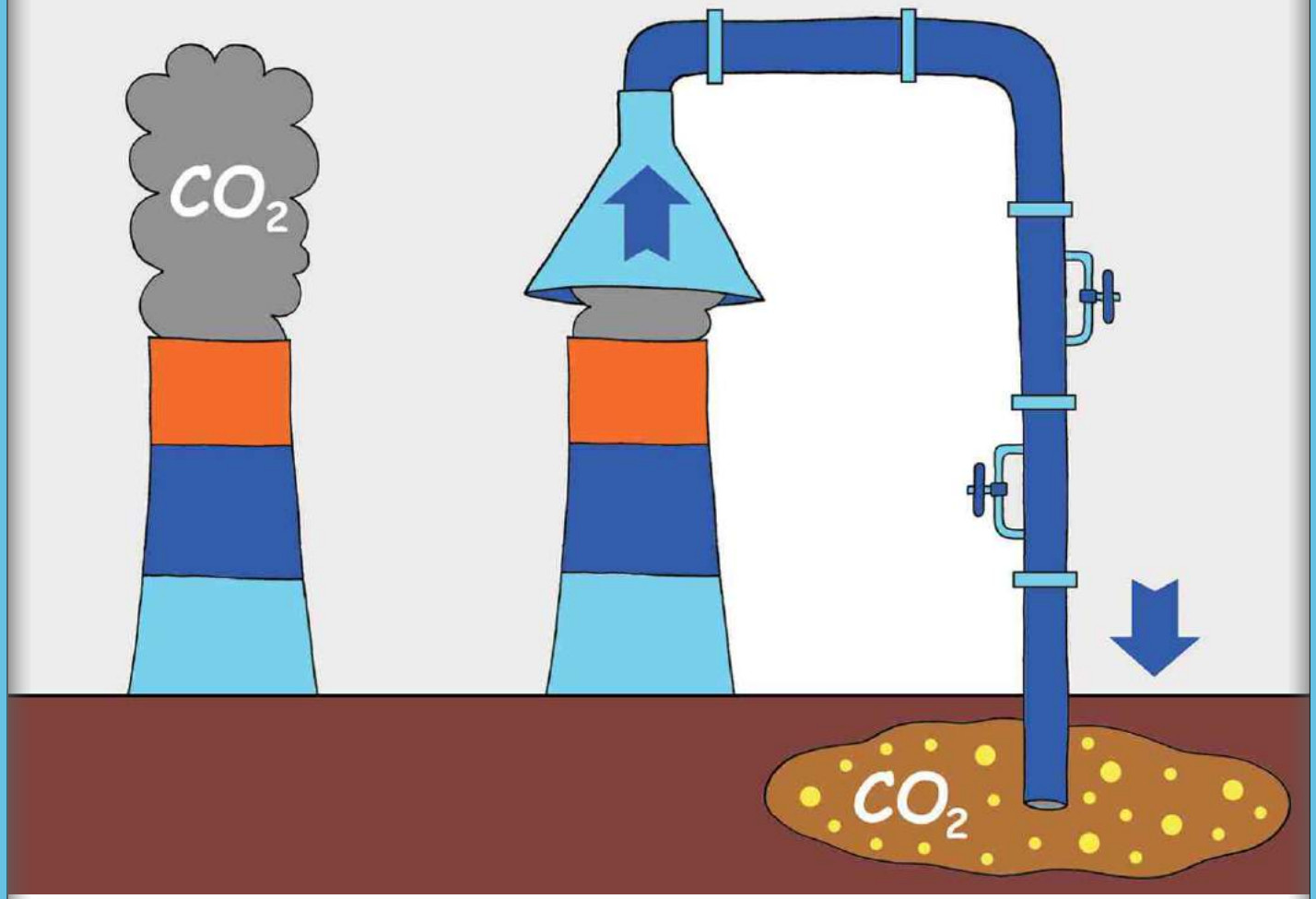


The EU Emissions Trading System works on the "cap and trade" principle: companies can receive or buy emissions allowances that they can trade with one another as needed. They can also buy limited international credits from emissions-saving projects around the world. The system covers 11 000 emitters in 31 countries with up to 45 per cent of total emissions.

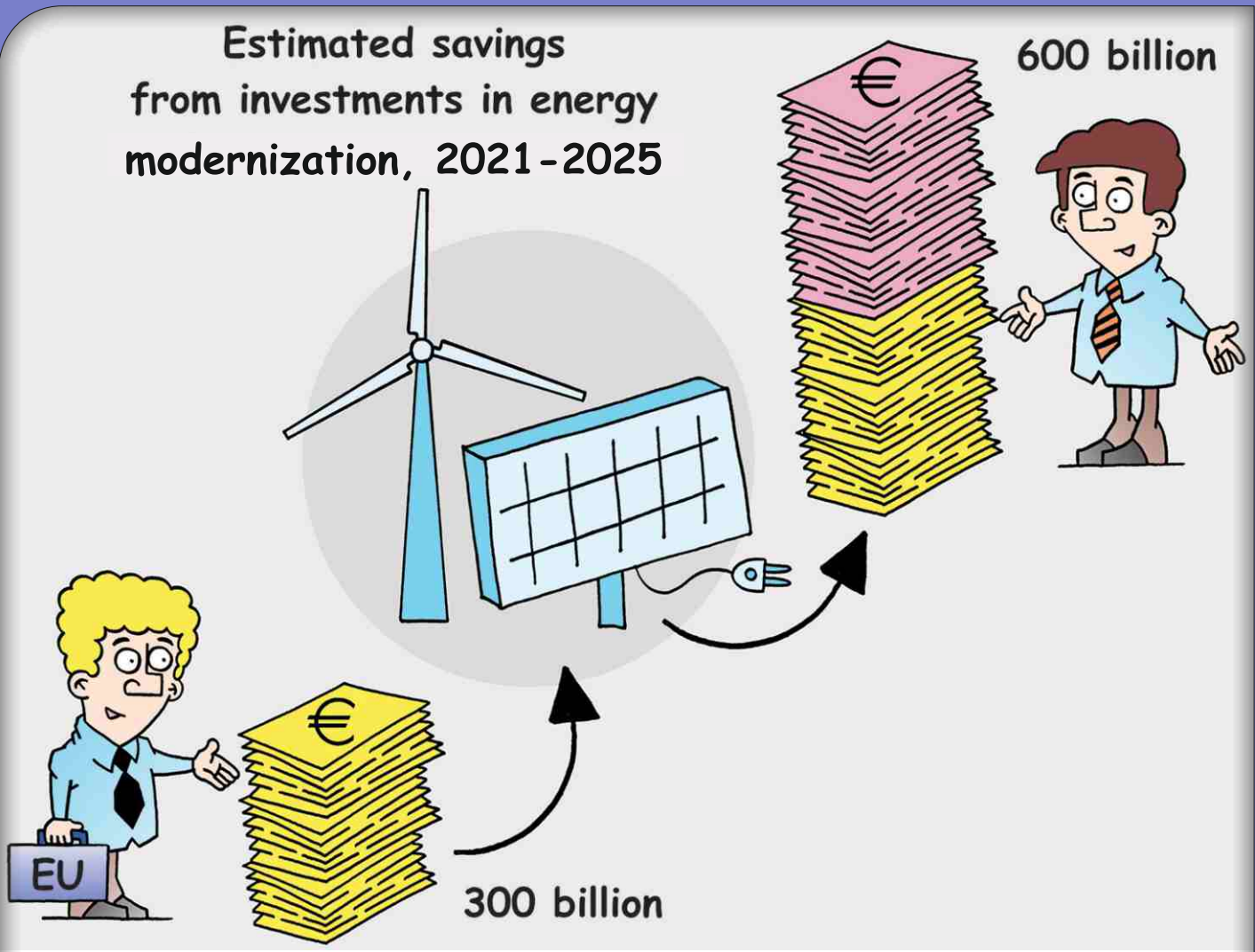


The EU Effort Sharing Decision establishes binding national GHG emissions targets for 2020 that will collectively reduce emissions in the transport, building, agriculture and waste sectors by 10 percent from their 2005 levels. Wealthier countries will reduce emissions, while others are still allowed to maintain or temporarily increase emissions in these sectors because their relatively higher economic growth is likely to entail higher emissions.

Carbon capture and storage (CCS)

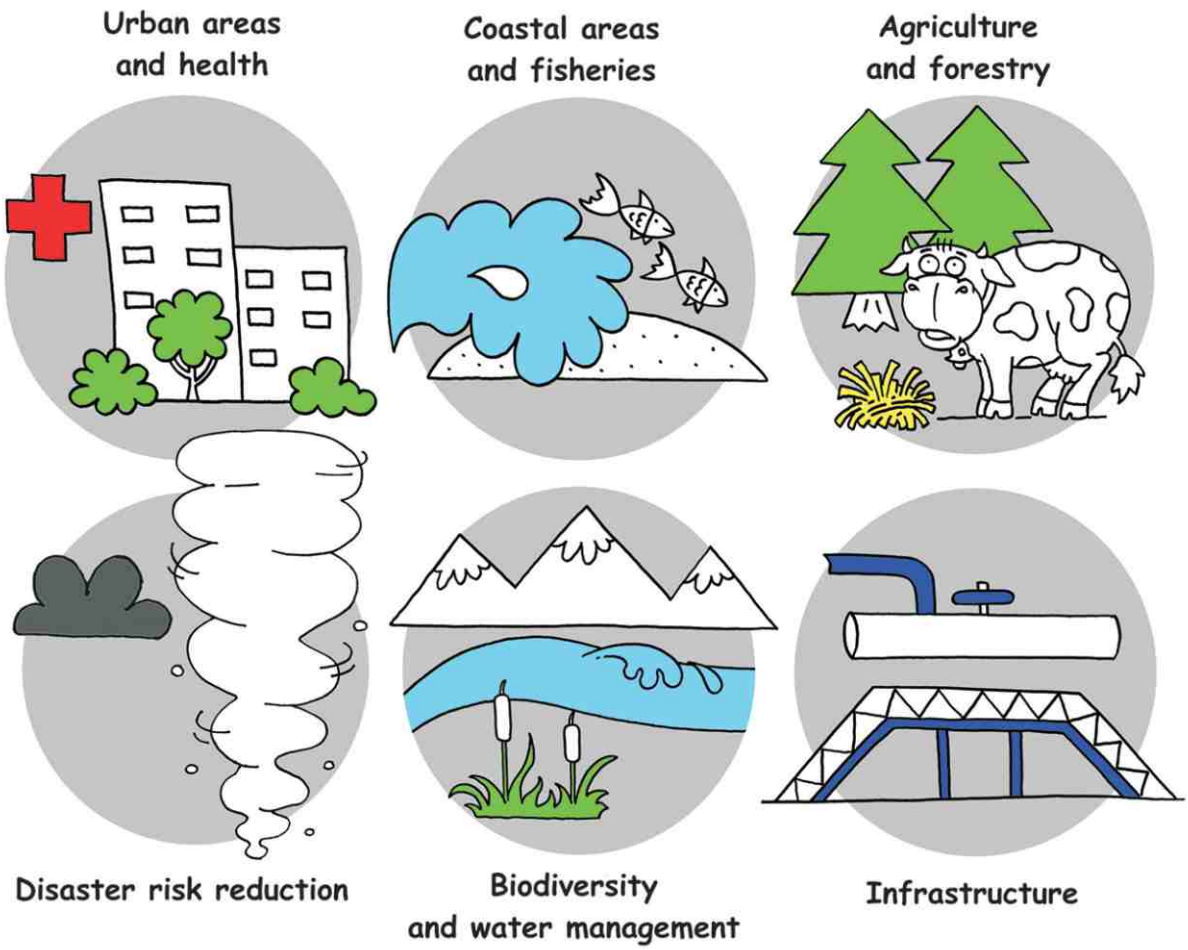


The EU climate strategy for 2050 includes a proposal to meet emissions targets by using carbon capture and storage together with significant reductions related to stricter emission standards for new cars.

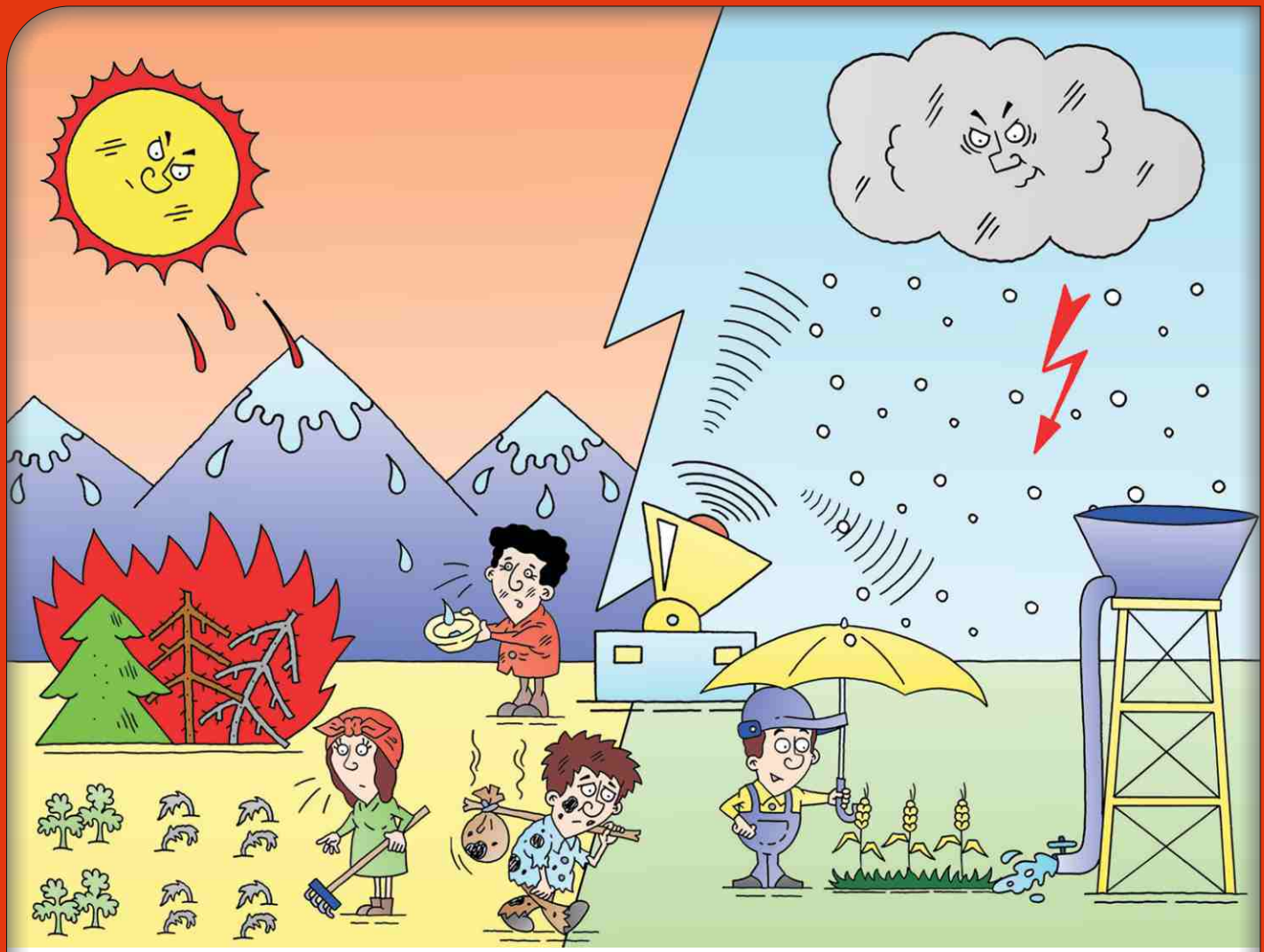


Europe studied the socioeconomic and environmental feasibility of its climate ambitions and determined that climate investments are essential for reducing health impacts and air pollution, improving energy security and increasing competitiveness while creating green jobs. Investments in energy efficiency, renewable energy systems and fuel savings will produce savings of €300 billion (compared with no action) in the medium term.

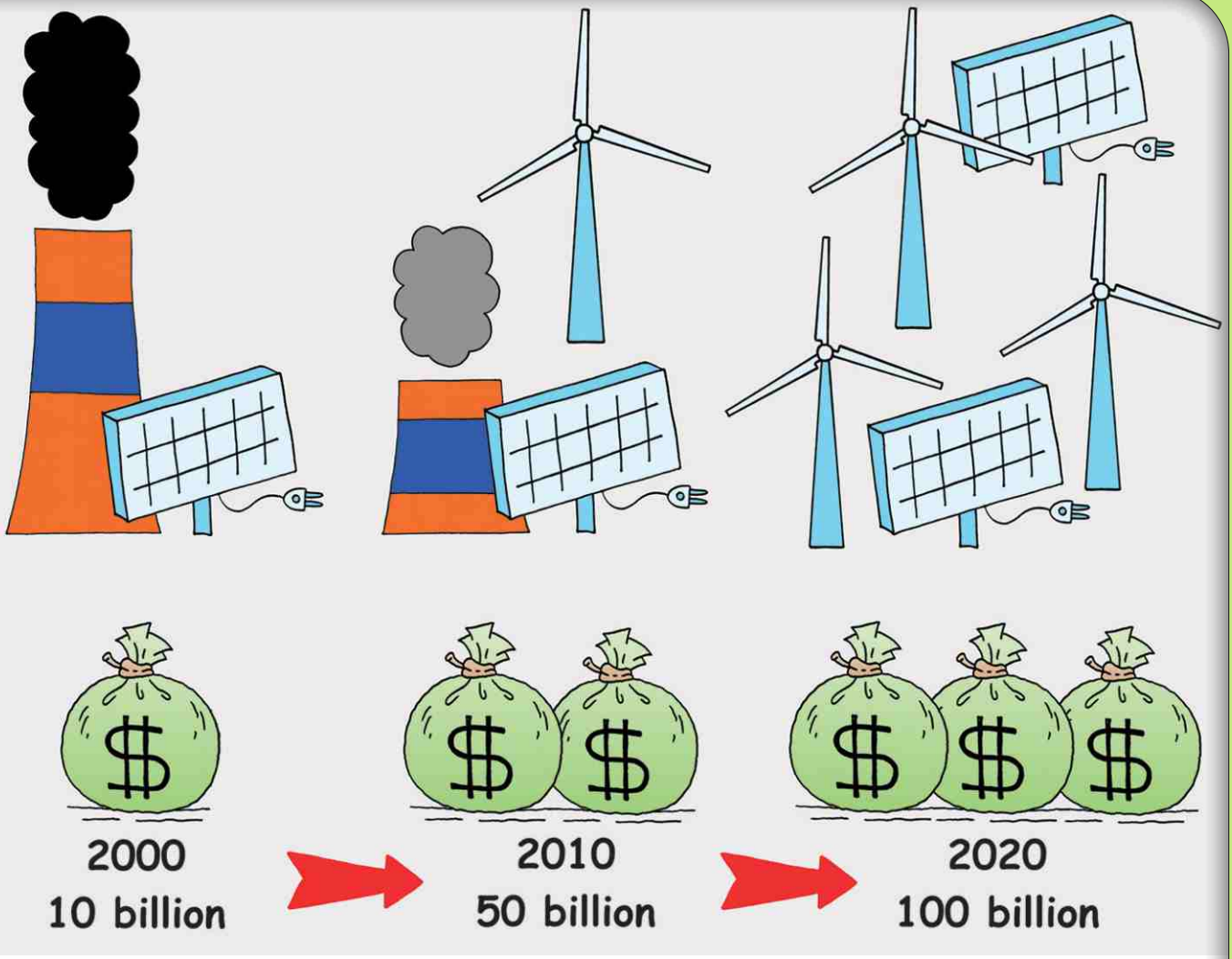
EU adaptation priorities



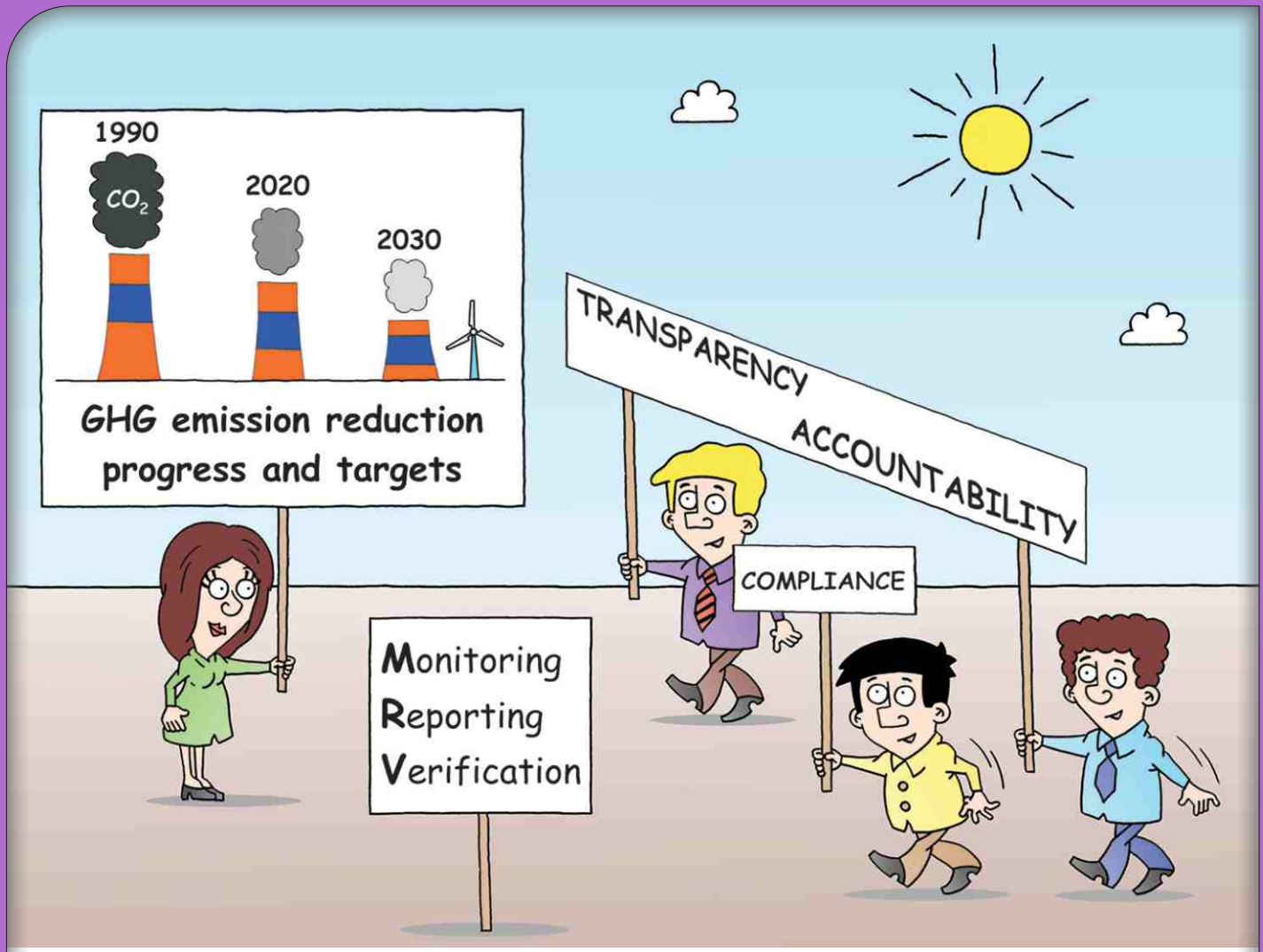
The EU strategy on adaptation to climate change covers a broad range of priority sectors and themes, and aims to reduce the vulnerability of sectors, systems, people and assets. Cross-border climate change impacts call for EU-wide and transnational approaches, but the strategy also pays significant attention to local action plans and urban areas.



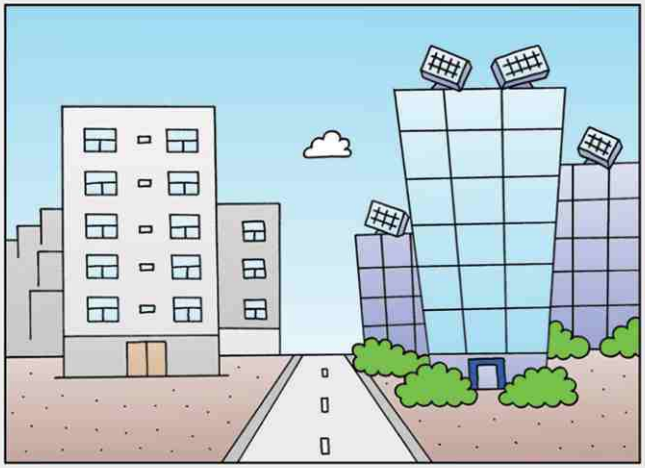
Climate change damage in some areas and sectors is likely to lead to extreme weather events and migration, but it may also offer opportunities for transformative development pathways, and the prospects for grave consequences may become a motivation for climate-resilient economic growth.

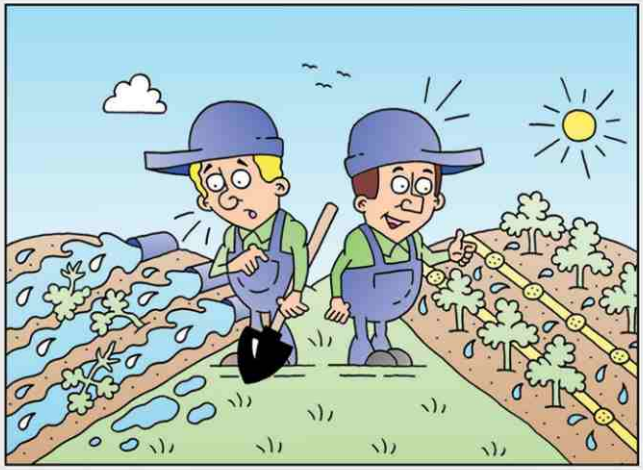


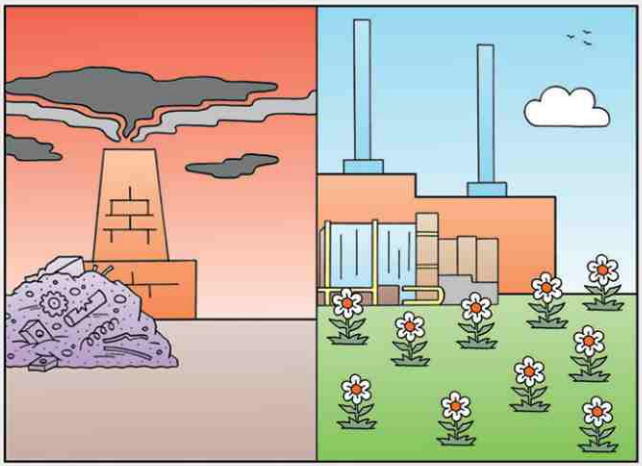
Climate change financing is expected to reach US $100 billion per year by 2020. Governments and the private sector make investments, loans and grants and facilitate technology transfers, while international development banks and the financial mechanisms of the UNFCCC — the Green Climate Fund, the Global Environmental Fund and the Adaptation Fund — encourage global actions.

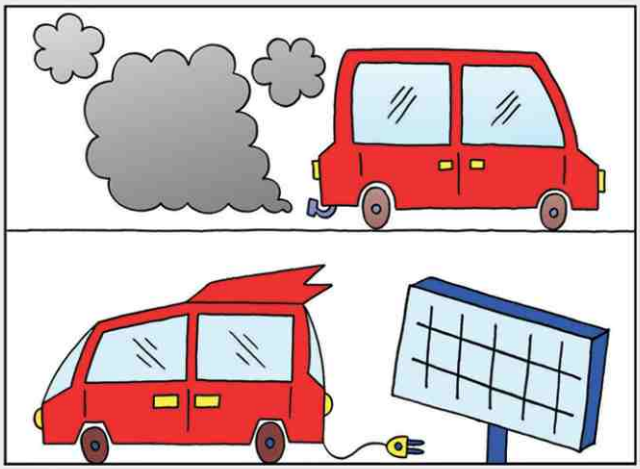


In implementing the Paris climate agreement, all countries need to be transparent and accountable, and to comply with the UNFCCC rules and procedures. Most countries have communicated their climate change targets and aspirations, and will need to work rigorously to meet their goals. Monitoring, reporting and verification apply to climate measures on-site, countrywide and internationally.



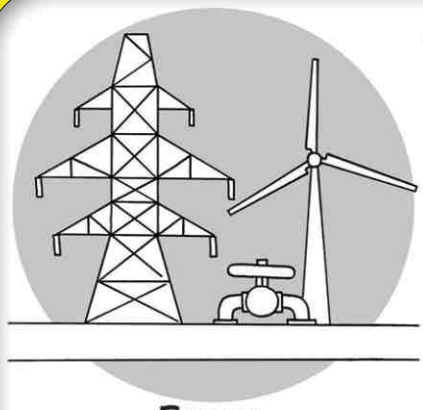






Actions on climate change will transform the world: buildings that produce their own energy, irrigation systems that lose no water, pollution-free manufacturing and futuristic electric vehicles.

Cooperation areas



Energy

Natural resources

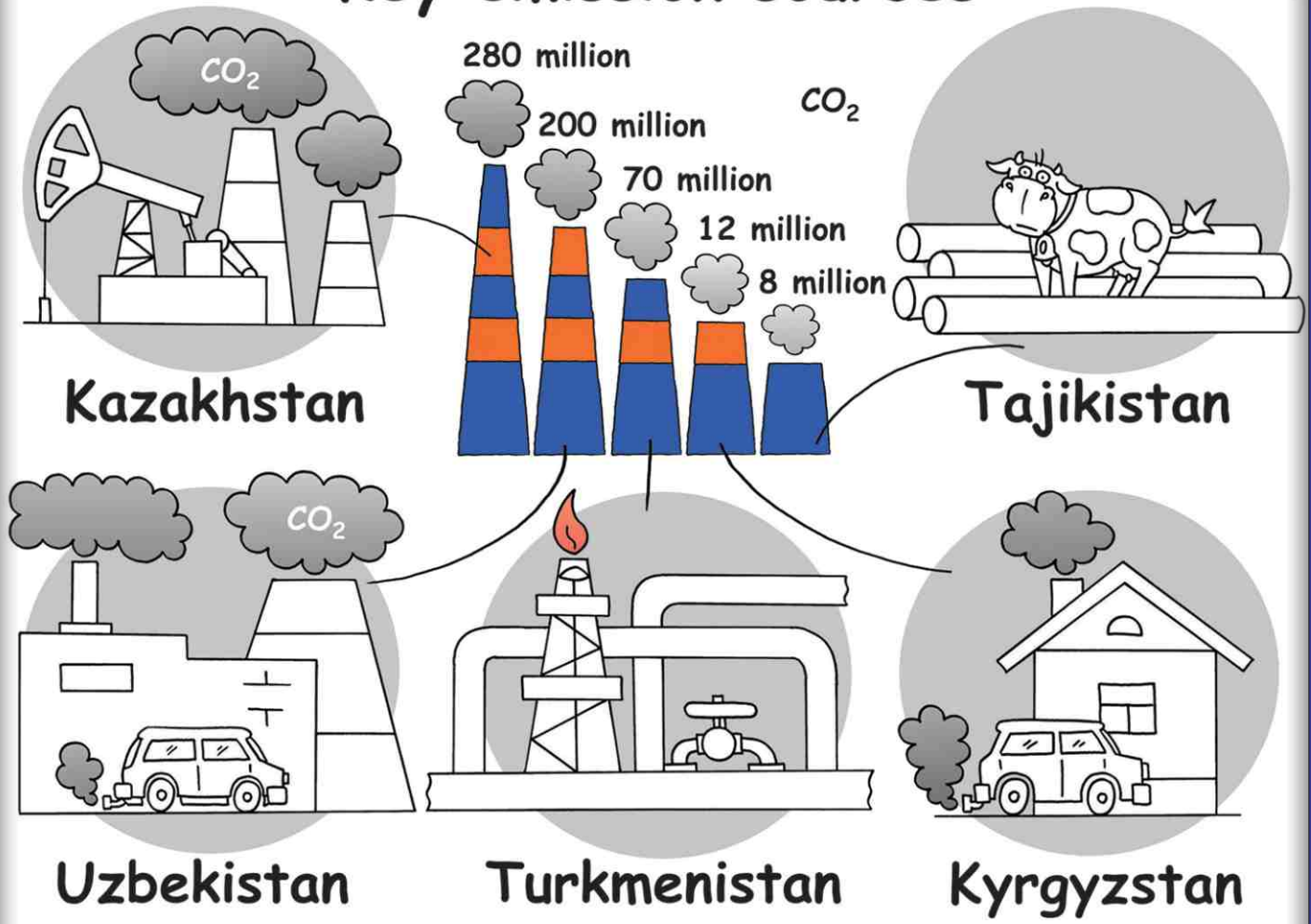
Water

Climate change

Diplomacy

The European Union has a long tradition of cooperation with Central Asia. Areas of mutual interest include energy; water supply and sanitation; climate change and environmental governance; water diplomacy; and sustainable natural resources management.

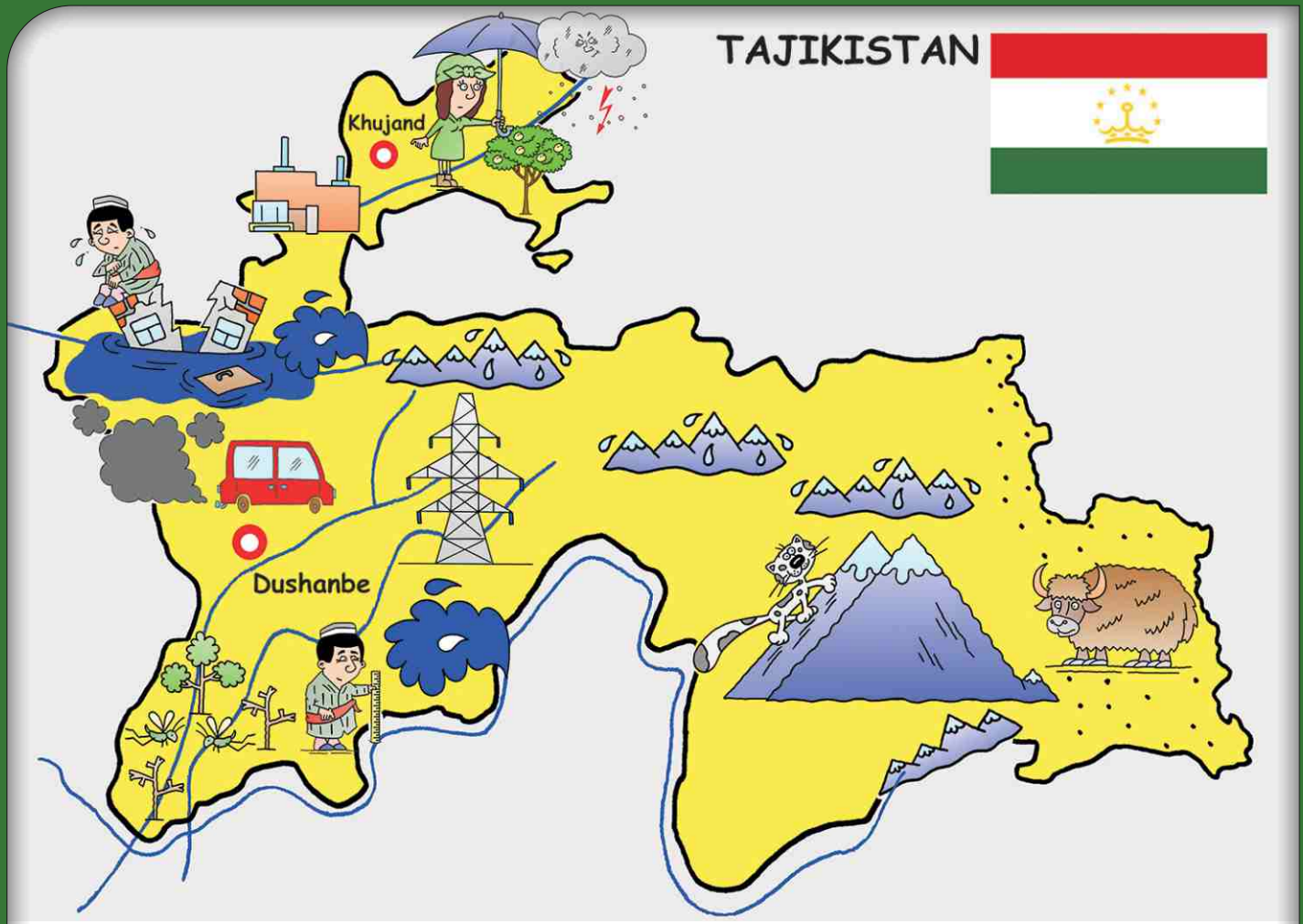
Key emission sources



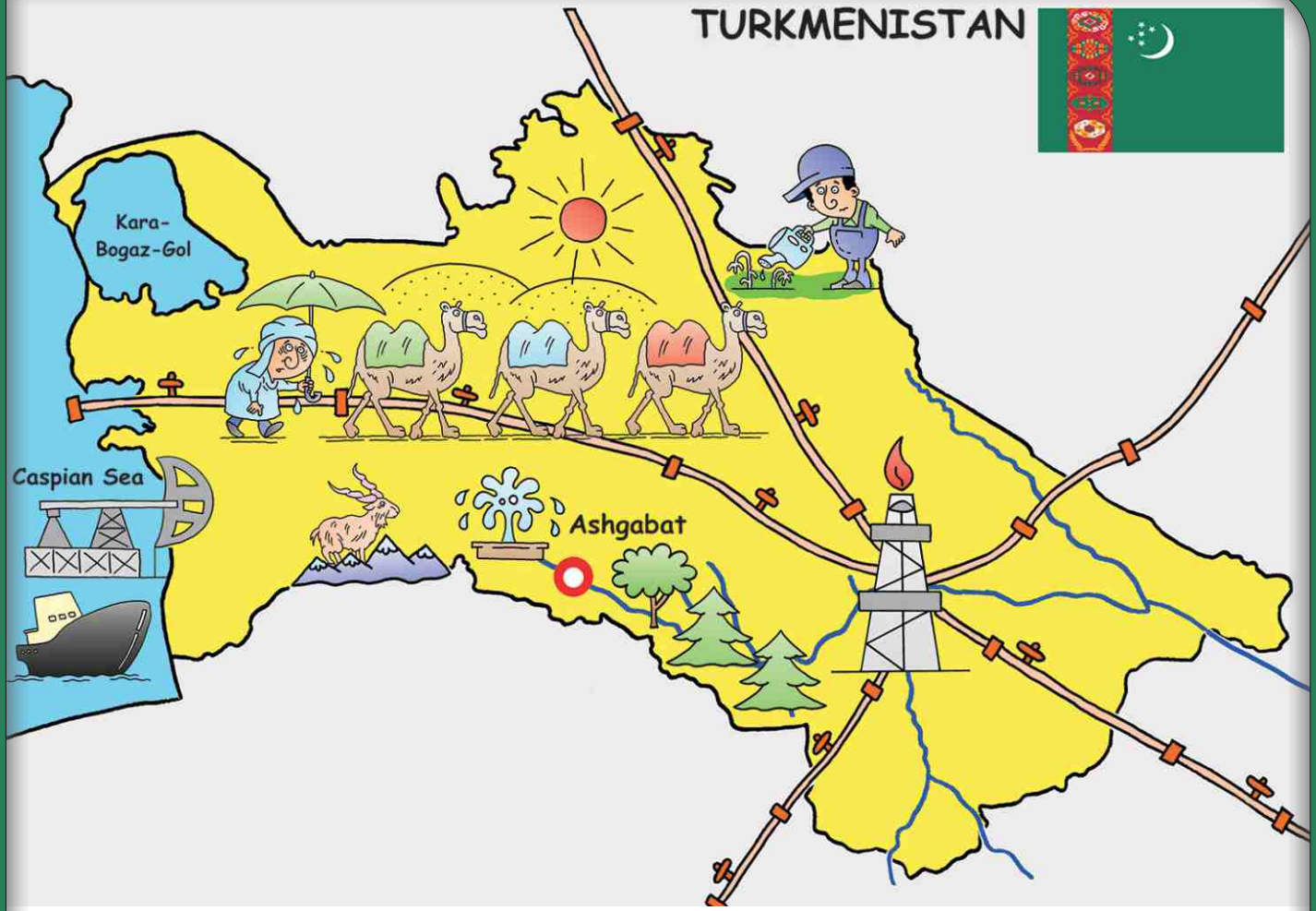
Energy production and use are the key emission sources in Kazakhstan, the largest emitter in Central Asia. Uzbekistan's highest emitters are energy, industry and transport. Turkmenistan's emission footprint reflects its position as the largest producer of natural gas. In Kyrgyzstan, cars and household energy use are the leading sources of GHG emissions. Tajikistan's leading sources of GHG emissions are the agricultural and industrial sectors.

Kazakhstan's mountain areas in the south-east and grain-producing areas in the north are particularly vulnerable to climate change, and water level fluctuations in the Caspian Sea may expose coastal infrastructure. Growing traffic in large cities adds to congestion and contributes to poor air quality. Climate initiatives include investments in renewable energy and a national carbon emissions trading system. Kazakhstan has also organized Astana EXPO 2017 with a focus on energy for the future.

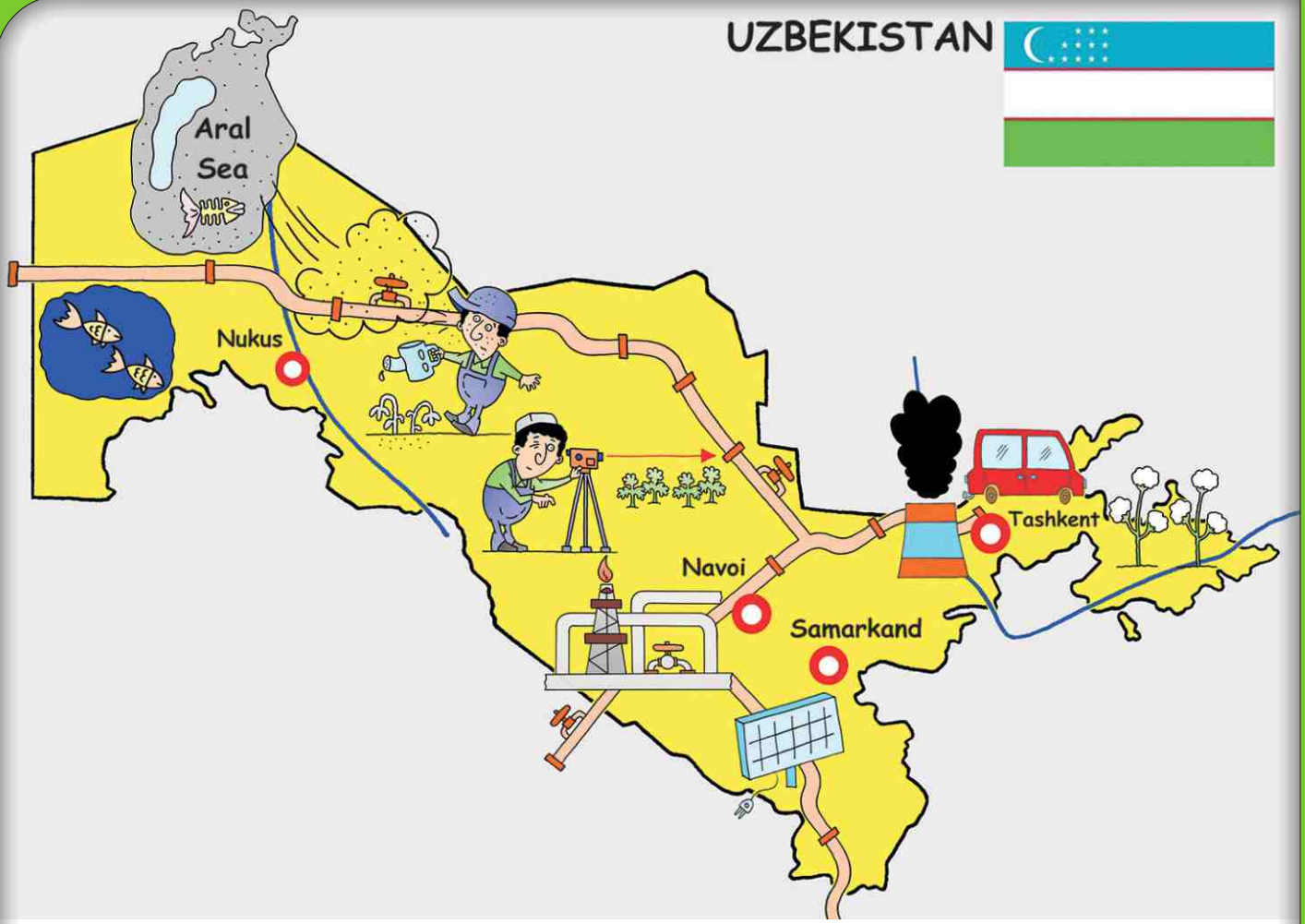
Climate change in Kyrgyzstan is aggravating the environmental problems associated with mining and the overuse of pastures, and is threatening the country's biodiversity and water sources. Mountain ecosystems and Issyk-Kul Lake are vulnerable, as are hydropower production, mining at high elevations and cultivated agriculture. In some places, warming temperatures and changing conditions threaten the safety of hazardous waste sites.



With abundant hydropower and a largely rural population, Tajikistan has the lowest GHG emissions in the region, but faces the most serious impacts and consequences of climate change. Flooding, heatwaves, crop failures and loss of biodiversity are key concerns. While Tajikistan has not yet developed comprehensive climate legislation, it is a regional pioneer in adaptation planning, including local projects and climate-proofing of infrastructure.



Most of Turkmenistan's energy and industry rely on the country's plentiful gas reserves, and with the lowest population density in the region, Turkmenistan's per capita emissions are high. But the country is investing in modern technologies, afforestation, energy efficiency in residential construction and responses to climate risks in agriculture. The protection of water, health and agriculture are adaptation priorities.



Water withdrawals from the Amu Darya and the Syr Darya Rivers for extensive irrigation schemes created an ecological disaster around the Aral Sea. Uzbekistan is restoring forests, diversifying agriculture to improve productivity and applying laser levelling techniques to increase irrigation efficiency. The country is also developing solar energy, modernizing its industry and investing in energy efficiency.