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Lessons from JI and GIS to post-2012 carbon finance mechanisms in Russia and Ukraine

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ABSTRACT
The Kyoto mechanisms provided Russia and Ukraine with their main incentives for participating in the first commitment period of the Kyoto Protocol. This article explores what opportunities the anticipated post-2012 mechanisms offer Russia and Ukraine in light of the lessons from Joint Implementation (JI) and the Green Investment Scheme (GIS) during the first Kyoto commitment period. The key factors explaining the success of these mechanisms were identified as 1) design of the mechanism, 2) role of the private sector in its implementation, 3) coordination required, and 4) political will gained. Even though not make or break issues, weak rule of law, problems with policy implementation and the ambiguous role of private sector actors are likely to defer also the future mechanisms. Success and failure rather hinge on the priority they are accorded by the top leadership. Regardless, simple mechanisms with few actors involved are likely to be less complicated to set up and run than for instance emissions trading schemes which require a domestic burden sharing. Project-based options in which domestic actors have gained experience may be better suited. However, any lessons prior to the new mechanisms take a clearer shape must be considered as preliminary.

Keywords: Russia, Ukraine, Joint Implementation, Green Investment Scheme, new carbon market mechanisms

1. Introduction

Following the consensus between the key players in Durban on negotiating a new global climate agreement which would apply to all, the direction of the global climate regime and its mechanisms has been under negotiation since 2012. While the attention of the negotiators and policy researchers in recent years has focused on the need and opportunities to upscale mitigation efforts in the developing countries, less attention has been paid to the evolution of climate policy in Ukraine and Russia. If anything, they have been a point of concern due to their formidable Assigned Amount Unit (AAU) surpluses and potential to supply large volumes of Emission Reduction Units (ERUs) to European markets.

The loosening of the link between emissions and GDP in Russia and Ukraine can be attributed to significant decline in energy intensity, driven by a combination of economic restructuring, and operational, technical and process improvements.[1] The dominance of oil export revenues in Russia's GDP further adds to this. Nonetheless, Russia and Ukraine still count as carbon intensive economies: in 2010 the carbon intensity of Russia was 0.78

kCO_2/USD and that of Ukraine 1.04 kCO_2/USD, as compared with the 0.33 k CO_2/USD world OECD average, the 0.43 k CO_2/USD world average, and 0.81 k CO_2/USD in the CIS (Energdata database, 2011). These reserves have engaged both countries in the Kyoto mechanisms: Russia and Ukraine were both members of the Annex B of the Kyoto Protocol during the first commitment period, and were thus eligible to participate.

The existing Kyoto mechanisms are to continue under the second commitment period of the Protocol. However, due to its withdrawal from the second commitment period, Russia will not be eligible to participate in the mechanisms beyond 2012. Ukraine had planned to participate, but as a result of the dramatic changes of rules of the Kyoto Protocol in Doha in December 2012, it seems uncertain that this would happen ('Ukraine may join,' 2012). Further, demand for AAUs and ERUs has remained insignificant due to the limited participation of Annex II parties and the low ambition of the European Union's target that follows, as well as the focus of EU demand on CDM credits from the least developed countries.

It is important to engage Russia and Ukraine in future international climate policy. As of 2008, they were the world's 4th and 20th largest greenhouse gas emitters, respectively, jointly responsible for close to 7% of total global emissions. They also have experience and political influence in international climate policy. Since it can be argued that the Kyoto mechanisms have provided Russia and Ukraine with their main incentives for participating in the international climate regime during the first commitment period, this article explores which emerging market mechanisms would seem the most appropriate for these two countries.

What opportunities do the anticipated post-2012 mechanisms offer Russia and Ukraine? And what are the prospects for these mechanisms to succeed in Russia and Ukraine, in light of the lessons from Joint Implementation (JI) and the Green Investment Scheme (GIS) during the first Kyoto commitment period? This article begins with the background and main considerations of the national climate policies of the countries. Next, detailed country-specific lessons from the relevant carbon finance mechanisms – the JI and the GIS – are presented and discussed. Third, an overview is provided of potential post-2012 carbon finance mechanisms as of discussions after Durban (August 2013), with an evaluation of the prospects of Russian and Ukrainian participation, on the basis of country-specific lessons from the first commitment period.

2. Russia: Climate policy and lessons from the market mechanisms

2.1 Climate policy

Climate change has never ranked high on the domestic policy agenda in Russia. The validity of climate science and the negative impacts of climate change on Russian territory have long been questioned (Sorokhtin, 2008; 'Andrey Illarionov: Benefits' 2003; Kondratev, 1992). Both presidents Putin and Medvedev have expressed scepticism as to the theory of global warming.[2] Regardless, Medvedev did acknowledge the problem, and supported global action to combat climate change at the December 2009 Copenhagen climate conference, as well as approved the Climate Doctrine, officially recognizing the problem and need for action in order to both adapt and mitigate (Climate Doctrine of the Russian Federation, 17 December 2009).

The collapse of Russian emissions in the 1990s in comparison to the final years of Soviet rule and its loose target under the Kyoto Protocol are well-known. They allowed Russian participation in international climate politics and policies to be linked to the potential benefits to be gained from the Kyoto mechanisms (Moe & Tangen, 2000). However, to Moscow's frustration, monetizing the AAU surplus has long remained a matter of rhetoric.

Under the Kyoto Protocol, Russia is to limit its emissions to the 1990 level during the first commitment period 2008–2012. As of 2010, emissions remained 34.2% below the committed level, leaving significant room for utilizing the Kyoto mechanisms given the surplus of some 5.5 Gt. Russia's total Assigned Amount is 16.6 Gt, with a commitment period reserve[1] of 10.6 Gt. Originally, 300 Mt was planned to be used for JI projects; however, a lifting of this limit is anticipated ('Russia poised,' 2012). By October 2012, 109 projects worth ca. 343 Mt had received Letters of Approval (LoA) from the Russian government. The operator of carbon units, Sberbank, expected that large-scale application of JI could raise some €6–8 billion in new direct investment for modernization by the end of the first commitment period ('Within 18 months,' 2011). As regards international emissions trading (IET), the government indicated it did not intend to flood the market; in the end, it failed to involve itself in IET altogether. In November 2012, Russia had transferred some 247 Mt of ERUs. It has not made any AAU transactions.[3]

If economic benefits have been the element most discussed in the context of Russia's climate policy, foreign policy has been a driving force behind its international climate diplomacy. This is clear from Moscow's ambivalent attitude to the outcome of the climate negotiation process, explained by the low level of domestic attention as well as Russian criticisms of what impacts the current international climate effort under the Kyoto Protocol can deliver in global terms. This approach was also illustrated by the considerable 'arm-twisting' required by EU leaders to convince President Putin to finally ratify the Protocol (Korppoo, Karas & Grubb, 2006, p. 15).

Post-2012 international climate commitments seem less likely to drive mitigation in the near future. Russia's Copenhagen pledge of 15–25% reduction in comparison to 1990 appears unlikely to go beyond 'business as usual' growth levels, let alone the 25% domestically binding target currently under discussion (Bashmakov, 2009; Malakov, 2010; McKinsey & Company, 2009). The Russian leadership has repeatedly expressed dissatisfaction with the fact that advanced developing economies, such as China, South Korea and the rich Middle Eastern countries, do not face similar obligations to those of Russia under the current climate framework, and has stressed the need of a wider, more inclusive agreement. With the prospects of such agreement dwindling, Russia declared its intention to opt out of the second commitment period of the Kyoto Protocol, citing the non-participation of other major emitters, including the emerging economies, at the Cancun climate talks in 2010. The 'Russian proposal' aims at addressing this problem by establishing a periodic review of the country groups under the UN Climate Convention (Proposal from the Russian Federation, 2011). In practice this could oblige better-off developing countries to take on climate mitigation commitments based on the level of their economic development.

2.2 Lessons from Joint Implementation

Due to its significant AAU surplus and cheap mitigation potential, coupled with modernization needs, Russia was expected to be the main supplier of ERUs in the world carbon markets. However, in the absence of high-level political support, the process of establishing a domestic JI administration system in Russia proved prolonged and meandering.

The first deadline for finalizing the JI approval procedures was set already for mid-2005 (Russian Federation, 2004). The procedures were approved in 2007 and launched in 2008, led by the Ministry of Economic Development and Trade (MEDT), but were later cancelled as non-functional without project approvals ('On the procedure' #332, 2007). The second set of approval procedures involved the state-owned Sberbank as the operator of carbon units and

[1] In order to address the concern that Parties could "oversell" units, and subsequently be unable to meet their own emissions targets, each Party is required to hold a minimum level of ERUs, AAUs, Certified Emission Reduction units from the CDM and Removal Units from forestry activities in its national registry. This is known as the "commitment period reserve."

tenders under the supervision of MEDT ('On measures' #843, 2009); these procedures were adopted in November 2009. The third set of rules established Sberbank as a third party to all JI deals, phased out tenders in favour of ongoing project submissions, and started to require that ERU revenues be re-invested in further emission reduction projects, in an attempt to improve the environmental contribution of the mechanism ('On measures' #780, 2011).

The delays could be a sign of an inter-agency power struggle over the control of the potential financial flows generated by JI in the absence of a clear political signal to finalize a functional system to approve projects. The greater such potential, the more will agencies tend to show interest in getting involved. Approval of applications by various agencies in the first set of procedures, an expert council review of projects under the second set of procedures, and the sudden involvement of the Ministry of Natural Resources in approving the investment declarations under the third set of procedures could have aimed at arrangements concerning such potential money flows. Direct evidence of such practices cannot be provided, but these structures could both facilitate such activities and partly explain the various delays in project approval. Medvedev ordered a firm timeline for adopting more functional approval process only in June 2011, which may have also put pressure on agencies to reach consensus, as well as ending speculation on top-level support ('Medvedev instructs,' 2011).

Also contributing to the problems has been the hierarchical structure of the Russian decision-making system, which can lead to counter-productive bureaucratic control. Under the first procedures, the final approval of each project by the Cabinet of Ministers proved a bottleneck. Further, according to the rules, projects could be dismissed at any time (Korppoo & Moe, 2007). This rules disregarded the importance of the ownership rights to project owners and investors. The motivation can only be speculated to have been a 'safety valve' to respond to situations where there are serious problems with the projects which could compromise the credibility of the Russia state. It could have also been a response to the unclear signals as to political will from the executive branch.

Also more material reasons could have led Russian officials to put off project approval early on in the process. First, the offshore companies of some (Russian) entrepreneurs were clearly unacceptable to the government, as they would have taken the profits from lucrative projects out of Russia. The majority of approved projects are hosted by the powerful oil and gas sector and large manufacturing facilities. Further, international experts questioned the additionality of the originally dominant project type – gas-distribution pipeline repairs. There were also rumours of fraud in baseline setting in the absence of firm historical data on gas leakages (Korppoo & Moe, 2008).

Some developments proved especially problematic to ERU purchasers. The second set of rules established Sberbank as a third party of ERU contracts, but with no clearly defined role. This prevented some buyers from proceeding with their projects, for legal reasons.[4] The introduction of an *ex post* minimum price for ERUs ('Russia to set,' 2010) contradicted existing contracts with foreign buyers. At least one Russian company attempted to cancel its contract with a foreign buyer, but a Russian court ruled against this appeal ('Russian court rules,' 2011). In accordance with the 2011 regulations, Sberbank charges a fee to cover the administrative costs of ERU transfer. However, some investors have claimed that Sberbank charges a fee for its services beyond that set by actual JI regulations ('Exclusive: Sberbank's,' 2011). The *de facto* dominance of Sberbank in project selection has also led to speculations as to a conflict of interest, as some projects have clearly helped Sberbank customers to repay their debts to the bank (Shishlov, 2011; 'Exclusive: Sberbank's,' 2011).

Toward the end of the first commitment period, the mechanism was functional and delivering ERUs. Regardless of criticism, Sberbank's involvement, and probably the political connections of the bank's Chair of Board, German Gref – former minister of economic development and trade (2000–2007) – opened doors to political support for JI. Further, Sberbank has shown readiness to create a functional project-approval cycle, and has dealt

with inter-agency coordination problems better than the previous leading agency, MEDT, which was probably more vulnerable to power games.

2.3 Lessons from International Emissions Trading and GIS

Russia has so far not engaged in international emissions trading (IET), although a Green Investment Scheme (GIS) has been under preparation for many years and various studies have been initiated in order to facilitate GIS in Russia (The World Bank, 2008; Tangen et al., 2002). The Russian delegation officially announced the government's willingness to re-invest revenues from AAU trading at COP-6 in The Hague (Tangen et al., 2002). But Russia saw the solution of 'greening' AAUs in order to gain legitimacy in the eyes of the remaining buyers as unfair, and not in line with the Kyoto Protocol. More recently the idea of GIS has been linked to JI by introducing requirement to re-invest revenues from ERU sales; according to interviews with local experts this was driven mostly by the Ministry of Natural Resources seeking a role in the JI approval system, and by Sberbank seeking new customers through co-financing such re-investment projects.

Sberbank has been the main agency responsible for developing GIS; however, various factors have sapped its incentives for engaging with IET. The state administration gave priority to focusing on JI, perhaps due to its internationally guaranteed legitimacy. The difficult status of AAUs as state property under Russian law added to this burden (Simonetti & de Witt Wijnen, 2009). Further, it appears that the bureaucrats themselves may have been put off by the slim chances of gaining political support for large sales of AAUs through GIS. Towards the end of the commitment period, the lack of demand for AAUs when Russia would have been ready to sell them reduced the incentives.

3. Ukraine: Climate Policy and Lessons from the market mechanisms

3.1 Climate Policy

Ukraine's climate policy is focused on the Kyoto mechanisms, which served as a major incentive for ratifying the Protocol in 2004. The financing available through the mechanisms has been seen as a major opportunity for Ukraine, especially in comparison to its energy-rich neighbour Russia. Thus, the flexible mechanisms have been keenly and successfully developed as a vehicle to modernize economy. Ukraine has emphasized its over-achievement of the Kyoto commitments and has aimed at ensuring room for economic growth. There has been particular concern that it may lose out economically in comparison to better-off developing countries.[5]

Ukrainian scientists have questioned climate science in the domestic media. This has dominated the debate, together with the opportunities provided by the Kyoto mechanisms which have been gaining more attention. This is also reflected in the level of public awareness, traditionally expressed in climate-sceptical views. However, some signs of change have appeared recently (European Bank for Reconstruction and Development [EBRD], 2011a, p.69).

Ukraine's commitment under the Kyoto Protocol was to limit emissions to 1990 level during the first commitment period 2008–2012 (UNFCCC, 1997). As of 2010, emissions were 383 Mt, or 59% below the committed level, down from 426 Mt in 2008. Even though such steep decline in emissions makes it difficult to estimate the total surplus, it is likely to fall between 2.5 and 2.8 Gt over the first commitment period. Ukraine's Assigned Amount is 4.6 Gt, with a commitment period reserve of 2.0 Gt (Ministry of Environmental Protection of Ukraine, 2006). In the beginning of the first commitment period, Ukraine was planning to sell as much of its surplus as possible; a figure mentioned by National Environmental Investment Agency (NEIA) in 2009 was some 1 Gt (National Environmental Investment Agency, 2009). Kiev had initial contracts with several buyers through its GIS; however, in practice only 47

Mt worth of deals with Japan and Spain were closed. Until now, 174 JI projects worth 383 Mt have received LoAs. As of early August 2013, Ukraine had issued 473 Mt of ERUs and some 30 Mt of AAUs to early JI projects. [6]

A combination of private and national interests unrelated to climate mitigation has been driving Ukraine's mitigation measures. Private interests play an important role in policy initiation, with the presence of powerful political players in the government driving the implementation of the Kyoto mechanisms and domestic renewable policies as well (European Bank for Reconstruction and Development [EBRD], 2011, p. 68; 'Ukraine for,' 2010; Løchen, 2011, p. 16). In the international climate regime Ukraine has been more of a 'policy taker' than a 'policy maker'. Ukraine mostly collaborates with other countries on relevant issues rather than pushing its viewpoints independently. Such themes have been typically linked to the future of the carbon market mechanisms, and the carryover from the first commitment period surplus AAUs.

The Ukrainian second commitment period target, limiting emissions by 20% of the 1990 level by 2020, was established to be comparable with the EU pledge. It reflects the country's desire to be rewarded for any emission reductions achieved – Ukraine's fifth national communication indicates that national GHG emissions can reach 82% of 1990 levels by 2020. Inspired by the success of JI and GIS and supported by the domestic carbon market lobby, Ukraine is keen to develop a domestic emission trading scheme. While the lure of potential demand from the EU cannot be counted on, the scheme appears mainly driven by the prospect of local opportunities the carbon market can create in Ukraine. A draft ETS law was initiated in 2010 and passed the first hearing in the Parliament, but will have to be resubmitted to the new convocation of the Parliament elected in October 2012. The law is expected to set a framework for further elaboration of the scheme, setting in its main elements and a phase-in schedule. It is not expected that the level and distribution of a cap would be decided until after the law has been adopted. Ukraine's role in the international climate regime so far has been a supplier of allowances, and the country's focus on this element of the regime suggests the carbon market as a likely incentive which could engage Ukraine also beyond 2012.

3.2 Lessons from Joint Implementation

Ukraine has been successful in implementing JI; currently, close to 60% of all ERUs are of Ukrainian origin. Political will to implement JI has been clear at the high level policy-making, which tends to favour industrial interests; however, it took over eight years from the time the government first considered the issue. The interest that the oligarchs have shown in JI may have been helpful, as this supports the policy in state administration and makes it more stable.

The Ukrainian JI mechanism has been considered functional one; however, this is partly due to the limited competition, as well as to the low quality of the mechanism in its potential main competitor, Russia. Despite recent complaints from some project developers about the system being slow due to excessive bureaucracy, the procedure had successfully approved JI projects and delivered ERUs to them throughout most of the commitment period. There is no official fee payable for project approval. However, the early 2012 change in the environmental administration has led to allegations that JI approval procedures can be accelerated by side payments: some projects seem to speed through the approval system, while others are left pending approval for a long time and are unable to receive their ERUs (Marzak, 2012).

The majority of projects in Ukraine use Track 1, although both Tracks are allowed. Early crediting of JI projects begun prior to 2008 is also possible under Ukrainian law, and corresponding AAUs have been transferred to early movers. Late crediting of post-2012 projects was also allowed briefly, but the change of government led to its deletion, and no AAUs were transferred as a result.

JI in Ukraine suffered slightly when the country was suspended as a result of shortcomings in GHG inventories from October 2011 until March 2012 (Compliance Committee, 2012). In terms of JI, this meant that ERUs could be issued only for Track 2 projects. However, converting Track 1 projects into Track 2 required extra effort and time, and was thus costly. Government action in issuing a bulk of allowances prior to the expected ban on transfers, and swift re-instatement, prevented the suspension from having a significant impact on the JI market in Ukraine.

3.3 Lessons from International Emissions Trading and GIS

Through the Ukrainian GIS, 47 Mt of AAUs have been sold to Japan and Spain, providing revenues of some €10 per ton. NEIA is responsible for negotiations with buyers as well as for the design of the GIS under government supervision. To date, re-investment has focused on energy-efficiency measures in budget organizations such as schools and hospitals, and several individual large projects ('Interministerial working', 2011). The first GIS project on hospital refurbishment based on a transaction with Japan was completed in February 2011 in the Crimea (State Environmental Investment Agency of Ukraine, 2011).

The main problem with Ukraine's GIS has been the lack of a clear and transparent structure for re-investment, which resulted in difficulties with absorption of the funds in the timeframerequired in the original contract. Also the change of government has influenced the approach originally planned with buyers for recycling the revenues.

The Ukrainian budget structure has contributed to the problems involved in distributing GIS funds. No specific GIS law embedded in the country's legal system has been established; AAU sales and revenue disbursement processes operate through secondary legislation (governmental decrees) guided by the provisions of the buyer contracts. The budget span is one year, and it generally takes some months to approve the distribution of funds – which put constraints on the spending of funds. In June 2012, the law on state procurement was amended to deal with some of these problems ('On amendments,' #4881-VI, 2012).

GIS has also suffered from being used as a tool in political games; the new government has claimed that former PM Yulia Tymoshenko violated Ukraine's GIS contracts with buyers by converting the revenues to Ukrainian *hryvna* and placing them in the general state budget account. This means that, due to liquidity problems, these revenues may have not been available for use all the time, but were recovered from incoming funds ('Ukraine 'scammed,' 2011; 'Ukraine reinstated,' 2011; 'Interministerial working,' 2010). In any case, this incident was hardly favourable to the reputation of the Ukrainian GIS.

4. Main lessons from JI and GIS

Project cycles established to select and approve JI projects and to recycle revenues from AAU sales under GIS contracts have encountered various problems. In the case of ***Russia***, establishing a JI approval system took until the middle of the commitment period and several steps; and constant revisions have added to the uncertainty from the buyers' perspective. However, the system was functional during the second half of the first commitment period. After some initial delays, ***Ukraine*** established a functional JI approval system in the beginning of the commitment period. Despite delays and heavy bureaucracy, the system has been fulfilling its purpose successfully, although, since the recent change in key personnel in the environmental administration, there have been complaints of irregularities in project approval and issuance (Marzak, 2012). With GIS in Ukraine, the lack of a clear project cycle has caused practical as well as reputational problems, the main difficulty being absorbing the revenues from AAU sales as contracted.

The eligibility to trade AAUs and convert AAUs into ERUs under JI Track 1 is (in the case of Annex I parties) subject to various criteria, including accounting and reporting of national

GHG emissions as required under the UNFCCC. Perhaps ***Russia's*** emphasis on projecting an image of itself as a serious foreign policy player has supported the required GHG inventories, as non-compliance would be seen as discrediting the country's reputation. ***Ukraine*** was suspended from trading between October 2011 and March 2012 (Enforcement Branch of the Compliance Committee, 2011; 2012). For Ukraine, the main focus has always been on the administration of the actual mechanisms, so accounting and reporting may have received less attention in the absence of political ambitions beyond pragmatic project investments received. Thus, the difference may be explained in part in terms of administrative capacity and cultures rooted in foreign policy approaches.

The involvement of business in policy-making in transition economies tend to be seen as unusual from the democracy perspective. Powerful industrial groups and their leaders can be influential in decision-making; such 'state capture' means that they can influence the formation of legislation to their own advantage by proving private benefits to public officials (Omelyanchuk, 2001; Hellman, Jones, Kaufman & Schankerman, 2000). Here Russia and Ukraine differ to some extent. In ***Russia***, powerful industrial groups have been involved in JI on the project level – and have probably directed the project selection process. But the slow JI approval process development indicates that those interested lacked the clout to influence the development of the mechanism, while those groups with the required connections (for instance, Gazprom) showed little interest. Putin's consolidation of power in the early 2000s phased out the state capture by the oligarch elite in favour of his own politically less-involved associates. In more practical terms, the involvement of Sberbank as the carbon market operator contributed to the functionality of the Russian JI. In ***Ukraine***, the oligarchs can drive decision-making, and have pushed through legislation, for instance on renewable energy, to serve their private business interests (Løchen, 2011, p. 16). The industrial groups have supported JI, probably paving the way for its smooth operation. Because of the difficulties of working with budget funds, this lobby was likely to have been less enthusiastic about getting involved in GIS, which consequently experienced implementation problems.

Administrative 'petty' corruption, i.e. gaining personal benefit by distorting the implementation of legislation on the civil servant level, is common in both countries ('Yanukovych slams,' 2012; Putin, 2012). Specific individual cases are difficult to identify, but there have been suggestions that side payments have been made to speed up JI approval processes. Structures have been included in legislation to allow for such side payments; in Russia, numerous organizations have been set up to have a say over project selection; and in Ukraine, project developers claim that the recent irregularities in the project cycle would fit such a pattern. The World Bank has recorded similar behaviour in customs procedures: the increasing amounts of documentation required mean more corruption (World Bank, 2009, pp. 24–25).

The policy/contract stability of state-level decisions is low; for instance, internal power struggles in the bureaucratic system or change of government can trigger revisions. In ***Russia,*** new, retroactive regulations have been imposed on approved JI projects (price floor recommendation by Sberbank; redrafting existing contracts to include Sberbank as a party). Until recently, the ***Ukrainian*** government maintained better dialogue with project owners and developers in revising the JI approval system. However, GIS arrangements with buyers have suffered as a result of domestic political infighting and revisions of plans due to the change of government.

Reaction to demand by other countries to purchase AAUs and ERUs is not a straightforward economic decision for government sellers. Regardless of demand, in ***Russia*** the JI mechanism

was set up only very recently, and GIS remains absent. This has puzzled many observers, especially those who worried about Russia dumping its AAUs in the market. The sequencing of supply when there is demand has proven a challenge for Russia. By the time Russia was ready to sell AAUs, demand had been satisfied from other sources. Other lucrative export opportunities, particularly in oil and gas, can help to explain Russia's passive approach, together with the reduced bulk demand as a result of the US withdrawal from the Kyoto Protocol. At the time of writing, the Russian rush to issue bulks of ERUs before the end of the first commitment period has been undermining their price in the market. For ***Ukraine,*** having less lucrative business opportunities available than Russia, demand for both ERUs and AAUs through GIS has provided incentives for developing appropriate domestic administration.

Achieving government support for policies such as JI and GIS is not self-evident. Since power is centralized into few hands, high-level promotion is often required in order to provide administration sufficient certainty of political mandate to make policies happen. For the less powerful policy advocates, access to these circles of power typically makes or breaks a policy initiative. In Russia, the only real veto players and agenda setters seem to be the President and the Prime Minister, who have not raised climate in to the national political agenda, although during his presidency Medvedev provided a push for improving JI approval procedures ('Medvedev instructs,' 2011). In the case of Ukraine, private interests have supported JI through the political system. Further, in comparison to Russia, Ukraine is a smaller country with less economic rents to be tapped into, which may allow for easier access to higher-level policy-makers.

5. Prospects for carbon finance mechanisms beyond 2012

5.1 Introduction to new mechanisms

Since the formal start of post-2012 negotiations in Bali in 2007, it has become apparent that upscaling emission reductions outside of Annex I would remain crucial for the success of the international climate regime, and will become the focus of the carbon markets after 2012. After years of formal negotiations and informal discussions among negotiators and policy researchers alike, the Durban Platform formally defined a new market-based mechanism 'stimulating mitigation across broad segments of the economy', and requested negotiators to recommend a framework for 'various approaches' under which further mechanisms could be defined.

COP-18 in Doha, Qatar set the framework for the new mechanisms, agreeing on its main elements, yet leaving the exact modalities and procedures to be resolved through future negotiations. Key suggestions from parties can be roughly categorized into – under 'market mechanisms' – *crediting-based mechanisms*, like sectoral crediting; credited NAMAs[2]; scaled-up CDMs, including policy CDMs; *trading mechanisms* like sectoral trading, domestic emissions trading schemes; and – under 'various approaches' – *custom-made instruments*, such as bilateral mechanisms and domestic offsets.

The *crediting mechanisms* imply the issuance of credits after verification of the implemented measure; of these, sectoral crediting is likely to be the only one applicable to Russia and Ukraine. Sectoral crediting mechanism credits the reduction of emissions of a sector below a pre-defined level (Schneider & Cames, 2009). Such reductions can be generated through absolute or intensity-based sector targets, or the implementation of regulatory mitigation policies and measures like efficiency standards, feed-in tariffs for renewables, and others.

[2] State-level mitigation action which may generate tradable carbon credits.

Trading mechanisms foresee the establishment of an absolute emission target, on the sectoral or national level, and *ex ante* issuance of credits. *Sectoral trading mechanism* would provide access to the international market to sell credits. Allocation between sectoral actors is required at the national level. This could be facilitated through a wider-scale *domestic emissions trading scheme* (ETS), which may also open opportunities for linking to other ETS systems outside the international mechanisms. *Domestic offsets* could be used to provide private-sector actors with flexibility in achieving domestic policy targets, and prepare them for domestic ETS.

The *custom-made instruments* proposed focus on providing the flexibility to implement mechanisms best suited to national circumstances, by allowing countries to design, establish and implement their own market mechanisms, under the direction of the COP/CMP, and with the basic principles of measurability, reportability and verifiability (MRV) applied in measuring their effectiveness. The most concrete suggestions by Japan are somewhat similar to JI and GIS due to their focus on bilateral agreements between buyer and seller.

5.2 Applicable Lessons from JI and GIS

First, the complexity of the ***design of the mechanism*** is relevant. Problems have been experienced with establishing and operating mechanisms with unclear project cycles. It follows that international guidance, for instance a UN-based mechanism, can make the design task more manageable. Second, the ***involvement of the private sector*** has provided support to the mechanisms, in terms of policy push and implementation in comparison to the public sector. However, opposition by powerful industrial actors can be expected to be equally influential in this case: examples can be found in the field of energy policy.[7] Third, the effort of ***coordination required*** for establishing and operating a mechanism proved to be an important stumbling block, especially when the mechanisms are designed and launched with various different agencies involved. Examples here are the delays and problems with project cycles of both JI and GIS, as well as the lack of stability of legal frameworks and contracts between subsequent governments. Finally, clear signals of ***political will*** are crucial for focused policy design and implementation. In the absence of such signals, inter-agency fights tend to break out and processes may stall, as agencies fear that they lack a real mandate to act. Elevating an issue to the political agenda can be challenging, as it requires access to actors high enough in the political hierarchy to highlight its importance.

In most cases, administrative ***corruption*** has not been the main issue for either of the mechanisms: the problem has been the 'background noise' expected in transition economies. Endemic to the bureaucratic systems in the region, petty corrupt practices innovatively find their space in existing administrative practices and schemes. At the same time, the legal and regulatory frameworks tend to remain robust. Further, petty corruption generally encourages rational behaviour on the part of administrators, by creating vested interest in keeping the mechanisms functional. No project types can be insulated from corruption, as they all require the involvement of the state administration on some level. Given the speculative nature of the knowledge of future project designs as well as the unpredictable policy environments in which they will evolve, it is difficult to differentiate the impacts of corruption between the mechanisms. As corruption has been shown in previous research to increase in tandem with the number of bureaucratic units involved, it is important to bring in *corruption*-related issues in the context of *coordination required,* as is done in the following.

5.3 Evaluating the hurdles ahead

The findings on the **project design** indicate that establishing complex structures such as allocation between actors or a MRV system can be a challenge. The long process of setting up JI cycle indicates that especially Russia may be vulnerable if there is no clear political mandate. For instance, establishing a full domestic ETS is a complex task and could be a tall

order. For some mechanisms, functional existing structures (JI, GIS) as well as support in the format of international/external structures for the mechanism could make the task easier.

The role of the private sector is important, given their influence on domestic politics. This could work both ways, generating either support or opposition. Establishing caps, especially ambitious ones, could raise opposition if industrial interests view them purely as a liability, although the material presented here has shown that also industrial actors can successfully promote policies. Beyond political influence, the private sector has shown greater readiness to manage project-cycle implementation than the public administration. The lack of success with regulatory measures could, however, lessen the likelihood of success for policy-based instruments such as sectoral crediting.

The **high burden of coordination** between agencies and lobbying by the private sector in the preparatory process may obstruct or halt the establishment of a mechanism cycle. Further, money flows within the project cycle provide opportunities for administrative corruption, and thus attract attention from administrative agencies. This can lead to administrative power games that prolong the setup process – a potential example being Russian JI. Simpler mechanisms can offer the advantage of involving fewer administrative agencies. Using existing structures such as JI and GIS could partly circumvent the setup process, thus easing the burden of coordination.

Clear expression of **political will** is central to the success of the mechanism; it is required in order to signal the mandate to establish a mechanism, enforce the preparatory work and implementation by the administration, defend related policy decisions and enforce their implementation against opposition from the affected private sector. Weaknesses in the policy implementation and enforcement systems could cause problems for policies and measures regardless of the political will expressed, whereas externally-provided guidelines might ease the attention required to the technicalities involved in setting up the mechanism. Further, it should be noted that mechanisms entailing contracts with other governments require the attention of the executive layer.

Table 1 outlines the new mechanisms in the context of the main lessons from JI and GIS.

[Enter Table 1 here. Table may be found on last page of this file]

6. Conclusion

Due to the embryonic stage of negotiations on the post-2012 mechanisms, many issues related to their future functioning remain unclear – such as the eligibility requirements for participation and the level of involvement of the UN in the project cycle. That makes it challenging to forecast the outcomes of the international policy-making process. National-level choices are hard to predict: what mechanisms Russia and Ukraine will decide to engage in (especially after an unfavourable change of rules of the Kyoto Protocol was adopted against their will in Doha), which domestic focus areas and actor groups are chosen, and what other policy goals the mechanisms may be linked to. As a result, the analysis above should be taken as preliminary insights only.

The lessons from JI and GIS illustrate the complexities related to policy-making that transition economies are still experiencing: the weak rule of law in terms of the code of conduct in public administration, weakness in policy implementation and the ambiguous role of private-sector actors. However, the success with JI – early on in Ukraine and since late 2009 in Russia – shows that the problems outlined here need not be prohibitive. The setup and implementation of the mechanism may be slow or even stall at times; but, precisely because of the centralization of power, strong policy signals from the top level can solve many problems. Rather than being due to technical or institutional problems, failures with the mechanisms hinge on the priority they are accorded by the top leadership.

Some problems are more difficult to solve than others, even for the leadership, and are best avoided with the choice of future mechanisms, where possible. Simple mechanisms with

few actors involved are probably less complicated to set up and run, and less likely to support corrupt schemes. Externally provided structures such as MRV or technical parameters can reduce the domestic administrative burden as well. The same applies to existing functional structures established for JI and GIS, which have the potential to deliver readily available solutions if they can be maintained until the new mechanisms are launched.

The role of the private sector may shift in relation to carbon market mechanisms if the carbon constraint hardens due to tightening emission commitments. Even though JI in particular has raised awareness on mitigation activities in the private sector, companies are accustomed to selling allowances, not buying them. Mechanisms based on domestic ETS would change this, in that the national allocation would have to pick losers as well, in order to establish a market. This could give rise to opposition in the industrial sectors targeted and could prove difficult for the government to justify as long as no national targets are adopted.

The many uncertainties make it challenging to assess how feasible the anticipated mechanisms may prove to be. However, the options including a domestic ETS with significant burden of coordination between domestic actors could bring a veritable minefield of problems, some of which have been illustrated by JI and GIS. Ideally, project-based options in which both administration and private sector have gained experience would be better suited for the region; however, the market for them is dwindling. The known weaknesses of policy implementation and enforcement could reduce the success of mechanisms based on standard policy implementation in the region.

Notes

[1] For a fuller account see European Bank for Reconstruction and Development [EBRD] and Grantham Research Institute on Climate Change and the Environment, based at London School of Economics and Political Science [LSE], (2011a).

[2] Medvedev originally branded international climate policy as ‘some kind of tricky campaign made up by some commercial structures to promote their business projects’. See Shuster, Simon (2010, August 2). Will Russia's Heat Wave End Its Global-Warming Doubts? Time World. Retreived from http://www.time.com/time/world/article/0,8599,2008081,00.html; Korsunskaya, Darya (2010, August 23). Putin ponders climate change in Arctic Russia. Reuters. Retrieved from http://www.reuters.com/article/2010/08/23/us-russia-climate-putin-idUSTRE67M3G920100823.

[3] As of early August 2013. Data from Carbon Project Manager database of Thomson Reuters Point Carbon. Not publicly available.

[4] Most famously Denmark, which officially announced its withdrawal from the Russian market.

[5] See for instance the national statements of Ukraine in COP-14 in Poznan (Minister of Environmental Protection Heorhiy Filipchuk) and COP-15 in Copenhagen (Vice Prime Minister Hryhoriy Nemyrya). Retrieved from http://unfccc.int/press/multimedia/webcasts/items/5857.php

[6] Data from Carbon Project Manager database of Thomson Reuters Point Carbon. Not publicly available.

[7] Ongoing research by one of the authors suggests that Russian oil companies are able to slow down the implementation of the limits to flaring of associated gas from oil production which entered into force in January 2012.

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Table 1. Applying lessons from JI and GIS to the anticipated formats of potential new mechanisms

	Design	**Role of private sector**	**Coordination need**	**Political will needed**
Sectoral crediting	MRV probably externally-provided, policy measures generate mitigation action, crediting on government level. Design is not technically complicated; international level provides support.	Depends on the focus sector. Policies and measures addressing private sector can cause opposition – but can also facilitate implementation, given the right incentives. Likely difficulties in distribution of benefits to the private sector.	Standard domestic policy design and enforcement. Crediting mechanism simple and unlikely to require significant inter-agency work domestically.	Similar to standard policy-making process. More needed for pushing policy if the industrial sector is targeted, and for implementation if the public sector is targeted.
Sectoral trading	MRV externally provided, allocation required for focus sectors; trading mechanism domestic, which adds to complexity in comparison with sectoral crediting.	Private sector needed to generate mitigation action but may lack interest due to government control over money flows.	Access to money flows attracts attention of administrative units, which may stall the process. Private sector likely to lobby inter-agency work, but limited to few sectors.	Required to push policy decision on caps and functional administrative system.
Domestic ETS	Design quite complex since MRV, allocation across major sectors and trading mechanism must be provided domestically.	Targets main emitting sectors; setting the cap and allocation across sectors is politically challenging.	Design requires significant coordination and negotiations with industry. Process prone to lobbying, corruption and opposition by business.	Lack of external guidance requires high political will. Likely opposition from strong private sector actors requires strong political will and supervision.
Domestic offsets	MRV domestic, but mechanism can be simple. Perhaps existing project mechanisms structures can be used?	Private sector likely to be the main actor group.	Not necessarily much coordination. No foreign money flows involved, which may mean fewer opportunities for corruption.	Creating demand, e.g. domestic targets, requires push from the top level, but offsets unlikely to be opposed *per se*, as they provide flexibility to policy implementation.
Bilateral mechanisms	Design and source of MRV bilaterally agreed. Project mechanisms have been suggested. Design can be supported by partner country and/or existing JI structures.	If project mechanism, private actors more efficient in implementation than government programmes such as GIS.	Designing new project mechanisms requires coordination. Using existing structures of JI can reduce need for coordination.	Top-level signals can lessen inter-agency fighting. Top level required to initiate or approve bilateral negotiations with partner government.