

# **Conflicts and Disputes among Water Users, between Water Users and WUAs, and between WUAs and Water Management Organizations**

**N. Mirzaev., M. Pinkhasov**

As known, water is life. Therefore, no wonder that many various conflicts at all levels of the water management hierarchy and between all stakeholders can arise in the process of water allocation. There are many definitions of the term “conflict.”<sup>1</sup> Here, the term “conflict” means a contradiction that arises between individuals or groups in the process of mutual activity related to water allocation due to different interests, lack of understanding and consensus [28].

Since the Soviet times, there is kept an exclusively negative attitude to the word “conflict”, although it also contains the positive elements since the progress is impossible without the collision of interests (“struggle of opposites”). It is necessary to consider a conflict as an indicator that points out the presence of problems without the settling of which there is no way for further development.

## ***Parties of conflicts:***

- Farmers – water users;
- Water Users Associations (WUAs), co-operative farms (CF);
- Water management organizations (at the level of the river basin, province, administrative district or irrigation system);
- Governmental audit and supervision organizations (water inspectorate, land inspectorate, environment inspectorate).

## **Types of conflicts**

### ***By nature:***

- Between individuals;
- Between an individual and a group (between a chief of the WMO and his personnel);
- Between groups.

### ***By the composition of Parties (groups):***

---

<sup>1</sup> The Big Soviet Encyclopedia: “Conflict is a collision of opposite interests, views, aspirations, serious disagreement resulting in a struggle.”

- Between water professionals (WMOs) of neighboring countries, provinces, districts and irrigation systems;
- Between the WMO and WUAs (co-operative farms);
- Between WUAs (CFs);
- Between the WUA and farmers; and
- Between two or a few farmers.

***By the level of intensity:***

- Conflict of the low level;
- Conflict of the mid-range level;
- Conflict of the high level (Box 1).

***Causes for conflicts:***

- Non-compliance with provisions of the Agreement on irrigation water delivery;
- Nonuniformity of irrigation water delivery to water users along the canal;
- Irregular irrigation water delivery to water users (the daily and ten-day period changes in a canal water level);
- Lack of irrigation water delivery during the growing season due to the emergency on the canal;
- Lack of irrigation water delivery during the off-vegetation period for domestic needs of water users;
- Cut-off of power supply and time-out in operation of pumps;
- Uncertainty in ownership of off-take: organization in the book of which an off-take was registered; or in case of this certainty, a non-agreement of water users to pay for water losses at this off-take;
- Overestimated (underestimated) amounts in the applications for irrigation water submitted by water users;
- Ill-timed setting of water limits by the BISA;
- Inaccurate and unreliable data of water distribution monitoring;
- A low level of collecting fees for water services of the Canal Administration;
- Deteriorating the land conditions caused by irrational water use in neighbor farms;
- Uncertainty in sizes of irrigated area and crop pattern;

- Unauthorized tie-in into discharge pipelines of the pumping stations;
- Unauthorized water diversion from the irrigation canal (theft);
- Unauthorized construction of a new off-take;
- Illegal use of the water protection zone (WPZ) by local population;
- Polluting of the WPZ and water in the canal by local population;
- Others.

The abovementioned only gives occasion for water conflicts. However, profound reasons for water conflicts mainly lie in water governance (Chapter 4). Our experience shows that the view, according to which key reasons of water sector's problems are traditionally related only to technical aspects, is prevailing up to now. Thinking in such a way means "not to see the wood for the trees." From the point of view of followers of this approach, for example, a major cause of conflicts lies in deteriorating of material logistics of the water management organizations resulting in the following:

- Poor communication of the Canal Management Organization with hydro-operational sites, pumping stations and water users;
- Deficit of spare parts and construction materials;
- Lack of water-metering devices;
- Sudden shutdown of pumping stations and pump units due to cut-off of power supply (the instability of flow rates and water levels, the need in water releases, possible water overflows etc.); and
- Lack of vehicles for hydro-operational sites' personnel.

It is necessary to remind this approach's followers while the metering facilities were always at the filling stations, now they became more perfect, we cannot allege that petrol is always filled without fraud. Not in the least underestimating merits of the "engineering" approach, it is necessary to note that at present the understanding that this problem is sooner institutional than technical one is rising. The institutional approach's advantage is that it does not require large investments and aimed not only at settling conflicts but also their prevention.

As shown, there are various types of conflicts and reasons for them. There are accordingly different mechanisms for their resolution. We have considered informal (no legal) mechanisms of conflict resolution under water distribution at the level of main canals in the water sector of Central Asian countries<sup>2</sup>.

---

<sup>2</sup> In case of the impossibility to reach consensus, the legal procedures including arbitration should be used but they require more time, finance and efforts in order to reach civil or another liability of one of parties. The practice of water allocation shows that, due to abovementioned reasons, either the formal mechanisms of conflict resolution in the water sector of the CAR do not work (as a rule, a case does not reach the judicial trial) or an judgment of court is not fulfilled. For example, the administration of the KBC went to the law because the WUA "Zerafshan" did not pay for water delivery services. The judgment of court was for benefit of the administration of the KBC (the WUA must pay for water services in terms

Conflicts management assumes employing the following set of mechanisms (instruments) that can be systematized according to the next directions:

- Forecast of potential conflicts;
- Developing the preventive measures to prevent conflicts;
- Response to the incipient conflict; and
- Conflict resolution.

The due attention was put to all above directions in the frame of the project, but major emphasis was placed on developing the preventive measures to prevent conflicts. Instead of continually extinguishing “fire” of repetitive conflicts it is necessary to eliminate the profound reasons for water conflicts. Therefore, one of major aspects of IWRM-Fergana’s activity is the implementation of institutional reforms including the introduction of principles of public participation and establishing WUAs based on hydro-geographical approaches (Chapter 4). Case studies of some conflicts that took place on the pilot canals are given in boxes below.

***Box 1. Conflict on the border between countries***

There is the lateral “Kyrkyz-Aryk” upstream of the water intake into the Karkidon Feeding Canal (KFC) from the Andijan part of the SFC. Along its upper section, water from this canal is used by Kyrgyz water users; along the middle section by Uzbek water users; and along the tail section again by Kyrgyz water users. Due to the expansion of irrigated areas along the upper section of this canal, deficit of water for irrigation was experienced by water users along the middle and tail sections. The conflict situation was temporary solved when water for irrigation was delivered through two pumping stations to Uzbek water users from the SFC and to Kyrgyz water users from the KFC. However, in 2007, the conflict has arisen much more intensive (the conflict of the high intensity level: attempts of taking of hostages, destroying of waterworks etc.).

***Box 2. Conflict between provinces***

The SFC. Gauging Station 4 “Polvantash.” The border between Andijan and Fergana sections of the SFC. It was revealed that the administration of the hydro-operational site has concealed the information on return water inflow from the territory of Andijan Province with a flow rate up to 3 m<sup>3</sup>/sec. This water was used for mercenary ends. When there was not return water inflow from the Andijan part of the SFC, the administration of the hydro-operational site made a lot of noise about insufficient delivery of irrigation water from Andijan Province. After complete replacement of the administration of hydro-operational site “Polvantash”, the conflict situation was temporary settled. However, the recurrence of conflicts has suggested that the nature of conflict was exclusively related to personalities only at first glance. It has become clear that both parties of this conflict were found with “their hands in the cookie jar” - the representatives of Andijan Province have withdrawn water in excess, and at the same time, the representatives of Fergana Province have concealed the information on additional water in the canal due to return water inflow. The conflict was settled after transition towards water

---

established by the court), but the WUA “Zerafshan” did not execute the judgment of court, and the administration of the KBC continues to deliver water to this WUA.

resources management based on hydro-geographical principles and establishing the SFC Administration.

### ***Box 3. Conflicts between administrative districts***

1. In the tail part of the SFC in Fergana Province, upstream of Balance Gauging Station 8, two pumping station located on the territory of Altyaryk District (PS “Fayziabad” with a capacity up to 3 m<sup>3</sup>/sec and PS “Povulgon” with a capacity up to 1 m<sup>3</sup>/sec) pump water from the SFC for irrigating lands in Fergana District (joint water use). Water conflicts between Altyaryk and Fergana districts took place in all cases of insufficient water delivery into the tail part of the SFC. Disputes were settled based on the trade-off approach by means of shutdown of one, two or all pump units of first or second pumping station. Sometimes it was impossible to put into operation pump units of the PS “Povulgon” due to water shortage in the tail part of the SFC. From time to time, conflicts again arose, showing that deep-rooted problems were not being solved and put off for the future. The conflict situation was mitigated by means of transferring the hydro-operational site “Fayziobad” under management of the SFC Administration.

2. There are traditional conflicts between the upstream hydro-operational site “B. Gofurov” and the downstream hydro-operational site “D. Rasulov” of the KBC, as well as between hydro-operational sites “Karasu” and “Aravan” of the AAC. The introduction of inter-district water rotation on the KBC has mitigated the conflict between districts, but not settled it completely; therefore, dozens of water users were forced to put padlocks on gates of waterworks and to watch operation at the upper end of this site to deliver water to the lower end. The conflict was settled by means of establishing the KBC Administration and the AAC Administration and transition towards management based on hydro-geographical principles. At present, there is not the need to put padlocks and to organize watching on the KBC. There is not also the need in the interference of local authorities in water allocation issues: “now akims have not headache...”

### ***Box 4. Conflict on small transboundary rivers***

A tail flow of the Aravansay River fell into the SFC and then was conveyed to the Kyrkydan Reservoir. For a number of reasons, including the replacement of the administration of Aravan District in Kyrgyzstan, the Aravansay River’s flow was redirected to the Shakhristansay River in bypass of the SFC.

The conflict was settled after the interference of the SFC WC. In the course of negotiations, Uzbek water specialists have reminded (it turns out the Kyrgyz party did not know about this fact) that, according to the Agreement on Water Sharing, 13% of the Aravansay River’s flow accumulated in the Kyrkydan Reservoir can be used by Kyrgyz party. At present, without obstructions, the Aravansay River’s flow comes in the SFC and then is accumulated in the Kyrkydan Reservoir. It is not difficult to understand the significance of this conflict resolution, taking into consideration that last years there is not the outflow of water from the Andijan Reservoir for its delivering to the associated water users.

### ***Box 5. Conflicts between the Canal Administration and WUAs***

1. The AAC command area. The WUA has submitted the evidently underestimated applications for irrigation water, planning to supply (sale) water stolen from the canal to local farmers.

This conflict is settled at the sessions of the Board of the AAC’s Canal Water Committee.

2. The KBC command area. Due to the low level of fee collection for water services, the KBC Administration was forced to stop water delivery to some WUAs – debtors. The level of fee collection has risen but the conflict was not completely settled due to deep-rooted reasons of external water governance.

3. The AAC command area. Areas of pumped irrigation that are not planned to be irrigated due to high cost of electric power were included into the plan of water use. The conflict was discussed at the general meeting of WUAs, but was not still settled. It is planned to discuss this conflict at the general meeting of the Water User Council of the AAC with participation of representatives of the AAC Administration and the BISA.

4. The SFC command area. Decision-making regarding water delivery to the WUA “Akbarabad” was insufficiently well-timed. The conflict was settled based on the decision of the SFC CWC’s session enabling the WUA “Akbarabad” to sign the agreement on irrigation water supply directly with the SFC Administration.

#### ***Box 6. Conflict between the Canal Administration and local authorities***

A high-ranking official gave instructions to open gates of one check structure on the SFC to deliver extra volumes of water to the tail part. Personnel of the Canal Administration were refusing to execute these instructions for a long time, understanding the consequences of these actions. When they executed this order, abrupt breaking of the flow occurred. A water level suddenly dropped in front of this check structure; and the emergency situation was created downstream of the check structure. This is the example of adverse interference of the local authorities’ chief, but there are also positive examples. However, the point is that the participation of representatives of local authorities and other economic sectors should be ensured in another manner.

For preventing and settling such conflicts, including cross-sectoral conflicts (agriculture, hydropower generation, water supply, ecology, industrial needs etc.) the Councils of Canal Water Committees with the participation of representatives of local authorities and other economic sectors should be established. At that, direct water users that consume or use water resources (hydropower stations, irrigation sector, water-supply companies) participate in activity of the CWC Council through their representatives in the CWUC, and representatives of indirect water users (local authorities, nature protection organizations etc.) are directly included in the CWC Council.

#### ***Box 7. Conflict between the Canal Administration and the HPS’s Administration***

Two small hydro-power stations (HPS) were built on the SFC. HPS 1 does not usually inform about executing maintenance works related to cleaning the trash-racks of intake chambers; and, as a result of the manipulation with gates, flow rates in the canal fluctuate resulting in the conflict situation due to reducing water delivery to its tail part by 3.0 m<sup>3</sup>/sec, and for rehabilitation of the stable regime of flow rates three hours are needed as minimum.

Due to sudden power cutoff or reducing of voltage in the power network, the automation system of HPS 2 automatically close the intake gates of diversion canal. As a result, a flow rate at this section of SFC is increasing up to 20 m<sup>3</sup>/sec, and the canal operates under the emergency regime since its carrying capacity is insufficient for such flow rates.

#### ***Box 8. Conflict between the Canal Administration and the management of PS***

Sudden power cutoffs cause hitch of pumping stations (PS) often resulting in damage of electric motor shafts and electric motors themselves. The Pumping Station Management Organization bears considerable material losses. At the same time, pumping station’s shutdown results in increasing a flow rate in the canal up to 10 m<sup>3</sup>/sec and its emergency operation. The conflict situation arises since there are not

communication with the PS and any possibility to inform about an incident in timely manner.

The managers of HPSs and power supply companies of Andijan and Fergana provinces were invited on the CWC SFC meeting. A representative of HPS assured the members of CWC SFC and Canal Administration that they are ready to inform the CA personnel at hydro-operational sites in timely manner about the situations causing changes in the canal's operational regime. Representatives of provincial power supply companies did not attend the meeting. The CA and BISA sent the letters to power supply companies, local authorities and the national MAWR with appropriate information and calculations of the amount of damage of pumping stations. Some progress in settling the conflict was reached: there were not sudden power cutoffs in 2005.

***Box 9. Conflict between the Canal Administration and farmers***

Water users divert water beyond established limits using siphons, small pumps, new off-takes etc. Such conflicts are caused by, on the one hand, the incompetence of farmers and, on the other hand, the WUA's weakness: through ignorance or due to the fact that the issue is not solved at the WUA level, water users themselves try to divert water from the main canal and conflict with the CA.

Our analysis has shown that for preventing such conflicts it is necessary to enhance works related to establishing WUAs based on hydro-geographical principles and participatory water management at the lower level of hierarchy, as well as to improve the efficiency of joint activity of the CWUC at hydro-operational sites and Councils of WUAs.

Thus, the most typical situation for water management organizations that were established based on the administrative-territorial principle is the arising of conflicts "head - tail" on borders of the republics, provinces, districts, and small transboundary rivers (STR). At the same time, water users located along the tail parts of irrigation canals persistently suffer from water deficit. Each upstream water user aspires to take irrigation water as much as possible without any concern about the situation of downstream water users. Therefore, it is difficult for water professionals to deliver water (especially in dry years) to the tail section of canal. Transition towards introducing the hydro-geographical principle on the pilot canals at once provided the following results: conflicts on borders of administrative territories (on the borders between Andijan and Fergana provinces, Karasu and Aravan districts, as well as between districts "B. Gafurov" and "D. Rasulov") were mitigated or practically eliminated (Boxes 2 to 4).

For settling and preventing other types of conflicts the appropriate instruments were created: Councils of WUAs, Boards of the CWUC, and Boards of the CWC. The analysis conducted has shown that the considerable part of disputes is caused by the misunderstandings and incorrect notions resulted from the low level of:

- available information on the water distribution process; and
- the transparency of decision-making.

There are grounds to think that the joint work of the CA with Councils of WUAs, Boards of the CWUC, and Boards of the CWC will facilitate preventing conflicts because all stakeholders are involved into the decision-making process, in the course of which the mutual understanding is growing and the misunderstandings disappear.

The Arbitration Commissions were provided for within the listed bodies, but since their activity was not properly organized, the boards of the CWUC and the CWC themselves settle conflicts. In particular, the participation of the members of SFC CWC in the conflict resolution on the KFC (Box 1, 5, and 8) was quite useful. Here, the following instruments for conflict management were used:

- Organizing the dialogs of conflict parties:
  - to define the essence of the conflict;
  - to identify the interests of conflict parties;
  - to specify the opportunities for conflict resolution; and
  - to reach the agreements on procedures for conflict resolution and settling other possible differences;
- Organizing the training seminars with the participation of conflict parties to rise the level of knowledge and awareness of problems related to water governance and management and to provide the consensus;
- Strengthening the composition of Board of the KFC CWC by involving the representatives of conflict parties (in particular, water professionals and water users of Aravan District);
- Installing the boxes for collecting complaints and suggestion of water users in the CA offices;
- Organizing the reception days by chairmen of the CWUC and the CWC;
- Providing the diaries for record keeping the conflict situations and disputes; and
- Holding the sessions of Boards of the CWUC and CWC to solve the issues related to preventing and settling the conflict situations.

Owing to above activity, the conflict on the KFC was settled. In addition, at the sessions of the SFC CWC the decisions for settling difficulties between the SFC Administration and BISA (“Sokh-Syr Darya” and “Naryn – Kara Darya”) related to timing and limits of water supply for off-takes from the SFC were made.

Of course, there cannot be any assurance that conflicts on the KFC will never repeat since the process of water resources management at this site is very complicated. There is only the hope that, under the active work of the Board of KFC CWC, which has the powers to make operating decisions, the search of compromises will be speeded up, preventing the development of disputes into conflicts of the mid-range or high level of intensity.

At present, in the frame of this project the most topical activities, from the point of view of settling and preventing water conflicts, are the following:

- Promoting activity of Boards of the CWUU and CWC;
- Establishing the Boards of the CWUU and CWC and organizing of their activity; and



- Formation of the Arbitration Commissions within the CWUU, CWC and WUAs and organizing of their activity with involvement of women and wise elders into these commissions.

Establishing the WUGs is the important measure to prevent conflicts between farmers. Finally, it is necessary to remind that water conflicts eventually results from the growth of water demand; and reducing water demand will greatly facilitate settling existing problems. It is anything but a secret that a considerable potential for reducing water demand exists in Central Asia. The IWRM-Fergana project promotes activity aimed at revealing and enabling this potential.

One of the most important conditions for WUA sustainable operation is the available mechanisms for settling disputes and conflicts arisen in the process of WUA activity. In case of their belated resolution, conflicts can result in slowdown of development and even disintegrating of WUAs. The mechanisms of conflict resolution available in Central Asian countries, both as formal ones in the form of the national legislative instruments and informal ones based on customs and traditions of local nations, which do not contradict the national legislation in force play an important role under settling conflicts and disputes.

Various types of disputes that can arise in the process of WUA's activity are described below. A special attention was put on formal and informal mechanisms of dispute resolution that existed on the territory of the Fergana Valley; and the guidelines on involving the alternative bodies for dispute resolution, taking into consideration the national legislations in force, were developed. An attitude to the term "conflict" should be careful since this word can frequently be associated with the antagonism and brutality. According to the traditional perception of people of the former USSR, the meaning of the word "conflict" is "almost war"; and, therefore, this word antagonizes many people, who on the question about conflicts usually answer that "there are not conflicts."

The Big Soviet Encyclopedia gives the following definition of the word "conflict": "A conflict is a collision of opposite interests, views, aspirations, and serious disagreements resulting in a struggle." Certain time is needed to reach the perception of this word existing in the contemporary western world, namely "a conflict is the conscious incompatibility of targets: one party considers intentions of another party as harmful ones for own interests."

It is often difficult to realize the nature, type and reasons for local conflicts without understanding the nature of social dynamics. Sometimes the conflicts arise due to ethnic differences, relations within a clan/family, social inequality; sometimes they arise due to a struggle for power, but more often owing to the tangle of all these circumstances. Many people, in bounden duty, follow their "leader" and reluctantly express own views and opinions. At the same time, people prefer not discussing conflict situations with outsiders; and often they do not know how to discern an imminent conflict and how to prevent it.

In the Fergana Valley, water relations among water users within WUAs, between water users and WUAs, and between WUAs and water management organizations are accompanied by the conflicts and disputes that are caused by the following circumstances:

- non-compliance with the agreements signed by water users and WUAs in respect of the schedule and amounts of irrigation water supply and other services granted by WUAs;
- non-compliance with the agreements signed by water management organizations and WUAs;
- infringement of the established schedule of water use by a WUA members (unauthorized water diversion and construction of additional off-takes on the irrigation canals without permission, etc.);

- deteriorating the irrigated farmland conditions of WUA members due to non-compliance with the agreements signed by WUAs and the PHAE and by water users and WUAs;
- damaging of crops or irrigated plots of water users by WUA personnel or neighbor farmers due to careless O&M of on-farm water infrastructure;
- non-fulfillment by WUA member his duties provided for by the WUA's Charter;
- infringement of the WUA member's right to participate in decision-making at the general meeting;
- labor disputes between the WUA administration and its personnel;
- non-compliance with the agreement signed by water user not being a WUA member and the WUA in respect of irrigation water supply and other services granted by WUAs; and
- disputes between water users.

Disputes between WUAs and water management organizations can arise during the irrigation season due to unsettled matters relative to the following aspects:

- changes in volumes and time of irrigation water delivery to a WUA;
- considerable daily deviations from planned water levels in the canal;
- ill-founded reducing the volume of water supply by the Canal Administration to WUAs at the expense of use brackish return water being formed on the WUA's territory;

Water delivery to a WUA or WUGs can be adjusted due to the interference of local authorities of different levels, for example, a provincial or district administration, resulting in disputes and dissatisfaction of water users and WUA personnel. Of course, disputes and conflicts related to water delivery and distribution should be reviewed only under the presence of appropriate documents (a water supply registry, a statement of the case, etc.).