



“Water-energy policy in Kyrgyzstan in the context of developing geoeconomic and strategic resources in the Central Asian region”

Event stenogram

There was a round-table on the topic “Water-energy policy in Kyrgyzstan” with the participation of experts on water issues on February 22, 2008 at the Bishkek Press Club.

Moderator: Muratbek Imanaliev, IPP president

List of speakers and topics of presentations:

Bazarbay Mambetov, President of the Oil Traders Association: “New principles of the country’s water energy resources management”;

Ernest Karybekov, Deputy Chief of the Energy and Mineral Resource Department, the government apparatus of KR: “Kyrgyzstan’s vision of water-energy relations in Central Asia through the diversification of resources”;

Jyldyz Sarybaeva, Chief of Section, Department on the International Economic Cooperation: “Water-energy potential of Kyrgyzstan and Tajikistan”;

Klaus Grevlih, Ambassador of Germany in Kyrgyzstan: “Small hydro energy stations (HES) – integrated projects for development and peace in south-eastern Central Asia”;

Jumakadyr Akeneev, Professor of KNU named after J.Balasagyn, a discussion participant;

Duishon Mamatkanov, academic, a discussion participant.

Muratbek Imanaliev introduced the speakers and highlighted the topic of the round-table.

Bazarbay Mambetov: God has blessed us with enough natural resources. There are 50 cubic km of surface or river waters, plus 13.7 cubic km of underground waters formed in Kyrgyzstan. Taking into account the fact that more than 85% of these resources are supplied to neighboring states, the management of water-energy resources is of particular strategic importance for us. Why do we discuss the question of managing these resources nowadays?

First of all, the world has changed, and each country struggles for a cubic meter of its own resources. Secondly, our country has never violated the principles of good neighborhood and mutual understanding with neighbors since independence. We still believe that our rivers, which continuously flow to the neighboring countries, must trigger a mutual sympathy and let them understand that Central Asian states are closely connected to each other and destined to live together.

Kyrgyzstan has never forgotten that downstream countries have a historical right to each river that allows them to continuously profit from agricultural and industrial production and satisfy the social and community needs of their population. Such a sense of good will has always moved away the principles of absolute or limited sovereignty of one country over water resources, which is applied in the wider world and exercised in accordance with the good will of the interested state.

At the same time, our neighbors without consulting us have recently unilaterally applied the leverage of economic pressure, using their natural resources. In particular, it is true for natural gas and oil

products lacking in Kyrgyzstan. In addition, they have set high railroad tariffs and have limited purchasing of electro-energy related to the draw of water from the Toktogul reservoir storage for them, and securing free transit and equal rights for labor migrants and other things.

The more Kyrgyzstan consented to the requests of neighbors on water-energy issues, the more complaints they had. Under such conditions, we are compelled to refer to global experience in using inter-state water, and exercise our rights as a country where the natural resources are formed. We have faced the necessity to change existing water resources management inherited from the former Soviet state.

We are realizing just now the importance of geostrategic resources' management. The reason is the absence of an integrated state water-energy policy regarding the neighboring countries, which was previously viewed as unnecessary. The water resources of the great Naryn River were under the competence of power specialists, the rest of rivers, more than 30 flowing to neighboring countries, was managed by the official state body on water economy. At the moment we need to unite the interests of our power specialists, water experts and hydrologists into integrated state policy and strategy. There is no country in the world that treats its water and energy resources as we do. For example, the total annual water flow of Chui, Talas, Aspara, Kurkurey and Karkyra rivers is 7 billion cubes, and we were assigned to give 3.8 billions cubes of water to Kazakhstan. In practice, we give an average of 4.8 billion cubes of water. At the same time, in the summer considerable arable lands of of the Chui and Talas valleys lack water. The desire to give water to Kazakhstan dominates over giving it to our own people.

In the south, we agreed to unite water resources in the concept of the Naryn-Syrdarya basin. While discussing this basin, Uzbeks and Kazakhs officially count the flow of water only through the Naryn River, i.e. through the dam site of the Toktogul reservoir storage with the annual volume of 12.5 billion cubes on average, including 6, 5-7 billion cubes during the summertime. However, 20 large rivers, 5 large reservoir storages and 8 channels that are not included in the Naryn River basin provide another 19 billion cubes of water to Uzbekistan, and have not been discussed.

It seems that we have forgotten that there are reservoir storages like Andijan, Papan, Kerkidon, Kasan-Say, Tortgul, Orto-Tokoy and Kirov that were built in the beds of our rivers. We use a very small part for ourselves from these water reservoirs, only 7% . All the water goes for free and we have to bear all the expenses of exploitation and technical maintenance.

For today, we do not have any obligations on water and electro-energy supply to neighboring countries. The agreement of 1992 which was concluded between five states on the joint management of water resources was not ratified by us and does not have international and legal effect. The agreement of 1998 on water-energy resources of the Naryn-Syrdarya was denounced by Uzbekistan and Kazakhstan a long time ago when they had not met its major conditions. As for the participation of our Minister on Water in the work of the ICWC (Inter-state Coordinating Water Commission) of five states, it is merely a symbol of solidarity, its decisions are just recommendations, although our partners set limitations on water withdrawal from our rivers for all states, including us.

There is no effective international mechanism to solve disputes on using international waters. Under such conditions, we have decided to look at things with a fresh view, to propose new principles of using river water between countries, stemming from our own economic and political interests. Nowadays, there can only be new and civilized water-energy relations between states sharing access to water channels. We have to develop and introduce the major principles of the country's water-energy resource management. The point is to have complete control over water resources that flow to the neighboring countries.

Today, we need an integrated state water-energy policy that has the status of national strategy. The principles of the policy must be firm and compulsory for all state bodies. It is not that important to legally approve a new water-energy doctrine, as to have common state discipline on this issue. We still do not have public consent, and we have a range of political ambitions regarding the water-energy resources of the country. In such a situation, the leadership of our country must take responsibility and say: "Now, we will build water-energy relations in a new way, based on world experience and considering historical and other circumstances." After all, water is our natural resource, and electro energy is a product which is cheap and offered to neighboring countries only within a specific period.

With new principles of resource management a special place is taken by the great Naryn River. Downstream countries must recognize that the basin of this river sometimes has a variable rate of water. Therefore, the Naryn's supply may be different from year to year, and the water volume in the Toktogul reservoir changes. It means that water supply to our neighbors depends on the hydrological conditions of a year. The Naryn river flows are collected and stored for many years in the cascade of reservoirs with the purpose of water supply to downstream countries at the proper time and in sufficient amounts. No one can deny this fact. This service of Kyrgyzstan, according to global standards, must be paid. The international community has extensive experience and more than 40 interstate agreements on this issue. Even the USA pays services from Canada to regulate river flows from Columbia by means of the cascade of the Canadian reservoirs. We have to make scientifically justified calculations to define the service price of water supply, based on our expenses. It must take into account the profit that downstream countries receive, which is well-known, and can hardly be overestimated.

The second component of our principles is the annual and compulsory purchase of electro-energy that is produced during the summer flows of water from the Toktogul reservoir storage. The point here is that Uzbekistan and Kazakhstan must accept, on a guaranteed basis, up to 2 billion of kilowatt hours of electro energy with the monthly payment of its price. The price of the energy supplied was recently defined by our Prime Minister and I think that it is a fair price. Since water and electro energy supply is the subject of interstate relations, it is right that the head of government has clearly defined the position of our country. Previously, the price of the supplied electro energy was not defined by the government.

There are two major conditions: the payment of service on water supply and the purchase of excessive electro energy related to the irrigation water flow from the Toktogul reservoir. In the case of meeting these rules, we can guarantee to supply irrigation water in the summertime: 6 billions of cubes in the normal year, 7 billions – in the low-water years and 4 billions in the high water years. These amounts are sufficient. The mode of water flow of the Naryn during a year is defined by the government, and here we do not need the advice of international experts or regional organizations.

We are always being imposed upon to have an unacceptable mode of water flow in winter on the cascade of the Toktogul reservoirs. We need our own independent mode in order to cover the deficit of electro energy in winter with the power of the Toktogul hydro-electro stations, and gradually to stop producing electro energy at the Bishkek heat station. Thermal generation of electro energy at the turbines of the heat station is very expensive, about 50 times more than the price of energy from the Toktogul HES. Also, we should not agree on the compensation of supplied electro energy with gas or coal from these countries. The necessary amount of coal for the Bishkek heat station can be provided by Tash-Kumyr, Kyzyl-Kiya and Sulyukty. We do not have a deficit of electro energy; there is simply corruption and a lack of responsibility and competent people.

All 30 large river flows not related to the Naryn basin, 8 large reservoir storages in the beds of these rivers, and 12 solid concrete-based channels continuously bring water to the lands of our neighbors. It is in our balance, and we have to cover all costs to maintain them. The lost profit from the flooding of more than 48 thousand hectares to build reservoirs and channels has not yet been paid. If we supply water through the system of our reservoirs and channels, our service has to be paid as well. At present, such a water unit must have inter-state status, confirmed in inter-governmental documents. The new principles of water resource management provide the well-established counting of water flows. We have to deal with our border hydro-posts on rivers in order to track flows and to inform our neighbors regularly.

The potential of our electro energy sector is well known. Without the cascade of the Naryn HES, the Central Asian Integrated Energy System (IES) cannot function; it is designed to secure the energy consumption of Central Asian states. The Kyrgyz electro energy sector is connected with the waters of the Naryn River; hence, we need to manage not only water flows but also overflows of electro energy. We, after giving away the water of the Naryn River, and providing cheap energy, wait for years until the supplied energy is paid. Now, we should not allow it. They must pay for the supplied energy on a monthly basis and only by money. The compensation of electro energy price by providing other resources is not possible, because of corruption and other questionable deals.

Many have doubts on the reliability of the accounting of energy overflows from our HES to the integrated energy system of Central Asia. When we have old and improperly functioning devices on

energy accounting with the high-voltage nets, first going to Uzbekistan, then to Kazakhstan along the existing energy cycle, everything is possible, no one checked them; moreover, central control is located in Tashkent. Although it is the operator on energy overflows between Central Asian states, there is no equal representation of all states. There are no representatives of Kyrgyzstan who work in this control center, all work is guided by specialists of Uzbekistan.

The importance of our HES cascade on regulating the frequency of energy in the nets of Uzbekistan and Kazakhstan also has to be appreciated. At a constant frequency drop in their nets, we start to give away the power of our stations to regulate it. Right now, we have to clearly regulate our energy relations with these states, based on the importance and potential that we have. Thank you for your attention.

Duishon Mamatkanov: Why did it happen, where was the mistake?

Bazarbay Mambetov: The leadership of our country paid no attention to this issue from the very beginning. When the countries started to clarify their borders and their resources, we did not address these issues. Now, the situation has to be radically changed, I do not know how to change. It is your task to tell us about it.

Duishon Mamatkanov: And the second question: what are the positive and negative sides of the agreements of 1992 and 1998?

Bazarbay Mambetov: You know that I was behind the agreement of 1998. Firstly, this agreement was concluded for 5 years; secondly, it was an intermediate one. We had to sign a document on the Naryn. We supply the energy - they have to guarantee the supply of natural gas, coal and masout. But in the second year, they started abandoning the supply; after receiving the full amount of energy, they did not pay for many years, and as a result there emerged a five-year debt – 18-20 million dollars. Then, these 20 millions were distributed by our authorities with discount to doubtful companies emerging in Kazakhstan, Kyrgyzstan and thereby we were receiving nothing. As for the agreement of 1992, it was an improper agreement signed by a well-known person.

Duishon Mamatkanov: I have one more question. What is it, the new principle of apportionment?

Bazarbay Mambetov: We say that they have to pay for the water, because we store it in the reservoir and then supply. In world practice, it is called the service of water supply. When we talk about the water flows that run along the historical bed of a river, one cannot sell water. There is an international rule: if an upstream state stores the water in the reservoir storage and at the proper time in the summer supplied it as agreed by the state, it is called water supply service, which has to be paid by the downstream country. And now, we have to go along this way. If we sell the river flows by cubic meters to Uzbekistan, Kazakhstan, it is the completely wrong way. This is because Uzbekistan, Kazakhstan and Tajikistan have the historical rights to these waters. All our service is that once we built the reservoirs in the beds of these rivers.

The way to understand these things is long one. Our scientists have to base it on world experience and rules. However, we failed to do it and worsened our relations with Uzbekistan and Kazakhstan, when our dear Turdakun Usubalievich successfully lobbied the law on water sales through the Jogorku Kenesh. The academic Mamatkanov in his institute also developed a method on selling water as an economic product, which is completely impossible.

Duishon Mamatkanov: Do you know that Greeks with Kazakhs sell water as a product?

Bazarbay Mambetov: I know it very well. However, the water that runs along historical beds cannot be sold.

Muratbek Imanaliev: The work of the round-table participants is to propose something to our government. Are there any recommendations? It is very important if they can use it.

Ernest Karybekov: First of all, I would like to thank you for organizing the round-table and briefly share my vision on water-energy relations in Central Asia through the diversification of energy resources. In my understanding, the most important thing for Kyrgyzstan and the whole region is to safeguard the uniqueness of our reservoirs, and as Bazarbay Estebesovich noticed, to keep historical relations with our neighboring states. Generally, all these water reservoirs are of state importance,

they are the bases of our economy. Therefore, we have to treat them very carefully, and pay attention. Perhaps, it has to have the first priority among all economic fields. It includes the social questions of energy, it is the whole economy. So far, the Kyrgyz side is losing. There is a proverb: "You can take a horse to the water, but you cannot make him drink." Kyrgyzstan must develop its own new programs; the vision is that we need to diversify this water, the hydro energy sector into other types of energy. Here is the proposal to have small HES, it is the proposal of German Ambassador Mr. Grevliih, and I like it. To build them in such places, where it is possible to have tourists camping and restaurants, in other words, to diversify by means of tourist services. However, there are some other variants: in most developed states, the large generating companies simply buy the product to let the small HES develop, and thereby secure the energy security of the state. In accordance with the preliminary data, the total power of all small HES in Kyrgyzstan is about 250-270 megawatts, the production will be around a billion kilowatt hours. The natural monopolists will buy the energy, say, for 3 cents. The 3 cents for a small HES is basically a fair price. If large companies buy energy for the price suitable for small HES, then sell it again or export to the external market for 3.5 cents, it is profitable for the state as well as for large companies, and provides a ground for developing small HES. The small HES will work mainly during the summertime, in the warm season. By means of covering the million kilowatt-hours in the summer, it is possible to save around billion of cubes of water on the major source of energy, i.e. the reservoir storages. It means the export of Kyrgyzstan will increase by this price and volume.

It is clear that in order to keep and store water in our nodes, it is not necessary to build new hydro reservoir storages. We can build other types of electricity stations, let's say, thermal or nuclear; any electricity stations, i.e. the generating power to keep the water volume necessary for Kyrgyzstan and the whole region. There is another project; I know that there is a team that is working on it. The project of building an electrolysis factory, which by means of electrolyzers to use the water of the Naryn River and the energy of the Toktogul HES cascade, one can receive hydrogen in the form of gas. According to prior estimations, the gas received in the form of hydrogen is twice as cheap as the gas that we receive from Uzbekistan. The problem is that this gas has to be used right away, but it is produced in the summer while we need gas in the winter. Therefore, the problem of safe storage of hydrogen is widely researched worldwide. I am leading to the point that it will be good to have the initiative to solve the water energy problem coming from Kyrgyzstan. Students of the academy must address these issues, and after 10-20 years we will come back to hydrogen. The world has accepted that it is the major energy of the century. In other words, by using water, electro energy, we make a gas, and we still can diversify this water, i.e. to use for ourselves. If we always rely on the energy resources of our neighboring states, it is meaningless, since they will be exhausted. Today we have to start to deal with it for our future.

Jyldyz Sarybaeva: Of course, I would like emphasize the importance of today's topic, and to talk as agreed by the organization team on the topic: "The water potential of Kyrgyzstan and Tajikistan." In this view, I would like to draw your attention to three moments that I will address in my presentation: to clarify the meaning of the word "potential", and the analysis and evaluation of a place, role and importance of the resource bases of Central Asia at the world scale; secondly, I believe that it is reasonable to consider the water-energy potential not separately but together with the development of the energy potential of the whole Central Asian region. In this context, it is obvious that the priority is not a technical component, i.e. to have a united energy system, but those questions related to the geopolitical interests of the region and the geopolitical interests of external players in the region. Thirdly, regarding Kyrgyzstan and Tajikistan, I find it reasonable to elaborate clearly and in accordance with the climate and socio-economic conditions, as well as the specifics of the energy system functioning on the hydro energy systems that we have. It is to state the exact tasks that we have to realize now. Concerning the first point, I would like to say what the potential is. If we take the dictionary, it is clearly written that potential is reserve means. Discussing the potential of the region, we have to admit that our region is extremely rich both in terms of fuel-energy and water-energy resources. The published estimations of the energy potential of the region are different, especially concerning oil and gas. The share of Central Asian oil in view of the world reserves is about 5%, gas-5% and uranium is from 19.7 to 30% according to freely available sources. The potential of water-energy resources of the region is about 670-680 kilowatt hours per year with the average amount of water rate. In this view, it is fortunate that we have sufficient reserves. Especially taking into account the instability in the Middle East, processes of nationalization in Latin America and gas issues between Russia and the European Union, the interest to the energy resources of Central Asia is strengthened. It is natural that in this context the priority questions are the prognosis of the situation in the fuel market, geopolitical preferences, and hence, the confidence of investors channeling their investments into the energy sector of the region.

As for the second point, I would like to say the following. Basically, it has become obvious that the energy resources of the region may be turned into political leverage. All countries of the Central Asian region want to use it effectively. In this meaning, Kazakhstan shows high potential in exporting electro energy in the region. As for Uzbekistan and Turkmenistan there are some problems that are mostly a result of geographical difficulties. The situation generally is quite positive, oil and gas export is through the Russian pipeline system, and there are plans to build other pipelines. For example, the plan to build the Turkmenistan-China gas pipeline has not been accomplished yet. The Trans-Caspian gas pipeline, unfortunately, is an example of rhetoric.

The hydro energy potential of Kyrgyzstan and Tajikistan require considerable investment unlike the oil/gas projects. Investors tend to regard the hydro energy projects with less enthusiasm, and I think that it is a shallow approach. Particularly since in most cases it has a political character, for example, the HES in Tajikistan or Kambarata HES in Kyrgyzstan. It goes according to the scheme: money from Russia in exchange for loyalty. In this view, we need to inform investors about the extent of interdependence on the energy system in the region, about the transit potential of the country, and the geopolitical influence of water-energy resources on the economy of neighboring states. I agree with the previous speakers, that perhaps we do not have an effective policy on informing potential investors on projects not only in the hydro energy sphere but also projects in the fuel-energy sector.

In the case of Central Asia it is obvious that China has a great number of instruments that guarantee that neighboring states like us will not withdraw and will supply oil, gas, electro energy for acceptable prices within agreed time limits. The success of energy diplomacy in the USA is at best characterized by biting off more than they could chew. The cooperation between Central Asia and the European Union is viewed by many experts in such a way that the effective realization of projects may be questioned, since there are already on-going projects, and Russia and the USA were ahead of the EU. In this regard, it is interesting whether the EU can get gas reserves in Turkmenistan out of the control of the Russian company Gasprom, because without Turkmen gas the opening of an alternative route for hydrocarbon energy supply to Europe will be meaningless. And lastly, we must not forget about the self-sufficient player in the region - Iran. The difference in positions on the nuclear program of Iran can create difficulties for the energy dialogue between the West and Russia with the CIS countries.

Among Central Asian projects, the priority has to be given to coordinating projects of regional character. The best results in this view may be attained within the EvrazEC cooperation. You know that there is on-going work on developing the concept of water-energy resources in Central Asia in cooperation with the European Union, and I think that at the moment there are projects that will be supported and realized on conducting the international water-energy summit and establishing the water-energy academy. In partnership with UN structures, there are different projects on developing the normative-legal base. Maybe the effectiveness of these activities is not high, but the work is on-going. Even so most of these projects are 'spinning' in the same place. It is possible that our further initiatives may have the same destiny, but it does not mean that we need to stop. Despite the fact that each state in the region strives for protecting its national interests, each state is afraid of superpower domination in the region and tries to adapt the internal prices to world prices, but in the end, each country works in its own interests.

Concerning the third point of my presentation, I would like to note that when we say: the water potential of a country, the question arises that is related to the method of accounting, data analysis, and coordinating ties and so on. Of course, by today we have certain indicators; at the same time, each of us knows that according to theory, the technically justified potential is usually less than 20%, and the economically justified figure is even less. The latter can be 10-15%. As a result, if Kyrgyzstan has hydro potential of about 142 billion kilowatt hours, then we have exactly 10-15%. We produce 14-15 billion of kilowatt hours a year. There are other methods of accounting: linear counting – 268 rivers, 97 large channels and 19 reservoir storages, and we have the potential of 249 billion of kilowatt hours. As for Tajikistan, they have the hydro potential of 527 billion kilowatt hours, and annually they use about 15 billion kilowatt hours. From one side, it looks correct, because we are still within the economic rationality of produced energy. On other side, we have to understand and accept that energy consumption is increasing in the world and in the region as well. In Kyrgyzstan, energy consumption increases 3-5%. At the same time, the dependence on our energy systems on the supply of energy to neighboring states remains without change. It harms the economies of our states and has a negative impact on the sustainable operation of energy systems. Therefore, it is extremely important not to be attracted by indicators of potential estimation, but to think about the sustainable operation of our energy systems. I think that the point has to be about the realization of programs on

building and exploiting of the most attractive energy projects. We have many such projects. The point is to diversify the source of energy, as well as to develop a number of measures on the rehabilitation and reconstruction of our current energy systems. In the last two years, there are discussions on introducing a computer-based system of commercial energy accounting in order to remove technical and economic losses.

Lastly we need to liquidate the informational vacuum around the political initiatives of each state. In our relations with countries of the region, we hide our initiatives until the last moment, and it comes out at the end, and is usually rejected by neighboring states. Generally, the last point on the liquidation of the informational vacuum relates to the activities of Ministry of Foreign Affairs and now, we are addressing this issue.

Klaus Grevlih: How do you assess the status quo on the establishment of the water-energy academy and conducting of water–energy summit?

Jyldyz Sarybaeva: I think the Ambassador is informed that at the moment, the activities on conducting the summit and establishing the academy have been started. We plan to conduct the water-energy summit in December this year. The decision is made that it would be called: “a high level meeting on water-energy questions.” We intend to have a meeting at the level of the heads of states of the 5 countries. We will invite representatives of international organizations.

Muratbek Imanaliev: My personal position on this summit is that we should not hurry or I am afraid that it will not be fruitful. I do not know whether the results of the Tokyo water summit were analyzed by the government or MFA. I cannot, unfortunately, obtain the information, or even the speech of Rahmonov. Honestly speaking, we, Kyrgyzs, missed this opportunity; even our Ambassador did not participate in this summit. I have to say that Rahmonov actively used this opportunity, and I heard that in his speech he reflected the interests of Tajikistan, i.e. he did what we should have done. It is necessary to have a serious analysis of what happened in Tokyo, this is first. Secondly, it is necessary to prepare the document before the Bishkek meeting, i.e. there has to be a meeting of experts-private parties, officials, ministers; then it is necessary to have a meeting of Prime-ministers; everything has to be ready. Today, we are sharing our thinking. It is difficult to unite it into a system called a policy, not mentioning our relations with neighbors. For example, the legal mechanism is not developed at all. Yesterday I published a small article on international mountain rights. I think that our lawyers together with others must analyze it, because, part of the problems of mountain rights are related to the water flow in the system of mountains and valleys.

When we talk about Central Asia, we consider simply five former Soviet republics. But there is a very big and serious country relating to Central Asia in the context of the system - China. China is an ally of Kyrgyzstan, because Kazakhstan and Russia are connected in the Irtysh and Selenga, etc, while these rivers start in China.

There is Afghanistan, and it is a problem of not today, but of tomorrow, but still this problem will occur, and we have to consider it. It seems to me that the first task is to create a mechanism. For example, I view the academy as a mechanism or instrument to coordinate positions and develop a vision of the situation in Central Asia. If we say that we want to sell water, no one will buy it. At the end of the day, everyone will lose. We will lose, Uzbeks and Kazakhstan lose. The current situation in Kazakhstan, Shardaia – it is very difficult there. This situation may emerge in Uzbekistan in the next year, - it is quite obvious who has interests here. We cannot come to any agreement with each other.

Generally, it is important to develop principles of interaction. Even those neighbors, who share a garden, usually develop principles. Here, there are no principles. The principle of international law, the principles of cooperation, the principles of equality, it is clear. However, there is a special principle – for example, the principle of inter-sector balance of interests, very much needed by Tajikistan and Kyrgyzstan. This principle will be connected with the transport-infrastructure issues. There is a principle of compensation. The point is that not only they have to compensate our efforts, our expenses, but we have to compensate their expenses as well. I believe it has to be comprehensively worked out.

It is a very good idea to organize the water summit. I do not want to see it as a typical event, when people get together and talk but there is no result. It is very much desired to have a result, to develop principles and legal mechanisms and systemic approaches. Generally, what is water? I do not know whether it is true or not, but I read in one magazine, that there is several times more water per capita

in Central Asia than in Europe. The problem is not a lack of water; the problem is that we cannot use it properly. In Israel, for example, one bucket of water is for one person, while we use 10 buckets per person. One bucket of water is used to grow a quintal of crops, while we use 10 buckets for nothing.

Klaus Grevlih: It is completely new to me that the water-energy conference will turn into a meeting at the high level among five Central Asian states. I have a question. The initial proposal of the European Union to conduct a water-energy summit; have you called it back?

Jyldyz Sarybaeva: In general, as far as I understand, the initiative on conducting the summit was not called back, in practice. The change of the name relates to the following circumstances. The point is that in 2009 there will be the World Water Forum in Istanbul. The forum will take place in March 16-22. In our republic, we plan to conduct the meeting of CIS Heads of states in the autumn. Therefore, after coordinating with the President's administration, it was decided to have high level meetings in December. Taking into account the fact, in October at the meeting of CIS heads of state, all presidents of Central Asian republics will be present, and they cannot convene again after two months to participate in the international water-energy summit in December. In other words, this issue relates to the organizational moments. In fact, the importance and role of the event is not questioned, and we plan to conduct this meeting aiming for a concrete result.

Klaus Grevlih: The principal question for Kyrgyzstan as well as for Tajikistan is as follows: it is necessary to build large Hydro Electro Stations (like Toktogul or Kambarata) or it is possible to add large HES of thousand megawatt with the network of small and middle-size HES (up to 40 megawatt), the excess of which may be included into the general cycle. Moreover, such decisions will contribute to promising projects on energy supply to Afghanistan and Pakistan, such as CASAREM-1000 (Development of Central Asian and South-Asian regional electro-energy market). Perhaps, the decision in favor of small HES is proper in terms of ecology, since there is a danger that large HES would damage the micro-climate and biodiversity.

Even though small HES is less profitable economically (considering the expenses for construction, exploitation and production) than large ones, the advantage is a possibility to integrate or unite ecology (restoration of forestry), high level tourism and elite agriculture. Each valley with small HES that has a seismically solid dam can be a little haven for agriculture and tourism. If there is the construction of roads or communication systems for the dam; at the same time, there will be transport and communication infrastructure in the beautiful mountainous valleys that are ideal for hotels and sanatoriums (with cleaning facilities), water reservoirs and places for agricultural product cultivation (a kind of kibusa). The local electro energy supply will be guaranteed; **the restoration and planting of forestry will be a purpose that can be reconciled.**

In fact, the question of financing is like a "bottleneck," i.e. the narrow place for the above integrated projects. To find a way out of the situation, it is necessary to create financial consortiums that can attract those who may finance like commercial banks, development banks, "public-private partnerships," as well as suppliers and service structures by uniting them into syndicates and using innovative and integrated approaches. Simply speaking, the point is that money for water and electricity that will come tomorrow will be received today in order to build the necessary infrastructure. It worked for telecommunications; it will work in the case of water and electricity as well.

Along with sustainable financing, it depends on the progressive legal regulations that will include anti-corruption measures, ecological standards, tariffs, agricultural norms and security measures, water law and investment protection. The first pilot mountainous valleys may be turned into the "economic-ecological" as well as "institutional-legal" innovative "economic special zones." However, first of all, the legal regulation must serve to protect integrated projects both from "wild capitalism" and non-transparent activities of groups pursuing their vested interests.

Water conflicts in the south-eastern part of Central Asia could bring lots of suffering to people who have enough problems at present because of poverty, organized crime, corruption and narcotics-trafficking, consequences of the situation in Afghanistan and difficulties in the ecological sphere, partially as a result of ecological sins committed during the last 60 years.

Conversely, the "Water-Energy-Ecology" is a great chance for the south-eastern part of Central Asia to create an alternative to the threat "narcotics-corruption-organized crime". The "Water-Energy-Ecology" may be a sustainable peace-building project for the development of the south-eastern part of Central

Asia, for example, within the international agreement “Water-Energy-Ecology,” that can be concluded as a result of political negotiations. Similar to this, after the Second World War, in Europe, “coal and steel” became the central component in the peace-building project for the unification of Europe. Opponents may argue that the comparison “water and energy” and “coal and steel” is weak, because there was a basis for know-how in Europe, which is predominantly absent in the south-eastern part of Central Asia, despite the lasting positive effect of innovative and engineering achievements of the Soviet Union.

Therefore, the south-eastern part of Central Asia needs a modern research center for conducting research and capacity-building. It may provide research, educational, consultation services, in particular in the following spheres: health and hygiene of water, electricity that is based on hydro-energy, modern ecological electric distribution networks, biodiversity, project management, agriculture and irrigation, high-level tourism, innovative financing of water-energy projects, and of course, international water law.

The proposed center and other units that are related while giving consultations on various issues may accompany meetings and conferences, which may result in the regional agreement “Water-Energy-Ecology,” as a long-term peace-building project for south-eastern Central Asia.

Muratbek Imanaliev: Thank you, dear Ambassador. These are interesting ideas. They are useful both for the government and public.

Jyldyz Sarybaeva: As a representative of the Ministry of Foreign Affairs, I would like to thank you, Muratbek Sansyzaevich, and the Ambassador, for your recommendations on conducting the summit and establishing the academy, for your ideas. I would like to note that the MFA and the leadership of the country are aware of the importance of the event for the water-energy sector. We intend to take responsibility for the effective functioning of the water-energy academy. Therefore, while realizing these projects we plan to use not a shallow approach but to explore the situation deeply. It includes our work with neighboring states on the subject of supporting our initiatives. Basically, we have started to work with neighboring states on the issue of supporting the conducting of the summit and the academy through diplomatic channels. I would like to clarify the point about the sustainable financing of our initiatives. I think that its successful realization will depend on the cooperation of Kyrgyzstan with the European Union.

Concerning the date of the international water-energy summit, as far as I know, the date was decided not by chance, and there were certain consultations. As a result of the last meeting with Mr. Morel, a representative of the EU, there is an agreement on the realization of the project to conduct the summit. In order not to take time up with practical details, I am ready to invite the Ambassador to the Ministry of Foreign Affairs, to discuss these questions in more detail.

Muratbek Imanaliev: Jyldyz, I am a former diplomat. Let me give a piece of advice to you. It does not relate to politics, but to methodology. Money goes where something has been started; to the empty place, money does not come. It is necessary that the state allocate, conditionally speaking, a million soms for establishing the academy; one has to start doing things, to show the EU that there is the will, the understanding and the concept.

Jumakadyr Akeneev: Sincere thanks to the Ambassador for raising a question that had to be addressed 10 years ago. It is exactly 10 years ago I was the Minister of Agriculture and in practice, I witnessed that some questions were solved against the interests of our country. Then, we addressed the question of the leadership of the country. Smart people in the world say that if there is a Third World War, it will be because of water. We know that there are world summits on this issue, because this question is very important for humanity. I think that we are too corrupt as a result of water abundance. We do not know how to use it. It seems that this is how it should be. In the future it will turn into a serious problem, and we need to solve it. It is said that “it is better late than never.” This problem has to be the top priority for us among all other problems. Nowadays, there is an issue on privatization of the energy sector, but none of the elected representatives of people know how to approach this question. Everyone speaks what he thinks is right.

If we created this academy 10 years ago, perhaps, there could have been a stable conception. I believe that all efforts must concentrate on this issue, with no need to save money. It is important to establish the academy and develop sustainable strategy on water and electricity issues.

Duishon Mamatkanov: We confront many obstacles. It was said: water must not be divided, it is a historical process. But consider the history of ancient times, the history of the Soviet period, and the history of the post-Soviet period. In the Soviet period, the mode of river flow was changed. We gave all our water and built facilities for that. But the Soviet Union was giving grants for that. Then, our neighbors nowadays must pay and cover those grants. We start to create problems, to imagine a problem. You say there is no methodology. The methodology was developed in 1996. It includes everything: what and how much. If they cover our costs and damages, we can give a seat to representatives of Uzbekistan and Kazakhstan, and let them manage it. At the same time, we spend annually 200 million dollars, while Uzbekistan receives 800 million as a result. Why can't we say: "Do you have no shame, dear friend? From 800 million that you received thanks to us, you give us 150." Water is a product, factories must pay. If we put the question correctly, they will pay with pleasure.

However, water is not a market product, water is socio-economic product, and we have to take that into account. There are people who live in upstream countries. To let downstream country people get water, we annually spend 160 million soms; we maintain hydro services at the expense of our state budget. We maintain the hydro sanitarian epidemiological service, emergency ministry, supporting facilities against landflows, all these are expenses. These expenses constitute the price of water. Information of these service agencies is needed not by us, but by them. Without our prognosis, they cannot plan.

Now, concerning the cascade of the Toktogul HES, it is foolish. We have 28 000 hectares of lands that are covered by water, which do not return annually 6 million dollars of agricultural products, it must be reimbursed by foreign consumers. The Toktogul rayon annually receives 43 million soms as support, again we lose. All this has to be covered by neighbors; at least they need to give for free coal, oil, masout. They do not give. We pay 100 million dollars annually to buy coal, masout, gas and transport it. They receive from us annually 6 billion soms. We could have built Kambarata 1-2 for 6 billions, and some other electricity lines. We are compelled to produce 2 billion cubes that we do not need, while we could have given it to our consumers at the original price. Especially for our agriculture where they use electric pumps, we could have given it for free. The only thing we need is courage.

The methodology existed for 12 years, 2 years it remains in the ministry of Chudinov. We wrote clearly: it is necessary to create a working group to consider this, the government must approve, the Jogorku Kenesh should confirm, and our neighbors will start paying. But they still cannot go for that. The most important thing is that we do not have an ideology or strategy. I visited the President three times and said that it is important to deal with the current problems. There is a plan, and we have to follow it. It is possible to develop small HES, each will build its own, and each will provide the energy. Further, it is important to improve the effectiveness of the existing electricity stations.

Concerning the water-energy summit, when we do not have common ideology, there are no concrete proposals, it will turn into typical rhetoric. Therefore, it is necessary to develop a strategy and present it, to start the economic mechanism. To build a heat station is harmful. We could lose the Kochkor and Issykkul valleys.

Muratbek Imanaliev summarized the results of the round-table and thanked participants.