

Turkmenistan and Russia Country Outlooks

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Washington D.C.

3/17/2011

Pre-Caspian Pipeline
2015
40 bn cm/y

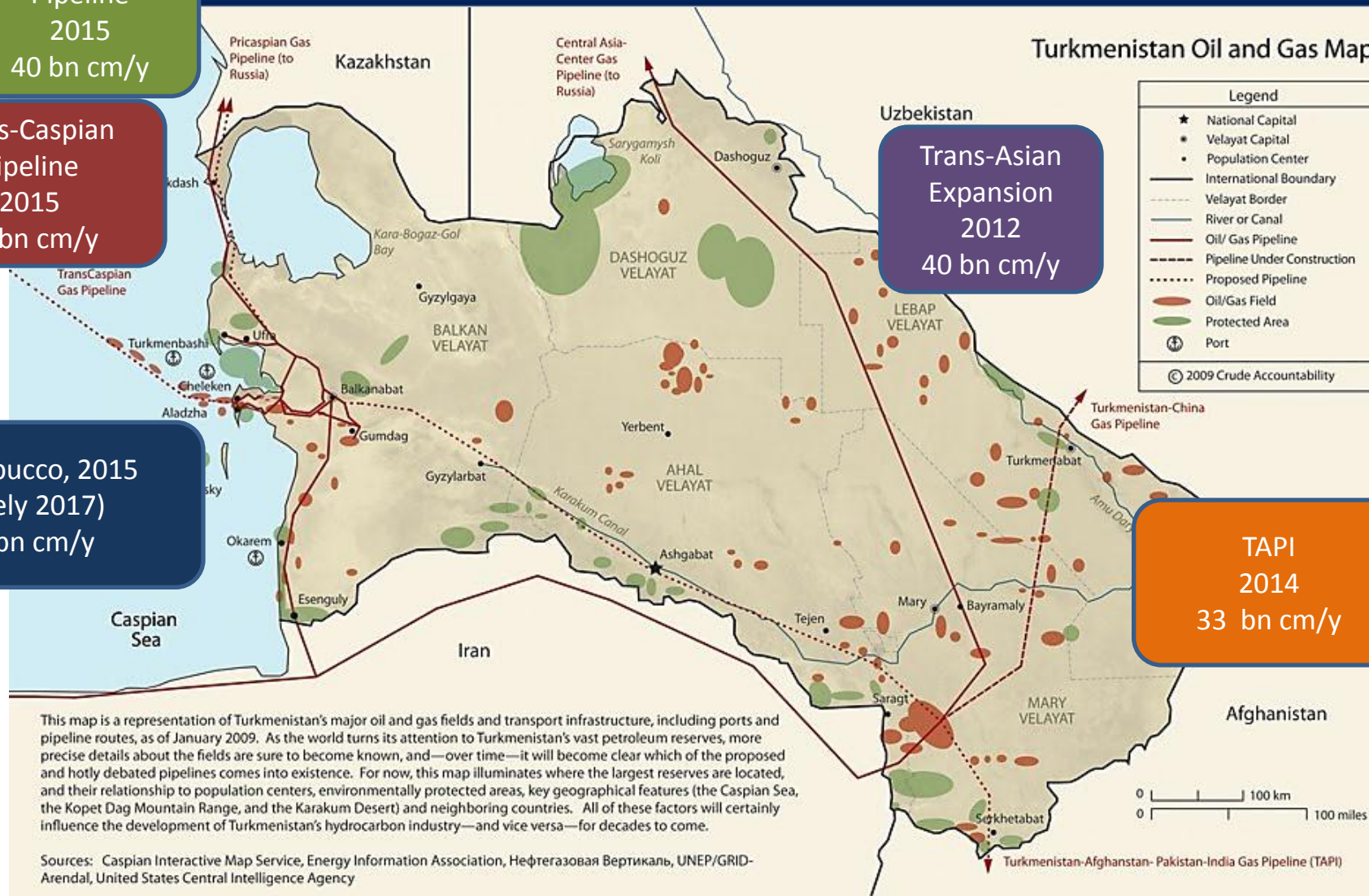
Trans-Caspian Pipeline
2015
30 bn cm/y

Nabucco, 2015
(likely 2017)
31 bn cm/y

Trans-Asian Expansion
2012
40 bn cm/y

TAPI
2014
33 bn cm/y

Turkmenistan Oil and Gas Map



This map is a representation of Turkmenistan's major oil and gas fields and transport infrastructure, including ports and pipeline routes, as of January 2009. As the world turns its attention to Turkmenistan's vast petroleum reserves, more precise details about the fields are sure to become known, and—over time—it will become clear which of the proposed and hotly debated pipelines comes into existence. For now, this map illuminates where the largest reserves are located, and their relationship to population centers, environmentally protected areas, key geographical features (the Caspian Sea, the Kopet Dag Mountain Range, and the Karakum Desert) and neighboring countries. All of these factors will certainly influence the development of Turkmenistan's hydrocarbon industry—and vice versa—for decades to come.

Sources: Caspian Interactive Map Service, Energy Information Association, Нефтегазовая Вертикаль, UNEP/GRID-Arendal, United States Central Intelligence Agency

Major Foreign Investors in Oil and Gas Sectors

China:

- CNPC: South Iolatan: \$9.7 billion contract in December 2009. Other companies involved: Gulf Oil & Gas Fze (UAE), Petrofac International LLC (UAE), and a consortium of LG International Corp. and Hyundai Engineering Co. Ltd (Korea).
- CNPC: Bagtyyarlyk. 30-year production sharing agreement in July 2007.

Russia:

- Itera: offshore gas field--Block 21, is expected to annually produce 353 billion cubic feet of gas and 146.6 million barrels of oil

Western:

- Chevron and ConocoPhillips were recently named preferred candidates to develop Caspian blocks, predominately oil.

Turkmenistan's Government Lineup- Many Changes, 2010-2011

TurkmenGaz

Nury
Mukhamedov

October 2010:
Dovlet Mommayev

January 2011: Amanali Khanaliyev



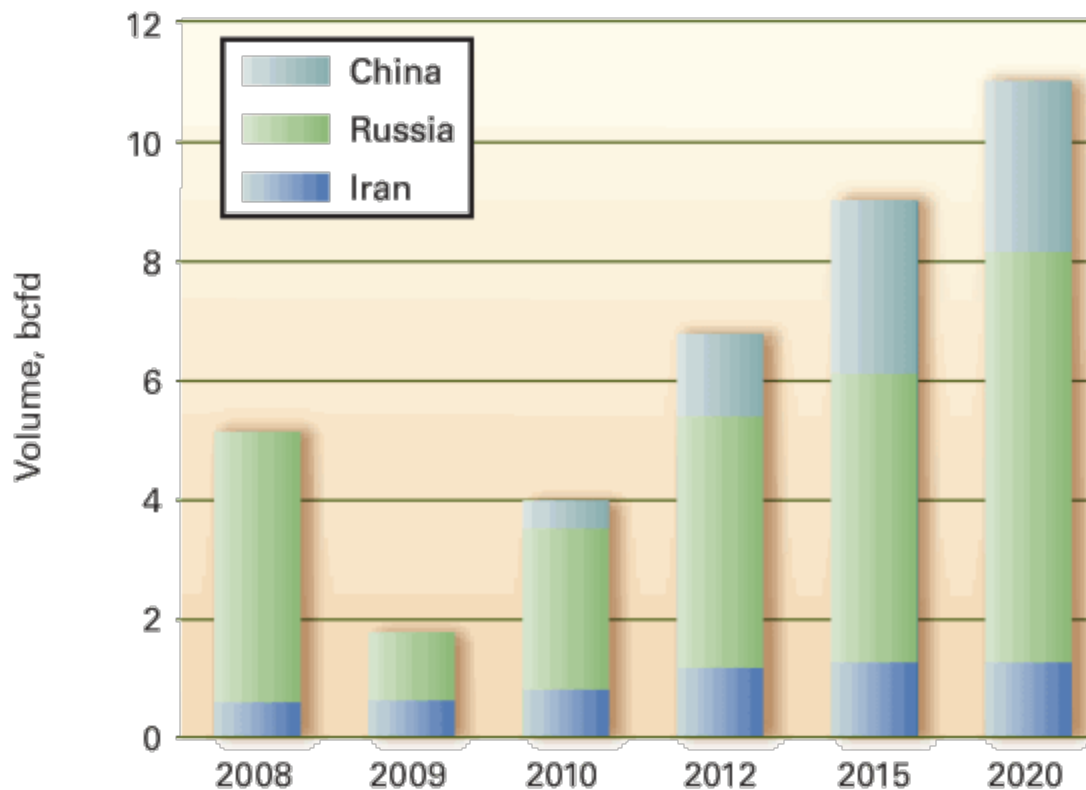
Other Changes: Jan.
2011- 18 provincial
and district governors
dismissed

Other Changes: Jan.
2011- New **Presidential
Office Chief**, new heads
of **Migration services**,
national airline, and
fisheries

TURKMENISTAN GAS EXPORTS

Fig. 2

As of April 2010



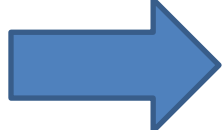
Russia- Options for expansion East and West



Nord Stream- 55 bn cm/y by 2012

South Stream- 63 bn cm/y by 2015

Selected Oil and Gas Pipeline Infrastructure in the Former Soviet Union



LNG-Sakhalin Energy LNG Project

Altai Gas Pipeline- 30 bn cm/y by 2015

Russian Domestic Gas Reforms

- Includes price reform, removing subsidies, increasing energy efficiency, investing in energy efficient capital stock, diversifying energy balance.
- As international gas prices rose, Gazprom planned to achieve equal profitability from domestic gas sales as exports by 2011 for industrial users, and by 2015 for the residential sector.
 - But due to recession and fear of inflation this was pushed back. Now deadline for industrial users is 2014-2015.
- Government has announced plans to reduce the country's energy intensity by 40% by 2020 and created a roadmap for Russia's energy strategy through the year 2030.

Russian Domestic Challenges

- Will rising oil prices give Russia an economic reprieve?
- Will the Presidential election even matter?
- After the Presidential election: gas sector reform versus reforming other extractive industries.