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# Transboundary Water Issues in the Kura-Araks River Basin

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# CORNHUSKER ECONOMICS

## Transboundary Water Issues in the Kura-Araks River Basin

Market Report	Yr Ago	4 Wks Ago	5/27/11
<b><u>Livestock and Products,</u></b>			
<b><u>Weekly Average</u></b>			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight.....	\$93.89	\$116.78	\$106.04
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb. ....	125.07	157.75	147.50
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb. ....	110.34	134.25	122.73
Choice Boxed Beef, 600-750 lb. Carcass. ....	165.76	184.56	178.18
Western Corn Belt Base Hog Price Carcass, Negotiated. ....	76.50	91.80	94.13
Feeder Pigs, National Direct 50 lbs, FOB.....	*	*	*
Pork Carcass Cutout, 185 lb. Carcass, 51-52% Lean.....	87.47	93.39	91.78
Slaughter Lambs, Ch. & Pr., Heavy, Wooled, South Dakota, Direct.....	123.00	190.00	189.25
National Carcass Lamb Cutout, FOB. ....	315.45	406.63	404.11
<b><u>Crops,</u></b>			
<b><u>Daily Spot Prices</u></b>			
Wheat, No. 1, H.W. Imperial, bu. ....	3.49	7.75	8.29
Corn, No. 2, Yellow Omaha, bu. ....	3.41	7.43	7.57
Soybeans, No. 1, Yellow Omaha, bu. ....	9.50	13.98	13.90
Grain Sorghum, No. 2, Yellow Dorchester, cwt. ....	5.46	12.00	12.04
Oats, No. 2, Heavy Minneapolis, MN, bu. ....	1.91	3.42	3.83
<b><u>Feed</u></b>			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton. ....	140.00	140.00	140.00
Alfalfa, Large Rounds, Good Platte Valley, ton. ....	67.50	72.50	87.50
Grass Hay, Large Rounds, Premium Nebraska, ton. ....	67.50	*	*
Dried Distillers Grains, 10% Moisture, Nebraska Average. ....	113.00	217.00	219.00
Wet Distillers Grains, 65-70% Moisture, Nebraska Average. ....	34.50	78.50	80.50
<b>*No Market</b>			

Water resources that are shared across boundaries by different states or countries are referred to as “transboundary” or “international” water resources. Worldwide, there are about 263 international basins that are shared by two or more countries, with 40 percent of the world population living on these international basins (Giordano and Wolf, 2003). This is an increase from the 214 basins that were identified in 1978, due to better mapping technology and newly emerging nations. For example, the collapse of the Soviet Union in 1991 created 15 new independent nations and simultaneously created new transboundary water resources.

The general issue of transboundary water resources has been studied by a number of disciplines (e.g., political science, geography, international relations, environmental studies, human ecology and economics). Several reasons explain the high level of interest. First, water is a life-sustaining resource that does not recognize political boundaries. Second, competing uses for water, degradation of water quality and poor management of water resources have made it scarce and contaminated in many places. Finally, managing any natural resource is complicated, and moving to the international level makes things more difficult since there is no supra-national power/government to intervene and regulate resource use. “Sharing water” among different users and states has been identified in the Ministerial Declaration at the Second World Forum in Hague 2000, as one of its main challenges in achieving water security in the 21<sup>st</sup> Century.

It is usually accepted that when water resources are shared by different countries, especially if water supplies are scarce, the risk of conflict is potentially

high. On the other hand, cooperation in water resources sharing can lead to better relations between the countries overall. A large study by Oregon State University researchers documented a total of 1,831 conflicting and cooperative interactions over water between two or more countries from 1948 to 1999. They found that there is more cooperation over water than conflict. During this period, there were 1,228 cooperative events, with 150 water treaties being negotiated and signed. There were 507 conflicts, with only 37 events involving violence (Giordano and Wolf, 2003).

The collapse of the Soviet Union, as mentioned above, created new international basins such as the Kura-Araks Basin. The majority of Kura-Araks Basin falls within the Caucasian countries, i.e., Armenia, Azerbaijan and Georgia (see Figure 1). The basin area that falls within the Caucasian countries comprises

122,200 square kilometers. All three countries rely heavily on the Kura-Araks River system as a main source of water for agricultural, industrial and municipal uses. In addition to the difficulties of transitioning from planned to market economies, the newly developed nations face environmental problems. In the context of water, countries are

faced with quality and quantity problems, poor management of water resources, as well as issues with the lack of joint management. Untreated sewage and industrial and agricultural waste have led to poor water quality in the basin. Environmental problems are acute for several reasons. First, the newly independent countries did not have knowledge, skills or experience to deal with environmental problems when they gained their independence; they had to create systems to govern themselves, including developing their own water codes. Second, during the Soviet period environmental problems existed, but were not considered of primary importance. Thus, little was done to improve or manage water quality. Third, the progress that the countries have made in

improving environment management has focused on the national level.

International organizations are trying to help the countries manage their water resources through regional projects. Because of hostile political conditions, and the lack of legally binding data exchange requirements among the countries (Vener and Campana, 2010), organizations do not share or exchange information. The major conflict in the region is between Armenia and Azerbaijan over the Nagorno-Karabakh Region, which has resulted in border closings and no diplomatic relations between the two countries. The importance of water and river basin management among the three countries is recognized; however, no treaties have been signed among the three countries due to political issues (Vener and Campana, 2010). There are some bilateral agreements, but for efficient management of shared resources all three countries have to be involved. The

good news is that in a survey of 30 key water resource managers and officials of Caucasian countries, Vener and Campana (2010) found that a majority of the interviewees indicated a willingness to cooperate in solving water related issues (even if governments are not involved), and expressed support for transboundary water resources manage-

ment. Interestingly, 93 percent of respondents agreed that this cooperation could in fact, lead to peace in the region. The goal of our current research is to determine the feasibility of international cooperation between the three nations in the management of the Kura-Araks Basin. What if indeed, cooperation over water could lead to peace in this troubled region?

Such issues are not limited to international basins. Similar problems have arisen in the United States over interstate river basins, where there has been both cooperation and conflict over sharing rivers. For example, the division of water in the Republican River Basin, shared by Colorado, Kansas and Nebraska, has led to conflict and repeated lawsuits between the states.



Figure 1. Kura-Araks Basin is enclosed in solid blue line. (Adapted from Vener and Campana, 2010, p. 144).

However, interstate management of the Platte River, shared by Colorado, Nebraska and Wyoming, has led to the development of a cooperative agreement where each state and the federal government have taken some responsibility for improving river basin management.

The frequency of such conflicts over the use of water by different states or nations is unlikely to decrease in the future. As increasing demand for urban, agricultural and industrial water use results in difficult decisions about the allocation of water in the future, we hope that improved scientific understanding leads to more cooperative outcomes for water resource management.

**References:**

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