DIW ECON
the consulting company of DIW Berlin

Bottlenecks of Green Transition in Central Asia

Presentation to 19th REFORM Group Meeting

Low Carbon Markets and the Legacy of Nuclear Power

Salzburg, September 1-5, 2014

The Region

- Total amount of GHG emissions like Germany
- Constant increase of GHG emissions since 1999 after a sharp decrease in 1990
- Harsh climate
- Common water sources and water as key issue
- Highly vulnerable by climate change

Incentives for turning towards LCD

Two types of countries

- Resource rich countries with high energy (carbon) intensity of GDP and per capita – mainly fossil fuel extracting and exporting countries
- Poor low carbon countries

2011 data	t CO2/capita	CO2/GDP PPP (kg CO2/USD 2005)	TPES/capita (toe/capita)
Kazakhstan	14,14	1,22	4,72
Turkmenistan	12,06	1,45	4,84
Uzbekistan	3,76	1,29	1,63
Kyrgyzstan	1,21	0,57	0,56
Tadjikistan	0,43	0,21	0,34
Germany	9,14	0,26	3,81

Source: IEA

Low carbon development = answer to the problem faced by governments to mitigate climate change but to take care for economic growth in order to secure economic and social development and wealth.

Incentive: Strong leadership and high ambitions

Countries with high energy intensity of their economies and high carbon emissions per capita – like **Kazakhstan** –

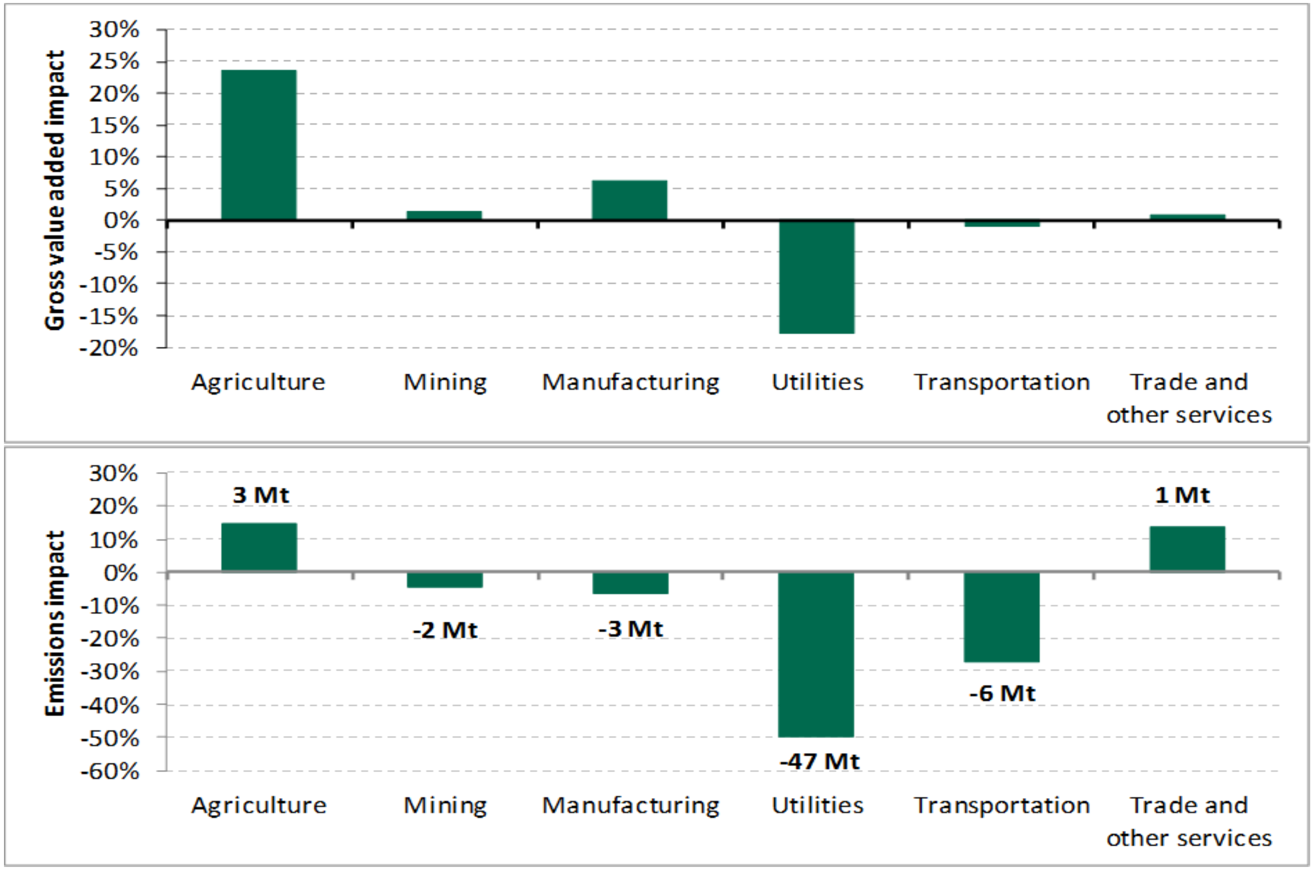
- Ambitions to catch up with Western living standards (wealth) – (Strategy 2050) and also
- International climate policy - afraid that OECD would push them to reduce GHG emissions, implementing policy measures like carbon taxes on imports which would seriously impact external trade

Actions:

- **Green Economy Strategy** (energy efficiency improvement 25% (2020), 50% (2050), share of „alternative“ sources of power generation – 50% in2050, switch for coal to gas – gas power = 30% in 2050)
- **Strategy on catching up with 30 most developed countries until 2050** – diversification of the economy
- **ETS** – 2 pilot phases – 2013, 2014-2015, absolute CO2 reductions while strong economic growth – (6% average last years)

Benefits of Green Growth are not split equally

Impact of the GREEN scenario on Gross Value Added and GHG emissions by key industries (average difference to Brown Economy in 2011-2050 in percent)



Source: DIW Econ

Current discussion in Kazakhstan

Time horizons of policy decisions

- Short and mid term economic and social effects
- Investment into education pays off only mid term
- Huge investment projects in oil&gas and other manufacturing industries

Lobbyism

- Coal versus gas; utilities versus manufacturing
- Lack of EE and RES lobby

Institutional barriers

- Weak national energy markets (regulated el. and heat tariffs etc.)

Lack of capacities for sound strategy design (including modelling) and defending strategies against lobbying groups

International discussion and development

- Negative impact of European RES discussion and German Energiewende problems
- Lack of clear perspectives of international climate negotiations

Incentive: Increase income from gas exports ……. to spur economic growth?

Typical for many fossil fuel exporting countries, also for

Turkmenistan

- National gas company Turkmengaz starts to count the money – energy efficiency activities; building initiative etc.
- Not very much engaged in LCD so far – but "high tech in any case"
- Denies responsibility for climate change as supplying to major consumers-polluters but
- Keen to become internationally recognised by UN organisations

Uzbekistan

- Needs export earnings from fossil fuel exports
- High growth rates (≥ 8% in 2013) - boosted by high prices for export commodities, and state-led investment.
- Fund for Reconstruction and Development
- Promoting economic diversification
- Growth Strategy: Import substitution and spurring exports
- LCDS ready end of 2014 - RES and EE targets

Incentive: Access to external financing

This is a prevailing incentive especially for **Kyrgyzstan** and **Tajikistan**

- Have not been successful with CDM mainly due to lack of capacities however,
- High interest in new climate change mitigation instruments – NAMAs
- Activities driven by donors and development aid
- LCD and sustainable development strategies approved
- Poor or highly unstable economic development
- National resources coal and hydro, no means for gas imports – donor dependency → coal problem
- RES donor driven

Incentive: International targets and regimes

- True for all countries
- Uzbekistan, Kyrgyzstan, Tajikistan interested in existing an new mitigation financing instruments
- Kazakhstan more interested in positioning itself among lead developed countries
- Need of long term perspectives as investment costs are high

Some summarised bottlenecks

Despite certain progress barriers still exist – different for different countries

- International targets and regimes are crucial
  - Politically
  - Economically (carbon pricing, capital flows, etc.)
- Lacking sufficient capacities to design sufficient policies and assess costs and benefits and to lead the stakeholder discussion
- Inertia of ruling elites in highly authoritarian decision making systems

Thank you for attention

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