

# **Sideways Concessions: Protest and Cooperative Resource Management in Central Asia**

Sarah Hummel

November 16, 2018

Granting concessions directly to an ongoing protest does not always have the desired effect. By signaling the government's weakness, direct concessions can reinvigorate, rather than demobilize, the protest movement. To decrease the risk of this occurring, governments may choose concessions that are "sideways" to the central concerns of protesters. Sideways concessions reduce the level of grievance among citizens, even as their indirect nature minimizes the likelihood of any escalatory effects. This article illustrates the use of sideways concessions in post-Soviet Central Asia during the 2000s, demonstrating that governments signed short-term international agreements over resource management as a sideways concession to protests occurring in regions that benefited from a cooperative management regime. This finding suggests that governments do, indeed, use sideways concessions and that we should account for their use when considering the dynamics of protest escalation and deescalation.

Granting concessions does not always deescalate protest movements and, in certain cases can actually reinvigorate them. By acquiescing to protests, the government signals its vulnerability and willingness to concede. This may inspire ever greater demands, creating a cycle of protest and concessions that undermines governmental authority. In this article, I argue that governments may use concessions that are “sideways” to the demands or main narrative of the protest in an effort to minimize these escalatory effects, while still preserving the deescalatory ones. Since sideways concessions are not explicitly linked to the ongoing protests, citizens are more likely to internalize the benefits without observing the connection and, therefore, will not view them as signals of governmental weakness. Used alone or in conjunction with conventional responses, like direct concessions or repression, sideways concessions can slow the growth of protest movements and help deescalate volatile situations.

In addition to developing the concept of sideways concessions theoretically, the article illustrates their real-world application. I demonstrate that the five Central Asian governments used cooperation over international resource management as a sideways concession to domestic protest during the 2000s. Using original data on the occurrence of protest and relations between the Central Asian countries over the issue of water and energy, I demonstrate that countries were more likely to sign cooperative management agreements when doing so benefited regions experiencing protest; that is, when it was effective as a sideways concession. In contrast, when protests occurred in regions that did not benefit from cooperation, signing an agreement was not effective as a sideways concession and its likelihood decreased. In this way, domestic protest significantly influenced the occurrence and timing of international cooperation in the region.

The theoretical argument and empirical evidence have broader implications for how we think about both protest and the implementation of government policy. First and foremost, the article underscores the need to expand our understanding of how leaders respond to protest. There are well-established literatures concerning the use of both repression and direct concessions and, with very few exceptions,<sup>1</sup> these are considered the only plausible options. This view is overly

---

<sup>1</sup> Bishara (2015) argues that ignoring protest is a third option and Franklin (2009) defines toleration to be the “absence of either repression or meaningful concessions” (701). These are the only exceptions of which I am aware.

narrow. By not accounting for indirect responses, such as sideways concessions, we overlook important factors that ultimately help explain when and why protest movements succeed or fail. Second, I demonstrate that governments sometimes embrace flexible policies that allow them to respond dynamically to protests, updating or altering the policy as protest levels and compositions change. This manifests as a kind of volatility that, contrary to conventional interpretations, is neither a source of instability nor evidence of low state capacity. Instead, it represents a rational response to protest dynamics under conditions of uncertainty. Finally, the article speaks to the broader literature on the link between domestic and international politics in nondemocratic countries, highlighting the role of informal domestic politics in determining international policy.<sup>2</sup>

### **Choosing “sideways” concessions**

Even governments that permit participation in minor protests wish to limit their growth. Escalation signals increasing dissatisfaction with the government, challenges its right and ability to maintain order and, in extreme cases, may evolve into the kind of people-power movements that upend political systems. Granting concessions is one strategy governments use to try to prevent escalation. By granting concessions, governments reduce the level of grievance among citizens, making it more costly - in terms of time, energy, or investment in selective incentives - for activists to convince them to join and/or remain part of a movement.<sup>3</sup> This, in turn, makes it more difficult for protest activists to mobilize and retain participants, dampening ongoing protest movements at the aggregate level.

Sometimes, however, concessions reinvigorate rather than demobilize protests (Carey, 2006; Bratton and Van de Walle, 1992; Davies, 2014). Since strong governments can survive protests

---

<sup>2</sup> Weiss (2013) makes a related point, arguing that domestic protest in autocracies can be used to signal resolve in international crises. However, her argument is that informal domestic politics are used to obtain ends at the international level, while my research concerns the way international policy can be used to pursue domestic ends.

<sup>3</sup> Aggrieved individuals are susceptible to frames revolving around injustice, which are common in collective action (Gamson, 1992). Consequently, individuals with high levels of grievance are particularly likely to join mass movements (Davies, 1962; Gurr, 1970; Achilov, 2016).

without resorting to conciliatory policies, observers might rationally conclude that a concession-granting government must be relatively weak. Consequently, although receiving concessions decreases individual perceptions of grievance, it also signals the government's weakness and indicates that even greater concessions could be forthcoming. As a result of this tradeoff, making direct concessions is only rational if it decreases the likelihood of escalation (by lowering grievance) more than it increases it (by signaling that the government is weak).<sup>4</sup>

In this article, I argue that governments strategically use *sideways* concessions to minimize the likelihood that citizens observe this signal of weakness, while still internalizing the benefits that lower their levels grievance. The defining feature of these concessions is that they are not obviously linked to the occurrence of protest. For instance, consider an ongoing protest over government corruption.<sup>5</sup> The establishment of an anti-corruption investigative body is a direct concession to the protest. An accommodation that legitimizes the occurrence of the ongoing protest, such as the relaxation of martial law, is a direct concession because it clearly relates to the act of protest. In contrast, a "sideways" concession could take the form of expanding a poverty relief program or the freeing of imprisoned religious leaders.

Sideways concessions help deescalate protest movements in much the same way as their direct counterparts: they directly decrease grievance and indicate that the overall situation in the country is improving. They may also redirect citizen attention to aspects of life where conditions are more positive.<sup>6</sup> As with their direct counterparts, effective sideways concessions must be attributable to the government and valuable enough that they meaningfully lower levels

---

<sup>4</sup> I base this argument on Ginkel and Smith (1999). Note that granting concessions may have other benefits as well. For instance, Gallagher Cunningham (2014) argues that governments make concessions to increase their information about the policy preferences of participants, to help them distinguish between opportunistic members and those that are truly committed to the cause, and to bolster more moderate factions within the movement. Regardless, the core trade-off highlighted by Ginkel and Smith still exists: granting concessions is only a rational response on the part of governments if the sum total of benefits outweigh the inspirational effect of signaling the government's weakness and/or its willingness to concede.

<sup>5</sup> Although movements are not always cohesive (Beissinger, 2013), a dominant narrative typically emerges through statements of protest leaders and/or media coverage of the protest.

<sup>6</sup> This argument is similar to the central claim in King, Pan and Roberts (2016). They argue that the Chinese government pays employees to "change the subject" rather than engage in online debates with critics.

of grievance among beneficiaries. The greater or more strongly felt the grievance, the larger the sideways concession must be in order to have a significant impact.

The main benefit of using sideways concessions rather than direct ones, from the perspective of governments, is that citizens are less likely to recognize them as evidence of weakness. When governments grant policy concessions on issues directly related to the occurrence or narrative of an ongoing protest, their actions are almost certainly linked to the protest in media reports and, subsequently, in the minds of citizens. However, governments do not stop governing when protests occur: they continue to enact policies, negotiate treaties, collect taxes, distribute benefits, and so on. Sideways concessions, which appear unrelated to protests, can be hidden in “business as usual” politics, rather than being advertised as responses to protest. While some individuals might recognize sideways concessions for what they are (i.e. concessions made in response to protest), their indirect nature means that others will overlook the connection.<sup>7</sup>

The subtlety associated with sideways concession, however, does place limits on their effectiveness. First, their benefits only matter if individuals view government concessions as at least partially fungible. The more credit individuals give the government for concessions on one issue when deciding whether to protest over another one, the more effective they will be at demobilization.<sup>8</sup> Second, some individuals may receive satisfaction from directly observing the government’s capitulation, which would be absent in the case of sideways concessions.

As a result of these limitations, sideways concessions are most effective if deployed when even small decreases in grievance can be decisive. Two conditions make this more likely. First, sideways concession are more effective at preventing individuals from joining a protest than they are at convincing protesters to abandon their cause. As Opp argues, individuals receive positive benefits or negative sanctions from participation, depending on the normative expecta-

---

<sup>7</sup> This does not mean that individuals are being “duped” or acting irrationally. We can conceptualize this in one of two ways: (1) there is a probability with which each individual overlooks the connection due to noise in the information environment and so, in expectation, some portion do not observe the link, or (2) individuals must exert costly effort to investigate whether a given policy is related to protest and some portion will rationally choose not to do so.

<sup>8</sup> I evaluated the validity of this assumption in other research and found that individual propensity to join a particular protest movement declines when the government makes improvements in unrelated issues, especially among individuals who are dissatisfied and less optimistic about the future (citation withheld).

tions of their “reference persons” (Opp, 1990). When an individual takes to the street, his or her relevant reference persons shift, in part or in full, to other protesters and the positive benefits associated with continued protest are larger than they were before the individual joined. This generates inertia: someone who is protesting is inclined to stay protesting, while a nonprotester is more inclined to stay home. Consequently, small decreases in grievance that are enough to keep individuals from joining, may be less effective at convincing individuals to stop protesting once they have begun. However, since protests usually occur in waves (Beissinger, 2002), creating the expectation they will continue to grow over time, this can be enough to cause deescalation. By preventing new protesters from joining, sideways concessions can dampen a protest’s momentum, disillusioning protesters and ultimately leading them to give up their cause.

Second, sideways concessions have a greater impact before the protest gathers too much momentum. The number of people protesting has a very strong effect on the proximate cost-benefit calculation of would-be protesters (Schelling, 1978; DeNardo, 1985; Oliver, Marwell and Teixeira, 1985; Yin, 1998). As turnout increases, both the tangible benefits of protest and the probability the movement will succeed increase, while the expected costs of joining simultaneously decrease. These dynamics overwhelm other factors once a large enough proportion of the population joins. While this also limits the effectiveness of direct concessions, it is likely to bind sooner in the case of sideways concessions.

In sum, targeting sideways concessions to potential protesters at the early stages of a protest movement reduces their perceived grievances without clearly signaling government weakness. This decreases the likelihood that beneficiaries join and, in the aggregate, can slow the momentum of the protest movement.

There are two potential criticisms of sideways concessions. First, the government cannot always credibly promise to continue delivering benefits after the protest ends. This is true of many direct concessions as well. However, even short-lived sideways concessions may generate a tangible improvement in the lives of individuals. In the case of Central Asian resource management, successful international cooperation could be the difference between crop failures and a successful harvest, which was of huge importance to poor farmers. These farmers would

prefer long-term cooperation, but adequate water in the short-term is still better than nothing. For their part, governments often prefer short-term or flexible concessions, particularly since the reversal or removal of a sideways concession is unlikely to generate new protests. While increased grievance causes individual mobilization potential to rise when a concession expires or is removed, this is, as its name implies, only about *potential*.<sup>9</sup> In the absence of some kind of recruitment, pressure, or other changes in the costs and benefits of protest, individuals with high mobilization potential do not spontaneously protest. The optimal allocation of benefits differs, therefore, during periods of “normal” politics and those of ongoing protests. Governments will not want to commit to indefinitely providing benefits to the potential joiners of any single protest event, particularly if they are uncertain about who might protest in the future. This is especially likely in nondemocratic countries, where information about future challenges to the regime is notoriously poor (Kuran, 1991; Wintrobe, 1998).

Second, sideways concessions could be viewed as weak responses to the protest that transparently ignore the major issues. Protest activists may even be able to exploit frames of this kind to recruit additional participants. In this case, however, I would argue the government either selected an inappropriate policy or implemented it in a way that make the relationship between the protest and the concession too obvious. The strength of sideways concessions lies in the fact that they are not linked clearly to the protest movement. If, for example, the government meets with protest leaders and offers them concessions unrelated to their actual demands, then this link becomes obvious. Such concessions are sideways in substance, but not in form, and signal the same weakness and willingness to concede as direct concessions.

### **Protest and cooperative resource management in Central Asia**

The leaders of the five post-Soviet Central Asian countries - Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan - understandably took the occurrence of protest seriously during the 2000s. Protest movements can arise and expand rapidly in nondemocratic regimes such as those in Central Asia (Kuran, 1991). Indeed, Kyrgyzstan’s own experience illustrates how seemingly benign protests can transform into something much more threatening. As Rad-

---

<sup>9</sup> This idea builds on Klandermans and Oegema’s (1987) concept of “the mobilization potential.”

nitz (2010) discusses, the 2005 Tulip revolution in Kyrgyzstan began as a series of unrelated protests about the failure of particular candidates in recent elections, which eventually ousted then-President Akayev. In short, protests represented a real threat to the authority of the Central Asian governments.

In this article, I focus on a particular sideways concession used in response to protest: short-term cooperation over international water and energy management. Cooperation, in this case, meant water-for-energy exchanges resembling those developed during Soviet times. In these exchanges, the upstream countries released water during the growing months for use by downstream agricultural producers and, in return, received subsidized energy during the winter.<sup>10</sup>

The successful implementation of water-for-energy exchanges generated benefits for particular geographic regions in each of the Central Asian countries. By effectively channeling benefits to possible joiners of protest, cooperation was an attractive sideways concession to protests occurring in these regions. Logistically, protests are easier to join if they are geographically proximate. In addition, region is itself a salient identity in Central Asia, which overlaps with other important identities such as clan, ethnicity, and religion.<sup>11</sup> Thus, a policy that benefited protesting regions effectively lowered grievance among those who might subsequently join.

In the downstream countries of Kazakhstan, Turkmenistan and Uzbekistan, citizens involved in agricultural production benefited directly from cooperation over resource management. These individuals were geographically concentrated in areas located in or near irrigation networks. Official or unofficial Water Users Associations typically oversaw local management of water resources and aimed for an even distribution of water, meaning that farmers in these networks benefited, more or less equally, from obtaining enough water.<sup>12</sup> Cooperation not only decreased grievance in these regions, it also raised the opportunity costs associated with protest; it was more costly for farmers to take time to protest when they had enough water than it did if their crops would die anyway. Additionally, adequate water for agricultural production has positive

---

<sup>10</sup> See Weinthal (2001) for an overview of these exchanges and an excellent discussion of why they persisted in the post-Soviet period.

<sup>11</sup> See, for example, Schatz (2004), Collins (2006), and Khalid (2007)

<sup>12</sup> Interview with local scholar and policy advisor on water issues. November 17, 2011. Conducted in English. Bishkek, Kyrgyzstan. There is, I should note, significant variation in how successful WUAs are at achieving equal dispersement.



spillovers for non-agricultural producers in the same region,<sup>13</sup> including increased food availability and decreased prices at local bazaars. In a study on trade of consumer goods (especially food) in Kazakhstan, Grafe, Raiser and Sakatsume (2008) found very high internal barriers to trade in the region, suggesting these price effects were primarily local. In short, areas located on or near the rivers benefit from cooperative management, while those located further away do not.<sup>14</sup>

In the upstream countries of Kyrgyzstan and Tajikistan, energy consumers relied predominantly on electricity to power and heat their homes. Electricity tended to be cheaper than coal and gas and, due to the extensive electric grid constructed during Soviet times, remained the most widely available and accessible type of energy.<sup>15</sup> In the absence of cooperation, some segments of the population lacked electricity during winter when temperatures reached extreme lows, harming the health and economic well-being of ordinary citizens and hindering the development of the country more broadly. In Tajikistan, the relatively small storage capacity of the Nurek reservoir ( $10.5km^3$ ) meant that all citizens benefited in expectation from the water-for-energy exchanges. Since the Tajiks could not store adequate quantities of water during the peak flow months, they faced a serious energy deficit in winter when water inflows decreased and domestic demand peaked. Electricity rationing, when implemented, tended to be countrywide.<sup>16</sup> In the Kyrgyz case, on the other hand, there was a distinct regional dimension to the benefits of cooperation. The Toktogul reservoir in Kyrgyzstan has almost double the capacity of the Nurek reservoir ( $19.5km^3$ ), theoretically reducing the size of the energy

---

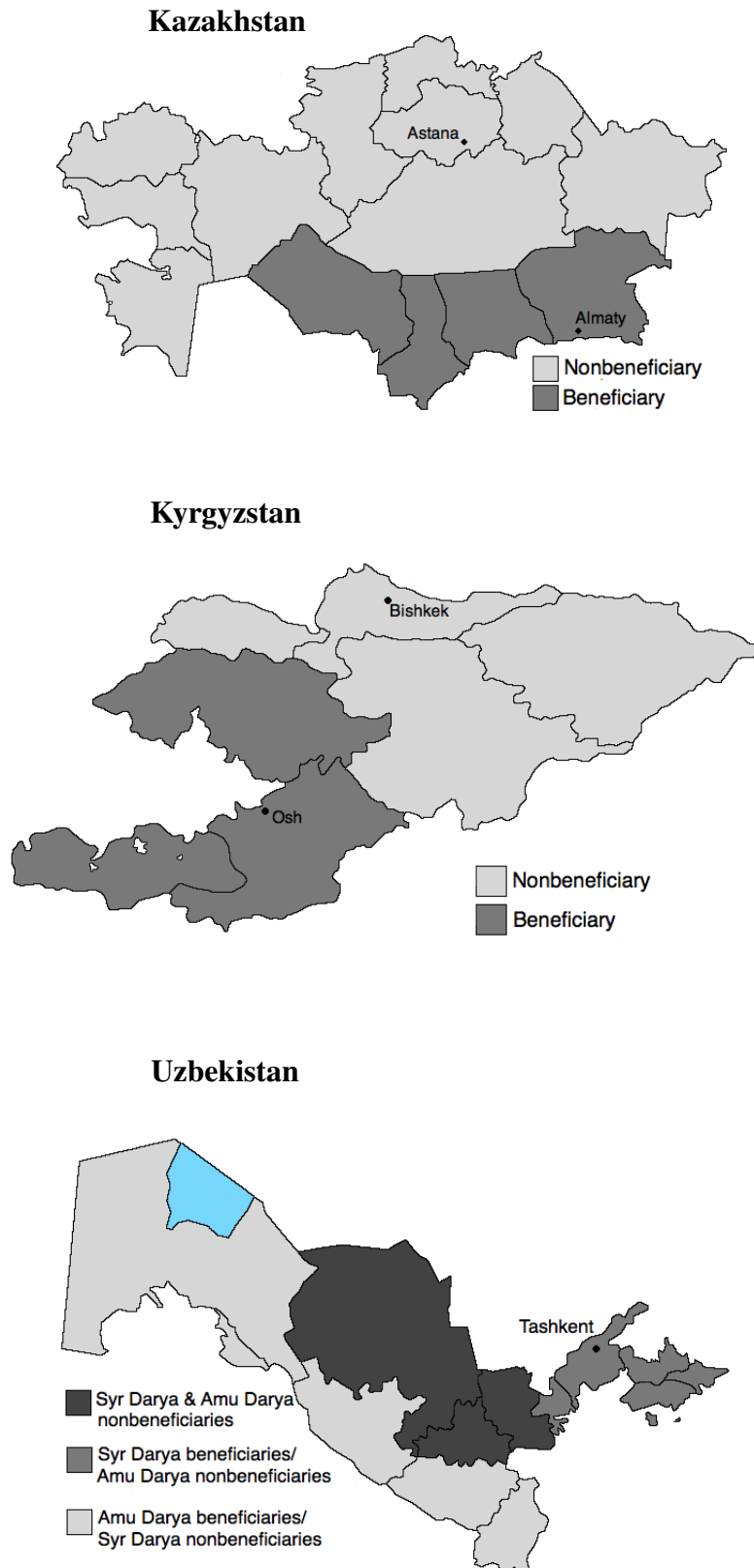
<sup>13</sup> Kasara (2007) makes this argument for policies that promote agricultural growth in Africa

<sup>14</sup> There are some elites involved in agricultural production and export, especially cotton, that are not located in the region (Abdullaev, Giordano and Rasulov, 2007). However, given that I will be focusing on responses to mass protest, these individuals - whose location is not clear and whose number is small - are unlikely to affect the results. In Kazakhstan, the beneficiary regions are thus the South Kazakhstan, Jambul and Almaty provinces. In Uzbekistan, the beneficiary region depends on which river is involved. For the Amu Darya dyads (Tajik-Uzbek, Turkmen-Uzbek), the beneficiary regions are Bukhara, Khorazm, Kashkadary, Karakalpastan and Surkhandarya provinces. For the Syr Darya dyads (Kazakh-Uzbek, Kyrgyz-Uzbek), the Andijan, Ferghana, Namangan, Tashkent, Syrdarya, and Jizzakh provinces are beneficiary regions, and all others are not.

<sup>15</sup> Interview conducted by the author with a local employee of a state-controlled energy company. June 15, 2012. Conducted in English. Bishkek, Kyrgyzstan.

<sup>16</sup> For example, Chorshanbiyev (2008).

Figure 1: Countries with geographic divisions of beneficiary and nonbeneficiary groups



All Tajik regions benefited from cooperation. No protests occurred in Turkmenistan, making geographic distinctions moot.

deficit Kyrgyzstan faced in winter under a noncooperative regime. However, the configuration of the Soviet-constructed electric grid meant that electricity produced by hydropower cascades associated with Toktogul could not reach the South of the country without passing through Uzbekistan. This made cooperation necessary for Kyrgyz energy to reach southern Kyrgyz citizens. Consequently, I consider residents of the South beneficiaries of cooperation over water and energy management, while those in the North are not.<sup>17</sup> Figure 1 illustrates the relevant geographic divisions for both upstream and downstream countries.

Although short-term cooperation was valuable as a sideways concession to downstream agricultural regions and upstream energy consumers, the Central Asian governments did not necessarily want to cooperate indefinitely. The water-for-energy exchanges generated notable costs for downstream energy elites, who had to sell energy to the upstream countries at a subsidized rate. This reduced their profits relative to what they could obtain from selling their products on the open market. Since nondemocratic leaders must minimize threats from elites as well as the masses, the downstream leaders preferred to remove these costs when the proximate danger from protest declined, unless they received sizable concessions from their upstream neighbors. This, in turn, only occurred when ongoing protest in beneficiary regions made cooperation particularly valuable to upstream leaders.

Transitioning between noncooperative and cooperative resource management during the 2000s also had relatively low transaction costs, enabling the benefits to reach their targets before protest movements gained momentum. The release of water or the delivery of energy could begin immediately after an agreement was signed. In addition, new agreements took relatively little time to reach. This is, perhaps, surprising for an international policy. However, three aspects of the case facilitated signing new agreements. First, the Central Asian presidents tightly controlled policy related the issue of resource management, streamlining the decision-making

---

<sup>17</sup> This is true for cooperation with Kazakhstan, as well as Uzbekistan. Cooperation with Uzbekistan means that electricity can be imported from the North, while cooperation with Kazakhstan means greater quantities of coal to generate electricity at the Osh thermo-electric plant that can then be distributed to other areas in the South. Specifically, Batken, Osh and Jalalabad are considered beneficiary regions and all others are nonbeneficiary regions. In Tajikistan, all provinces are considered beneficiaries.

process.<sup>18</sup> Despite the emergence of many regional organizations in the immediate post-Soviet period, even the highest profile of these had little actual influence on how resource policy was made during the time under consideration.<sup>19</sup> The concentration of power in the presidents alleviated bureaucratic delays and distortions, allowing them to make and implement decisions quickly. Second, the frequent negotiation and renegotiation of these agreements itself facilitated the signing of new agreements. Regularization of this kind decreases the costs associated with negotiation (Keohane, 1984), alleviates information asymmetries (Akerlof, 1970), and makes short-term defection from the norms of the regime (if not from the individual cooperative agreements) less attractive.<sup>20</sup> Third, the joint understanding that cooperation need not be long-lived allowed countries to defect without fear of repercussions once the proximate threat from protest passed. During periods of more normal politics, downstream leaders had to balance the preference of the energy elites for noncooperation with the desires of cooperative management's beneficiaries. Likewise, upstream leaders had to balance the political and financial capital required to induce cooperation against the wishes of downstream energy elites with the need to appease individuals in their own country who benefit from cooperation. Flexibility allowed leaders to end cooperation if its costs outweighed its benefits, making this a particularly attractive policy for use as a sideways concession. Additionally, while governments were quick to take credit for successful cooperation, they were able to blame any failures on their partners abroad. This allowed them to end (costly) cooperation once the threat of mass mobilization passed, without sparking additional outrage.

Thus far, I have shown that cooperative resource management could be used to quickly target benefits - at least temporarily - to potential protesters. However, to be a *sideways* concession, rather than a direct one, cooperative resource management must also be unrelated to the vast majority of issues being protested about in the 2000s. To check this, I collected an original

---

<sup>18</sup> Interview with a foreign employee of an international organization involved in water and energy issues. January 10, 2012. Conducted by the author in English. Dushanbe, Tajikistan.

<sup>19</sup> See Weinthal (2002) for a discussion of how the Central Asian countries adopted the form, but not the substance, of cooperation over resources in the early post-Soviet period

<sup>20</sup> See Axelrod (1984). In this case, the relevant norms involved flexibility and forgiveness rather than rigidity and punishment (Chayes and Chayes, 1993).

dataset of protests that occurred in each of the Central Asian countries during the 2000s.<sup>21</sup> I used newspaper coverage to divide protests into five broad categories: political, economic, ethnic/religious, foreign affairs, and human rights/environment. Political protests include opposition protests, protests against the government or its actions (including imprisonment of opposition members and/or the government's use of force), and protests over elections. Economic protests include labor protests and strikes, protests over living conditions, and those related to housing and land issues. The ethnic and religious category includes any protest with an explicitly ethnic or religious tone or over an explicitly ethnic or religious issue. The foreign affairs category includes protests over the actions of foreign actors and events outside the borders of the country. Finally, human rights and environment protests include those over environmental conditions, arrests of non-political and non-religious figures, and general issues of human rights.<sup>22</sup> Table 1 shows the different types of protest, by country. Protest occurred in all five categories, with political and economic protests being the most common.

Importantly, very few of these protests are plausibly tied, directly or indirectly, to the issue of international resource management. The following instances represent the only possible exceptions. In Kazakhstan, a protest occurred in October of 2007 over bread prices, which could relate to the availability of water (*Pensioners protest over rising prices*, 2007). In Kyrgyzstan, a protest occurred in January of 2004 over interruptions in the electrical supply (Neshkumai, 2004). Furthermore, the April 2010 revolution was arguably linked to a rise in domestic electricity prices, although this was primarily a domestic, rather than international, issue (*Kyrgyzstan: Bakiyev confronts political crisis*, 2010). In Tajikistan, there were a couple of protests about the lack of power in January 2007 (Kondrashova, 2007) and, in 2010, protests occurred outside the Uzbek embassy over the Uzbek blockade of trains, which was allegedly related to water issues (Chorshanbiev, 2010). No protests in Uzbekistan or Turkmenistan could be linked to resource issues. In short, for the vast majority of protests in these countries, resource management was neither directly nor indirectly related to the narrative of ongoing protest.<sup>23</sup>

What, then, are the empirical expectations if cooperative resource management was used as a sideways concessions to protest? The most direct implication is that *cooperation became*

---

<sup>21</sup> Data on protests are drawn from extensive article searches using the EastView database. Where possible, events are cross-referenced with at least two sources in an attempt to ensure the accuracy of the severity measure,

Table 1: Types of Protest, 2000-2010

	<i>Political</i>	<i>Economic</i>	<i>Ethnic &amp; Religious</i>	<i>Foreign Affairs</i>	<i>Human Rights &amp; Environment</i>
<b>Kazakhstan</b>	6	6	1	1	0
<b>Kyrgyzstan</b>	52	10	12	2	3
<b>Tajikistan</b>	8	7	1	2	1
<b>Turkmenistan</b>	0	0	0	0	0
<b>Uzbekistan</b>	3	5	3	0	2

*This is the number of months (out of 132 possible months) in which at least one protest over this issue occurred*

more likely as protest levels increased in regions that benefited from cooperation. In addition, I expect cooperation became less likely as protest levels increased in regions that did not benefit from cooperation. Transitioning to cooperation was a clearly ineffective way to deliver benefits to potential protesters in nonbeneficiary regions, since it did nothing to increase their satisfaction with the government or raise the opportunity costs of protest. The initiator of a new cooperative period typically had to offer something (such as a better price or greater quantity of its resources) to incentivize its partner(s) to agree. Doing so was an ineffective use of time and resources when the proximate threat of protest came from regions that did not benefit from such efforts.

## Data and Measures

To test the expectations derived above, I collected original data to track the relationship at a monthly level between the relevant pairs of Central Asian countries over water and energy management. The data cover relations among the six major dyads for the period January 2000 - December 2010: Kazakh-Kyrgyz, Kazakh-Uzbek, and Kyrgyz-Uzbek for the Syr Darya and Tajik-Turkmen, Tajik-Uzbek, and Turkmen-Uzbek for the Amu Darya. The time period excludes the turbulent years immediately after independence. It also excludes more recent years during which Russia played a greater role in the issue of resource management. While the Central Asian leaders courted Russian investment in water and energy during the 2000-2010 pe-

---

which will be discussed in the next section.

<sup>22</sup> There is more detail on how I coded these protests in the Appendix.

<sup>23</sup> As I discuss in the results section, I run models excluding these protests, as well as models that exclude economic protests more broadly, and find that the results remain the same.

riod, they were not willing to cede sovereignty in this sphere. For example, disagreement over the details of the Roghun dam's construction in Tajikistan led to a rejection of Rusal financing in August 2007 (Chorshanbiyev, 2012). Russia limited itself to financing smaller projects like the new Kambarata-2 in Kyrgyzstan and the Sangtuda cascade in Tajikistan, and to broad conversations in multilateral forums of questionable impact, like the EurAsian Economic Community (EurAsEc) and the Shanghai Cooperation Organization (SCO) (Yuldoshev, 2008; The Times of Central Asia, 2010; Itar-Tass Daily, 2008*a,b*). This changed in the following decade. Kazakhstan joined a Customs Union with Russia in 2010, and Kyrgyzstan signed on to the Eurasian Union soon after. Russia also began to invest in larger hydroelectric projects, notably Kambarata-1 in Kyrgyzstan (Rickleton, 2013). Most importantly, Russia's Gazprom took over Kyrgyzstan's state-owned gas provider, Kyrgyzgaz in 2014 at a cost of \$1 in return for a huge write-off of Kyrgyz debt to Russia, significantly changing the dynamics of water and energy cooperation in Central Asia (Pannier, 2014; Sadykov, 2014). Consequently, I restrict attention to the more insulated period before this shift.

To code relations among the countries, I utilized mostly secondary sources in English and Russian, that I supplemented, where necessary, with primary sources obtained during fieldwork. While there are problems associated with relying on newspapers for event data (Chojnacki, Icler and Spies, 2012; Eck, 2012), this was the best way to obtain information about relations over this issue. To minimize bias, I examined a variety of sources and cross-referenced events where possible. First, I identified whether an agreement occurred between two countries who were not previously cooperating or an old agreement come back into force. An agreement is defined as a contract between two or more countries that includes concrete provisions regarding quantities, prices, or schedules. Following agreement, I consider countries to be cooperating until there is a break in their relationship - specifically, the unilateral suspension of the agreement or the failure of negotiations over a new agreement. Suspensions could be either formally announced or not, but the resultant nondelivery must be substantial.<sup>24</sup> A failure of negotiations differs from the mere occurrence of negotiations; it means that the parties intended

---

<sup>24</sup> I looked for suspension greater than 25% by volume, or for more than 3 days. However, due to data availability reasons, I sometimes had to rely on more vague phrasing, such as "significantly reduced."

to reach agreement, but failed to do so and thus ended any ongoing cooperation. Following a break, I consider countries to be in a state of noncooperation until they sign a new agreement or the preexisting agreement comes back into effect.<sup>25</sup>

The unit of analysis is the dyad-month. This means that multilateral agreements are coded separately for each relevant dyad of participants. However, the vast majority of agreements were bilateral, with only 5 of the 108 unique agreements involving more than two countries. Figure 2 graphically depicts transitions between cooperative and noncooperative resource management using these data. Although there is clear variation between dyads, this figure underscores the general volatility of relations on this issue during the time period under consideration.

The statistical analyses examine the relationship between protest and transitioning from non-cooperative to cooperative management. Therefore, the relevant sample is all dyad-months in which the countries *were not* cooperating in the previous month. Cooperation cannot be used as a sideways concession if it is already ongoing. This sample restriction also alleviates the concern that the absence of an agreement might contribute to the occurrence of protest. Since all of the observations represent noncooperative months, any grievance from a lack of agreement should be constant across them all.<sup>26</sup> The main dependent variable takes a value of 1 if transition to cooperation occurred during the current month and 0 if not.

The main independent variables measure the occurrence of protest in beneficiary and non-beneficiary regions. Each of these events is coded with respect to date (year and month), severity, and location within the country. Since I expect that larger and more widespread protests increase the government's imperative to act, some measure of severity is desirable. However, despite cross-referencing events where possible, I was not confident in precise estimates of protest size. Instead, I use a four-category measure of protest that roughly captures escalation to balance these competing considerations: small protests (less than 1,000 people), multiple small protests or one large protest (greater than 1,000 people), multiple large protests or single large protests with violence, and multiple large protests with violence. I split these events with respect to whether they occurred in beneficiary or non-beneficiary regions, according to the

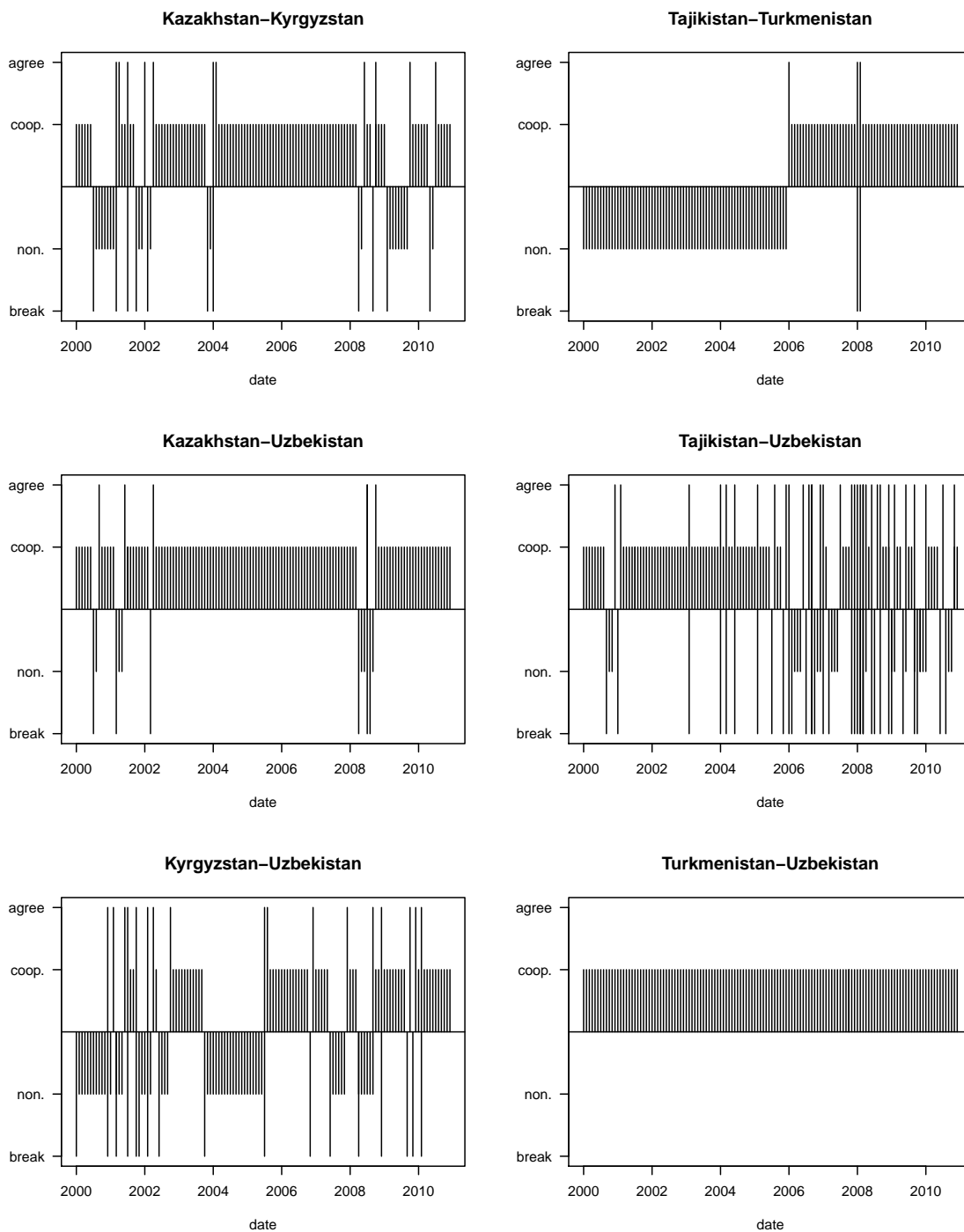
---

<sup>25</sup> Further details on the coding procedures used can be found in the Appendix.

<sup>26</sup> Water scarcity might change the size of this grievance and, therefore, is included as a control in the analyses.



Figure 2: Relations between major dyads, 2000-2010



geographic divisions described in the previous section.<sup>27</sup>

Figure 3: Protests in Central Asia, 2000-2010

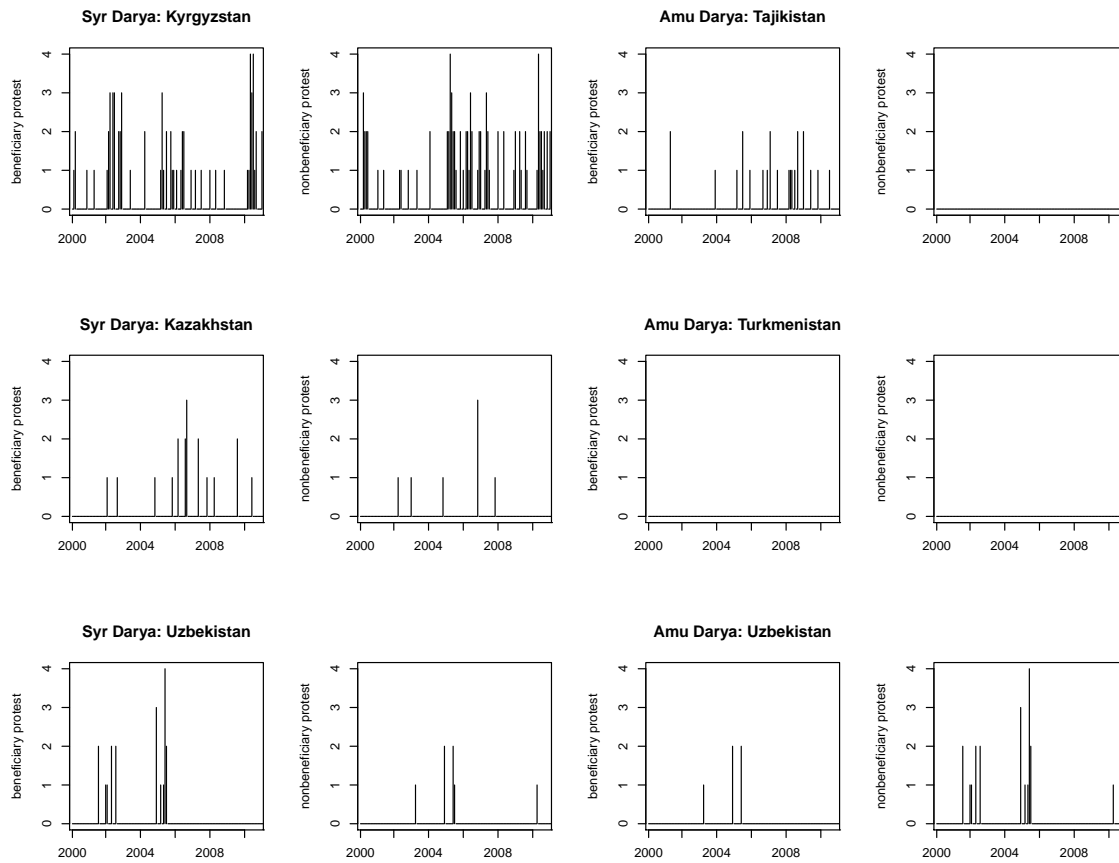


Figure depicts the level of protest (from 0 to 4) in beneficiary and non-beneficiary regions of each country.

Figure 3 depicts the occurrence of beneficiary and nonbeneficiary protest in each of the Central Asian countries. Notably, this figure illustrates that protest in Turkmenistan was nonexistent. Relations between Turkmenistan and both Tajikistan and Uzbekistan also exhibited greater stability than those between the other four dyads (see Figure 2). While other factors likely contributed, the absence of protest in Turkmenistan may help explain this fact.

Since the main dependent variable is dyadic, I converted the protest data to a dyadic measure that captures when the involved countries most wish to sign an agreement. In the primary analyses, I use the lagged level of protest in each of the beneficiary and non-beneficiary regions,

<sup>27</sup> In a few cases, Kyrgyz protesters from the South travelled to the capital in order to protest. Despite occurring in the North, these were coded as beneficiary protests to capture the fact that Southerners were the most likely targets of protest activation.

averaged over three months and between the countries in the dyad. This allows protest in one or both countries to affect the occurrence of an agreement. The Appendix also includes models that instead take the maximum average protest level of each dyad, capturing the possibility that the country with the highest level of protest dictates the resource management regime.

I also include a control for relative water scarcity. Water shortages affect the value of cooperative resource management and, subsequently, the likelihood an agreement is signed (see, for example, Tir and Ackerman, 2009; Brochmann and Hensel, 2009). Water scarcity may also correlate with the occurrence and strength of protest, since dissatisfaction over water issues may be stronger when water is scarce, making potential protesters easier to recruit. For these reasons, water scarcity is an important control variable. Since I am most concerned with the effects of short-term scarcity, the *water scarcity* variable captures the availability of water relative to normal levels. To calculate this, I took the average inflow of water between 1992 and 2010 to the two major reservoirs and determined the mean level for each month. Then, for the 2000-2010 time period, I subtracted these monthly means from the actual monthly inflow levels and converted the resulting differences into standard deviations to make the level of scarcity comparable across rivers and between months. As with the protest variables, this is lagged and averaged over three months. I multiply the resulting variable by -1 to ease interpretation: a greater value indicates a higher level of scarcity and a small value indicates a lower level of scarcity.

The upstream countries benefit most from cooperation during the summer months (when water is delivered) and the downstream countries benefit most during the winter months (when energy is delivered). Since protest may also be seasonal, I included an indicator variable for whether it is the growing season (June-November). In addition, I include an interaction between *growing season* and *water scarcity*, since water scarcity may have a different effect on international management depending on whether the upstream or downstream country is the primary beneficiary.

Although many other factors affect the signing of resource management treaties and/or the occurrence of protest, I limit the number of control variables to those described above and include dyad fixed effect in certain model specifications to capture any remaining dyad-specific

factors. This approach is only problematic if there are omitted variables that are (1) time varying, (2) directly affect the signing of an agreement, and (3) are correlated with the occurrence of protest. Besides water scarcity, the existing literature on international resource agreements focuses primarily on international and geographic determinants that are unlikely to be correlated with domestic protest, including flow geographies, international power configurations, and international economic factors (see Waterbury, 1997; Espey and Towfique, 2004; Stinnett and Tir, 2009; Song and Whittington, 2004). Most of these factors are also time invariant and are accounted for by the dyad fixed effects.<sup>28</sup> Therefore, while they are clearly important determinants of water cooperation, including them in the statistical models is not necessary for the purposes of evaluating the relationship between protest and cooperation.<sup>29</sup>

For some of the analyses I restrict attention only to those dyads involving Kyrgyzstan (i.e. the Kazakh-Kyrgyz and Kyrgyz-Uzbek dyads). There are several reasons to believe the use of cooperation as a sideways concession is particularly likely in this sub-sample. First, it includes only dyads that were involved in direct water-for-energy exchanges. The tight linkage of water and energy allowed the cooperation seeking country to offer more favorable terms in order to induce cooperation. This dynamic was weaker for the Kazakh-Uzbek and Turkmen-Uzbek dyads, since both countries in these dyads had indigenous energy resources and rely less on exchanges. Second, cooperative management was a more valuable sideways concession to regions along the Syr Darya than the Amu Darya because of their greater agricultural output, especially in the fertile Ferghana Valley. Third, there was a clear divide between beneficiaries in the South of Kyrgyzstan and nonbeneficiaries in the North. Since the benefits are regionally concentrated in Kyrgyzstan, while being diffused throughout the country in Tajikistan, there was a tighter link between potential protesters and the targets of benefits in the former case than the latter. Finally, Tajikistan and Uzbekistan engaged in heated arguments over Tajik-

---

<sup>28</sup> Even joint democracy (Tir and Ackerman, 2009), which is plausible correlated with the occurrence of protest, is held fairly constant over time in this case.

<sup>29</sup> I do not control for the past or present use of other responses to protest (i.e. direct concessions and/or repression). Sideways concessions can be used alone or in conjunction with other responses and, therefore, the decision to use sideways concessions should not be systematically related to the use of repression or direct concessions, other than through their impact on the severity of protest.

istan's proposed construction of the Roghun dam during the second half of the 2000s. This reduced the value of cooperation as a sideways concession, since agreements were more expensive to achieve and certainly harder to maintain for any length of time. As the primary goal of this article is to demonstrate that governments use sideways concessions as an additional response to protest, a "most likely" case design is appropriate. In the Kyrgyzstan models, I include an indicator variable for the time period in which the South of the country (i.e. the beneficiaries of cooperative management) was politically dominant, which coincides with the time that President Bakiev was in office: April 2005 to March 2010.

## **Statistical Analyses**

The first set of models identify how protest affects the probability that countries sign a new cooperative agreement. The theory predicts protest in beneficiary regions correlates with an increased likelihood of signing an agreement, and protest in nonbeneficiary regions correlates with a decreased likelihood of signing an agreement. The main results are displayed in the top row of Table 2. The first column presents the results of a logit model with robust standard errors clustered at the dyad. The second uses a conditional logit to estimate the same model with dyad fixed effects.<sup>30</sup> Models 3 and 4 include controls for water scarcity and growing season.

In general, the results in the top row of Table 2 support my theoretical expectations, although the findings concerning protests in beneficiary regions are more consistent and substantively larger than those concerning protest in non-beneficiary regions. Protest in beneficiary regions positively correlates with the signing of a new agreement and the result is statistically significant across all four specifications. The occurrence of protest in nonbeneficiary regions negatively correlates with a new agreement in the regular logit models, although this result loses significance when fixed effects are included in the model. None of the control variables have statistically significant effects.

I illustrate the predicted substantive effect of both kinds of protest on signing agreements in the top panel of Figure 4. The predicted probability of signing a new agreement ranges from

---

<sup>30</sup> The conditional logit model requires the independence of irrelevant alternatives property, which may not hold in this case. The Appendix presents OLS models with fixed effects as a robustness check.

Table 2: Effect of protest on signing a new agreement

<b>FULL SAMPLE</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
Beneficiary Protest	1.128*** (0.269)	0.937* (0.529)	1.143*** (0.321)	0.982* (0.561)
Nonbeneficiary Protest	-0.699** (0.272)	-0.574 (0.591)	-0.641** (0.296)	-0.548 (0.600)
Water Scarcity			-0.095 (0.295)	0.051 (0.296)
Growing Season			-0.167 (0.193)	-0.171 (0.289)
Scarcity × Growing Season			0.032 (0.470)	-0.137 (0.453)
Constant	-1.308*** (0.463)		-1.244*** (0.435)	
Fixed effects?	No	Yes	No	Yes
N	305	305	305	305
<b>KYRGYZ SAMPLE</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
Beneficiary Protest	2.480*** (0.040)	2.624* (1.506)	2.483*** (0.316)	2.610* (1.532)
Nonbeneficiary Protest	-2.322*** (0.215)	-2.468 (1.600)	-2.636*** (0.056)	-2.774* (1.657)
South			0.598*** (0.190)	0.529 (0.488)
Water Scarcity			-0.117 (1.066)	-0.061 (0.744)
Growing Season			-0.303 (0.516)	-0.204 (0.737)
Scarcity × Growing Season	-0.804*** (0.178)		-0.462 (0.769)	
Fixed effects?	No	Yes	No	Yes
N	48	48	48	48

\*\*\*p < .01; \*\*p < .05; \*p < .1

For both panels, Models 1 and 3 are regular logit models with robust standard errors clustered at the dyad and Models 2 and 3 are conditional logit models.

0.20 when beneficiary protest is at its minimum, holding all other variables at their means, to 0.71 when beneficiary protest is at its maximum (a change of 0.51). The predicted probability of signing a new agreement ranges from 0.24 to 0.09 (a change of -0.15) when nonbeneficiary protest moves from its minimum to maximum value.<sup>31</sup> Intuitively, this suggests that the direct effect of beneficiary protest is substantively larger than the more indirect effect of nonbeneficiary protest.

I performed the same analyses using the sample restricted to Kyrgyz-Uzbek and Kyrgyz-Kazakh dyads. Given that this represents the “most likely” case, the fact that these effects are substantively larger and more consistently statistically significant should be expected (see Table 2 and the bottom panel of Figure 4). In these models, the period of southern dominance has a positive and significant effect on the likelihood of agreement, suggesting that transition was more likely when beneficiary regions were politically privileged. However, this results is not robust to the inclusion of fixed effects.

To check whether cooperation is a strategic response to protest, rather than just a reaction to increased threat, I repeated the analysis for violent attacks against the state or representatives of the state, such as bombings or assassination attempts.<sup>32</sup> Like protests, violent attacks represent threats to the leader’s power. However, they are carried out by small groups of individuals that, at least in the Central Asian case, do not require the support of those in the region where they occur.<sup>33</sup> They are also isolated in the sense that sympathizers do not pose an immediate threat as they do in the case of protest; terrorist attacks rarely snowball. Granting sideways conces-

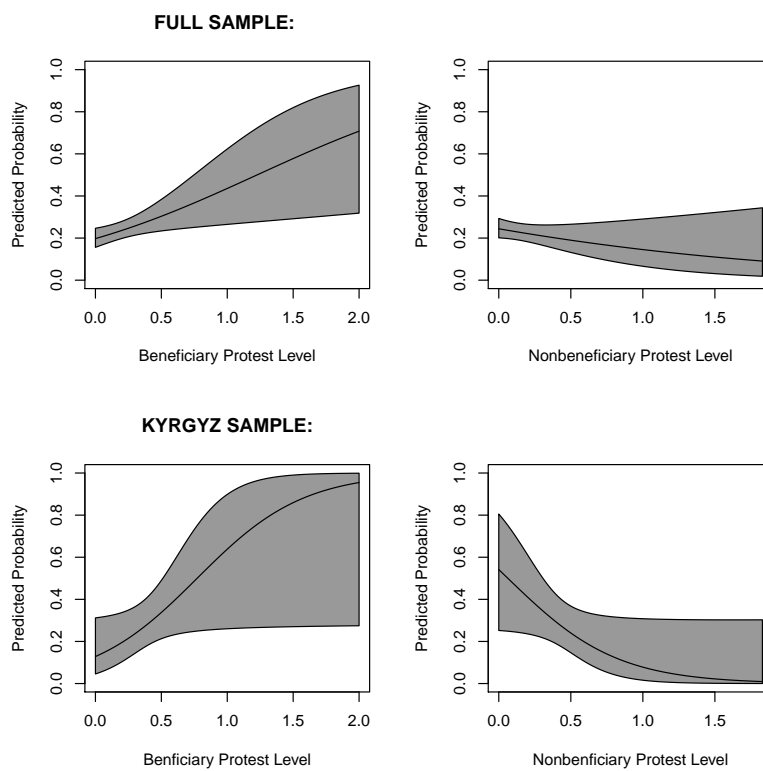
---

<sup>31</sup> The majority of observations in the data have no protest in both beneficiary and nonbeneficiary regions. Therefore, the predicted probability of protest at higher levels should be treated with some caution. The predicted probability of signing a new agreement increases from 0.20 to 0.26, when beneficiary protest moves from the 10th to 90th percentile. The predicted probability of signing a new agreement decreases from 0.24 to 0.21, when nonbeneficiary protest moves from the 10th to 90th percentile. Although much smaller than when more extreme values are included, these effects are still substantively significant.

<sup>32</sup> Information on the data collection procedures for these variables and the models from which the predicted probabilities were calculated can be found in the Appendix.

<sup>33</sup> This calculation may differ in countries experiencing civil war, where insurgents are geographically concentrated and winning the support of civilian populations is an important counterinsurgency tactic (see Berman, Shapiro and Felner, 2011).

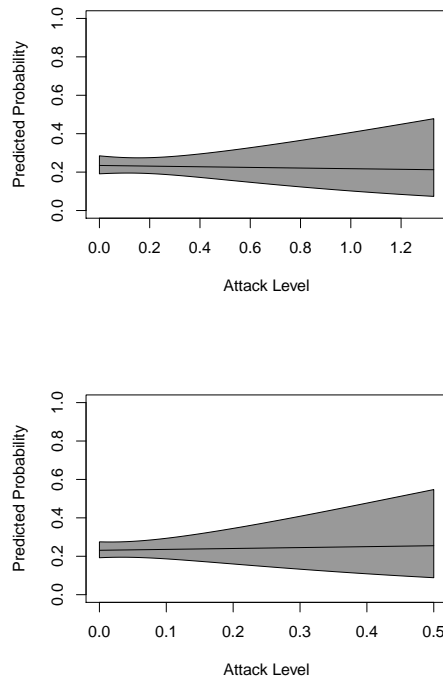
Figure 4: Predicted effect of beneficiary and nonbeneficiary protest



Predicted probabilities are calculated using the Model 3 in the top and bottom panels in Table 2. The (3-month average) level of protest in beneficiary and non-beneficiary regions is varied from its minimum to maximum, while all other variables are held at their means. The shaded area represent the 90% confidence intervals.



Figure 5: Predicted effect of beneficiary and nonbeneficiary attacks



Predicted probabilities are calculated using Model 3 in Table 2 of the Appendix. The (3-month average) level of attacks in beneficiary and non-beneficiary regions is varied from its minimum to maximum, while all other variables are held at their means. The shaded area represents the 90% confidence intervals.

sions to areas experiencing violent attacks is therefore unlikely to be effective at reducing the threat of future attacks. As Figure 5 shows, there is no discernible correlation between these attacks and the signing of cooperative agreements. This suggests that signing resource management agreements was a strategic response to the particular type of threat posed by protest, selected because the government believed it would have a deescalatory effect. This provides further evidence that sideways concessions should be incorporated into our understanding of how governments deal with mass mobilization.

I also re-estimated the models, first, excluding all protests I identified in the previous section as directly or indirectly linked to resource management and, second, excluding all protests that concerned economic issues. Since the main benefits associated with cooperation over water and energy are economic - or at least, related to quality of life - economic protests are more closely related to this concession than, for example, those over ethnic or religious issues. The findings were robust to both of these restrictions (see Appendix), suggesting that transitions to cooperation indeed functioned as sideways, rather than direct, concessions to protest.

## **Conclusion**

In this article, I argued that governments sometimes use concessions that are sideways to the issues being protest about, rather than relying exclusively on more direct accommodations or on repressive responses. Sideways concessions can be used either alone or to supplement these more conventional responses. By decreasing mobilization potential, sideways concessions lower the likelihood that individuals join ongoing protest movements, plausibly making the difference between escalation and deescalation at the aggregate level. In Central Asia, cooperation over international resource management was sideways to the issues being protested over, valuable to potential protesters in certain geographic regions, and could be implemented in a relatively short time frame. This made it an attractive policy for use as a sideways concessions to protest, despite the fact that it required coordination with another country. Consistent with this, I found that the occurrence of protest in beneficiary regions positively correlates with transitions to cooperative management, while protest in nonbeneficiary regions negatively correlates with this occurrence.

Although the article examines the use of sideways concessions in a particular case, the implications are much broader. There is no reason to believe the Central Asian governments were more inclined to use sideways concession than other governments. Consequently, we need to broaden our view of how governments react to protest and begin looking for responses that are not explicitly tied to the occurrence of protest. Doing so will give us a more complete picture of not only how government respond to protest, but also why some protests escalate and others do not.

The primary aim of the article was to demonstrate that governments can and do use sideways concessions in response to protest. This fact alone suggests that sideways concessions are an important part of the protest-and-response story. However, future research should focus on whether sideways concessions work at the aggregate level, empirically evaluating whether sideways concessions decrease the likelihood that protest movements expand and, when used in conjunction with repression or direct concessions, help make their deescalatory effects larger than their escalatory ones.

## References

- Abdullaev, Iskandar, Mark Giordano and Aziz Rasulov. 2007. Cotton in Uzbekistan: Water and Welfare. In *The Cotton Sector in Central Asia: Economic Policy and Development Challenges*, ed. Deniz Kandiyoti. University of London.
- Achilov, Dilshod. 2016. "When Actions Speak Louder than Words: Examining Collective Political Protests in Central Asia." *Democratization* 23(4):699–722.
- Akerlof, George. 1970. "The Market for "Lemons": Quality Uncertainty and the Market Mechanism." *The Quarterly Journal of Economics* 84(3):488–500.
- Axelrod, Robert. 1984. *The Evolution of Cooperation*. Basic Books.
- Beissinger, Mark. 2002. *Nationalist Mobilization and the Collapse of the Soviet State*. New York, NY: Cambridge University Press.
- Beissinger, Mark. 2013. "The Semblance of Democratic Revolution: Coalitions in Ukraine's Orange Revolution." *American Political Science Review* 107(3):1–19.
- Berman, Eli, Jacob Shapiro and Joseph Felter. 2011. "Can Hearts and Minds be Bought? The Economics of Counterinsurgency in Iraq." 119(4):766–819. *Journal of Political Economy*.
- Bishara, Dina. 2015. "The Politics of Ignoring: Protest Dynamics in Late Mubarak Egypt." *Perspectives on Politics* 13:958–975.
- Bratton, Michael and Nicolas Van de Walle. 1992. "Popular Protest and Political Reform in Africa." *Comparative Politics* 24(4):419–442.
- Brochmann, Marit and Paul Hensel. 2009. "Peaceful Management of International River Claims." *International Negotiations* 14:393–418.
- Carey, Sabine. 2006. "The Dynamic Relationship Between Protest and Repression." *Political Research Quarterly* 59(1):1–11.
- Chayes, Abram and Antonio Handler Chayes. 1993. "On Compliance." *International Organization* 47:175–205.

- Chojnacki, Sven, Christian Icler and Michael Spies. 2012. "Event Data on Armed Conflict and Security: New Perspectives, Old Challenges, and Some Solutions." *International Interactions* 38:382–401.
- Chorshanbiev, Payrav. 2010. "Tajik journalists take part in piquet." *Asia-Plus* 107.
- Chorshanbiyev, Payrav. 2008. "Electricity rationing remains in effect in Tajik capital." *AP-Blitz* 13.
- Chorshanbiyev, Payrav. 2012. "Head of OJSC NBO Roghun is sure that the studies' results will be positive." *Asia-Plus* .
- Collins, Kathleen. 2006. *Clan Politics and Regime Transition in Central Asia*. Cambridge, UK: Cambridge University Press.
- Davies, Graeme. 2014. "Policy Selection in the Face of Political Instability: Do States Divert, Repress, or Make Concessions?" *Journal of Conflict Resolution* pp. 1–24.
- Davies, James. 1962. "Toward a Theory of Revolution." *American Sociological Review* 27(1):5–19.
- DeNardo, James. 1985. *Power in Numbers: The Political Strategy of Protest and Rebellion*. Princeton, NJ: Princeton University Press.
- Eck, Kristine. 2012. "In Data We Trust? A Comparison of UCDP GED and ACLED Conflict Events Datasets." *Cooperation and Conflict* 47(1):124–141.
- Espey, Molly and Basman Towfique. 2004. "International Bilateral Water Treaty Formation." *Water Resources Research* 40:1–8.
- Franklin, James. 2009. "Contentious Challenges and Government Response in Latin America." *Political Research Quarterly* 62(4):700–714.
- Gallagher Cunningham, Kathleen. 2014. "Divide and Conquer or Divide and Concede: How Do States Respond to Internally Divided Separatists." *American Political Science Review* 105(2):275–297.

- Gamson, William. 1992. The Social Psychology of Collective Action. In *Frontiers in Social Movement Theory*, ed. Aldon Morris and Carol McClurg Mueller. New Haven, CT: Yale University Press pp. 85–106.
- Ginkel, John and Alastair Smith. 1999. “So You Say You Want a Revolution: A Game Theoretic Explanation of Revolution in Repressive Regimes.” *Journal of Conflict Resolution* 43(3):291–316.
- Grafe, Clemens, Martin Raiser and Toshiaki Sakatsume. 2008. “Beyond Borders: Reconsidering Regional Trade in Central Asia.” *Journal of Comparative Economics* 36:453–466.
- Gurr, Ted. 1970. *Why Men Rebel*. Princeton, NJ: Princeton University Press.
- Itar-Tass Daily. 2008a. “EurAsEC to Consider Joint Anti-Crisis Effort Without Uzbekistan.” December 12.
- Itar-Tass Daily. 2008b. “SCO Officials Discuss Ecological Safety of Member States.” October 3.
- Kasara, Kimuli. 2007. “Tax Me if You Can: Ethnic Geography, Democracy, and the Taxation of Agriculture in Africa.” *American Political Science Review* 101(1):159–172.
- Keohane, Robert. 1984. *After Hegemony*. Princeton, NJ: Princeton University Press.
- Khalid, Adeeb. 2007. *Islam after Communism: Religion and Politics in Central Asia*. Berkeley and Los Angeles, CA: University of California Press.
- King, Gary, Jennifer Pan and Margaret Roberts. 2016. “How the Chinese Government Fabricates Social Media Posts for Strategic Distraction, not Engaged Argument.” *Unpublished Manuscript* p. (accessed 8/23/2016).
- Klandermans, Bert and Dirk Oegema. 1987. “Networks, Motivation, and Barriers: Steps Towards Participation in Social Movements.” *American Sociological Review* 52(4):519–531.
- Kondrashova, Valentina. 2007. “Visually impaired people protest electricity power usage limitation.” *AP-Blitz* 010.

- Kuran, Timur. 1991. "Now Out of Never: The Element of Surprise in the East European Revolution of 1989." *World Politics* 44(1):7–48.
- Kyrgyzstan: Bakiyev confronts political crisis*. 2010. *Eurasianet.org* .
- Neshkumai, Vadim. 2004. "Kyrgyz villagers bloc int'l road to demand electricity supply." *Itar-Tass Weekly News* .
- Oliver, Pamela, Gerald Marwell and Ruy Teixeira. 1985. "A Theory of Critical Mass. I. Interdependence, Group Heterogeneity, and the Production of Collective Action." *American Journal of Sociology* 91(3):522–556.
- Opp, Karl-Dieter. 1990. "Postmaterialism, Collective Action, and Political Protest." *American Journal of Political Science* 34(1):212–235.
- Pannier, Bruce. 2014. "Gazprom Could Change Dynamic of Uzbek Gas Supplies to Kyrgyzstan." *Radio Free Europe - Radio Liberty* .
- Pensioners protest over rising prices*. 2007. *The Times of Central Asia* 80.
- Radnitz, Scott. 2010. *Weapons of the Wealthy: Predatory Regimes and Elite-Led Protests in Central Asia*. Ithaca, NY: Cornell University Press.
- Rickleton, Chris. 2013. "Kyrgyzstan: Bishkek's Hydropower Hopes Hinge on Putin's Commitment." *Eurasianet.org*, April 25.
- Sadykov, Murat. 2014. "After Gazprom Takeover, Southern Kyrgyzstan Marks 24th Day Without Gas." *Eurasianet.org* .
- Schatz, Edward. 2004. *Modern Clan Politics: The Power of "Blood" in Kazakhstan and Beyond*. Seattle, WA: University of Washington Press.
- Schelling, Thomas. 1978. *Micromotives and Macrobehavior*. New York Norton.
- Song, Jennifer and Dale Whittington. 2004. "Why have some countries on international rivers been succesful negotiating treaties? A global perspective." *Water Resources Research* 40.

- Stinnett, Douglas and Jaroslav Tir. 2009. "The Institutionalization of River Treaties." *International Negotiations* 14:229–251.
- The Times of Central Asia. 2010. "Kyrgyz president launches new hydroelectric power plant." 35: September 2.
- Tir, Jaroslav and John Ackerman. 2009. "Politics of Formalized River Cooperation." *Journal of Peace Research* 46(5):623–640.
- Waterbury, John. 1997. "Between Unilateralism and Comprehensive Accords: Modest Step Toward Cooperation in International River Basins." *World Resources Development* 13(3):279–289.
- Weinthal, Erika. 2001. "Sins of Omission: Constructing Negotiating Sets in the Aral Sea Basin." *The Journal of Environment Development* 10:50–79.
- Weinthal, Erika. 2002. *State Making and Environmental Cooperation: Linking Domestic and International Politics in Central Asia*. Cambridge, MA: MIT Press.
- Weiss, Jessica. 2013. "Authoritarian Signaling, Mass Audiences, and Nationalist Protest in China." *International Organization* 67(1):1–35.
- Wintrobe, Ronald. 1998. *The Political Economy of Dictatorship*. New York, NY: Cambridge University Press.
- Yin, Chien-Chung. 1998. "Equilibria of Collective Action in Different Distribution of Protest Thresholds." *Public Choice* 97:535–567.
- Yuldoshev, Avaz. 2008. "Introduction of Sangtuda-1 Station's Third Unit into Operation Scheduled for November 5 or 6." *AP-Blitz*, 205: October 28.