

Risk Monitoring & Warning in Tajikistan

MONTHLY REPORT

DECEMBER 2010



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RISK TRENDS

WEATHER RELATED NATURAL HAZARDS

There is a strong likelihood of heavy snow and avalanches during January, with a possibility of heavy rain and mudflows.

ENERGY SECURITY

Warmer than average forecast temperatures in January and above normal water stocks in the Nurek reservoir suggest adequate capacity to provide electricity for heating and other basic needs for the immediate future for areas prioritized for electricity service.

FOOD SECURITY

Food and fuel prices increases and other factors have increased food insecurity in parts of Tajikistan with particular concern for the Rasht Valley, and in parts of Khatlon and Sughd Regions according to the recent **Integrated Food Security Phase Classification (IPC) August – November 2010**. WFP has already begun food aid assistance to the Rasht Valley and the impacts of high food and fuel prices on overall food security needs continued monitoring.

MACROECONOMIC TRENDS

Tajikistan continues to have a significant negative trade balance, largely financed by an expected 2.1 billion USD in remittances. Conditions for migrants will need continued monitoring to assess whether the significant level of remittances can continue to support consumption demand in the country.

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1. HAZARDOUS EVENTS¹

(A brief summary of potential and experienced natural hazard events in Tajikistan)

Committee of Emergency Situations and Civil Defense in Tajikistan reported no disasters due to natural hazards during December 2010.

Heavy snowfall and rain as well as mudflows and avalanches are major natural hazard events which can be expected in January 2011. Note that the RMWS sends out severe weather alerts from the State Hydro-meteorological Agency during winter months.

Following the heavy damage caused by flash floods in Kulyab during the spring of 2010, the government is taking further steps to reduce risk from possible future flood events in the affected locations. Local media reports on the intention of government to construct artificial 100 mln m³ lake at the origin of Soy Tebalay in Kulyab area to prevent damage from seasonal floods. This project was supported by the President of Tajikistan and will cost 20 mln TJS (4.5 mln USD)².

1.1 Forecast for January 2011

Average monthly air temperatures in Khatlon and Sughd Regions as well as in Direct Rule Districts (DRD) are expected to be 2 to 4⁰C above normal. In the eastern parts of Gorno Badakhshan Autonomous Oblast (GBAO) temperatures are forecasted to be 3 to 5⁰C below normal, with average monthly temperatures - 20 to - 22⁰C (normal is -17 to - 18⁰C).

Monthly precipitation totals are forecasted to be close to normal in Khatlon and Sughd Regions and above normal in DRD, and GBAO (See Annex A for a more detailed forecast for January 2011).

1.2 Weather Summary for December 2010³

December experienced relatively warm weather with little precipitation. Monthly average temperatures in most of areas were within the normal range for December. However, temperatures in the districts of Jirgatal, Ishkashim, Khorog, Darvoz, Maykhura, Dekhavza were 2 to 4⁰C above normal. Temperatures during the month averaged 2 to 7⁰C at lower elevations and 0 to -16⁰C in the highlands

During the second 10 days of the month the weather was warmer than the rest of the month. Daytime temperatures at lower elevations were 18 to 23⁰C and daily average temperatures were 3 to 6⁰C above the long-term average. From December 22 to 30, average temperatures at lower elevations ranged from 4 to 9⁰C, (2 to 4⁰C below normal).

¹ Data reported by Information Management and Analysis Center, Committee of Emergency Situations

² Asia Plus online news at <http://asiaplus.tj/news/26/72802.html>

³ The information in Sections 1.2 and 1.3 and Annex A is based on reports from the State Hydro-meteorological Agency.

Monthly precipitation in December in most regions was below normal with minimal precipitation only on December 15 – 16 (see table at right).

Strong winds (54-79 km/hr) were experienced during 12 days of the month in cities of Khujand and Kayrakum, and Jirgatal District, and in mountain passes.

**Percent of Average Precipitation Received
in December 2010**

Location	%
Sughd Region	0 to 7
Khatlon Region	0 to 1
Lower Elevations, DRD	2 to 4
Higher Elevations, DRD	10-19
Western GBAO	0-6
Eastern GBAO	0 – 53

2. ENERGY

2.1 Electricity Supply

Average Electricity Generation - Tajikistan November 2009 - November 2010 (Gigawatts)			
Year	Month	Nurek	Total for Tajikistan
2009	November	858	1,303
	December	866	1,414
2010	January	849	1,429
	February	825	1,382
	March	809	1,383
	April	824	1,267
	May	986	1,346
	June	975	1,331
	July	992	1,412
	August	938	1,388
	September	874	1,284
	October	731	1,180
	November	782	1,285

Total power generation in November 2010 was 1,285 Gigawatts. This is slightly higher than in October but lower than any other month since November 2009 (except April 2010). The average daily electricity generation in November 2010 was 43 Gigawatts, while during the same month in 2009 it was slightly higher at 44 Gigawatts. The Nurek HPP produced 61% of the total daily electrical production for November 2010.

An increase of electricity prices has been the subject of recent public discussions. A rate increase from 9 diram (0.02 USD) to 11 dirham (0.024

USD) per 1 kWh had been proposed to take effect on 1 January 2011, but has not yet been approved by the Government. The tariff increase is part of an effort to increase income to “Barki Tojik” under a multi-year World Bank program to support improvements in electrical supply services in the country. Previous tariff increases appear to have had the impact of reducing electrical use, but there are also concerns that rate increases will disproportionately affect those on limited budgets.

2.2 Electricity Availability

Average Daily Electricity Consumption – Tajikistan (Gigawatts) (Not including GBAO)				
Month	South (Including TALCO and Dushanbe)	North	Talco	Dushanbe
April	35	7	18	6
May	36	6.5	18.5	5.9
June	35	11.8	18.2	4.5

July	33	12	18	4.8
August	33	12	18	4.8
September	32	10	17	4.8
October	32	5.9	17	5.7
November	37	6.9	17	8.4

The table at left shows the average daily consumption of the electricity by major regions of Tajikistan and Tajik Aluminum Company “TALCO” (the largest energy consumer). The country was virtually self-sufficient in November. The

table shows a 47% increase of electricity consumption in Dushanbe from October. Unlike other regions and cities in Tajikistan, Dushanbe does not have electricity supply limitations. The increase in consumption was due to colder weather (increased demand for heating). Electricity supplies to northern Tajikistan and rural parts of Tajikistan have been restricted since October to save water in the Vakhsh river Cascade⁴ and ensure adequate electricity supply later in winter.

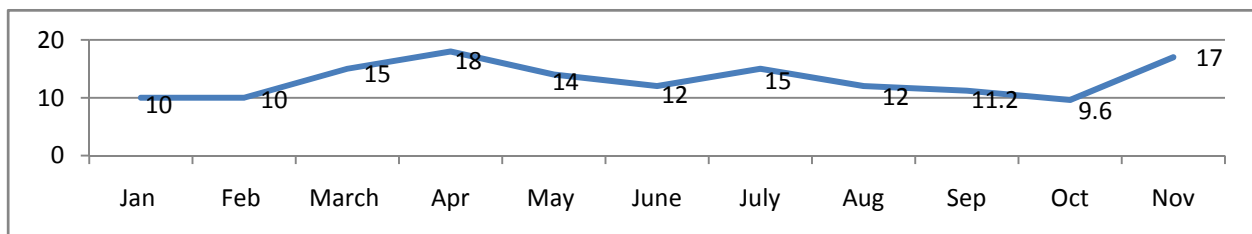
2.3 Natural Gas & Coal

Natural Gas Import in Tajikistan (2004 – 2010)

Year	2004	2005	2006	2007	2008	2009	2010 Nov
Million m ³	622.5	629	635	644.7	512.7	216.7	134.8

In November a total of 17 million m³ of natural gas was imported to Tajikistan (daily average consumption 568 thousand m³). Imports in November almost doubling imports in October was due to the fact that “Tajiktransgaz” paid off a 2.5 million USD debt to “Uzbektransgaz” in November together with an advance payment of 600,000 USD (see following table).

Natural Gas Imports January - November 2010 (million m³)



Media reports indicate that reserves totaling 60 million cubic meters of natural gas are expected to exist in the Sarikamysh gas field. Some of this gas may be made available to consumers in Tajikistan this year⁵.

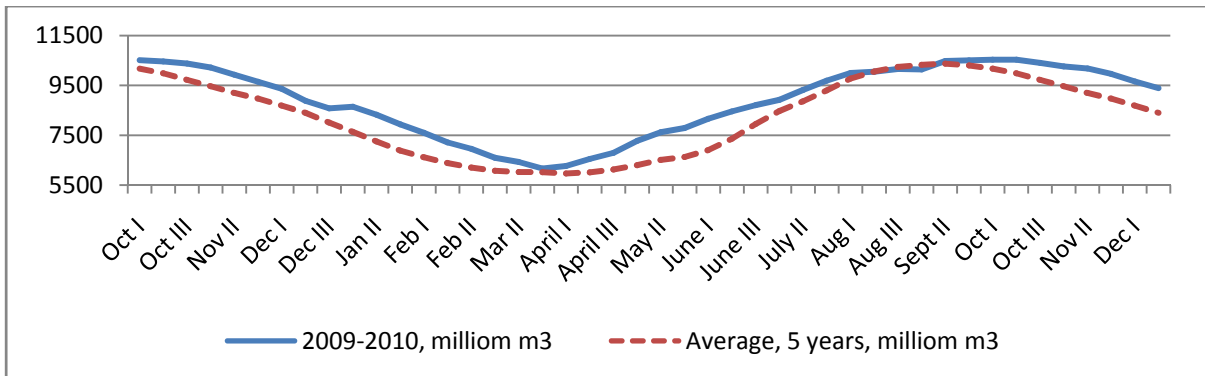
2.4 Reservoir Levels⁶

The first chart below (**Water Storage – Nurek HPP**) indicates the volume of water in the Nurek Hydro Power Station (HPP) reservoir as of the middle of December 2010 compared to the period since October 2009. The volume of water in the reservoir is above the 5 year average (2005 till 2009). The mid-December water level is similar to levels for the same periods in 2004 and 2005.

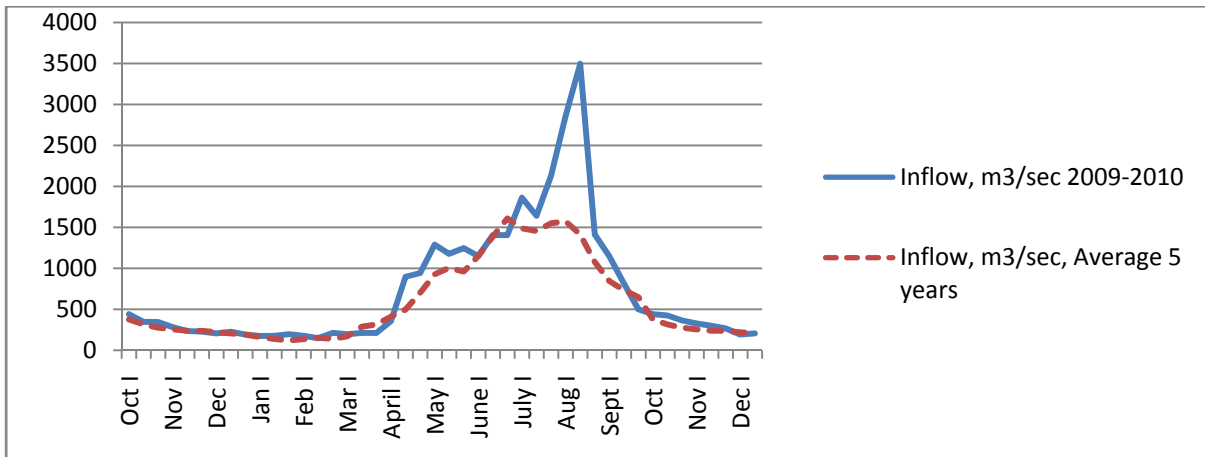
⁴ The “Vakhsh River Cascade” is a series of HEPS dams along the Vakhsh river, which generates most of the electricity available in Tajikistan. .

⁵ See <http://oilprice.com/Energy/Natural-Gas/Major-Natural-Gas-Find-in-Tajikistan-Set-to-Change-Regional-Dynamic.html>.

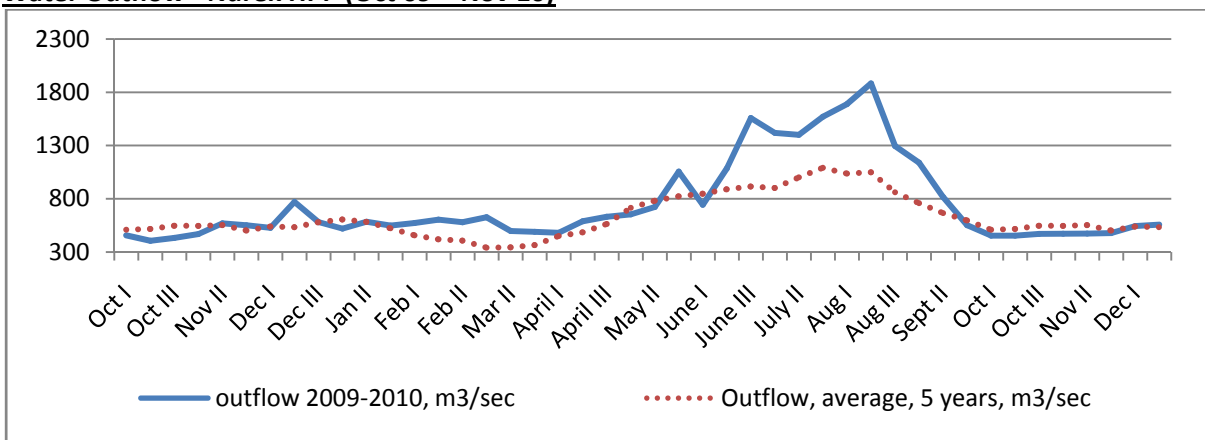
⁶ Data from CAWaterInfo, http://www.cawater-info.net/analysis/water/nurek_e.htm#

Water Storage - Nurek HPP (Oct 09 – Nov 10)

The second chart (**Water Inflow – Nurek HPP**) shows water inflows to Nurek. During the first 10 days in December inflows dropped 27% from the late November rate but then slightly increased during the second 10 days in December, resulting in an inflow rate slightly above the five year average.

Water Inflow - Nurek HPP (Oct 09 – Nov 10)

Despite decreased inflow, outflow increased 14% from Nurek HPP during December compared to late November, a rate which was slightly above the 5 year average.

Water Outflow - Nurek HPP (Oct 09 – Nov 10)

The higher than average reserves in Nurek indicate a better than average capacity to generate electricity during the remaining winter months of 2011.

3. FOOD SECURITY

3.1 Integrated Food Security Classification Report

WFP Tajikistan issued the **Integrated Food Security Phase Classification (IPC)**⁷ for August to November 2010 in early 2011. The report indicates that food security conditions in Rasht Valley (eastern DRD) is critical and parts of the Khatlon and Sughd Regions also showing “larger pockets of food insecurity” than in the previous reporting period. The causes of the increased food insecurity include together with high prices, reduced remittances, poor harvests, human, animal and plant disease, and a number of structural issues (e.g., lack of water for irrigation), with overall security situation being an additional compounding factor in the Rasht Valley.

WFP has already launched short term food aid operations in some parts of Rasht Valley (see <http://www.wfp.org/countries/Tajikistan/News/Welcome-relief-comes-to-Rasht>).

Press-center at the Ministry of Agriculture expressed concerns regarding little precipitation which affected thousand hectares of rain-fed lands⁸ and damaged fall-planted winter wheat. The Ministry advised farmers to grow crops consuming less water (e.g. barley) and also addressed the Government of Tajikistan to free dekhkan farms from paying fees for irrigation water from November 2010 till March 2011. This relates to lands without machinery irrigation, where irrigation is natural. Possible draught in 2011 may aggravate relations in Central Asian region in terms of water management during vegetative season, since 60% of cross-border rivers in CA form in Tajikistan⁹.

3.2 Food and Fuel Prices¹⁰

Concern has been raised in the international arena about increases in food and other prices, with reports that some prices have risen to levels similar to those experienced during the food price crisis of mid-2008.¹¹ As indicated below, prices for wheat flour and fuel, indicator commodities for food security in Tajikistan remain high and suggest on-going food security challenges for many residents of Tajikistan.

1st Grade Wheat Flour

The first table below shows prices for the 1st grade wheat flour in Dushanbe, Khujand and Kurgan-Tube from January 2008 to December 2010. The price for wheat flour in Kurgan-Tube remained as high as during the midst of the 2007-2008 food crises period and is the most costly wheat flour in Tajikistan’s major markets. Wheat flour prices have increased slightly in Khujand and decreased in Dushanbe in December. High prices for basic food commodities will pose challenges for the food security of those with limited assets.

⁷ Further details on the report can be found at <http://home.wfp.org/stellent/groups/public/documents/ena/wfp230098.pdf>

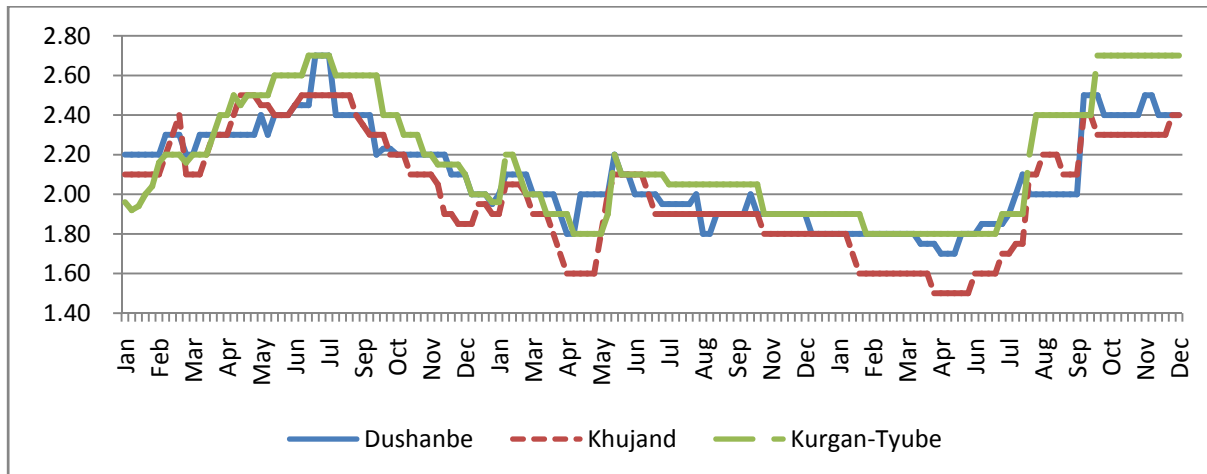
⁸ Total rain-fed lands in Tajikistan exceed 200 thousand hectares.

⁹ Fergana news online at <http://www.fergananews.com/news.php?id=16173&mode=snews>

¹⁰ Food and fuel prices are from WFP Food Security Weekly Market Monitoring, Tajikistan http://untj.org/country_context/coordination_mechanisms/agriculture&food_security/fsms/

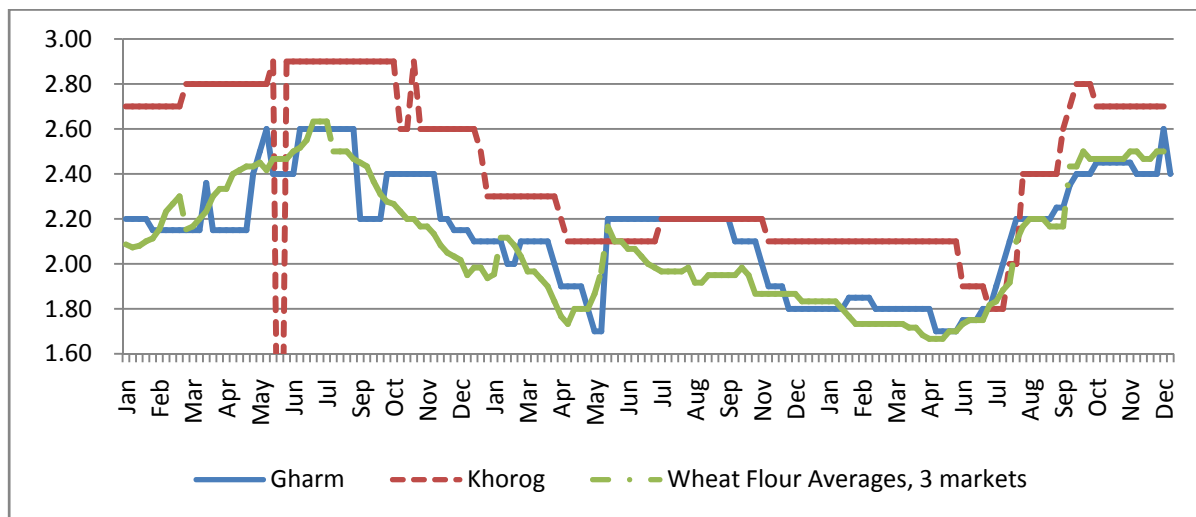
¹¹ Asia Plus news online at <http://www2.asiaplus.tj/news/49/72798.html>

1st Grade Wheat Flour, TJS/kg, Three Main Markets, Jan 2008-Dec 2010



The following table provides prices for 1st grade wheat flour in two large regional markets, (Garm and Khorog, together with the average price for the Dushanbe, Khujand and Kurgan-Tube markets). While winter weather may drive-up prices in the two regional markets, a warmer and dryer than normal December did not create any supply system blockages. Towards the end of December wheat flour prices dropped in Garm to a level below the three-market average indicating external factors affecting flour prices in Garm. However, prices in Garm remain high in historical terms since January 2008.

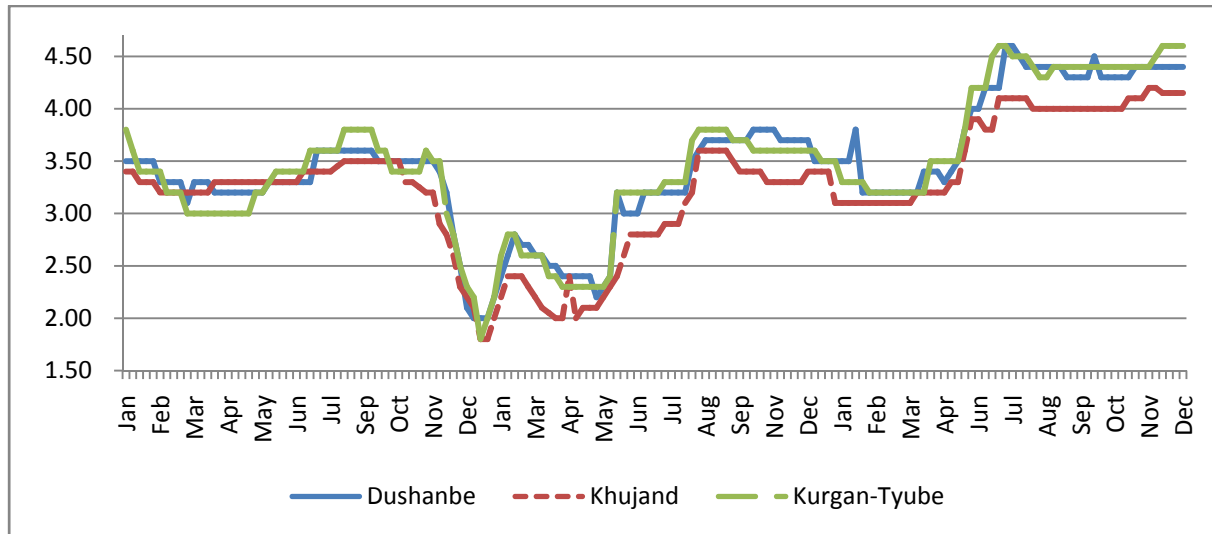
1st Grade Wheat Flour, TJS/kg, Garm, Khorog, and average of Three Main Markets, Jan 2008-Dec 2010



Fuel Prices

Petrol prices in December increased in Kurgan-Tube, dropped in Khujand and didn't change in Dushanbe. Prices in Kurgan-Tube remain at a level above any time since January 2008. The high petrol prices have an impact on overall prices in Tajikistan.

Diesel prices in December increased only in Kurgan-Tube and Khujand and didn't change in Dushanbe. Generally diesel price follow the same trend as petrol and remain above levels reached in mid-2008.

Petrol, TJS/liter, Three Main Markets, Jan 2008-Dec 2010

4. HEALTH

As of 22 December 2010, Tajikistan has reported 711 Acute Flaccid Paralysis (AFP) cases of which 458 are confirmed in labs for wild poliovirus type 1 and 154 are negative. The date of onset for the latest AFP case is November 18, 2010.

Monitoring results of quality service provided during National Immunization Days of 6th round was shared with Government and NGOs.

Organization of Sera survey for polio and other vaccine-preventable diseases is going on. Currently all samples are kept frozen in the virological laboratory of the Institute for preventive medicine for further shipment to the assigned laboratories. It is expected to send the samples to CDC/Atlanta and UK for further investigations.

5. ECONOMIC TRENDS

5.1 General Trends

In November 2010 Gross Domestic Product (GDP) was 2.25 billion TJS (506.2 million USD). From January to November 2010 GDP was 21.2 billion TJS (4.7 billion USD), 5.7 % higher compared to the same period of 2009 in comparable prices.

The share of goods in the GDP increased from 38.2% in September and 40.1% in October to 41.7% in November due to the growth of inflation. The portion of services in the GDP continued to decline and in comparison with July (51.0%) was 47.4% in November. The share of taxes in the GDP also declined from 10.8% in September to 10.6% in November.

Threats to economic security are growing from the point of view of its dependence on foreign markets and on labor migrant remittances. For instance, from June until October 2010, the excess of domestic expenditures over produced GDP increased from 17.0% to 22.5%, while in November this ratio increased to 29.9%. In other words, people in Tajikistan are spending more than they make from wages and other income in the country.

High levels of overdue debts remain in the banking and micro finance systems. At the beginning of November, overdue debts increased by 0.05 billion TJS (113.4 million USD) and

totalled 2.49 billion TJS (564.9 million USD), or 41.2% of the total amount of extended credit. A total of 94.5% of the debt is in national currency and 5.5% in foreign currencies. The significant level of overdue debt indicates an unstable situation of private sector related to high interest rates, a vulnerability to external shocks, and the risk of inflation for consumers.

For the period January-November 2010, the consumer price index increased by 8.8 %, within increases of 12.1% for foodstuffs, 4.7% for non-foodstuffs, and 3.6% for services. The monthly average rate of consumer inflation was 0.8%, which is 0.4% higher than it was in the same period of 2009. In November the monthly consumer basket price per one member of a family was 109.41 TJS (25 USD), whereas the cost of this basket per person per month based on nutritional standards would be 212.82 TJS (48 USD).

The trade deficit continued to grow in November and totaled 153 million USD for the month or 25 million USD more than in October. For the January to November period, the negative trade balance equaled 1.29 billion USD. In general terms, exports covered 55% of imports in November, compared to 32.2% in July and 39% in August. The size of the negative trade balance indicates Tajikistan may face significant risks from possible reductions in remittances, the most significant single official source of foreign income for the country.

5.2 Delayed Rail Freight Deliveries to Tajikistan

Rail cargos bound for Tajikistan continued to be delayed in Uzbekistan. At of 6 January 2011, a total of 778 rail cars were reported to be delayed in Uzbekistan, slightly higher than the 729 railcars reported delayed on 8 December 2010.¹² Further data on delayed railcars can be found in **Annex B**. Note that Tajikistan has accused Uzbekistan of slowing movement of railcars into Tajikistan in disagreement with the construction of the Rogun dam, while Uzbekistan indicates that the delays are due to technical issues, poor weather and high levels of rail traffic.

5.3 Migration

During 2010 a total of 520,835 labor migrants left Tajikistan according to State Statistics Agency in Tajikistan. In 2009 a total of 692,934 labor migrants were reported to have left the country.

Out of the total departing migrants

- Men – 471,970
- Women – 48,865

The number of female migrants has remained at around 10% of total migrants for some time, but may be increasing slowly above this level.

Departures and Returns of Labor Migrants January-December 2010				
Region	Left	Returned	Left (%)	Returned (%)
Dushanbe, DRD, GBAO	303,105	246,537	58.19	61.36
Sughd	154,042	105,723	29.57	26.31
Khatlon	63,688	49,494	12.24	12.33
Total	520,835	401,754	100%	100%

¹² Data provided by the Ministry of Economic Development and Trade in Tajikistan.

Means of transportation from Tajikistan;

- Air – 416,015 individuals
- Railway – 88,952 individuals
- Cars/Buses – 15,868 individuals

Means of transportation to Tajikistan;

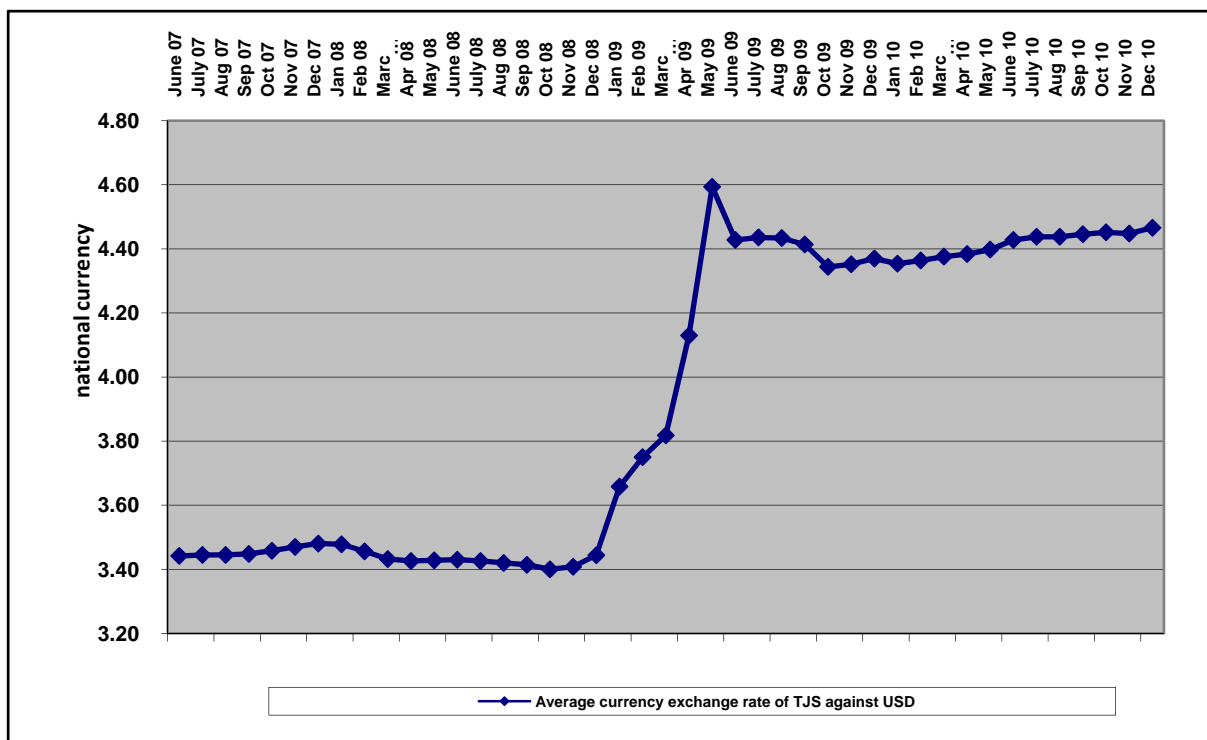
- Air – 315,117 persons
- Railway – 84,859 persons
- Cars/Buses – 1,778 persons

Data for 2010 indicates 119,081 labor migrants did not return during 2010. Reasons suggested for a failure to return to Tajikistan include a need to support family during the winter, and saving of the cost of the return ticket until a later date.

Of concern is the prospect that social unrest in Russia may result in the Government of Russia tightening migration legislation in ways which could reduce labor migration from Tajikistan and thus impact remittances and demand for work in the country.

5.4 Exchange Rate

The chart shown below includes information on exchange rate, collected weekly by WFP from main markets in the country. According to WFP data the average exchange rate in December was 4.5 TJS per 1 USD.



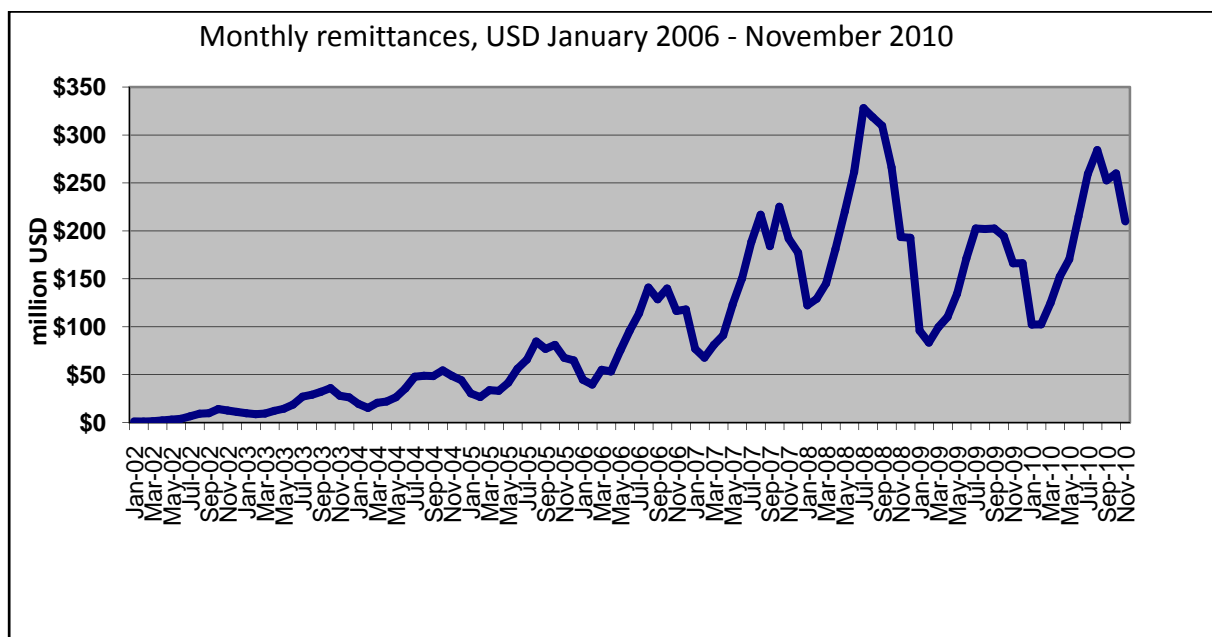
In November, in comparison with the third quarter of 2010 average, the exchange rate for the Tajik TJS against the US dollar depreciated on 0.02 points and in relation to Euro by 0.38 points. Although many independent experts link such decline to the weakened position of dollar and strengthening of Euro in international markets, our expert posits that the depreciation of TJS is mainly due to the domestic economic situation. The mid-term

perspective for depreciation of national currency is expected to be within 0.5-1% of the current exchange rates.

5.5 Remittances¹³

NBT reports Tajikistan received a total of 210 million USD of remittances in November 2010 (see chart below). Experts estimate that a total of 2.1 billion USD will be remitted by the end of 2010. It is unclear if the recent social tensions in Russia (the destination of many migrants from Tajikistan) will affect the level of December remittances. As indicated in the chart, the normal seasonal decline in remittances began in September 2010. This trend will continue through the early Spring 2011, when labor migration, and remittances, should begin to increase.

NBT reports that 20 to 30% of all remittances are processed through banks with the remaining 70 to 80% processed through various money transfer systems. Migrants also use a system where they provide funds to a person in Russia who has a collaborator in Tajikistan who provides the funds to someone in Tajikistan for a modest fee. However, this system is becoming less popular and reliable due to modern transfer systems.



¹³ National Bank of Tajikistan

Annex A. Weather Forecast for January 2011**Khatlon Region and Lowlands in the Direct Rule Districts (DRD)**

Average monthly temperatures are expected to be 2 to 3⁰C above normal:

- In lowlands: 4 to 5⁰C (normal 1 to 2⁰C),
- In the foothills: 1 to 2⁰C (normal 0 to 1⁰C).

The warmest weather is expected to be at the beginning and end of the first and third 10-day periods of the month. Daytime temperatures are expected to be up to 10 to 15⁰C. Nighttime temperatures during the last 10-day period of the month are expected to be 1 to 6⁰C. During the rest of the month, daytime temperatures will fluctuate between 0 and 10⁰C. Nighttime temperatures are expected to fluctuate between -4 to 8⁰C.

Monthly precipitation totals are expected to be close to normal. In the lowlands, normal is 43 to 82 mm, in the south of the forecast areas; normal is 28 to 46 mm and in the foothills, normal is 86 to 102 mm.

Sughd Region

Average monthly temperatures in the lowlands, foothills and highlands are expected to be 2 to 4⁰C above normal: in the lowlands and foothills 2 to 4⁰C (normal 0 to 2⁰C), in highlands -2 to -5⁰C (normal: -4 to -7⁰C).

Forecasts for the beginning and at the end of the first and the third 10-day periods of the month indicate that daytime temperatures may rise to 8 to 13⁰C. Nighttime temperatures during the third 10-day period of the month will be -1 to 4⁰C. During rest of the month daytime temperatures are expected to fluctuate between -1 and 8⁰C, and nighttime temperatures may fluctuate between -4 to 8⁰C.

Monthly precipitation totals are expected to be close to normal: in the lowlands and foothills, normal is 10 to 39 mm, in the highlands, normal is 9 to 18 mm.

Mountain Areas of DRD and the Western Parts of GBAO

Average monthly temperatures are forecasted to be 1 to 3⁰C above normal and range from , -2 to -6⁰C (normal is -3 to -9⁰C).

It is expected that in the beginning of the first and the third 10-day period of the month, average daytime temperatures will be 0 to 5⁰C. Nighttime temperatures during the third 10-day period of the month will be -2 to 3⁰C. During the rest of the month daytime temperatures will fluctuate between -4 and 3⁰C, and nighttime temperatures between -3 and -13⁰C.

Monthly precipitation totals are expected to be above normal: in western GBAO, normal is 20 to 56 mm and in the DRD, normal is 39 to 150 mm.

Wind speeds of 61 to 79 km/hr can be expected and with fog in passes.

Eastern Areas of GBAO

Average monthly temperatures will be 3 to 5⁰C below normal with average monthly temperatures -20 to -22⁰C (normal -17 to -18⁰C).

During the month nighttime temperatures will fluctuate widely between -20 and -33⁰, while afternoon temperatures will fluctuate between -8 to -26⁰C.

Monthly precipitation totals area expected to be above normal (normal is 5 to 20 mm). There will be high winds and snowstorms in many locations.

Annex B. Delayed Rail Freight Deliveries to Tajikistan

Commodities	14 Apr 2010	12 May 2010	22 June 2010	21 July 2010	28 Aug 2010	4 Oct 2010	29 Oct 2010	8 Dec 2010	6 Jan 2011
Bauxite	270	None reported	None reported	None reported	None reported	None reported	None reported	None reported	None reported
Fuel and Lubricants	645	705	485	87	167	126	147	110	92
Equipment (unspecified)	25	None reported	None reported	None reported	None reported	None reported	None reported	None reported	None reported
Equipment (earthmoving)	12	None reported	None reported	None reported	52	None reported	134	5	25
Cement	44	215	6	8	49	3	11	9	2
Asphalt	30	81	117	None reported	None reported	24	27	None reported	None reported
Flour and Grain	121	50	84	101	151	19	141	36	45
Natural Gas	None reported	83	62	56	None reported	20	None reported	5	17
Other commodities	1,000	627	748	791	605	730	810	564	597
Total	2,147	1,761	1,502	1,043	1,024	922	1,270	729	778

The aim of the Tajikistan Monthly Risk Monitoring Reports is to provide regular information and succinct analysis on the evolution of natural, economic, food-related, energy-related and other risk factors in Tajikistan. Data and information in this report are provided by different sources and compiled by the RMWS Group of Experts and UN Agencies in Tajikistan. The United Nations in Tajikistan and UKAid are not responsible for the quality or accuracy of the data provided by external sources or the analysis contained in this report.



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http://untj.org/country_context/coordination_mechanisms/disaster_management/compound_crisis/early_warning_indicators/