Clean Energy, Climate Change and
The Global Cross Border Investment Regime

Climate change is a global challenge requiring global solutions. According to the article the absence of a global
institution supporting a global agreement on cross border investment is an important obstacle in scaling up
clean energy projects in the world today. The methodology used in the article is the case study method. The
sources of evidence used for the analysis is secondary data, including analytical reports and scholarly literature,
as well as interviews and direct observation.

**Keywords:** clean energy investments, climate change, international financial institutions (IFIs).

Klimato kaita yra pasaulinis iššūkis, reikalaujančias pasaulinio masto sprendimų. Tyrimo metu nustatyta, kad
pasaulinių institucijų paramos trūkumas dėl tarpvalstybių investicijų yra didelė švarios energijos projektų
plečio kliūtis šiuolaikiniame pasaulyje. Straipsnyje taikomos atvejo analizės metodas, naudojami antriniai duomenys, įtraukiama anlitės ataskaitų, mokslinė literatūrą, intervių ir tiesioginį stebėjimą.

**Reikšminiai žodžiai:** švarios energijos investicijos, klimato kaita, tarptautinės finansų institucijos (TFI).

**JEL Classifications:** F30/G22/P18/Q40.

**Introduction**

Climate change is among the most serious challenges humankind has ever faced. This is a global problem that has the potential to become a fundamental threat to economic development and human well-being on the earth, so that urgent action is needed.

Natural scientists are not the only ones expressing concern about climate change. Economists, financial analysts and political scientists, among others, are now also increasingly engaged in this field. The problem is no longer only one for geoscientists and engineers. Climate change can have serious economic, financial and political consequences. Sir Nicholas Stern, a former chief economist at the World Bank Group, led a panel to review the evidence for climate change and to assess its economic implications. The Stern Commission’s (2006) key message was that “an overwhelming body of scientific evidence now clearly indicates that climate change is a serious and urgent issue. The Earth’s climate is rapidly changing, mainly because of increases in greenhouse gases caused by human activities” (p. 2). The Intergovernmental Panel on Climate Change states that “the human influence on the climate system is clear and is evident from the increasing greenhouse gas concentrations in...
the atmosphere, positive radiative forcing, observed warming, and understanding of the climate system.”

In his book, *Earth – A Tenant’s Manual*, Rhodes (2012) states that “these increases in greenhouse gases are the clear result of human activity, reflecting the growing emissions produced by increased industrialization, transport, deforestation, intensive agriculture, urbanization, and growing population. And the gases have long atmospheric lifetimes” (p. 172). Political scientists are also turning their attention to the problem. Keohane (2015), who has published extensively on the global politics of climate change, states that scientific consensus on the seriousness of the climate threat has increased. Finally, the World Bank (2015) recently stated that “science is unequivocal that humans are the cause of global warming, and that major changes are already being observed” (p. 18).

Although the consensus on the seriousness of the climate threat has increased in recent years, some debate remains about the influence of human activity on climate change. Rhodes (2012), for example, states that “because records of high greenhouse gas concentrations show [a] strong correlation with higher temperatures in ice cores, these increases are assumed to compound natural temperature increases. There is no significant disagreement in the scientific community on this point. The debate, rather, is about the degree of impact and future scale and timing of human influence on global warming” (p. 172). A small number of skeptics can still be found among natural scientists about the causes of climate change, but this article will not discuss the matter in any detail.

The consequences of climate change can become dramatic. In his book, *The Climate Casino – Risk, Uncertainty, and Economics for a Warming World*, Nordhaus (2013), for example, states that these include sea-level rise, more intense hurricanes, losses of species and ecosystems, acidification of the ocean, as well as threats to the natural and cultural heritage of the planet. Currently the most striking evidence of climate change perhaps comes from the shrinking coverage of polar ice as can be seen in Greenland and Iceland, for example.

When discussing the effective response to climate change, the Stern Review (2006) states that “climate change is the greatest market failure the world has ever seen, and it interacts with other market imperfections. Three elements of policy are required for an effective global response. The first is the pricing of carbon, implemented through tax, trading or regulation. The second is policy to support innovation and the deployment of low-carbon technologies. And the third is action to remove barriers to energy efficiency, and to inform, educate and persuade individuals about what they can do to respond to climate change” (p. viii).

The aim of the article is to analyze the global cross border investment regime to see how its structure may influence investment in renewable energy sources especially in developing and emerging economies. The focus is especially on capital-intensive clean energy sources such as geothermal and hydropower.

**Theoretical Considerations**

In economic theory pollution is considered a negative externality. It is a by-product of human activity and pollutants cause damage to innocent bystanders. Emission of carbon dioxide and other greenhouse gases is causing damage now and will do so in the future. These gases negatively
impact global climate change. As Nordhaus (2013) put it, “the problem is that those who produce the emissions do not pay for that privilege, and those who are harmed are not compensated” (p. 17) and “governments must step in and regulate or tax activities with significant harmful externalities” (p. 19).

One can distinguish between local and global externalities. Emission of carbon dioxide can for example adversely impact the health of people in the country they live in and can thus be called negative local externality. But carbon dioxide emissions not only affect local communities. They also have a negative impact on the entire global community that stands to lose from increased carbon dioxide emissions. This is because carbon dioxide emissions from one country affect all countries through their impact on global climate. Human activity thus imposes long lasting costs on bystanders without compensation. This is the essence of the market failure.

Any solution to the problem of climate change must be a global solution. Piece-meal solutions will not do. The participation and leadership of all major powers, most notably the United States, the European Union (EU), China, and India, is required. As Rhodes (2012) states, “the United States...has about 5 percent of the world’s population but produces about a quarter of all [greenhouse gas emissions]. Though China now slightly exceeds the USA total emission, it has a population of four times that of the United States, and its level of [greenhouse gas emissions] is growing rapidly” (p. 181). The battle against climate change thus requires cooperation and coordination among developing, emerging and high-income countries.

This article focuses on investment in clean renewable energy sources that are capital intensive. This is because investment in renewable energy sources can help shift the world away from high-carbon fossil fuels. Its focus is on investment in developing and emerging markets, currently the fastest growing economies in the world in terms of Gross Domestic Product growth, energy use and emissions. Most of the future increase in energy demand will be in developing and emerging markets. This is also where most clean energy sources are located.

It is widely believed that global warming will have more serious consequences in developing countries than in high income developed countries. We know that developing countries currently possess vast underutilized clean energy resources. Why are these resources not used on a larger scale and what needs to be done to take advantage of those resources to help remedy the problems of climate change for those countries and, indeed, for the whole world?

Many challenges are related to increased use of renewable sources such as geothermal and hydropower. As the World Bank (2012) has stated, “capital intensive infrastructure projects have a number of distinctive features: (i) they require significant upfront capital and take many years to payback; (ii) output is typically sold on a basis of long-term contracts; (iii) and permitting risks can be significant” (p. 3). And furthermore: “low-emission projects tend to have higher upfront costs; produce less output per unit of capacity; and have higher perceived risks than conventional infrastructure projects.”

The geothermal sector is currently a market niche that has a substantial global market opportunity with significant growth rates in coming years. In fact, according to the International Financial Corporation (2014), “around 40 countries
worldwide, including several low- and middle-income countries, have the potential to meet a sizeable proportion of their electricity demand through geothermal power, at a relatively low cost (around $.08 per kilowatt hour)” (p. 52). One can say that geothermal is like an infant that has not been taken care of. The need is to step up local and global efforts. This article is also relevant for large hydropower projects built in a challenging business and investment environment to show how the international community can help make such investments available with the appropriate lending and risk mitigation instruments. This requires the cooperation, coordination and commitment of many different players, including host governments, the international community via international financial institutions, bilateral agencies and donors as well as the private sector. The World Bank (2015) recently stated that it “is working to leverage both public and private sources of climate finance to support climate-smart policy and investments and help countries and business adapt to a changing climate” (p. 18).

The global warming externality can be eliminated by setting an appropriate price for carbon. But further action is needed. Indeed, simultaneous multiple action is required, including: (i) the pricing of carbon (implemented through tax, trading or regulation); (ii) policy to support innovation and the deployment of low-carbon technologies; and (iii) action to remove barriers to energy efficiency, and to inform, educate and persuade individuals about what they can do to respond to climate change. This includes clean energy investments. As Nordhaus (2013) has argued, “…if other policies fail, development of low-carbon technologies is the last refuge for achieving our climate goals” (p. 289).

Methodology

The methodology used in this article is the case study method. Compared to other research methods, a case study enables the researcher to examine the issues involved in greater depth. According to Yin (2009), six sources of evidence are most commonly used in case studies. These are: documentation, archival records, interviews, direct observations, participant-observation, and physical artifacts. Each of these sources has advantages and disadvantages and according to Yin (2009) one should “note that no single source has a complete advantage over all the others. In fact, the various sources are highly complementary, and a good case study will therefore want to use as many sources as possible” (p. 101). Among the tasks that were necessary to complete the study was to review available evidence to support the analysis and arrive to conclusions. Among the sources of evidence used for the analysis in the article is secondary data, including analytic reports and scholarly literature such as peer-reviewed journal articles and books on the subject, as well as interviews. Preference is given to using well documented evidence that is publicly available and listed in the references. Direct observation also plays a role as the author draws on his experience and observations while working for the World Bank Group for 12 years in three different continents, i.e. Africa, Asia and Europe.

Global Primary Energy Consumption

Renewables account for only a small share of global primary energy consumption, which is still dominated by fossil fuels: about 30 percent each for coal and oil and
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Share of primary energy consumption in 2014 (percentage points)

|                | Oil* | Natural gas** | Coal** | Nuclear energy | Renewables |
|----------------|------|---------------|--------|----------------|------------|
| World          | 33   | 24            | 30     | 4              | 9          |
| United States  | 36   | 30            | 20     | 8              | 5          |
| China          | 18   | 6             | 66     | 1              | 10         |
| European Union | 37   | 22            | 17     | 12             | 13         |

Source: Arezki and Obstfeld (2015). Notes: *Oil is mostly to power transportation. **Coal and natural gas are mainly used for electricity generation.

25 percent for natural gas (Table 1). Progress in the development of renewables could be fragile if fossil fuel prices are low for long. Low prices for oil, gas and coal can slow down innovation and adoption of cleaner technology. Policymakers should not allow this to happen.

In 2016 nations from around the world gathered in Paris for the United Nations Climate Change Conference, with the goal of a universal agreement on reducing greenhouse gas emissions. The Paris climate summit adopted a new agreement. It does not ensure or spell out the end of fossil fuels or assure that temperatures will not rise more than two degrees. Nevertheless, the Paris Agreement has the potential to mark a historic shift in how the world negotiates cooperation on climate change. Only time will tell if the full promise of the Paris Agreement will ever be achieved. The exit of the USA and uncertain re-entry greatly weakens the agreement and its re-entry remains uncertain.

Utilizing additional funds for clean energy investment is not only a national effort but also an international effort. It is a test for developing and emerging market countries but also for international financial institutions (IFIs) to assist those countries make the transition. So far IFIs, including the World Bank and the regional development banks have been slow to respond (see for example Hilmarsson, 2017). Those institutions can for example offer loans, guarantees and provide equity to support clean energy projects but they do not provide a comprehensive solution for the problem.

The Need for an International Investment Organization

The absence of a global government makes global warming an awesomely challenging problem to manage. Very broad participation is needed to fully address the global “tragedy of the commons” that results when countries fail to consider the negative impact of their carbon emissions on the rest of the world. Furthermore, free riding by non-participants, if sufficiently widespread, can undermine the political will to action of participating countries (Arezki & Obstfeld, 2015).

The lack of a comprehensive foreign investment regime also makes risk management for cross border clean energy investments more difficult. No comparable international organization exists to deal with cross border investments in the same way as the World Trade Organization does for trade. The lack of an international framework for cross-border investment
makes political risk mitigation challenging. Cross border investment is less likely to take place unless proper risk mitigation is possible, feasible and fair for all parties involved.

Keohane and Victor (2011) have examined the international climate regime. They argue that “[t]he international institutions that regulate issues related to climate change are diverse in membership and content. They have been crafted at different times, and by different groups of countries. They have been crafted in a context of diverse interests, high uncertainty, and shifting linkages. They are not integrated, comprehensive, or arranged in a clear hierarchy. They form a loosely-linked regime complex rather than a single international regime” (Keohane & Victor, 2011, p. 20). Keohane and Victor (2011) argue that “the infeasibility of a strong comprehensive regime makes climate change a very difficult international problem to manage” (p. 20). Furthermore “the failure of efforts to develop a comprehensive, integrated climate regime reflects resistance to costly policies in rich countries, such as the United States, and in developing countries alike” (Keohane & Victor, 2011, p. 8). They conclude that “at the present juncture, however, both political reality and the need for flexibility and diversity suggest that it is preferable to work for a loosely linked but effective regime complex for climate change” (Keohane & Victor, 2011, p. 20). However, it is not clear how a loosely linked regime would operate and how it would differ from the current system that has not yet produced favorable results.

Currently about 3000 bilateral investment treaties are in force. As Salacuse (2010) states, this emerging regime for international investment significantly differs from other international regimes. Three of the most important are that: (1) the regime has largely been constructed bilaterally, rather than multilaterally; (2) it gives broad scope to private and decentralized decision making; and (3) no multilateral international organization supports the investment regime (p. 463). In fact, if one considers Keohane’s definition of cooperation as the “coordinated mutual adjustment of states policies yielding benefits to participants” one can also argue that institutionalized cooperation in the field of foreign investment does not exist.

The current investment regime has been founded on the assumption that it will increase international investment, which will then lead to increased prosperity and economic development (Salacuse 2010). However, it has been questioned whether investment treaties have in fact increased investment flows to poor countries. The World Bank (2003), for example, has stated that “[e]ven the relatively strong protections in [bilateral investment treaties] do not seem to have increased flows of investment to signatory developing countries” (p. xvii).

Given the fragmented investment regime, it is difficult to identify the specific hegemon that has advanced and maintained the investment treaty system. As Salacuse (2010) has argued, “…capital-exporting countries have acted as a collective hegemon to create and maintain the investment regime and thereby maintain their global economic advantage, particularly in relation to developing, capital-importing nations” (p. 434). Indeed, capital-exporting countries have been the primary force driving negotiation of bilateral investment treaties on which the current investment regime is based. Part of the reason is that after World War II capital-exporting countries felt the need to protect
the investments of their nationals. The need for such protection was heightened during the decolonization of territories that had previously been under the control of capital-exporting states.

Why have the nations of the world been willing to negotiate bilateral investment treaties in such large numbers over the last fifty years instead of negotiating global agreements? From a technical perspective it is of course less complicated to negotiate a bilateral agreement than a global treaty that must accommodate the interests of many countries. From a political perspective, given the asymmetric nature of bilateral negotiations between a strong developed country and a usually much weaker developing country, the bilateral setting allows the developed country to use its power more effectively than does a multilateral setting. For example, in multilateral negotiations, developing countries have the opportunity to cooperate with like-minded states to increase their power in negotiations. This would be impossible in bilateral negotiations (Salacuse, 2010).

When discussing international investors’ efforts to manage political risks, Wells (2005) considers four options: (i) international arbitration; (ii) official political risk insurance; (iii) home government support; and (iv) official credit.

In the absence of a global investment agreement such as the General Agreement on Tariffs and Trade and later the World Trade Organization, investors have turned to piecemeal solutions when protecting their rights in risky countries. According to Wells (2005), “[t]hese agreements set out rules for trade, but they provided few rules for investment. […] They did nothing to manage the political risks that could hinder foreign investment. Starting with the aborted International Trade Organization of the immediate post-World War II era, several efforts to create a similar global framework for investment came to naught. The history of failure did not encourage renewed efforts to create a comprehensive approach” (pp. 89–90). Furthermore, Wells (2005) states that “[t]he resulting system, however, was not the product of any grand design but the result of uncoordinated steps by various parties. Certainly, some of the problems of the new system derive from the lack of a single framework; even more important problems can be attributed to the lack of explicit negotiation and mutual acceptance among the affected parties” (pp. 89–90).

This failure described by Wells (2005) is especially serious if one considers clean energy projects that tend to be large, capital intensive and long-term. An additional challenge is that energy resources are to a large extent located in developing and emerging countries that are also currently growing faster than high income industrialized countries, both in terms of Gross Domestic Product and population, and thus also energy use. When host governments in developing and emerging countries cannot make credible long-term commitments to foreign investors, those investors will tend to avoid these projects. This becomes especially troubling during times when a global need exists for transition to clean energy projects. As Wells (2005) points out, “[t]he need to satisfy the demand for security grew as the international community became increasingly eager to encourage private foreign investors to build infrastructure – roads, power plants, water systems – in the developing world. […] Without external protection, direct investors in these industries would have to be very brave, or perhaps ignorant, to enter these industries, where they would
have little bargaining power once their capital was committed” (p. 89).

As mentioned above, Wells (2005) noted four options when discussing international investors’ efforts to manage political risks: (i) international arbitration, (ii) official political risk insurance, (iii) home government support, and (iv) official credit.

From the point of view of project investors, option (i), international arbitration, faces the objection that engaging in cross border investment and relying on favorable international arbitration in the event of dispute is not a predictable means of mitigating political risks for foreign investors, but it allows them to escape domestic courts. This can be a lengthy and costly process both for the host country and the foreign investor. The World Bank Group-sponsored International Centre for Settlement of Investment Disputes (ICSID) is for example a leading international arbitration institution devoted to international investment dispute settlements. ICSID only facilitates resolution of investor-state disputes. In the case of energy projects, the Energy Charter Treaty organization and secretariat whose concern is trade and investment in the energy sector also provides for an investment dispute settlement mechanism. The Energy Charter Treaty applies to all types of energy, including geothermal energy projects. However, the Energy Charter Treaty can only be used in relation to investors of states and host states that have ratified/acceded to it and it does not enjoy global membership. Arbitration can also be based on bilateral investment agreements that include an arbitration clause (see further Traustason and Hilmarsson, 2016a and 2016b).

Option (iii), home government support, may be viable for investors from large countries such as the USA or e.g. larger EU member states but faces the objection that home government support does not sound as promising for investors from less powerful countries such as Iceland. In fact, being an investor from a small country only adds to the risks as small countries can only be expected to wield limited leverage in the event of a dispute with a host government in a developing country that could be a much larger country. Options (ii) i.e. official political risk insurance and (iv) i.e. official credit could be a possibility for investors from smaller as well as larger countries to consider when making a foreign investment decision, if feasible venues for cooperation with, e.g., IFIs and export credit agencies can be found.

If official political risk insurance is chosen from a multilateral institution such as the World Bank’s Multilateral Investment Guarantee Agency (MIGA) or from a bilateral insurer such as the USA’s Overseas Private Investment Corporation, it is important that the insurance policy truly helps the private sector mitigate against risks as this can facilitate capital flows to places where funding is needed. But in addition to the interest of the insured one also needs to consider the interests of the host country and the behavior of the insurer.

From the point of view of the host country as well as the insurer, some issues exist to be concerned about, including two types of moral hazard. First, in the event of a dispute, an insured investor has less incentive to renegotiate a contract than an investor without insurance. The investor may be tempted to walk away from a project without considering adjustment to the terms of the contract in the host country and simply claim the insurance. This can be a serious problem for a host country that is for example faced with a financial
crisis such as the regional crisis in Asia in 1997/98 or the global crisis in 2008/09.

Second, the insurer may have an incentive to pay a claim to a foreign investor since its next move can be to make a claim on the host country and collect its money. The World Bank as insurer is often in a strong position vis-à-vis the host country since it may be supporting other projects and programs that will be affected if the host country does not reimburse the bank that just paid out a claim.

But where is the international investment regime heading? One can argue that the world is gradually moving towards an international arrangement on cross border investments. This started with bilateral investment treaties (currently about 3000), then with regional arrangements such as the EU and the North American Free Trade Agreement that have provisions for cross border investments. The next step in this evolution is an inter-regional agreement such as the Trans-Pacific Partnership (TPP)\textsuperscript{14} and the Transatlantic Trade and Investment Partnership (TTIP)\textsuperscript{15}. TPP did not take effect because of exit of the USA from the agreement and was replaced by the Comprehensive and Progressive Agreement for Trans-Pacific Partnership without the USA participation\textsuperscript{16}. The USA did not terminate the TTIP\textsuperscript{17}.

It is possible to view the move from bilateral to regional agreements and then inter-regional agreements to proceed towards a global investment regime like the General Agreement on Tariffs and Trade and then the World Trade Organization on trade. However, one could also view this as four stage evolution: (i) bilateral; (ii) regional; (iii) inter regional; (iv) global as taking the attention away from global efforts. The different language used in different agreements can make consolidation of those agreements into a global arrangement difficult.

What could the reasons be for lack of progress towards a global arrangement? One reason could be that it is easier to negotiate with a smaller number of countries participating in regional agreements such as the North American Free Trade Agreement, the Trans-Pacific Partnership and the Transatlantic Trade and Investment Partnership than in a global setting. Geopolitical tensions can play a role.

Multilateral investment agreements can be beneficial to developing countries for several reasons including greater availability of the appeals process (e.g. if one compares some bilateral investment treaties with proposals for the Transatlantic Trade and Investment Partnership) as well as consistency of language. Developing countries could also secure a better deal in a multilateral arrangement that involves more than one rich country. This is because rich capital exporting countries will be protecting themselves against cases involving other rich capital exporting countries. This could imply better agreements for developing countries than a bilateral agreement between a rich and a poor country. In other words, rich countries are not as likely to dominate in regional negotiations that include several rich countries or in a global setting where many rich countries are participating.

In addition to the current trend for more multilateral arrangements (regional and inter-regional) another possibility is that bilateral agreements will improve. Cases of countries such as Indonesia withdrawing from the bilateral investment treaty system suggest that therefore, we might achieve better agreements where multilateral arrangements such as the Transatlantic Trade and Investment
Partnership might serve as a model for better bilateral investment treaties.

**Conclusions and Recommendations**

Climate change is among the most serious challenges humankind has ever faced. This is a global problem that has the potential to become a fundamental threat to economic development and human well-being on the earth, so that urgent action is needed. The battle against climate change requires international cooperation and coordination. Strong incentives exist for individual countries to free ride and the absence of a global government, or a strong international organization to enforce cuts in emissions, make this battle a sharply challenging problem to manage.

As discussed in this article, rich countries have preferred to sign bilateral investment treaties with developing and emerging countries rather than having a global investment regime supported by an international organization. This makes long-term clean energy investments in developing and emerging markets more problematic. IFIs tend to serve investors from rich countries rather than the interests of developing host countries. Self-interest and short-sighted (in)action on the part of rich countries make climate change a very difficult problem to manage. Weak institutions and governance problems in developing and emerging countries only add to this problem.

Part of the strategy in the battle against climate change ought to be transition to clean energy sources. This requires infrastructure investment to utilize these sources on a larger scale. This is currently not happening fast enough and investment in developing and emerging markets is often challenging because of underdeveloped business and investment environments. Emerging and developing countries have the largest underutilized clean energy sources in the world and they also have the strongest demand given both current economic and population growth. Clean energy investments like geothermal and hydropower, are large, capital intensive, and long-term. Those projects often need sponsorship and funding from public, private and donor sources. This requires international cooperation and coordination, cooperation between the public and the private sector, as well as a fair sharing of risks and rewards.

The success of the World Trade Organization in preserving the long-term benefits of an open global trading system is notable. One can argue that the General Agreement on Tariffs and Trade that later became the World Trade Organization is the most successful international organization ever established. In contrast, the current investment regime is mostly bilateral, with decentralized decision making, and no international organization supports the regime: no World Trade Organization is available for cross border investments.

In the absence of a global investment agreement, like the General Agreement on Tariffs and Trade and subsequently the World Trade Organization on trade, investors have turned to piecemeal solutions when protecting their rights in risky countries. This failure to create a global framework for investment is especially serious if one considers capital intensive clean energy projects. The current investment regime seems mainly to be concerned with protecting investors from rich countries against government action in poor countries.
The failure to create a global investment regime traces all the way back to the Bretton Woods conference. In fact, one can hardly talk about any institutionalized cooperation on cross border investments on a global scale. Some regional agreements and interregional agreements address cross border investment, but it is unclear yet if those will eventually result in a global arrangement supported by an international organization. Rich countries may be better off with the current arrangement, i.e. the interests of capital exporting countries can continue to dominate developing and emerging countries.

IFIs can be important partners not only with direct funding, i.e. loans and equity investment, but also increasingly through risk mitigation instruments. However, the insurance and guarantee instruments offered by IFIs to promote cross border investments are piecemeal solutions that could nevertheless be useful to leverage funding for clean energy investments. While they have not been used much to support cross border clean energy projects, some signs suggest that e.g. the World Bank Group may be stepping up its efforts. IFIs can also make important contributions via policy dialogue and technical assistance.

Increased investment in clean energy projects can only be part of the solution in the battle against climate change. Nevertheless, it is an important part of the strategy. Investment in infrastructure creates jobs and profits and can thus provide the right incentives for global action. Any global climate agreement needs to construct a finance regime that supports low-carbon development in developing and emerging countries. The climate finance regime should incentivize decarbonization and IFIs should give priority to clean energy investments. The international community needs to ask two questions: How can we make the global investment regime more effective, especially in promoting clean energy investment in developing and emerging markets? How can we reform the IFIs to make them more effective in responding to the climate crisis?

Notes

1 The authors would like to express his appreciation to the editor and the anonymous reviewers for their feedback and suggestions to improve the article.
2 See Intergovernmental Panel on Climate Change, Fifth Assessment Report, see https://www.ipcc.ch/report/ar5/index.shtml
3 Externality can be defined as a consequence of an industrial or commercial activity which affects other parties without this being reflected in market prices, see for example: http://www.oxforddictionaries.com/definition/english/externality
4 For evaluation of different business and investment environments see World Bank, 2017.
5 The Price of Oil and the Price of Carbon, see http://blog-imfdirect.imf.org/2015/12/02/the-price-of-oil-and-the-price-of-carbon/
6 Also known as COP 21.
7 See https://www.theguardian.com/environment/2017/jun/01/donald-trump-confirms-us-will-quit-paris-climate-deal
8 Robert Keohane, The Analysis of International Regimes, in Regime Theory, supra note 21, at 23.
9 The International Centre for Settlement of Investment Disputes (ICSID) is an autonomous international institution established under the Convention on the Settlement of Investment Disputes between states and nationals of other states. It currently has more than 140 member states. The convention sets forth ICSID's mandate, organization and core functions. The intended purpose of ICSID is to provide facilities for conciliation and arbitration of investment disputes. ICSID is one of five institutions that make up the World Bank Group (World Bank, 2015).
10 The Energy Charter Treaty contains a comprehensive system for settling disputes on matters
covered by the Treaty. The two basic forms of binding dispute settlement are state-state arbitration on the interpretation or application of almost all aspects of the Treaty (except for competition and environmental issues), and investor-state arbitration for investment disputes. See http://www.energycharter.org/what-we-do/dispute-settlement/overview/  

For discussion about export credit agencies see Dinh (2012) and Dinh and Hilmarsson (2014).  

The Multilateral Investment Guarantee Agency (MIGA) is one of the five organizations included in the World Bank Group. Established in 1988, its intended mission is to promote foreign direct investment into developing and emerging market countries by providing risk insurance/guarantees and credit enhancement and thereby to help support economic growth, reduce poverty, and improve people's lives. MIGA's operational strategy in intended to attract investors and private insurers into difficult operating environments. MIGA is intended to focus on insuring investments in the areas where it can make the greatest difference: (i) countries eligible for assistance from the International Development Association, (ii) fragile and conflict-affected environments, (iii) complex projects that can be transformational, especially in infrastructure and extractive industries, and (iv) middle-income countries where the agency can have an impact. MIGA offers coverage for five non-commercial/political risks. Coverage can be purchased individually or in combination: (i) currency inconvertibility and transfer restrictions, (ii) expropriation, (iii) war, terrorism and civil disturbance, (iv) breach of contract and (v) nonhonoring of financial obligations (World Bank, 2015).  

For Political Risk Insurance offered by the Overseas Private Investment Corporation, see https://www.opic.gov/what-we-offer/political-risk-insurance  

Trans-Pacific Partnership, see https://ustr.gov/tpp/ and https://www.mfat.govt.nz/en/trade/free-trade-agreements/free-trade-agreements-concluded-but-not-in-force/trans-pacific-partnership-agreement-tpp/  

Transatlantic Trade and Investment Partnership, see http://ec.europa.eu/trade/policy/in-focus/ttp/  

Comprehensive and Progressive Agreement for Trans-Pacific partnership. See for example https://www.tpp.mfat.govt.nz/  

See https://www.bloomberg.com/news/articles/2018-03-29/trump-willing-to-reopen-ttp-amid-eu-u-s-trade-spat-ross-says and https://www.cnbc.com/2017/05/30/exclusive-wilbur-ross-says-hes-open-to-resuming-ttp-negotiations.html

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ŠVARI ENERGIJA, KLIMATO KAITA IR PASAULINIS TARPVALSTYBINIŲ INVESTICIJŲ REŽIMAS
Santrauka

Klimato kaita – vienas rimčiausių iššūkių, su kuriais susiduria žmonija, todėl atsiranda didelis poreikis investuoti į švarią energiją pasauliniu mastu. Šis poreikis gali būti patenkintas tik tuomet, jeigu finansiniai ištekliai sukaupiami iš skirtingų šaltinių: viešų, privačių ir paramos teikėjų lėšų. Tai ypač būdinga kapitalui imliems projektams, tokiems kaip geoterminiai ir hidroenergijos projektai. Nors vyriausybės lėšos yra svarbios, tačiau daugelis besivystančių ir besiformuojančių šalių neturi mokesčių bazės, skirtos dideliems, kapitalui imliems, ilgo laikotarpio projektams finansuoti.

Tarptautinės finansų institucijos, tokios kaip Pasaulio banko grupė ir regioniniai plėtros bankai, gali padėti suteikti kapitalui švarios energijos projektams ir palengvinti bendradarbiavimą su privačiu sektoriu. Šiandien viena didelė klūtis, trukdanti plėtote švarios energijos projektus, – išsamaus dau giašalio susitarimo dėl užsienio investicijų, kurias remia pasaulinė institucija, nebuvo. Visa tai stebina tarptautines institucijas, tačiau dar nebuvo. Vienintelis išspręstas sprendimas, kai skirtingos šalys susitarė dėl tarptautinio susitarimo dėl užsienio investicijų, yra pasaulinės finansų institucijos, tokios kaip Pasaulio banko grupė ir regioniniai plėtros bankai. Kadangi ši institucija yra labai svarbi pasaulinio susitarimo dėl užsienio investicijų, tai, kaip ją reikia vertinti, yra svarbi. Vis dėlto, tai reiškia, kad tarptautinės finansų institucijos gali turėti didelę įtaką pasaulinių investicijų srityje.
finansų institucijų siūlomas draudimas ir garantinės priemonės, skatinančios tarpvalstybinės investicijas, yra daliniai sprendimai, kurie vis dėlto galėtų būti naudingi finansuojant investicijas į švarią energiją. Nors tarpvalstybinias švarios energijos projektams skatinti visa tai nebuvo plačiai panaudota, tačiau kai kurie ženklai rodo, kad, pavyzdžiui, Pasaulio banko grupė gali padidinti savo pastangas. Tarptautinės finansų institucijos taip pat gali prisidėti prie politinio dialogo ir techninės pagalbos. Didėjančios investicijos į švarios energijos projektus gali būti tik dalinis kovos su klimato kaita sprendimas. Nepaisant to, visa tai yra svarbi strategijos dalis. Investavimas į infrastruktūrą sukuria darbo vietas ir generuoja pelnus, o tai gali būti teisinga paskata imtis pasaulinio masto veiksmų. Bet koks susitarimas dėl pasaulinio klimato turi būti grindžiamas finansinio režimo, nustatančio mažus anglies dioksido kiekius besivystančiose ir besiformuojančiose šalyse, sukurimu. Klimato finansavimo režimas turėtų remti išmetamo CO₂ mažinimą, o tarptautinės finansų institucijos turėtų teikti pirmenybę investicijoms į švarią energiją. Tarptautinė bendruomenė turi užduoti du klausimus: 1) kaip padaryti pasaulinį investicijų režimą efektyvesnį, ypač skatinant tarpvalstybinės švarios energijos investicijas besivystančiose ir besiformuojančiose rinkose; 2) kaip reikia pertvarkyti tarptautines finansų institucijas, siekiant padaryti jas efektyvesnes reaguojant į klimato krizę. Šiame straipsnyje taikomas atvejo metodas. Analizei atlikti naudojami antriniai duomenys, ištraukiant analitines ataskaitas, mokslinę literatūrą ir interviu. Taip pat taikomas tiesioginio stebėjimo metodas, nes autorius remiasi savo stebėjimais ir patirtimi, sukaupta 12 metų dirbant Pasaulio banko grupėje Afrikoje, Azijoje ir Europoje.