

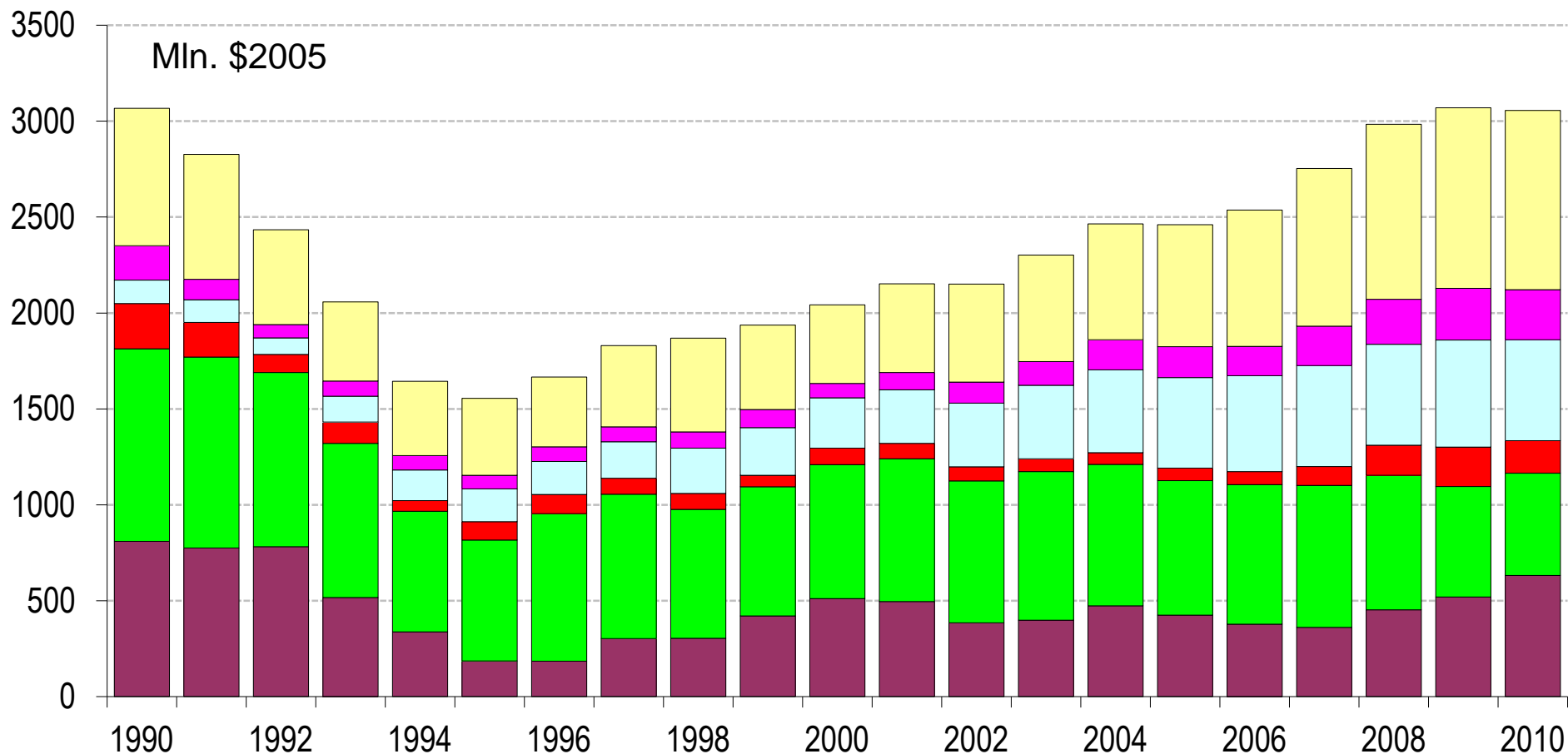
Climate Change Centre of the Kyrgyz Republic

Prospects for the development of Renewable energy resource (RES) in the Kyrgyz Republic



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Specifics of the Economic growth of GDP



Industry

Construction

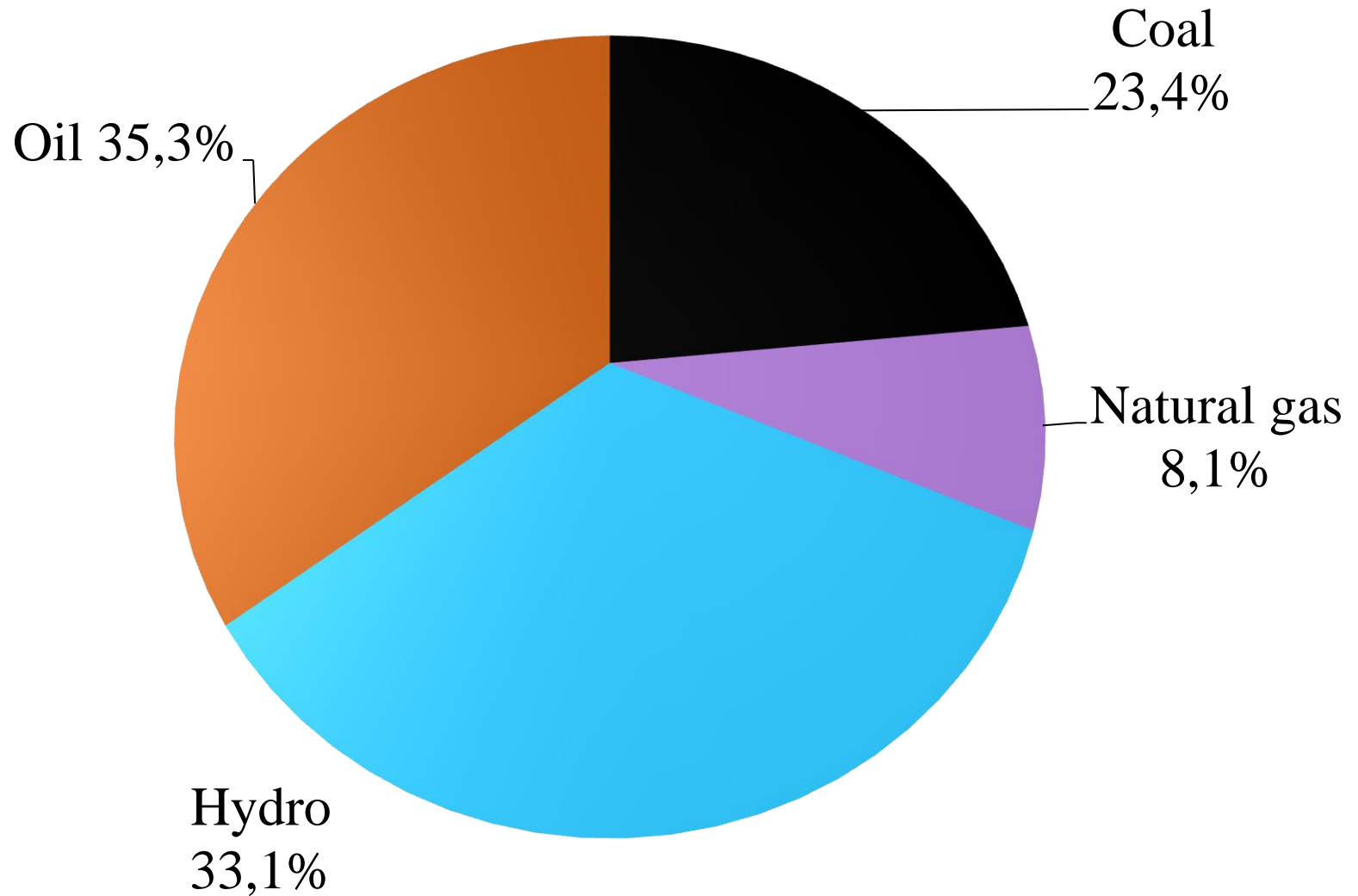
Transport & Communication

Agriculture

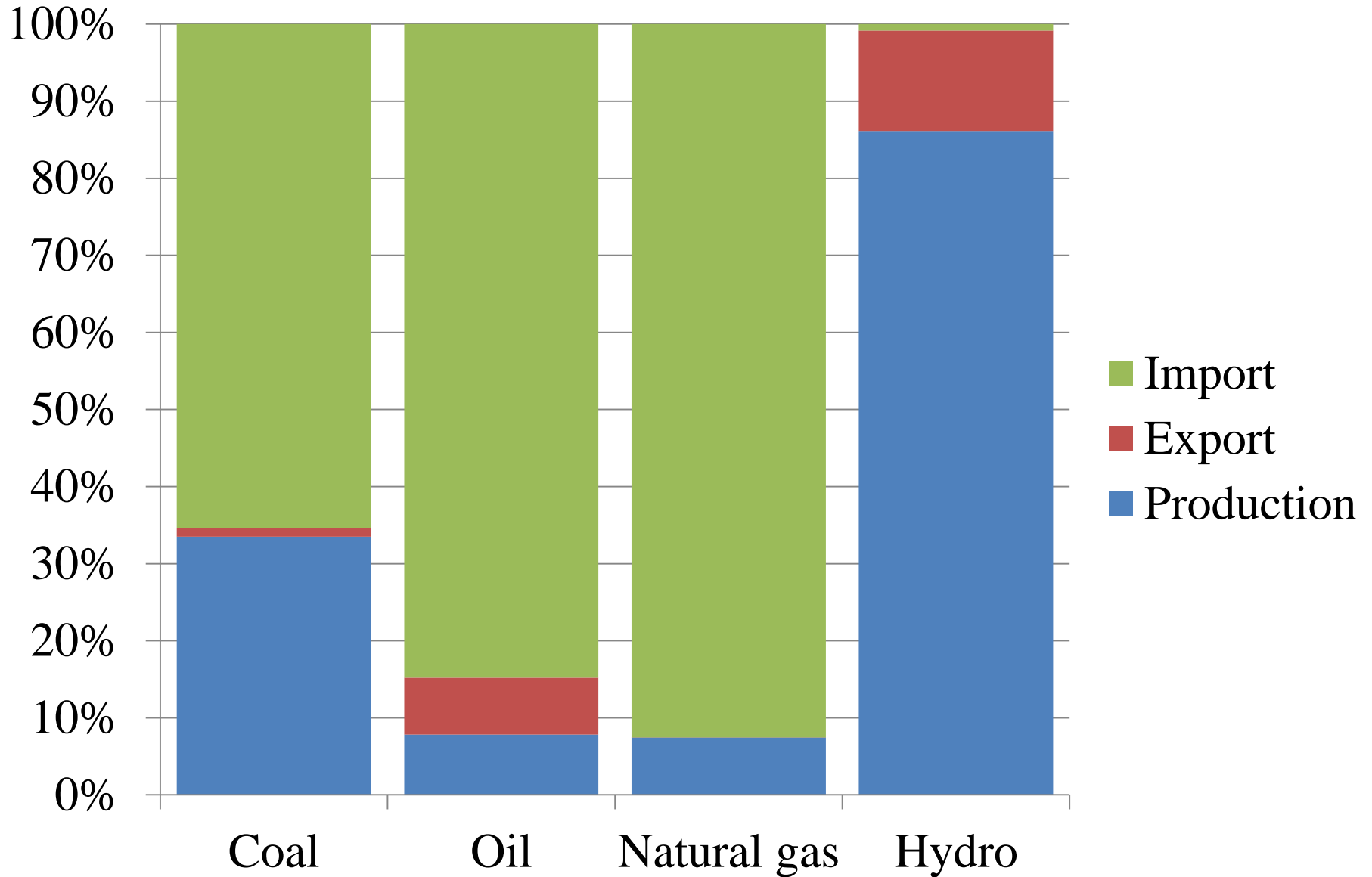
Trade & Public catering

Other Sectors

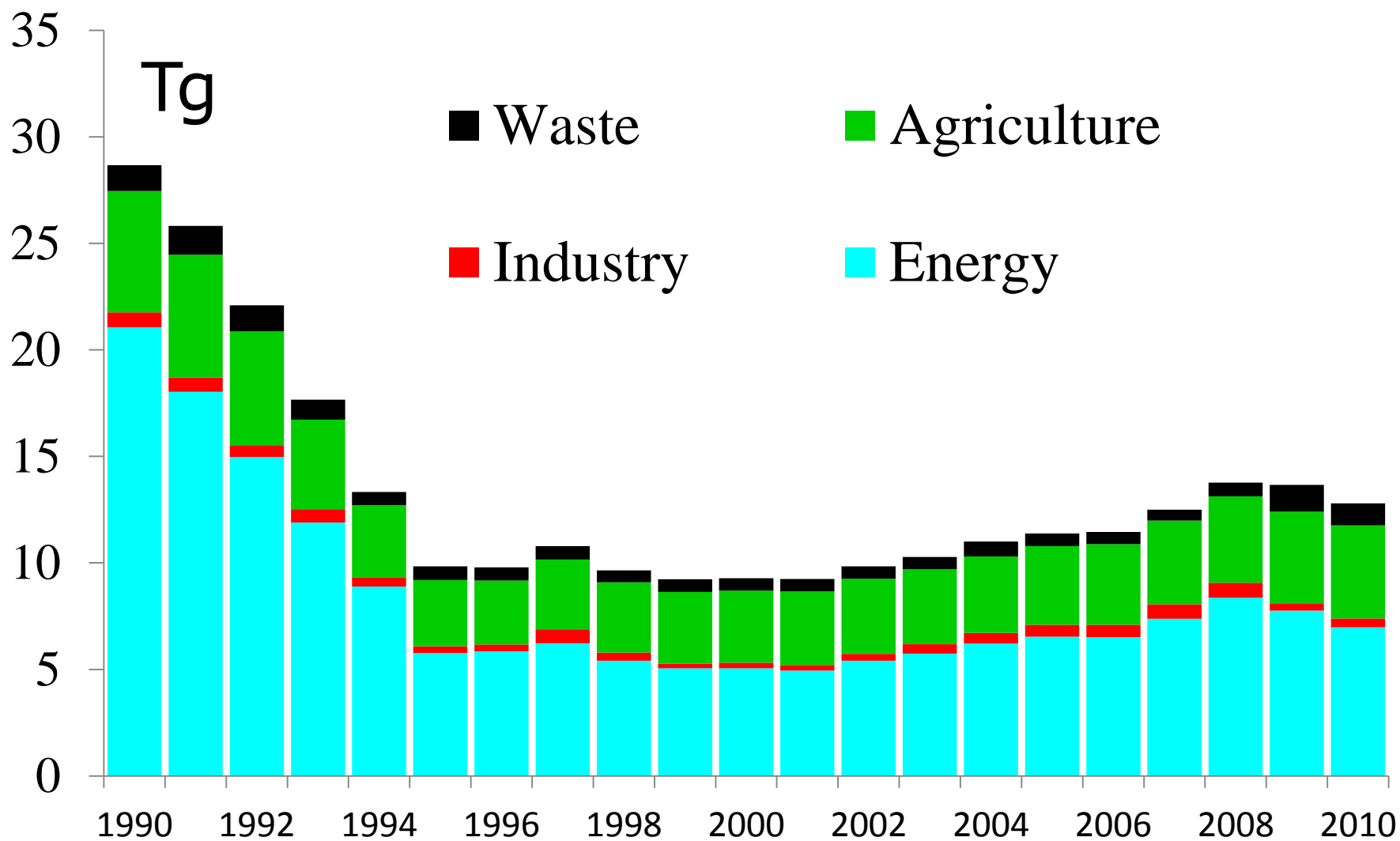
Primary energy consumption for 2011



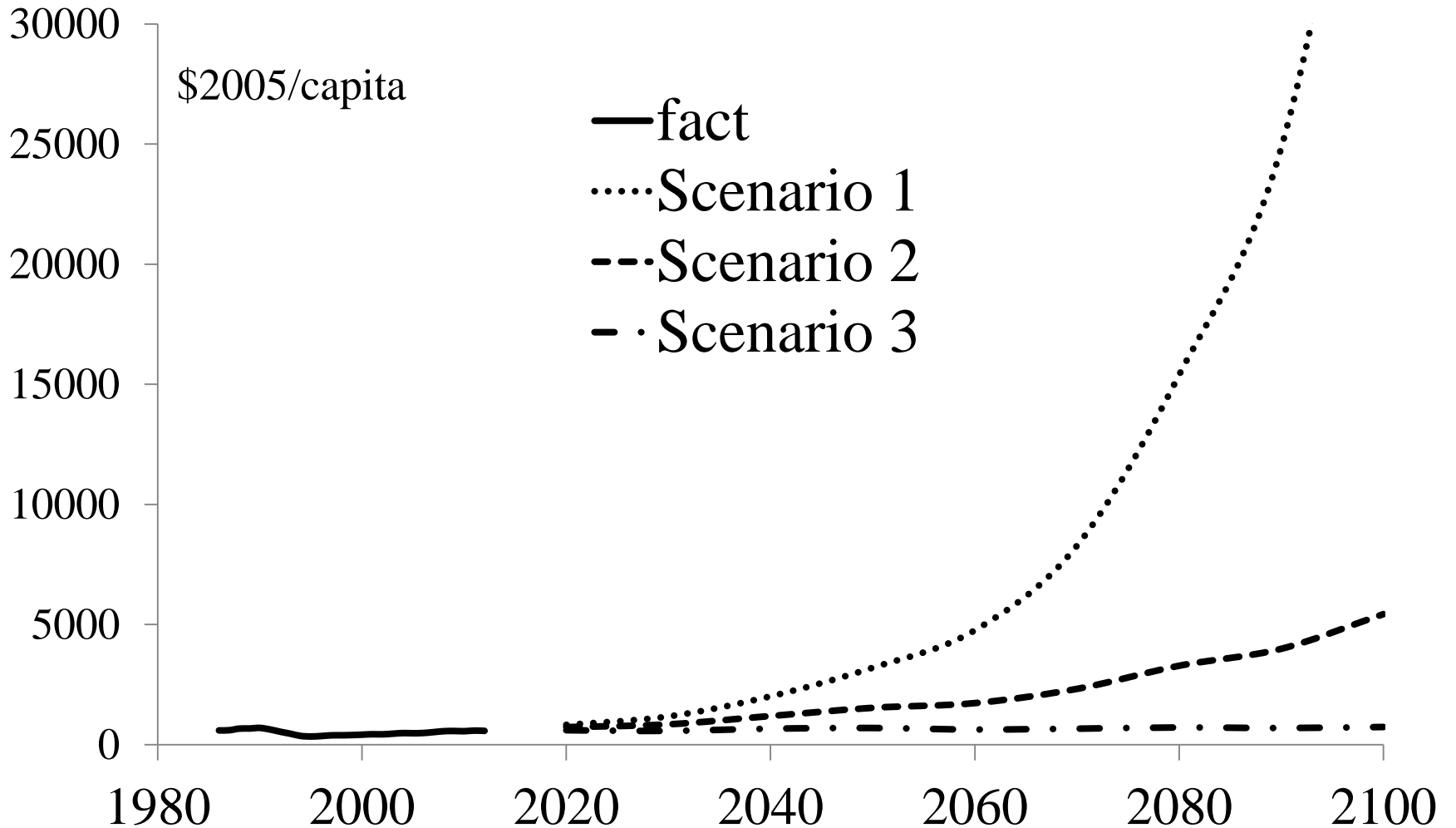
Import dependence



GHG emission trends



Scenarios of Economic Development

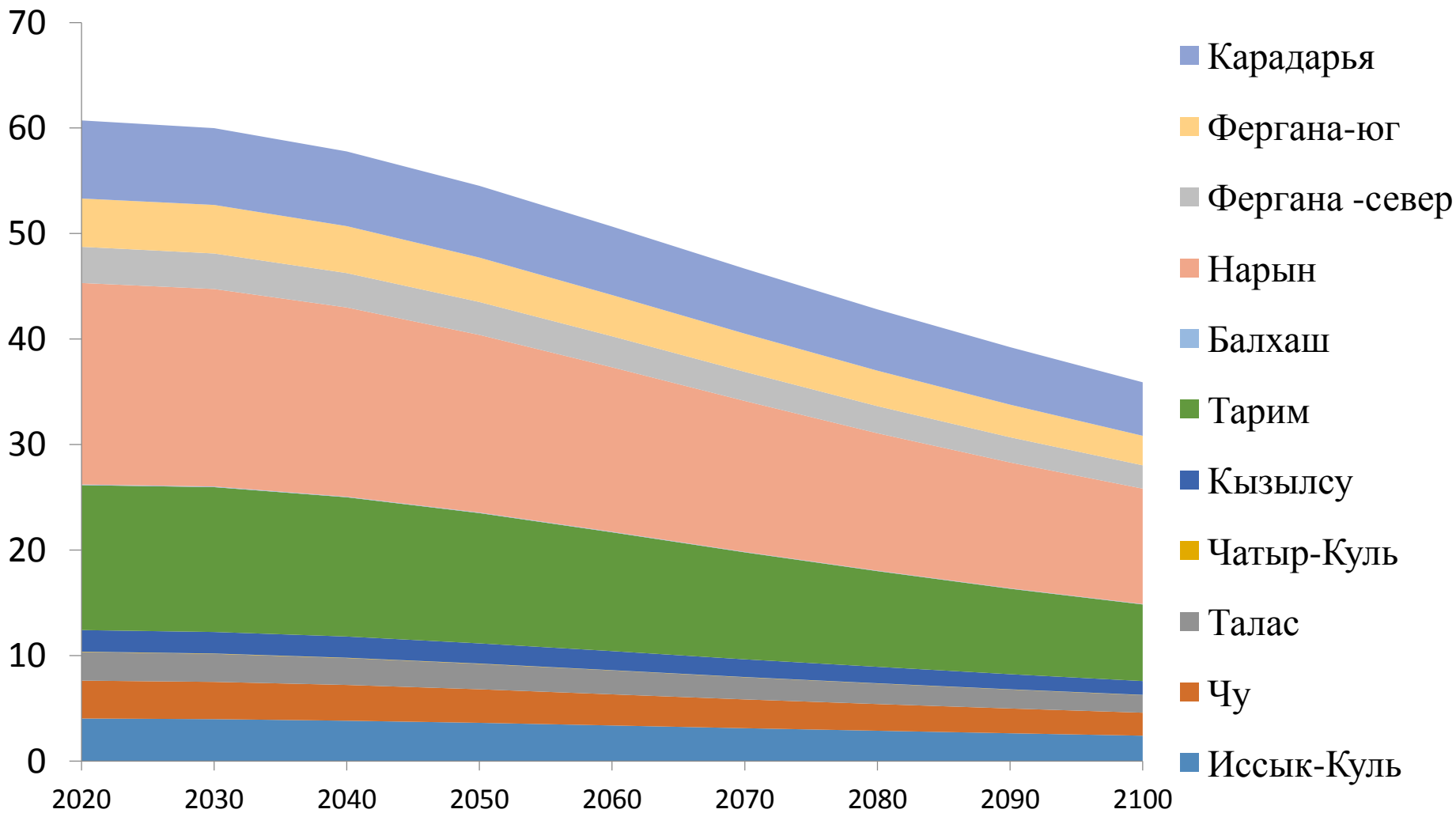


Use of Hydropower Capacity

At present, the Hydropower Capacity of the country is already being used **by 18%** (for large hydro-electric power stations by 19.5%, for small ones – 4%).

During the construction of the planned hydro-electric power stations, the use of the capacity is increased to **46%** (for large hydro-electric power stations to 48.8%, while for small ones to 21.3%).

Hydropower Capacity for Climate Scenario RCP8.5, TW/h



Requisite of renewable energy

For the optimistic scenario of economic development, the projected demand for electricity has already exceeded the available capacity by mid-century.

Further economic development is impossible without the use of renewable energy, as their own sources of fossil fuels in the Kyrgyz Republic are insignificant.

Assessment of renewable energy capacity

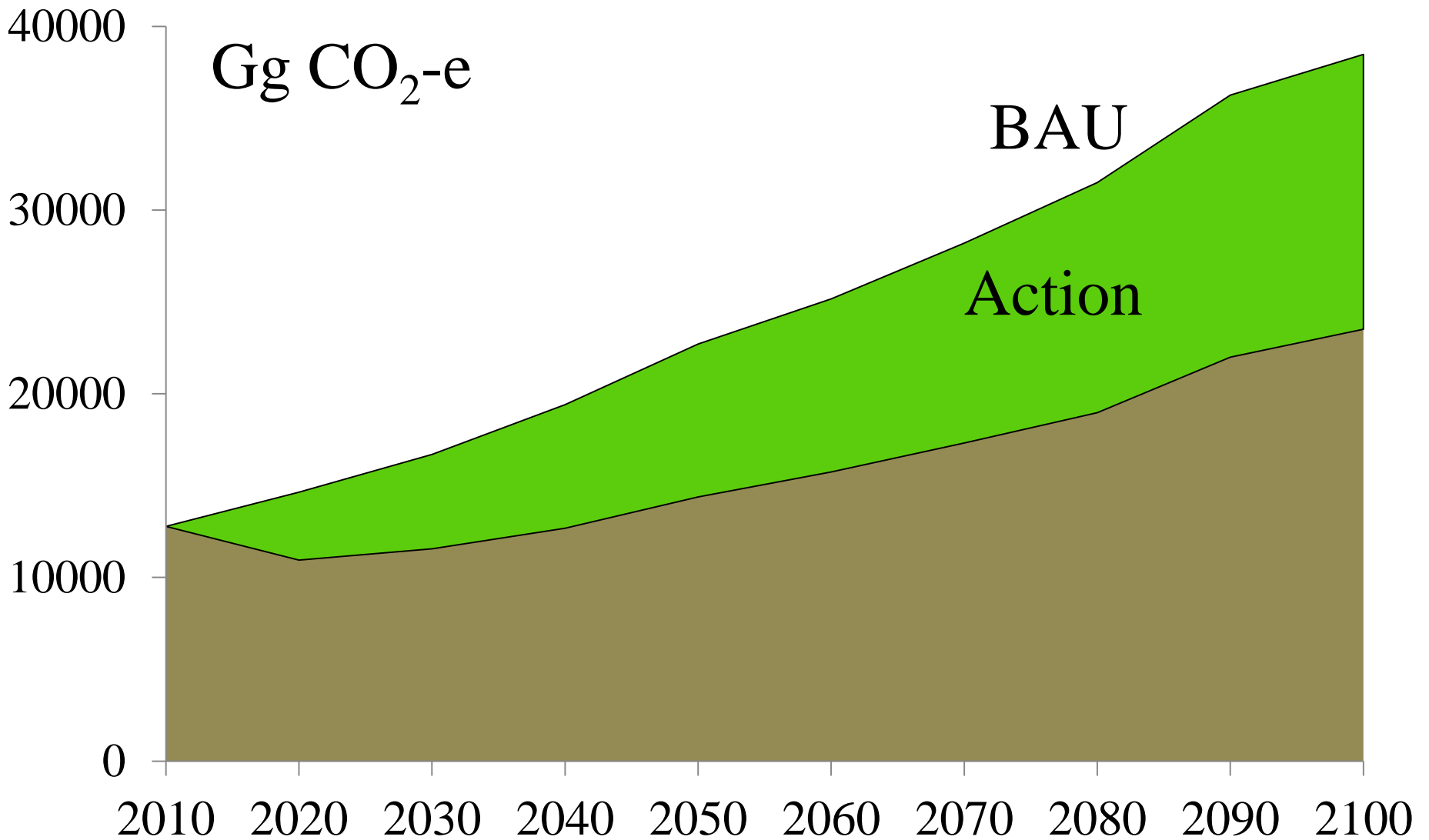
1. Biomass (live stock breeding, plant breeding, food industry, waste) – 82 thousand tons of oil equivalent
2. Solar – PV till 300 kW h/m², heat till 750 kW h (heating)/m²
3. Geothermal energy– heat pumps >600 thousand tons of oil equivalent
4. Wind energy – low level
5. Hydropower (small hydro-electric power stations) – 3,5 ÷ 5,1 TW h

Intended Operation

Steps to large-scale implementation of 4 types of renewable energy sources (biomass, solar energy PV and heat, geothermal energy, hydropower) are included in the INDC project of the Kyrgyz Republic.

Our approach is to ensure the following target by 2050: emission below 1.6 tons CO₂ per capita.

Emission tendencies



№	Planned Action	Scenario 1		Scenario 2		Scenario 3	
		2020	2050	2020	2050	2020	2050
1	Reduction of heat losses	82,4	251,2	80,5	216,8	81,0	230,0
2	Introduction of EE standards in buildings	90,9	554,3	74,2	281,7	76,0	331,9
3	Improving the EE of existing building stock	123,2	408,8	123,6	469,9	123,2	454,3
4	Reduction of electro power losses	114,0	199,6	109,9	157,3	104,0	136,2
5	Reduction of gas leakage	860,1	1195,0	860,1	1435,0	791,5	812,7
6	Transport	1651,8	3338,4	1395,8	1881,8	1329,2	1654,6
7	Biomass	352,7	1302,9	347,0	1224,9	357,7	1135,9
8	Solar energy - electricity	13,0	50,8	13,0	50,8	13,0	50,8
9	Solar energy - heat	78,0	284,5	78,4	281,5	79,1	323,5
10	Geothermal energy	136,2	526,5	137,2	523,1	138,8	611,7
11	Hydropower	49,0	49,0	49,0	49,0	49,0	49,0
	Total	3890,9	9257,0	3608,4	8402,7	3482,2	6964,3
	Possible national capacity for performance	1874,0	3953,6	1721,8	3214,3	1619,8	2599,8
	%	48	42	48	38	47	37

Thank you for the attention!

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