Letter from the Editor

Climate change is has proven to be the defining issue of the twenty-first century as temperatures continually rise, weather events become increasingly unpredictable, and sea levels threaten coastal communities. It has become the multi-headed beast the international community must learn to slay as problems perpetually emerge from the effects of advancing environmental degradation. As a result, the economic, infrastructural, and societal costs of climate change have begun to put international organizations, states, and civil society at odds.

Conflict both within and between states has shaped the dialogue surrounding climate change and how to mitigate its effects. Civil society organizations have begun to call into question just how effective the international community can be in preventing climate disaster in the near future.

In the first issue of our 20th volume, the cooperative and conflictual nature of climate change in international relations is explored. Rafael Leal-Arcas analyzes the necessity of a symbiotic relationship between bottom-up and top-down negotiations to implement clean energy consumption. Following, Caitlin Werrell and Francesco Femia begin this issue's dialogue on climate change and security. Carmel Davis discusses the effects of climate change on Sub-Saharan Africa's ability to develop and subsequently mitigate conflict. Similarly, Ziad Al Achkar outlines the economic, environmental, and security threats in the Arctic as its ice continues to melt. Zhao Ang then discusses China's ability and incentives to pursuing a greener economy. Following, Buddikha Jayamaha, Jahara Matisek, William Reno, and Molly Jahn discuss the security and development of climate change implications in the Sahel region.

The main portion of this issue proudly concludes with the *Journal*'s interview with former Swiss Ambassador Therese Adam on climate change negotiations and the great potential for civil society engagement.

Following the climate change portion of this issue, we feature a special sup-topic: Africa Rising. Here, Peter Schraeder discusses the effects of President Donald Trump's foreign policy in Africa. Juan Macías-Amoretti analyzes the role of Islam in Moroccan politics, while Karim Bejjit concludes with a discussion on Morocco's growing relationship with the AU.

The Journal sincerely hopes that you enjoy this issue and the light it sheds on the growing issues surrounding climate change in the international community.

Meagan Torello
Editor-in-Chief

Climate Change
Conflict and Cooperation

RE-THINKING GLOBAL CLIMATE CHANGE:
A LOCAL, BOTTOM-UP PERSPECTIVE
Dr. Rafael Leal-Arcas

ABSTRACT

This article provides a timely and forward-thinking analysis regarding the transition to clean energy. It does so by offering a behavioral-economics analysis of prosumer-market factors. We argue that transitioning to clean energy cannot be achieved solely through top-down or bottom-up methods; rather, a symbiotic relationship between government or businesses creating opportunities and individual prosumers is key. The article puts an emphasis on the effectiveness of bottom-up factors like smart cities, NGOs, and ordinary citizens.

I. INTRODUCTION

This article focuses on the potential role of the citizen in promoting climate-friendly approaches to energy and trade. One of the mega-trends of this century is a paradigm shift from the 20th-century's top-down approach to climate governance (e.g., the Kyoto Protocol) to a greater emphasis on bottom-up leadership. Not only does the Paris Agreement allow states to design their own mitigation contributions, but non-state actors, including citizens, nongovernmental organizations (NGOs), cities, local leaders (mayors and governors), and businesses, are playing a major role in implementing the agreement's climate goals. In energy governance, we observe a similar push for energy democratization as control over energy security shifts and new energy actors emerge, namely prosumers (i.e., consumers who are also producers of (renewable) energy and who use energy in a smarter, more efficient manner)* and renewable energy cooperatives. This article argues that, particularly in this age of declining multilateralism, such bottom-up approaches could help to expedite the changes in global energy patterns required to mitigate climate change.

The rest of the article proceeds as follows: section two analyzes the shift in the trade regie from top-down to bottom up, and deals with the decline of a top-down multilateral trade system, proposes a bottom-up approach to governance that the Paris Agreement offers, and then elucidates the citizens'

*   It is interesting to see the conceptual evolution of this phenomenon of energy actors over time: Initially, one referred to an energy user, then consumer, then customer, and now prosumer. For an analysis of prosumers, see R. Leal-Arcas *et al.*, "Prosumers: New actors in EU energy security," *Netherlands Yearbook of International Law*, Vol. 48, pp. 139-172, 2017.

involvement in trade institutions and agreements. Section three explains the concept of citizen empowerment by presenting the energy transition goals, and proposes bottom-up approaches to the energy transition. Section four concludes.

II. THE TRADE REGIME FROM TOP-DOWN TO BOTTOM-UP

A. DECREASING RELEVANCE OF THE WORLD TRADE ORGANIZATION

Multilateralism does not seem to be doing well these days, at least not at the World Trade Organization (WTO). There are multiple reasons for the troubles at the WTO. For one, it has not kept pace with economic and geopolitical changes, with multilateral negotiations under its auspices appearing to go nowhere and its dispute settlement system stagnating. The failure of the Doha Round is attributed by some to the deadlock between the European Union and the United States regarding agricultural subsidies, the resulting disregard of the developing countries' interests in access to global markets for agriculture, and the fundamental lack of a shared social purpose among the major trading powers.[1] Another possible reason is the fundamental lack of trust among citizens that their interests are being sufficiently considered by those negotiating behind closed doors. Current WTO procedures, which mainly contemplate actions by member states' governments, are perceived as too inflexible, and thus unable, to pay attention to the concerns of various non-state actors. Some proposals for citizens' empowerment, such as the involvement of civil society in the Committee on Trade and Environment and their participation as stakeholders during the negotiation process of future trade agreements, are difficult to incorporate into these state-to-state procedures and processes at the WTO. Hence, during the 1999 WTO Ministerial Conference in Seattle, large crowds demonstrated on the streets, asking trade technocrats to be transparent and share the outcome of their deliberations. Since that time, demonstrations have become a common feature of trade rounds.

Whatever the reasons, the glittering days of the global trade regime appear to be numbered. Instead, the focus of trade negotiations has shifted from the WTO arena to plurilateral or "mega-regional" trade agreements, such as the Trans-Pacific Partnership (TPP), its latest iteration, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), and the Trans-Atlantic Trade and Investment Partnership (TTIP). These "new generation" agreements seem more consistent with sustainable development concerns, in general, and climate change action in particular. Especially important is the inclusion of environmental (and labor) provisions and chapters: e.g., Chapter 20 of the Comprehensive and Progressive Trans-Pacific Partnership,[2] Chapter 24 of the Comprehensive Economic and Trade Agreement,[3] and the "Trade and Sustainable Development" chapter in the Trans-Atlantic Trade and Investment Partnership negotiations.[4] The willingness to take non-economic concerns into account is not limited to developed countries; emerging economies are likewise participants to these trade negotiations and agreements.[5]

B. A DIFFERENT MODEL: CLIMATE CHANGE

Unlike the WTO, the Paris Agreement takes a bottom-up approach to commitments. Rather than being negotiated, emissions targets are designed by each party according to its national circumstance. The idea is to attract wide participation, especially by all the major emitters of greenhouse gases, and,—although it may sound counter-intuitive,—to promote greater ambition by removing the fear of sanctions for non-compliance. Another distinction from the WTO is that the targets are not legally binding and are subject to reporting and review rather than being enforceable through binding dispute settlement. As part of these reviews, the agreement encourages updating of targets because it was recognized that the initial set of targets from over 180 countries was not sufficient to meet the global temperature goal.

Beyond the largely bottom-up approach to targets, the Paris outcome created platforms and other opportunities for non-state actors to take on commitments for emissions reduction and participate in the multiple processes.[6] This strategy is expected to augment or supplement national governments' goals and commitments. This approach, also called "hybrid multilateralism" by some authors, is characterized by an intricate entanglement of public and private authority and involves a "more integrated role [for non-state actors] in multilateral processes through…monitoring of national action and experimentation with local, regional and transnational mitigation and adaptation strategies."[7]

Indeed, a huge amount of activity on the part of both businesses and non-national governments is occurring worldwide. Among many examples, the Non-State Actor Zone for Climate Action (NAZCA) tracks their voluntary climate action commitments.[8] In the case of the United States, businesses and state/local governments were already taking significant climate action before President Trump's announcement of his intent to withdraw the United States from the Paris Agreement; however, that announcement triggered a

multitude of additional initiatives (e.g., We Are Still In, the U.S. Climate Alliance).

Global issues, such as climate change, poverty, or terrorism,[9] are too big for nation-states, but are (somewhat counter-intuitively) more suitable for cities to tackle.[10] Multiple human activities today are concentrated in cities. They are where the majority of the world population lives[11] (and this trend is still rising);[12] where 50% of global waste is produced;[13] where 80% of global economic activity (as measured by gross domestic product) takes place;[14] and from which between 60% and 80% of greenhouse gas (GHG) emissions originate.[15] City mayors tend towards a more pragmatic approach that arguably offers better governance on these matters. Moreover, mayors tend to come from the cities they govern and therefore garner a much higher level of trust than politicians at the national level. Accordingly, as the main polluters and the main implementers of legislation,[16] cities (and therefore citizens) can, and should, take climate action. Indeed, cities around the world are demonstrating innovative strategies for advancing solutions to climate change.[17] Specifically, city-level climate action that includes a much greater participation of citizens is very promising.[18] The so-called "all hands on deck" approach means that climate action includes citizens' seemingly mundane daily choices, such as commuting to the workplace and upgrading the lighting system in buildings.[19]

Rapid decarbonization efforts have the greatest potential in cities, particularly in developing countries and in sectors such as construction, transport, energy, water, and waste. In these areas, private sector investments are most crucial.[20] While the private sector is not lacking in initiative to contribute to climate change mitigation efforts, citizens can additionally put pressure on businesses to undertake environmentally responsible and beneficial activities.[21] Parenthetically, when politicians fall short, businesses may have a role to play in helping decarbonize the economy. While politicians are susceptible to short-termism (for obvious electoral reasons) and may be too risk-averse, entrepreneurs tend to be "riskophiles" and persistent, with longer-term visions and commitments.

Private sector-led climate action and initiatives matter on two main fronts: first, on actual contributions to the decrease in global GHG emissions; and second, through private investors financing the mitigation and adaptation efforts of other businesses or of capital-deficient developing countries (and the cities therein). Companies that have set, or committed to set, science-based climate targets include Honda Motor Company, The Port Authority of New York and New Jersey, AstraZeneca, IKEA, Tesco, and Dell Technologies.[22] Science-based targets refer to "the level

of decarbonization required to keep global temperature increase below 2 degrees Celsius compared to pre-industrial temperatures, as described in the Fifth Assessment Report of the Intergovernmental Panel on Climate Change."[23] The Portfolio Decarbonization Coalition, for example, comprises asset owners and managers that collectively endeavor to re-channel "capital from particularly carbon-intensive companies, projects and technologies in each sector" to "particularly carbon-efficient" ones and "will commit to a concrete decarbonization plan."[24]

A question remains, however, whether and how these types of bottom-up responses to climate change can be specifically imported into the energy transition sphere. As the world reduces its oil dependence, production and export of green technology and reliance on clean energy would be of considerable value. Two ingredients may help move forward the energy transition: international collaboration and energy decentralization. Potential international collaboration can be achieved in the field of technology, for which international trade will certainly play a major role. As for energy decentralization, the emergence of micro-/mini-grids dealing with locally produced wind and solar energy as well as electric-vehicle batteries is the way forward. All of these innovations will not only help in providing better access to energy, but it will also decentralize economies.

C. Citizen Involvement in Trade Institutions/Agreements

In light of the abovementioned decline in popularity or political viability of the multilateral trade system, states are entering into more regional trade agreements (RTAs), a number of which also contain innovative provisions furthering the energy transition by promoting the use and development of clean or renewable energy technologies.[25] Energy-related provisions in regional trade agreements can take various forms: including those allowing exceptions from "normal" trade rules for sustainable energy mechanisms;[26] extending subsidies for the low-carbon economies;[27] establishing climate finance instruments and capacity-building activities to develop carbon markets;[28] and enhancing trade in environmental (climate-friendly) goods and services.[29] Some RTAs additionally contain provisions that encourage investment in the energy sector with the specific objective of expanding and diversifying the energy mix and reducing dependency on fossil fuels.[30]

Yet, while there are indications of its waning status, the multilateral trading regime represented by the WTO continues to be relevant because most countries will remain predominantly energy-dependent, and therefore, markets for climate-friendly goods and services need to be opened up.

International trade can also aid in responding to today's sustainability challenges, specifically those pertaining to climate change and energy transition, by offering means for various actors to cooperate in enhancing sustainable energy. International collaboration is important in making clean energy cheaper and encouraging its wider use, and international trade in clean energy technologies can "mitigate greenhouse gas emissions in addition to the economic gains that can be expected from an optimization of supply chains."[31]

Accordingly, the continued relevance of the multilateral trade system can no longer mean that only states would be involved in the development of trade agreements that relate to, or affect, the energy sector. Due consideration must be given to the interests of non-state stakeholders who should be allowed to participate in multilateral trade processes either directly, by giving them seats at negotiating tables or committees, or indirectly through procedures facilitating transparency and greater consultation.

With regard to existing trade remedies, for instance, various stakeholders should be consulted because their inputs are relevant in ascertaining whether an anti-dumping or countervailing duty is in the public interest.[32] At the WTO, there already exist promising efforts to engage with civil society: at the Eleventh Ministerial Conference in Buenos Aires, 251 NGOs from 52 countries were accredited.[33]

The role of citizens and micro, small, and medium enterprises (MSMEs) in international trade governance is another example of a bottom-up approach to sustainable development governance that would shift the current paradigm. The WTO[34] has focused on trade-policy related factors that affect MSMEs' limited but gradually growing participation in international trade, and tackled how e-commerce and other information and communications technology (ICT)-oriented services encourage their access to world markets and global value chains.[35] Participation in international trade helps SMEs grow and become more profitable, and cooperation among states helps lessen obstacles to such participation.[36] Specifically, trade agreements can, among others, reduce variable and fixed costs of trade that are particularly burdensome for SMEs, and can ease the information deficiency or asymmetry relating to non-tariff measures (i.e., standards and regulations) that SMEs have to deal with.[37] Trade cooperation likewise enables states to provide preferential treatment (and access) to SMEs and assist their technological development.[38] The report also highlighted the MSMEs' contribution to the creation of more inclusive employment which potentially brings more citizens closer to the global marketplace.[39]

The EU leads in strategically using policy support and economic incentives, such as trade and investment opportunities, to bolster climate change mitigation efforts in non-EU countries. One of the more recent manifestations of this leadership is the Partnership Instrument, which is a financing instrument that "support[s] the external dimension of EU internal policies…and help[s] to address major global challenges such as energy security, climate change and environmental protection."[40] Moreover, in December 2017, the European Commission announced the creation of a new advisory group on EU trade agreements.[41] The group aims to increase transparency and inclusiveness in EU trade policy. The EU Commission is committed to this cause.[42] Incorporating the perspective of this wide group of stakeholders[43] (consumer groups, trade unions, and other non-governmental organizations) on EU trade policy will certainly help towards "better"—i.e., greater understanding of interlinkages and more emphasis on sustainability concerns—trade policymaking in the future.

III. The Concept of Citizen Empowerment

Citizens' empowerment is a relatively new concept in global governance.[44] Consumers' and citizens' participation in the determination and implementation of solutions to global problems significantly deviates from the traditional approach under which inter-governmental decisions dictate commitments and actions from the top down. One way that private individuals are participating in climate action is through the Carbon Rationing Action Group (CRAG) initiative, wherein a voluntarily formed group tracks each member's personal CO2 emissions (air travel, household heating, car use, household electricity consumption, and/or other public transport use).[45] The CRAG initiative has a notable enforcement mechanism in the form of financial penalties and exclusion from the scheme.[46] Additionally, individuals are exercising their power as consumers by demanding "green products and services"; in this regard, eco-labeling aids in sending signals between consumers and producers and facilitating transactions.[47]

A. Energy Transition Goals

Promoting the use of renewable energy is one of the most pressing concerns for climate change and long-term sustainability at a global level. The long-term goal should be 100% energy use from wind, solar, and hydropower sources. At present, the EU has set a binding target of 20% final energy consumption from renewable sources by 2020,[48] and the Council has endorsed achieving at least 27% renewable energy consumption in 2030.[49] While the transition is happening at a slow pace,[50] it is

promising that the energy mix is changing to low carbon[51] and is getting cheaper.[52] Apart from the power sector, heating, cooling, and transport are sectors where fossil fuels need to be gradually replaced with renewables.[53] Sector coupling—either among sub-units within the energy sector or between energy and other sectors—might be a way to make this replacement possible.

However, the achievement of energy transition goals cannot rely on reduced energy demand alone as it is not realistic to expect such a considerable reduction. Instead, the focus should be directed to a smart policy design for energy demand, with "smartness" measured along the dimensions of sustainability, collaboration, and intelligence.[54] As researchers explain:

> [A] holistic approach is required to effectively deal with the current challenges posed by the sustainable development principles: consumers (and their communities at large) should be explicitly encouraged to be directly engaged through a more participative and collaborative behavior, factually realizing a collaborative consumption strategy, that is a technology-enabled sharing of goods and services between consumers that requires enhanced forms of collaborations.[55]

Smart energy demand policy needs to be complemented with technological and institutional improvements on the supply side. The "smart grid" concept and the emphasis on collaborations among producers and consumers capture this suggestion.[56] As will be elaborated below, making energy access cheaper and more secure requires the reduction or elimination of legal technical barriers to energy technology so that smart grids can take off in different jurisdictions.[57] If we succeed at a more efficient and sustainable energy system, energy imports and energy dependency will gradually fall, costs will be cut, and GHG emissions will be reduced.

In energy policy, "it has become clear that efforts to steer people towards 'better'—that is, more energy efficient—choices and behaviours are much needed."[58] As suggested by Lucia Reisch, there is increasing evidence that the right incentives do spur behavioral change.[59] This has certainly been the case in Nordic countries; the Nordic model has been very successful in designing bottom-up approaches to policies with the right incentives and market integration.[60]

The main drivers of energy transition include: increased access to information and communication; energy decentralization that leads to energy democratization[61] via a multilevel governance system; citizens' empowerment[62] aiming at a state of autarky (in as much as this is possible) in a customer-centered system that enables them to exploit market opportunities; new business models; innovation; stronger and smarter grids; better and smarter regulation aimed at reducing or eliminating technical barriers; and electrification, which drives the deployment of renewable energy. [63]

As the foregoing initiatives and proposals suggest, implementing a successful energy transition requires consideration of several factors: circularity/cradle-to-grave principle (recycling over and over again), consumers' engagement, decarbonization, long-term thinking, minimizing social impact on consumers, multilevel governance (local, regional, national, supranational, international), simplicity, speed (namely making sure that the energy transition happens within a reasonable timeframe), affordability, and transparency with data.

B. Bottom-up Approaches to the Energy Transition

Pursuing energy transition through citizen empowerment takes various forms. Undertakings can be conceptually categorized into those directed at consumer information dissemination and raising public awareness; access to cheaper, smarter, and more secure energy; and cooperation among prosumers and collaboration between producers and consumers

Information Dissemination and Awareness

In light of evidence that the younger generation wants to consume in a sustainable manner,[64] use of social media (Twitter, Facebook, YouTube) could be leveraged to further educate the youth (the segment of society that makes most use of it) about the links among trade, climate change, and energy consumption, and more broadly, to involve them in policymaking and public life.

General public awareness and empowerment can additionally be enhanced through wider use of eco-labeling,[65] which enables informed decision-making about consumption and "encourage[s] the behavioral change of producers and consumers towards long-term sustainability."[66] Among the better-known examples of government-supported eco-labels are ENERGY STAR[67] (US) and Blue Angel (Germany).[68] To deliver cost-saving energy efficiency solutions, the former partners with the U.S. Environmental Protection Agency (EPA),[69] which, in turn, enters into partnership agreements with foreign governments—Canada, Japan, Switzerland, and Taiwan—to promote specific Energy Star qualified products in their markets.[70]

Improvement of Access to Cheaper, Smarter, and More Secure Energy

Energy transition through decentralized power generation is linked to enabling individuals, households, schools, and small businesses, among other entities, to become "energy citizens" or "prosumers" who

produce and, in certain circumstances, sell their own renewable electricity.[71] Prosumers can additionally further the goals of environmental protection and market competition by providing essential grid services, like energy storage, and by committing to reduce or shift their consumption patterns as part of efficiency and demand response programs.[72]

New policies and regulatory frameworks, as well as the reduction or elimination of any legal barriers,[73] are critical to encourage the creation of scalable micro-grids for prosumers and utility companies, achieve better grid management, and harmonize these developments with other policy objectives. Foremost of these barriers is the lack of definition of the concept of prosumers and the concomitant lack of recognition of their rights and obligations under existing laws and regulations.[74]

Cooperation and Collaboration

Citizen empowerment also involves helping prosumers help themselves. In the wind energy sector of several EU countries (i.e., Austria, Germany, Sweden, The Netherlands), the formation of cooperatives—pioneered by Denmark—enables individuals and small-scale entities to invest their pooled resources in infrastructure to generate and distribute the energy that they themselves are primarily using.[75] Notably, this model has also been gaining attention in North America.[76]

Private actor-led initiatives occurring at the transnational level are likewise emerging. One example is Breakthrough Energy Coalition,[77] which comprises patient and tolerant visionary billionaires with diverse backgrounds, as well as "global corporations that produce or consume energy in vast quantities, and financial institutions with the capital necessary to finance the world's largest infrastructure projects," who are collectively determined to provide reliable, affordable, and carbon-neutral energy by investing in and building innovative technologies. In its so-called "Landscape of Innovation," the Coalition aims to address emissions in five key areas: electricity, transportation, agriculture, manufacturing, and buildings.[78] Another initiative called Mission Innovation[79]brings together a group of 22 countries and the EU,[80] aiming to reinvigorate and accelerate clean energy innovation throughout the world to make clean energy affordable for all. Various multinational companies, including 40% of the Fortune 500 companies, are collectively undertaking to contribute to energy transition by aiming to procure 100% of their energy needs from renewable sources.[81]

IV. Conclusion

At a time when multilateral and exclusively state-to-state action is quite unpopular, while global challenges are simultaneously mounting and increasingly intertwined, the capabilities of citizens, cities, and other non-state actors need to be tapped and harnessed. Decarbonization is one global challenge that lies at the intersection of the trade and climate change regimes. A key ingredient to facilitating trade in climate-friendly energy is participation by a greater number of diverse stakeholders, who are more attuned to local environmental conditions and to energy demand and supply.

As this article elaborates, in the absence of a well-functioning WTO, and drawing on the precedent of climate action and the Paris Agreement innovations, attention should focus on the ways in which non-state actors can be empowered to play a greater role in accelerating the energy transition. The rise of the so-called energy prosumers—consumers *cum* producers—is an important development that holds great potential and requires further support from states, such as through the establishment of a legal framework recognizing prosumers' rights and obligations. The small scale in which these non-state entities typically operate to improve energy access and security makes collaboration among them worth encouraging. Various co-operatives in the European renewable energy sector can be taken as models.

Current discussions regarding WTO reforms should also include how these new entities can access global markets and how WTO rules should be applied to the energy sector. Member States should not be constrained in implementing measures like trade-related concessions and local content requirements to encourage these entities' participation, particularly in the production and diffusion of clean energy. In this regard, proposals for a General Agreement on Trade in Energy and/or a Sustainable Energy Trade Agreement,[82] which covers liberalization of trade in environmental goods and services, deserve further study. No solution to big challenges, such as climate change and trade liberalization, would be possible without social mobilization and cooperation among governments, companies, and researchers, whose role is to provide good information to create good policy.

NOTES

1   "Deadlocked in Doha," *The Economist,* March 27, 2003, https://www.economist.com/leaders/2003/03/27/deadlocked-in-doha; Daniel Drache, "Trade, Development and the Doha Round: A Sure Bet or a Train Wreck?," (working paper, Centre for International Governance Innovation, Waterloo, Ontario, 2006), https://www.cigionline.org/sites/default/files/trade_development_and_the_doha_round.pdf; Valbona Muzaka and Matthew Louis Bishop, "Doha stalemate: The end of trade multilateralism?," *Review of International Studies* 41 (2015): 386.
2   Similar to Chapter 20 of the earlier Trans-Pacific Partnership.
3   *CETA Chapter by Chapter*, EUROPEAN COMM'N, http://ec.europa.eu/trade/policy/in-focus/ceta/ceta-chapter-by-chapter/ [https://perma.cc/5QZD-CWXG].
4   See Rafael Leal-Arcas, "Mega-regionals and sustainable development: The Transatlantic Trade and Investment Partnership and the Trans-Pacific Partnership," *Renewable Energy Law and Policy Review* 6, no. 4 (2015): 248-264.
5   Axel Berger et al., "Towards "Greening" Trade? Tracking Environmental Provisions in the Preferential Trade Agreements of Emerging Countries," Discussion Paper 2/2017, *Deutsches Institut fuer Entwicklungspolitik* (Bonn: DIE, 2017).
6   Galvanizing the Groundswell of Climate Actions, *How Can Funders Accelerate Climate Action to 2018-2020?: Building A Catalytic "Ecosystem" for Subnational and Non-State Actors* (Memorandum), March 2017, https://www.cisl.cam.ac.uk/publications/publication-pdfs/ggca-memorandum-to-funders-on-sub-non-state-climate-action-mar-2017-1.pdf.
7   See Karin Bäckstrand, *et al.*, "Non-state actors in global climate governance: from Copenhagen to Paris and beyond," *Environmental Politics* 26, no. 4 (2017): 561-79.

8   Global Climate Action, "NAZCA 2018," Global Climate Action, Accessed November 11, 2018. http://climateaction.unfccc.int/.
9   "Mayors Get Things Done. Should They Run the World?," *The Globe & Mail*, March 11, 2014, http://www.theglobeandmail.com/opinion/ideas-lab/should-mayors-lead-theworld/article17275044/.
10   See generally Friends of Europe, *Cities: The New Policy Shapers in the Energy Transition*, November 2017, https://www.friendsofeurope.org/sites/default/files/2017-11/Cities_web_2.pdf.
11   See *"World's Population Increasingly Urban with More than Half Living in Urban Areas," U.N. Department of Economic & Social Affairs, July 10, 2014, http://www.un.org/en/development/desa/news/population/world-urbanization-prospects-2014.html.
12   Mark Wilson, "By 2050, 70% of the World's Population Will Be Urban. Is That a Good Thing?," *Co.Design*, March 12, 2012, https://www.fastcodesign.com/1669244/by-2050-70-of-theworlds-population-will-be-urban-is-that-a-good-thing.
13   United Nations Environment Programme, "Resource efficiency as key issue in the new urban agenda: Advancing sustainable consumption and production in cities," 1, http://sdg.iisd.org/news/unep-international-panel-calls-for-improved-resource-efficiency-for-sustainable-urbanization/.
14   Richard Dobbs et al., *Urban World: Mapping The Economic Power Of Cities* (McKinsey Global Institute, March 2011) https://www.mckinsey.com/~/media/McKinsey/Featured%20Insights/Urbanization/Urban%20world/MGI_urban_world_mapping_economic_power_of_cities_full_report.ashx.
15   UNEP-DTIE Sustainable Consumption and Production Branch, *Cities And Buildings: UNEP Initiatives and Projects* (Paris: United Nations Environment Programme, undated) 5, http://www.oas.org/en/sedi/dsd/Biodiversity/Sustainable_Cities/Sustainable_Communities/Events/SC%20Course%20Trinidad%202014/ModuleVI/2.%20Cities%20and%20Buildings%20%E2%80%93%20UNEP%20DTIE%20Initiatives%20and%20projects_hd.pdf.
16   "The 100 Climates Solutions Projects Campaign of the R20." *R20 - Regions of Climate Action* (blog). Accessed November 11, 2018. https://regions20.org/our-projects/100-climate-solutions-projects-campaign/.
17   Carbon Neutral Cities Alliance, *Framework for Long-Term Deep Carbon Reduction Planning*, (December 2015), https://www.usdn.org/uploads/cms/documents/cnca-framework-12-2-15.pdf?source=http%3a%2f%2fusdn.org%2fuploads%2fcms%2fdocuments%2fcnca-framework-12-2-15.pdf.
18   Jochen Monstadt, "Urban Governance and the Transition of Energy Systems: Institutional Change and Shifting Energy and Climate Policies in Berlin," *International Journal of Urban and Regional Research* 31, no. 2 (2007): 326-343.
19   Carbon Neutral Cities Alliance, *Long-Term Deep Carbon Reduction,* 28.
20   Luis Gomez Echeverri, "Investing for rapid decarbonization in cities," *Current Opinion in Environmental Sustainability* 30 (2018): 42-51.
21   See, for instance, the initiative 'The consumer goods forum,' at https://www.theconsumergoodsforum.com/.
22   https://sciencebasedtargets.org/companies-taking-action/ See also: https://www.bsr.org/en/about.
23   Science Based Targets, "What Is a Science-Based Target?" Science Based Targets. Accessed November 11, 2018. https://sciencebasedtargets.org/what-is-a-science-based-target/.

24   UNEPFI, "Portfolio Decarbonization Coalition - About," UNEPFI, Accessed November 11, 2018, http://unepfi.org/pdc/about/.

25   Markus W. Gehring, *et al.,* "Climate Change and Sustainable Energy Measures in Regional Trade Agreements (RTAs): An Overview," *Issue Paper No. 3* (Geneva: International Centre for Trade and Sustainable Development, 2013): 27.

26   Gehring, *et al.,* "Climate Change and Sustainable Energy Measures," 12-15.

27   Gehring, *et al.,* "Climate Change and Sustainable Energy Measures," 23.

28   Gehring, *et al.,* "Climate Change and Sustainable Energy Measures," 17-18.

29   Gehring, *et al.,* "Climate Change and Sustainable Energy Measures," 21-22.

30   Gehring, *et al.,* "Climate Change and Sustainable Energy Measures," 26.

31   Ricardo Meléndez-Ortiz and Mahesh Sugathan, "Enabling the Energy Transition and Scale-Up of Clean Energy Technologies: Options for the Global Trade System – Synthesis of the Policy Options," *Journal of World Trade* 51, no. 6 (2017): 934.

32   Meléndez-Ortiz and Sugathan, "Enabling the Energy Transition," 949.

33   https://www.wto.org/english/thewto_e/minist_e/mc11_e/ngo_e.htm.

34   WTO Secretariat, *World Trade Report 2016: Levelling the trading field for SMEs* (Geneva: WTO, 2016)

35   WTO Secretariat, *World Trade Report 2016,* 20-21.

36   WTO Secretariat, *World Trade Report 2016,* 130.

37   WTO Secretariat, *World Trade Report 2016,* 131-34.

38   WTO Secretariat, *World Trade Report 2016,* 130-31.

39   WTO Secretariat, *World Trade Report 2016,* 18.

40   European Commission, "The Partnership Instrument, advancing the EU's core interests," http://ec.europa.eu/dgs/fpi/what-we-do/partnership_instrument_en.htm.

41   "Commission decision of 13.9.2017 setting up the Group of Experts on EU Trade Agreements," *European Commission,* C (2017) 6113 final, http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=34613&no=1.

42   See speech by European Commission President Jean-Claude Juncker on the State of the Union 2017, September 13, 2017, http://europa.eu/rapid/press-release_SPEECH-17-3165_en.htm. See also European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, "A balanced and progressive trade policy to harness globalisation," *COM(2017) 492 final*, September 13, 2017, https://ec.europa.eu/transparency/regdoc/rep/1/2017/EN/COM-2017-492-F1-EN-MAIN-PART-1.PDF.

43   To access the list of members in the expert group on EU trade agreements, see http://trade.ec.europa.eu/doclib/docs/2017/december/tradoc_156487.pdf.

44   See generally Saskia Sassen, "The Participation of States and Citizens in Global Governance," *Indiana Journal of Global Legal Studies* 10, no. 5 (2003): 5-28; Holly Cullen and Karen Morrow, "International Civil Society in International Law: The Growth of NGO Participation," *Non-State Actors and International Law* 1, no. 1 (2001): 7-40.

45   Carbonday, "CRAG : Carbonday." Carbonday, Accessed November 11, 2018. http://carbonday.com/get-involved/crag/.

46   Myanna Dellinger, "Localizing Climate Change Action," *Minnesota Journal of Law, Science and Technology* 14 (2013): 621-23.

47   Eric W. Orts, "Climate Contracts," *Virginia Environmental Law Journal* 29 (2011): 231-33.

48   Renewable Energy Directive: https://ec.europa.eu/energy/en/topics/renewable-energy/renewable-energy-directive.

49   "European Council agrees climate and energy goals for 2030," October 23, 2014, https://ec.europa.eu/energy/en/news/european-council-agrees-climate-and-energy-goals-2030. See also: http://www.consilium.europa.eu/en/policies/climate-change/2030-climate-and-energy-framework/.

50   Florence Schulz, "Energy transition goals lack ambition, local projects lead the way, study suggests," *EURACTIVE Germany*, April 12, 2018, https://www.euractiv.com/section/energy/news/energy-transition-goals-lack-ambition-local-projects-lead-the-way-study-suggests/.

51   Agora Energiewende and Sandbag, *The European Power Sector in 2017: State of Affairs and Review of Current Developments* (January 2018) 5-7, https://sandbag.org.uk/wp-content/uploads/2018/01/EU-power-sector-report-2017.pdf; Michael Holder, "Renewables push low carbon sources to almost 55 per cent of UK power mix," *BusinessGreen*, 8 February 2018, https://www.businessgreen.com/bg/news-analysis/3026287/renewables-push-low-carbon-sources-to-almost-55-per-cent-of-uk-electricity.

52   Frankfurt School-UNEP Centre/BNEF, *Global Trends in Renewable Energy Investment* 2018 (Frankfurt School of Finance & Management gGmBH, 2018) 16-17, http://fs-unep-centre.org/sites/default/files/publications/gtr2018v2.pdf.

53   Fernando deLlano-Paz, *et al.,* "The European low-carbon mix for 2030: The role of renewable energy sources in an environmentally and socially efficient approach," *Renewable and Sustainable Energy Reviews* 48 (2015): 54-55.

54   Zaheer Tariq, Sergio Cavalieri, and Roberto Pinto, "Determinants of Smart Energy Demand Management: An Exploratory Analysis," 550-51.

55   Tariq, Cavalieri, and Pinto, "Determinants of Smart Energy Demand Management," 548-49.

56   For an initiative in this direction towards energy cooperation between the North Seas countries, see The North Seas Countries' Offshore Grid Initiative, http://www.benelux.int/nl/kernthemas/holder/energie/nscogi-2012-report/. Similar thinking is taking place for the creation of a single, shared 5G wireless network. See "Telecoms: Next-generation thinking," *The Economist,* February 10, 2018, 11-12.

57   According to Stanford University researchers, "utilities around the world can rely on multiple methods to stabilize their electricity grids in a shift to 100% wind, solar, and hydroelectricity." See Taylor Kubota, "Jacobson study shows multiple paths to grid stability in 100% renewable future," *The Energy Mix*, February 14, 2018, http://theenergymix.com/2018/02/14/jacobson-study-shows-multiple-paths-to-grid-stability-in-100-renewable-future/.

58   Lucia Reisch, "Nudging Europe's Energy Transformation," *The Globalist*, August 20, 2012, https://www.theglobalist.com/nudging-europes-energy-transformation/.

59   Reisch, "Nudging."

60   See Hans-Arild Bredesen, Terje Nilsen, and Elizabeth S. Lingjærde, *Power to the People: The first 20 years of Nordic power-market integration* (Oslo: Nord Pool Spot, 2013).

61   By energy democratization, we mean a situation where regions and consumers gradually become more self-sufficient in their access to energy.

62   Rafael Leal-Arcas, "Empowering citizens for common concerns: Sustainable energy, trade and climate change," *GSTF Journal of Law and Social Sciences* 6, no.1 (January 2018): 1-37.

63   Rafael Leal-Arcas, et al., "Smart grids in the European Union: Assessing energy security, regulation & social and ethical considerations," *Columbia Journal of European*

Law 24, no. 2 (2018).

64   Nielsen, "Green Generation: Millennials Say Sustainability is A Shopping Priority," November 5, 2015, http://www.nielsen.com/us/en/insights/news/2015/green-generation-millennials-say-sustainability-is-a-shopping-priority.html; Sarah Landrum, "Millennials Driving Brands To Practice Socially Responsible Marketing," *Forbes,* March 17, 2017, https://www.forbes.com/sites/sarahlandrum/2017/03/17/millennials-driving-brands-to-practice-socially-responsible-marketing/#5b07bce4990b.

65   Abhijit Banerjee and Barry D. Solomon, "Eco-labeling for energy efficiency and sustainability: a meta-evaluation of US programs (https://econpapers.repec.org/article/eeeenepol/v_3a31_3ay_3a2003_3ai_3a2_3ap_3a109-123.htm).

66   UNEP, "Eco-labelling," UNEP, Accessed November 11, 2018, https://www.unenvironment.org/explore-topics/resource-efficiency/what-we-do/responsible-industry/eco-labelling.

67   Energy Star, "ENERGY STAR Overview." Energy Star. Accessed November 11, 2018. https://www.energystar.gov/about.

68   The Blue Angel. "The Blue Angel." The Blue Angel. Accessed November 11, 2018. https://www.blauer-engel.de/en.

69   Energy Star, "About ENERGY STAR – 2017." Energy Star. Accessed November 11, 2018 https://www.energystar.gov/sites/default/files/asset/document/Energy%20Star_factsheets_About%20EnergyStar_508_1.pdf.

70   Energy Star. "ENERGY STAR International Partners," Energy Star. Accessed November 11, 2018. https://www.energystar.gov/index.cfm?c=partners.intl_implementation.

71   Frédéric Simon, "Study maps potential of 'energy citizens' in push for renewable power," EURACTIV.com, Oct. 5, 2016, https://www.euractiv.com/section/energy/news/study-maps-potential-of-energy-citizens-in-push-for-renewable-power/ ; GREENPEACE briefing, "Putting energy citizens at the heart of the Energy Union," September 2016, https://www.greenpeace.org/sweden/PageFiles/448269/GreenpeaceEnergyCitizensbriefingSeptember2016Sweden.pdf

72   Sharon B. Jacobs, "The Energy Prosumer," *Ecology Law Quarterly* 43 (2016): 527-28.

73   See Saskia Lavrijssen and Arturo Carrillo Parra, "Radical Prosumer Innovations in the Electricity Sector and the Impact on Prosumer Regulation," *Sustainability* 9 (2017): 1207.

74   Josh Roberts, *Prosumer Rights: Options for an EU legal framework post-2020* (ClientEarth, 2016), https://www.documents.clientearth.org/wp-content/uploads/library/2016-06-03-prosumer-rights-options-for-an-eu-legal-framework-post-2020-coll-en.pdf; Josh Roberts, "What does the future hold for energy 'prosumers'?," *Environment Journal,* July 14, 2016, https://environmentjournal.online/articles/future-hold-energy-prosumers/.

75   See International Labour Office, *Providing clean energy and energy access through cooperatives* (2013); Mark Bolinger, "Community Wind Power Ownership Schemes in Europe and their Relevance to the United States," May 2001, http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.204.794&rep=rep1&type=pdf

76   Tildy Bayar, "Community Wind Arrives Stateside," *Renewable Energy World,* July 5, 2012, https://www.renewableenergyworld.com/articles/print/volume-15/issue-3/wind-power/community-wind-arrives-stateside.html.

77   Breakthrough Energy "Breakthrough Energy Coalition." Breakthrough Energy.

Accessed November 11, 2018. http://www.b-t.energy/coalition/.

78   *ibid.*

79   *Mission Innovation: Accelerating the Clean Energy Revolution*, http://mission-innovation.net/.

80   *Mission Innovation: Member Participation*, http://mission-innovation.net/countries/.

81   Stephan Jungcurt, "Energy Update: Non-state Actors, Regional Initiatives Show Progress Towards Energy Transition," November 22, 2016, http://sdg.iisd.org/news/energy-update-non-state-actors-regional-initiatives-show-progress-towards-energy-transition/; TeamIRENA, "How Corporates are Taking the Lead in Renewable Energy," November 15, 2016, https://irenanewsroom.org/2016/11/15/how-corporates-are-taking-the-lead-in-renewable-energy/.

82   International Centre for Trade and Sustainable Development (ICTSD), *Fostering low carbon growth: The case for a sustainable energy trade agreement* (Geneva: ICTSD, 2011) https://www.ictsd.org/sites/default/files/downloads/2011/12/fostering-low-carbon-growth-the-case-for-a-sustainable-energy-trade-agreement.pdf.

The Thirty Years' Climate Warming:
Climate Change, Security, and the Responsibility to Prepare
Caitlin E. Werrell and Francesco Femia

Introduction

The end of the Cold War coincided with the beginning of global awareness about the risks of climate change. This paper analyzes a thirty-year period beginning with the establishment of the Intergovernmental Panel on Climate Change (IPCC) in 1988 and the fall of the Berlin Wall in 1989, and ending in the present year of 2018. This period is characterized by unprecedented social, political, economic and climatic shifts, as well as first-time technological change-including improvements in our ability to predict future changes in the climate and their implications for international security.[1] Importantly, while some of these changes have caught the international security community off-guard, we have seen the climate risks coming for many decades. The combination of unprecedented risks and foresight underscore a "Responsibility to Prepare." This involves taking all possible steps to avoid an unmanageable climate, and climate-proofing of our security institutions at national, regional and international levels.

Geological Context: Welcome to the Anthropocene

Two recently-released reports paint a dire picture of the potential future of life on earth, and the unparalleled conditions that may underpin our future geostrategic landscape. While these reports represent some of the latest findings, their message and warning remain fairly consistent with the reports that have trickled out over the last thirty years. The Intergovernmental Panel on Climate Change (IPCC) looked specifically at the differences in risks that would emerge between a future world that warms by 1.5C (2.7F) degrees above pre-industrial levels and a world that warms half a degree Celsius more to 2C(3.4F).[2] Over the last 115 years, the world has already warmed by 1C (1.8F) and is on track for 1.5C(2.7F) by as early as 2030. While seemingly insignificant – a few degrees on a thermometer – the implications of these changes are already scaling-up into higher order human and national security risks and are projected to increase significantly over the course of this century. The geostrategic landscape has already shifted and will continue to do so throughout the foreseeable future.

A second report looked at the possibility of a "Hothouse Earth" scenario for the planet where irreversible climate thresholds could be crossed and life on

Earth would become nearly unmanageable. Specifically, the study found that:

> …*social and technological trends and decisions occurring over the next decade or two could significantly influence the trajectory of the Earth System for tens to hundreds of thousands of years and potentially lead to conditions that resemble planetary states that were last seen several millions of years ago, conditions that would be inhospitable to current human societies and to many other contemporary species.*[3]

Though this scenario may be considered a low probability risk by the broader scientific consensus, it is still plausible. From a risk management perspective, low probability risks happen often, and should therefore be planned for. Further, though it is a low probability scenario, it is a very high consequence one, likely to include extreme stress to governance systems across the world, and potentially unmanageable, catastrophic security risks. In this context, it is important to remember that the major social and political disruptions of the past occurred prior to the development of nuclear weapons. In short, we cannot afford such major disruptions anymore. The consequences could be existential.

The findings of these two reports are just the latest in a series that have almost become commonplace. Record-breaking heat and record-breaking extreme weather events are increasingly the norm. What could be neglected amidst the news is the uncommon nature of these changes for human civilization. While there have been droughts, floods, and other weather extremes in the past, the concentration of carbon dioxide (CO_2) in the atmosphere surpassing the 410 parts per million (ppm) threshold is unprecedented.[4] For context, the CO_2 concentration in the Earth's atmosphere was between 170 ppm – 280pmm for the last 800,000 million years and did not exceed 300 ppm until the industrial age.[5] The stable climatic conditions that existed for the entirety of human civilization are no longer present. This period of a sui generis rate of climate change is sometimes referred to as the Anthropocene. By many measures, this period began in 1945 with what some refer to as "The Great Acceleration," when human-driven activity began to alter ecosystems.[6]

Drastic though these scenarios may seem to be, these are not new risks recently presented to the world for the first time. Rather, they are warnings that have been on the world stage for the last thirty years.

1988: Thirty years ago, on December 6, 1988, the world received a particularly authoritative warning on climate change, with a convergence of findings

from a broad range of climate scientists that came together in United Nations General Assembly Resolution 43/53.[7] That resolution called for the creation of an Intergovernmental Panel on Climate Change (IPCC) to "provide internationally co-ordinated scientific assessments of the magnitude, timing and potential environmental and socio-economic impact of climate change and realistic response strategies."

In 1988, the basis for the creation of the IPCC – the warning signs – were already evident. As stated in Resolution 43/53:

> *Concerned that certain human activities could change global climate patterns, threatening present and future generations with potentially severe economic and social consequences,*
>
> *Noting with concern that the emerging evidence indicates that continued growth in atmospheric concentrations of "greenhouse" gases could produce global warming with an eventual rise in sea levels, the effects of which could be disastrous for mankind if timely steps are not taken at all levels,*
>
> *Recognizing the need for additional research and scientific studies into all sources and causes of climate change.*[8]

This resolution followed on the heels of testimony by James Hanson of the NASA Goddard Institute for Space Studies to the United States Senate Committee on Energy and Natural Resources in June of 1988.[9] Hanson's principal conclusions were:

> *"1. The earth is warming in 1988 faster than at any time in the history of instrumental measurements, 2. Global warming is now sufficiently large that we can ascribe with a high degree of confidence a cause and effect relationship to the greenhouse effect, and 3. In our computer climate simulations the greenhouse effect now is already large enough to begin to affect the probability of occurrence of extreme events such as summer heat waves; the model results imply that heat wave/drought occurrences in the Southeast and Midwest United States may be more frequent in the next decade than in climatological (1950-1980) statistics (Preface, Page 2)."*[10]

June of 1988 also witnessed the "World Conference on the Changing Atmosphere: Implications for Global Security," which included participation

from over 300 scientists and high-level political leaders from 46 different countries. The Conference Statement drew clear links between a changing atmosphere and a changing security landscape:

> *The Earth's atmosphere is being changed at an unmatched rate by pollutants resulting from human activities, inefficient and wasteful fossil fuel use and the effects of rapid population growth in many regions. These changes represent a major threat to international security and are already having harmful consequences over many parts of the globe. Far-reaching impacts will be caused by global warming and sea-level rise, which are becoming increasingly evident as a result of continued growth in the atmospheric concentrations of carbon dioxide and other greenhouse gases…The best predictions available indicate potentially severe economic and social dislocation for present and future generations, which will worsen international tensions and increase the risk of conflicts among and within nations* (Summary, p. 292).[11]

While 1988 was an important year for climate warnings, in that they reached the global stage in a significant way, the science behind the warnings goes back much further.[12] For example, an early climate model from 1967 is still quite accurately tracking current climate conditions, which shows how robust our predictive capacities are about a changing climate.

1989: The geopolitical conditions set by the Cold War between the United States and the Soviet Union affected nearly everything that happened in the world for four decades, and in 1989, that system began a rapid thaw that was met with cheers by many worldwide, and was accompanied by a wave of unprecedented international cooperation. The IPCC emerged during this time of optimism about the democratic project, and growing cooperation between nations on major issues of security, trade and the environment. On June 1, 1988, the United States and the Soviet Union agreed to eliminate their intermediate-range and shorter-range missiles through mutual ratification of the INF Treaty,[13] signaling a dramatic de-escalation in hostilities. In April of 1989, unrivaled cooperation on trade brought 123 nations together within the General Agreement on Tariffs and Trade (GATT) framework to agree on improved trade dispute settlement rules and procedures,[14] a critical step which laid the groundwork for the establishment of a cooperative global trade regime - the World Trade Organization (WTO). On August 26, 1989, the Montreal Protocol, a global agreement involving 197 countries designed to save the depleted Ozone layer, entered into effect, ultimately

resulting in the protection of the Ozone layer and avoidance of what could have been a catastrophic event, particularly for human health.[15] That same month, Tadeusz Mazowiecki entered office as the first non-communist Prime Minister in Eastern Europe,[16] and on October 23, Hungary adopted a constitution enshrining a multi-party system and competitive elections.[17] On November 9, 1989, eleven months after the creation of the IPCC, the first segment of the Berlin Wall crumbled, setting the stage for the managed collapse of the Soviet Union and the reunification of Germany.

This wave of optimism, however, soon gave way to harsh and complex realities. Governments were not, in many ways, prepared for the more unpredictable changes to the international system that were in store. Amidst the clamor of a new post-Cold War world, it was easy for the warnings about climate change from the previous winter to be drowned out. That did not, however, mean that those changes were not proceeding apace.

After 1988: Understanding Climate Change Grows

Global climate change is the most far-reaching environmental issue of our time. If the climate change within the range of current predictions actually occurs, the consequences for every nation and every aspect of human activity will be profound… we cannot wait until all the uncertainties have been resolved before we act to limit greenhouse gas emissions and to plan for whatever climate change we are already committed to. – Memorandum, State Department Bureau of Environment, Health and Natural Resources to Secretary of State James A. Baker III, February 13, 1989.[18]

Since the creation of the IPCC in 1988, the world's understanding of climate change has reached a scientific consensus enshrined in the IPCC's Assessment, Special and Methodology Reports,[19] the U.S. National Climate Assessments,[20] and numerous assessments by intelligence agencies,[21] and militaries[22] across the globe[23] and a broad range of other scientific and political bodies. This is in part a result of increasingly sophisticated tools and techniques for understanding the intersection of climate change and human systems, as well as an increase in the observable impacts of climate change.

First, our computational capabilities for modeling, which have improved from very good to better, are on the verge of another leap in the form of Artificial Intelligence. The first scientifically-legitimate climate change model was created in 1967, and largely, the climate is changing as

the model predicted.[24] Further technological and scientific developments have laid the groundwork for more complex models that have produced increasingly accurate projections.[25]

Second, the predictive tools scientists, analysts and government officials utilize to project social, economic and political change are improving and include a greater integration of environmental factors into those tools.[26] A social scientist from 1989 would be astounded by the strength of the tools available to analysts for assessing the complex connections between the physical and social sciences. In the area of predicting the instability levels of nation-states, for example, three different tools used by U.S. defense and intelligence agencies – Fuzzy Analysis of Statistical Evidence (FASE), Integrated Crisis Early Warning System (ICEWS) and the Political Instability Task Force (PITF - CIA) have by available measures been assigned a success rate of 80%.[27]

Lastly, climate change impacts are no longer just projections in future models. They are happening now and in significant ways.[28] If anything, studies show that past models have underestimated the rate and severity of climate change.[29]

Despite this growth in understanding driven by the scientific and security communities, competing rapid developments in geopolitical affairs since 1989 rendered it difficult to secure international action on climate change commensurate to the consensus understanding of the risks.

After 1989: Dramatic Geopolitical Changes Divert Attention

After the fall of the Berlin Wall in 1989, the international security environment changed rapidly and in largely unpredictable ways, diverting attention from perceived long-term, non-traditional risks such as climate change. Though a wave of democratization occurred in the aftermath of the Cold War, reinforced by the expansion of the European Union and the NATO Alliance in Europe, booming economies in Asia, and the failure of autocratic governments in South America, the promise of an "end of history" gave way to a much more complex and unstable reality.[30] This complex reality included a wave of ethno-nationalist violence that led to mass atrocities in the heart of the European subcontinent [31] and Africa,[32] a rise in the scope and scale of terrorist activities from non-state actors such as al-Qaeda and ISIS, stalled democratization in Russia and revanchist actions in its neighborhood,[33] the economic success of China followed by a reassertion of authoritarian governance, the acquisition of nuclear weapons by the rogue regime North Korea, spikes in population growth and urbanization coupled

with dramatic developments in access to information through the internet and social media, popular uprisings in the Arab world, and a rise in the political fortunes of populist nationalists in democratic countries such as Hungary,[34] Italy,[35] Poland,[36] Brazil,[37] the Philippines,[38] Turkey[39] and even the United States.[40] These political dynamics either caught the international community by surprise, or were very difficult to respond to.

Perhaps in part due to these dramatic changes in the geopolitical landscape, the early warnings about climate change from 1988 were not fully heeded, despite the materialization of global agreements such as the Kyoto Protocol, the UN Framework Convention on Climate Change, and its most recent output, the Paris Accords. Governmental actions to curb this increasingly dangerous international security risk remain voluntary, and have slowed in recent years. Though market forces may be overtaking policy-makers in creating incentives for decarbonization, this may be happening at too slow a pace, given the security implications of current emissions trajectories.[41]

While this inability to match government actions with the scope and scale of risk is not necessarily unique to climate change, it is particularly defined in this case, not least as it is a risk shared by all nations. This inability to advance robust actions has a number of causes including (1) the aforementioned issue competition from other risks in the geopolitical landscape, (2) short election cycles in democratic countries that rendered long-term decisions difficult, (3) powerful special interests who oppose policy actions to reduce climate change, and (4) a poor understanding of the issue among publics, which have reduced incentives for policy-makers to advance comprehensive policies for addressing these challenges. Differences in risk tolerance among countries, particularly between wealthy nations and the most vulnerable, has also helped to stymie progress which has led many governments to put off difficult policy decisions, and to instead rely on hopes of technological breakthroughs for preventing a future where all nations would be significantly affected.

Fast Forward to 2018: Security Risks of Climate Change Materialize

Thirty years after the creation of the IPCC and the first clear warnings about the implications of climate change for global security, some of the projected security risks are coming to fruition in significant ways. The Arctic is rapidly melting, creating a new ocean with new geopolitical dynamics following closely behind, as China, for example, asserts itself

as a "near-Arctic" nation.[42] Sea levels are rising and are set to continue to rise, increasing storm surge and water insecurity in low lying countries and coastal areas, ranging from the Hampton Roads region of the United States, which hosts the greatest concentration of military capability in the world,[43] to small island nations in the Pacific, where sea level rise is presenting an existential threat to their sovereignty.[44]

Evidence is also growing that climate change has already played a role in disrupting regional and global security in a number of ways. For example, three studies conducted from 2012-2015 found considerable evidence of climate change being implicated in an extreme drought that helped displace nearly 2 million farmers and herders in Syria from 2007-2010, which contributed to political unrest in the country prior to the outbreak of the civil war.[45] In 2016, a major study of global data sets conducted by researchers at the Potsdam Institute found that climate change significantly increased the likelihood of conflict in ethnically-fractionalized countries.[46]

At the same time, intergovernmental structures appear more fragile than they have since they were created, putting pressure on their ability to function in general, never mind in the face of a rapidly-changing climate. Brexit and the rising fortunes of ethno-nationalist political forces are challenging the European Union and democratic nations worldwide. The leaders of founding members of NATO, such as the United States, are openly questioning its future,[47] a concept that would have seemed inconceivable just a few years ago. In grappling with existential threats, these institutions have significantly reduced their own capacities to adequately prepare for and reduce future risks, particularly non-traditional security risks like climate change, which have to date not been fully incorporated into these intergovernmental systems.

In this context, the unprecedented changes we are facing in 2018 are greater than they were in 1988, but the unparalleled foresight we possess today is also greater than what it was in 1988. This reinforces a "Responsibility to Prepare," a responsibility that must be fulfilled in the next few years if we are to avoid the unmanageable security implications of climate change, and manage the unavoidable.

Beyond 2018: A Responsibility to Prepare

The "Responsibility to Prepare" framework was debuted on the global stage at a meeting of the UN Security Council (UNSC) in December of 2017.[48] The framework calls on national governments, as well as regional and international security institutions, to adopt and implement a series of

core principles for managing the unavoidable security risks wrought by a changing climate, while reinforcing the need to avoid the unmanageable security risks that could result from significant increases in greenhouse gases. This responsibility includes, as its primary goal, "the climate-proofing of security institutions at all levels of governance – local, national, regional and international – in order to increase the capacity of states to absorb and reduce climatic stresses." The roadmap for this "climate-proofing" includes six core principles for nations, regional and international security institutions. From the Center for Climate and Security's 2017 Framework Briefer, these include:[49]

Routinizing: Climate change is happening now and affects nearly all aspects of society, yet that reality is not reflected in the routine activities of governance bodies responsible for security. Doing so would help break climate change out of its traditional cage within environment and development ministries and broaden the aperture of security institutions to include this complex risk. Routinizing attention to climate in security institutions could range from providing regular intelligence briefings on the subject to decision-makers, to consistently holding dialogues and forums on the subject. At the UN Security Council, for example, a commitment to more regular dialogues on the subject, more consistent and broadly-applied measures for information flow and monitoring of critical climate and security hotspots (such as Resolution 2349 (2017) on the Lake Chad Basin),[50] as well as more robust statements and resolutions that build on past actions on climate and security from 2007-2017,[51] would help ensure that the issue is resilient to changing political winds, and always on the UNSC radar.

Institutionalization: How climate change impacts security is not deeply understood within and across governments. In this context, the issue requires institutional centers to conduct climate security analysis and inform decision-makers. As was illustrated previously in the case of the 2007-2010 drought in Syria, the international community is often unprepared for risks, including climate-driven risks, not necessarily because of a lack of information, but because that information is not being delivered to decision-makers in a systematic way and they are not aware of its relevance to their remit.[52] Had, for example, the scattered reports of drought and mass displacement of peoples in Syria during that time period been fed into an institution committed to warning of these trends, the country's political instability might have been foreseen and, possibly, mitigated. Creating multiple institutional centers to collect and interpret information, using the best analytical tools available, and then regularly delivering

recommendations for action to decision-makers would go a long way in increasing preparedness for such eventualities and strengthen efforts for conflict prevention. Institutionalizing attention to the issue is also important for closely monitoring slow-onset stresses related to climate change that could gradually erode state stability and might be more difficult to detect than more dramatic or episodic changes. At the international security level, for example, the establishment of semi-independent "Climate Security Crisis Watch Centers," staffed by expert analysts watching for climate and security hotspots, and issuing regular recommendations for action to the Security Council, could ensure that the intergovernmental security community is more prepared for both slow- and quick-onset climatic changes affecting security. These Climate Security Crisis Watch Centers could also be replicated at the regional level (at institutions such as NATO and the African Union) and at the national level, and within or across defense, intelligence and foreign affairs institutions. At each level, these centers could either be new structures, or integrated into existing early-warning systems.

Elevation: In some cases, warnings related to nontraditional security risks are delivered to governments by analysts, but not at a high enough level. This is often based on a particular issue not being prioritized within a government or intergovernmental institution, or the issue not being presented in a fashion that appropriately contextualizes the risks as they pertain to other geostrategic priorities. In this context, elevating such issues within governing bodies is critical for ensuring preparedness. Within the UN system, for example, the establishment of a senior Climate Change and Security position, reporting directly to the UN Secretary General (SG) and communicating regularly to the Security Council, would go a long way toward ensuring that these issues were heard at the highest levels. Such an individual could be responsible for overseeing the work of the aforementioned Climate and Security Crisis Watch Centers, and delivering recommendations to the UNSC. Equivalent positions at regional and national levels would also be important.

Integration: In order to ensure that climate and security issues are not treated as a special-interest concern, security institutions should integrate climate change trends into their analyses of other critical security priorities. This is the "just add climate" approach, justified by the nature of the threat and the simple fact that changes in the climate, acting as a threat multiplier, will affect the entire geostrategic landscape. For example, the questions of how climate change intersects with health security, conflict, international terrorism, nuclear proliferation, and maritime security, are all critically important, but may be missed if such analysis sits solely

in the kind of specialized centers described above. Practically, this could involve embedding climate and security analysts across issue silos within governments and intergovernmental institutions or creating interagency structures to facilitate such integration.

Rapid response: Though the approaches above are designed to facilitate preventative solutions, there will undoubtedly be future cases of climate-exacerbated dynamics that demand immediate attention from the security community. Developing scaled warning systems that identify long, medium and short-term risks, and that include clear "triggers" for emergency action on climate and security, would help ensure that foreseeable events are acted upon with commensurate levels of urgency. This is particularly important for anticipating low probability/high impact risks, and creating a governance capacity to prepare for "unknown, unknowns" or "black swans."[53] The aforementioned Climate Security Crisis Watch Centers, for example, could employ such a rapid response system when communicating to the UNSC. Regional security institutions and national governments could also consider adopting these mechanisms, separately or in coordination with the international centers.

Contingencies for unintended consequences: Despite best efforts, unintended consequences of solutions to these risks may inevitably arise. Governments should seek to identify these potential eventualities and develop contingencies for addressing them. For example, emissions reductions commitments could increase incentives for the development of nuclear power in regions of the world with limited regulatory infrastructure, which could, in turn, increase nuclear proliferation risks. Unilaterally-deployed geoengineering solutions, particularly in the absence of international norms to regulate their use, could also result in new and unpredictable disruptions to climate, water, food and energy systems. These are foreseeable possibilities that security institutions can identify and attempt to prevent sooner rather than later. Facilitating or institutionalizing cross-sectoral/ interagency coordination to hedge against these unintended consequences, as suggested in the "integration" section above, would be a good start.

While implementing these principles will not be easy, as existing institutions can be sticky, this is not a Herculean task. The recipe is quite simple: just add climate. Assess what the priorities of a given security institution are, assess how climate change will affect those priorities, and then adjust those institutions accordingly.

CONCLUSION

In the thirty years following the fall of the Berlin Wall, and the

subsequent collapse of the Soviet Union, a geopolitical landscape that had been frozen in a Cold War for four decades thawed. That thawing led to a series of highly unpredictable social, political and economic changes that we are still grappling with today. The same thirty years has also presented human civilization with the thawing of a climate system that had persisted for at least 15,000 years, a time period that encompassed the advent of agriculture and the establishment of the worldwide web. Both changes have been understandably difficult for human systems to grapple with. However, in the case of a changing climate, our foresight abilities have been significant. The world's leaders have known for at least thirty years that these unprecedented changes were coming, that these changes may have significant or even catastrophic security implications, and that we have the capacity to both halt those changes that are not baked in, and to adapt to those changes that are inevitable. Given this knowledge, and the considerable security implications of not acting, a "Responsibility to Prepare" is simply common sense. This means avoiding emissions trajectories that would result in unmanageable security consequences (a 2C degree world would be very close to that), and climate-proofing our security institutions at national, regional and international levels for those changes that are likely to occur.

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Notes

1   Carl-Friedrich Schleussner, Jonathan F. Donges, Reik V. Donner, Hans Joachim Schellnhuber, "Enhanced conflict risks by natural disasters," *Proceedings of the National Academy of Sciences* 201601611 (2016) DOI:10.1073/pnas.1601611113 http://www.pnas.org/content/early/2016/07/20/1601611113.

2   V. Masson-Delmotte, P. Zhai, H. O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, T. Waterfield (eds.). "Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty," *IPCC,* 2018. http://www.ipcc.ch/report/sr15/.

3   Will Steffen, Johan Rockström, Katherine Richardson, Timothy M. Lenton, Carl Folke, Diana Liverman, Colin P. Summerhayes, Anthony D. Barnosky, Sarah E. Cornell, Michel Crucifix, Jonathan F. Donges, Ingo Fetzer, Steven J.Lade, Marten Scheffer, Ricarda Winkelmann, Hans Joachim Schellnhuber. "Trajectories of the Earth System in the Anthropocene," *Proceedings of the National Academy of Sciences* 115 (33) 8252-8259 (2018) DOI:10.1073/pnas.1810141115 http://www.pnas.org/content/115/33/8252.

4   C. D. Keeling, S. C. Piper, R. B. Bacastow, M. Wahlen, T. P. Whorf, M. Heimann, and H. A. Meijer, "Exchanges of atmospheric CO2 and 13CO2 with the terrestrial biosphere and oceans from 1978 to 2000." *I. Global aspects, SIO Reference Series*, No. 01-06, Scripps Institution of Oceanography, San Diego, 88 pages, 2001. http://escholarship.org/uc/item/09v319r9.

5   Kevin Loria. "CO2 levels are at their highest in 800,000 years," *World Economic Forum*, May 9, 2018. https://www.weforum.org/agenda/2018/05/earth-just-hit-a-terrifying-milestone-for-the-first-time-in-more-than-800-000-years; 6   Steffen, Will, Paul J. Crutzen, and John R. McNeill. "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?" *Ambio* 36, no. 8 (2007): 614-21. http://www.jstor.org/stable/25547826.

7   General Assembly resolution 43/53, "P*rotection of global climate for present and future generations of mankind"*, A/RES/43/53 (6 December 1988), available from http://www.un.org/documents/ga/res/43/a43r053.htm.

8   http://www.un.org/documents/ga/res/43/a43r053.htm.

9   *The Greenhouse Effect: Impact on Current Global Temperature and Regional Heat Waves,* 100 th Cong. (1988) (statement of James E. Hanson, Director, NASA Goddard Institute for Space Studies). https://climatechange.procon.org/sourcefiles/1988_Hansen_Senate_Testimony.pdf.

10   Hanson,

11   *The Changing Atmosphere Implications for Global Security*, Toronto, Canada, 27-30 June 1988, Conference Proceedings, WMO No. 710. http://cmosarchives.ca/History/ChangingAtmosphere1988e.pdf https://climatechange.procon.org/sourcefiles/1988_Hansen_Senate_Testimony.pdf

12   History of Climate Change Science. *Wikipedia*. (2018) https://en.wikipedia.org/wiki/History_of_climate_change_science.

13   The Intermediate-Range Nuclear Forces (INF) Treaty at a Glance. *Arms Control Association*. October 22, 2018. https://www.armscontrol.org/factsheets/INFtreaty.

14   A Handbook on the WTO Dispute Settlement System, Second Edition, Prepared by the Legal Affairs Division and the Rules Division of the WTO Secretariat, and the Appellate Body Secretariat. Decision of 12 April 1989 on improvements to the GATT dispute Settlement rules and procedures. *World Trade Organization*. https://www.wto.org/english/tratop_e/dispu_e/disp_settlement_cbt_e/a3s1p1_e.htm (2018).

15   The Montreal Protocol on Substances That Deplete the Ozone Layer. The United States State Department. https://www.state.gov/e/oes/eqt/chemicalpollution/83007.htm (2018)

16   Jan Cienski. Tadeusz Mazowiecki, postwar Poland's first non-communist leader. *The Financial Times*. October 28, 2013. https://www.ft.com/content/e315079a-3fdc-11e3-a890-00144feabdc0.

17   Patricia Koza. Hungary declares itself a republic. United Press International, INC. October 23, 1989. https://www.upi.com/Archives/1989/10/23/Hungary-declares-itself-a-republic/1072625118400/.

18   Memorandum, State Department Bureau of Environment, Health and Natural Resources (OES/E), Environmental Issues, Page 7, February 15, 1989. https://nsarchive2.gwu.edu/NSAEBB/NSAEBB536-Reagan-Bush-Recognized-Need-for-US-Leadership-on-Climate-Change-in-1980s/documents/Document%209.pdf.

19   Intergovernmental Panel on Climate Change. Reports. (2018) https://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml#2.

20   U.S. Global Change Research Program. Resources, Data, & Multimedia (2018) https://www.globalchange.gov/browse.

21   Climate and Security Resource Hub. *Climate and Security Resources: U.S. Government, Intelligence*. The Center for Climate and Security (2018) https://climateandsecurity.org/resources/u-s-government/intelligence/.

22   Climate and Security Resource Hub. *Climate and Security Resources: U.S. Government, Defense*. The Center for Climate and Security (2018) https://climateandsecurity.org/resources/u-s-government/defense/.

23   Climate and Security Resource Hub. *Climate and Security Resources: Other Governments and Regional Institutions*. The Center for Climate and Security (2018) https://climateandsecurity.org/resources/other-governments-and-regional-institutions/.

24   Ethan Siegel, 'The First Climate Model Turns 50 and Predicted Global Warming Almost Perfectly,' *Forbes*, March 15, 2017, available at: https://www.forbes.com/sites/startswithabang/2017/03/15/the-first-climate-model-turns-50-and-predicted-global-warming-almost-perfectly/#5b3a8afa6614.

25   Cowtan, K., Z. Hausfather, E. Hawkins, P. Jacobs, M. E. Mann, S. K. Miller, B. A. Steinman, M. B. Stolpe, and R. G. Way (2015), 'Robust comparison of climate models with observations using blended land air and ocean sea surface temperatures,' *Geophys. Res. Lett.*, 42, 6526–6534, doi:10.1002/2015GL064888. Cited in, Nuccitelli, D. 'Climate models are even more accurate than you thought,' *The Guardian*, July 31, 2015, avail-

able at: https://www.theguardian.com/environment/climate-consensus-97-per-cent/2015/jul/31/climate-models-are-even-more-accurate-than-you-thought.

26   Fetzek, S., B. Mourad, C. Briggs, K. Lewis. 'Why and how to use foresight tools to manage climate security risks,' *Planetary Security Initiative & The Center for Climate and Security*, April, 2017, available at: https://www.planetarysecurityinitiative.org/sites/default/files/2017-.

27   J. Eli Margolis, 'Estimating State Instability,' *Studies in Intelligence*, Volume 59, Number 1, March 2012, pp. 13-24.

28   Camilo Mora, Daniele Spirandelli, Erik C. Franklin, John Lynham, Michael B. Kantar, Wendy Miles, Charlotte Z. Smith, Kelle Freel, Jade Moy, Leo V. Louis, Evan W. Barba, Keith Bettinger, Abby G. Frazier, John F. Colburn IX, Naota Hanasaki, Ed Hawkins, Yukiko Hirabayashi, Wolfgang Knorr, Christopher M. Little, Kerry Emanuel, Justin Sheffield, Jonathan A. Patz & Cynthia L. Hunter. Broad threat to humanity from cumulative climate hazards intensified by greenhouse gas emissions. *Nature Climate Change*. November 19, 2018. https://www.nature.com/articles/s41558-018-0315-6.

29   Oliver Milman. Climate change models underestimate likely temperature rise, report shows. *The Guardian*. December 21, 2013. https://www.theguardian.com/science/2014/jan/01/climate-change-models-underestimate-likely-temperature-rise-report-shows.

30   Francis Fukuyama. The end of history and the last man. New York: *Free Press*. 1992.

31   Yugoslavia (Former). *Yale University Genocide Studies Program*. 2018. https://gsp.yale.edu/case-studies/yugoslavia-former.

32   Rwanda genocide: 100 days of slaughter. *BBC*. April 7, 2014. https://www.bbc.com/news/world-africa-26875506.

33   Vitalii Rybak. Ten Things You Should Know about Russian Involvement in Ukraine. *The Atlantic Council*. January 11. 2017. http://www.atlanticcouncil.org/blogs/ukrainealert/ten-things-you-should-know-about-russian-involvement-in-ukraine.

34   John Lloyd. Commentary: Orban and the autocratic spring. *Reuters*. April 13, 2018. https://www.reuters.com/article/us-lloyd-hungary-commentary/commentary-orban-and-the-autocratic-spring-idUSKBN1HK2F2.

35   Jason Horowitz. Italy's Populist Parties Win Approval to Form Government. *The New York Times*. May 31, 2018. https://www.nytimes.com/2018/05/31/world/europe/italy-government-populists.html.

36   Dalibor Rohac. Hungary and Poland Aren't Democratic. They're Authoritarian. Foreign Policy. February 5, 2018. https://foreignpolicy.com/2018/02/05/hungary-and-poland-arent-democratic-theyre-authoritarian/.

37   Omar G. Encarnación. Bolsonaro Can't Destroy Brazilian Democracy. *Foreign Policy*. November 1, 2018. https://foreignpolicy.com/2018/11/01/bolsonaro-cant-destroy-brazilian-democracy/.

38   Daniel R. Coats. Statement for the Record. Worldwide Threat Assessment of the US Intelligence Community. Office of the Director of National Intelligence. February 13, 2018. Page 19. https://www.dni.gov/files/documents/Newsroom/Testimonies/2018-ATA---Unclassified-SSCI.pdf.

39   Marc Pierini. Turkey's Perfect Path to Autocracy. *Carnegie Europe*. May 8, 2018. http://carnegieeurope.eu/strategiceurope/76278.

40   Stephen M. Walt. Trump Isn't Sure if Democracy Is Better Than Autocracy. Foreign Policy. November 13, 2017. https://foreignpolicy.com/2017/11/13/trump-isnt-sure-if-democracy-is-better-than-autocracy/.

41   Caitlin Werrell, Francesco Femia, Shiloh Fetzek, John Conger. A Security Analysis of the New IPCC Report: Prevent 2°C, Prepare for 1.5°, and Do So Responsibly, *The Center for Climate and Security*. Briefer No 39. October 18, 2018. https://climateandsecurity.files.wordpress.com/2018/10/a-security-analysis-of-the-new-ipcc-report_prevent-2degrees_prepare-for-1-5-degrees_do-so-responsibly_briefer-39.pdf.

42   Sherri Goodman and Marisol Maddox. China's Growing Arctic Presence. *China-US Focus*. November 19, 2018. https://www.chinausfocus.com/finance-economy/chinas-growing-arctic-presence.

43   Ronald Keys, John Castellaw, Robert Parker, Ann C. Phillips, Jonathan White, Gerald Galloway. Military Expert Panel Report: Sea Level Rise and the U.S. Military's Mission. 2nd Edition. *The Center for Climate and Security*. February 2018. Pages 44-45. https://climateandsecurity.files.wordpress.com/2018/02/military-expert-panel-report_sea-level-rise-and-the-us-militarys-mission_2nd-edition_02_2018.pdf.

44   Mohammed Waheed Hassan. Climate Change in the Maldives. *The World Bank*. April 6, 2010. http://www.worldbank.org/en/news/feature/2010/04/06/climate-change-in-the-maldives.

45   Francesco Femia and Caitlin Werrell. Syria: Climate Change, Drought and Social Unrest. *The Center for Climate and Security.* Briefer No. 11. February 29, 2012. https://climateandsecurity.files.wordpress.com/2012/04/syria-climate-change-drought-and-social-unrest_briefer-11.pdf; ; 46   Carl-Friedrich Schleussner, Jonathan F. Donges, Reik V. Donner, Hans Joachim Schellnhuber, "Enhanced conflict risks by natural disasters," *Proceedings of the National Academy of Sciences* 201601611 (2016) DOI:10.1073/pnas.1601611113 http://www.pnas.org/content/early/2016/07/20/1601611113.

47   Dan De Luce, Robbie Gramer, Emily Tamkin. Trump's Shadow Hangs Over NATO. *Foreign Policy*. January 29, 2018. https://foreignpolicy.com/2018/01/29/trumps-shadow-hangs-over-nato-transatlantic-alliance-europe-defense-deterrence-europe-mattis-jens-stoltenberg/.

48   Caitlin Werrell. Prepare Remarks: A Responsibility to Prepare. UN Security Council Arria Formula Meeting. December 15, 2017. https://climateandsecurity.files.wordpress.com/2017/12/werrell_responsibility-to-prepare_unsc.pdf.

49   Caitlin E. Werrell, Francesco Femia, Sherri Goodman, Shiloh Fetzek. A Responsibility to Prepare: Governing in an Age of Unprecedented Risk and Unprecedented Foresight. *The Center for Climate and Security*. Briefer No. 38. August 7, 2017. https://climateandsecurity.files.wordpress.com/2017/12/a-responsibility-to-prepare_governing-in-an-age-of-unprecedented-risk-and-unprecedented-foresight_briefer-38.pdf.

50   UN Security Council. 'Security Council Strongly Condemns Terrorist Attacks, Other Violations in Lake Chad Basin Region, Unanimously Adaption Resolution 2349 (2017),' *UN Press*, March 31, 2017, available at: https://www.un.org/press/en/2017/sc12773.doc.htm.

51   Search, UN Security Council, The Center for Climate and Security website, accessed on August 5, 2017 at: https://climateandsecurity.org/?s=Un+Security+Council&submit=.

52   Caitlin E. Werrell and Francesco Femia and Troy Sternberg. "Did We See It Coming?: State Fragility, Climate Vulnerability, and the Uprisings in Syria and Egypt." SAIS Review of International Affairs 35, no. 1 (2015): 29-46. https://muse.jhu.edu/ (ac-

cessed November 19, 2018).
53   Francesco Femia, Christine Parthemore, Caitlin Werrell. 'The inadequate US re-
sponse to a major security threat: Climate change,' *The Bulletin of the Atomic Scientists*,
July 20, 2011. http://thebulletin.org/inadequate-us-response-major-security-threat-cli-
mate-change.

Implications of Climate Change for Security in Sub-Saharan Africa:
Increased Conflict and Fragementation
Carmel Davis

Introduction

What are the implications of climate change for security in low-income countries? As global warming approaches and passes 1.5°C, climate change will reduce income, disrupt social relations, and fragment authority. I focus on Sub-Saharan Africa (SSA) because its large agricultural sector is sensitive to climate change and will likely see effects earlier than in other regions.

The first section discusses climate change, particularly on the large agricultural sector in SSA. The next two sections analyze two channels by which climate change will affect SSA. First, a survey of quantitative analyses demonstrates a correlation between the level and growth of income and the outbreak of civil wars; climate change will likely decease income in the agricultural sector so the frequency of civil war outbreak will likely increase. Second, climate change will reduce the salience of then-current qualitative strategies of survival and increase the salience of new ones, which will likely increase social disruption and reduce government authority. The last sections discuss adaptation and conclude that a major effect of climate change will be fragmented authority and increased disorder in low-income areas.

Climate Change and Sub-Saharan Africa

The 2014 Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5) reported that: "The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen."[1] AR5 considered four future scenarios, including a stringent mitigation scenario and other scenarios with very high emissions of greenhouse gases (GHGs). The baseline, in which no attempt is made to constrain GHG emissions, is between the highest and second highest of the four scenarios. The IPCC projects that surface temperatures will rise over this century in all these scenarios and that it is "very likely that heat waves will occur more often and last longer, and that extreme precipitation events will become more intense and frequent in many regions."[2]

The pace and extent of effects is likely to increase. According to the 2018 IPCC *Special Report Global Warming of 1.5° C* (SR5), global warming has increased almost 1°C since the period 1850–1900 and will likely reach

1.5°C between 2030 and 2052 indicating that the world will experience half as much warming again in the coming 12 to 34 years as in the preceding 118.[3]

Climate change can harm lives and livelihoods, particularly for low-income populations. AR5 assessed that:

> Climate-related hazards exacerbate other stressors, often with negative outcomes for livelihoods, especially for people living in poverty (high confidence). Climate-related hazards affect poor people's lives directly through impacts on livelihoods, reductions in crop yields or the destruction of homes, and indirectly through, for example, increased food prices and food insecurity.[4]

AR5 projects that climate change will "reduce economic growth…further erode food security and prolong existing poverty traps and create new ones, the latter particularly in urban areas and emerging hotspots of hunger (*medium confidence*)." AR5 estimates with medium confidence but with high agreement that climate change will increase displacement of people.[5]

AR5 assessed that "Africa as a whole is one of the most vulnerable continents due to its high exposure and low adaptive capacity." Agriculture is sensitive to climate change, and the sector in SSA is large. Of the nine regional risks identified by AR5 as "medium or high for the present under current adaptation," five are directly linked with agriculture, including biome distribution, reduced crop productivity, adverse effects on livestock, disease, and undernutrition.[6] According to the United Nations Food and Agricultural Organization (FAO), much of Africa's population is involved in small-scale agriculture, with agriculture directly employing more than half of the labor force (including 10 to 25 percent of urban households), and more than 80% of farms in SSA are smallholder farms.[7]

Channel 1: Agricultural Productivity, Income, and Civil War

One channel by which climate change will affect SSA is increased frequency of civil war. Civil war outbreak is more frequent in low-income countries and follows growth shocks; climate change will reduce income in a low-income areas so civil war outbreak is likely to be more frequent.

Climate change alters agricultural productivity. Existing agricultural areas with increased temperatures, less available water, and increased frequency of drought and extreme weather events yield less of the same crops at the same level of technology; these effects will be more significant for agricultural areas that depend on rainfall.

Lower productivity will mean fewer people can live in an area and income will be reduced; if people do not leave or adapt adequately, per capita income will be reduced and prevalence of undernourishment will increase. As the climate changes, a farmer's crops may not grow as before, and they may not grow at all. She may have little to eat at home, little to sell at markets, little income with which to buy, little with which to barter, and her labor may generate less income than before.

Low per capita income is correlated with the frequency of civil war outbreak and reduced per capita income will likely increase the frequency. Christopher Blattman and Edward Miguel observe that: "The correlation between low per capita incomes and higher propensities for internal war is one of the most robust relationships in the literature."[8] Paul Collier, Anke Hoeffler, and Dominic Rohner find that the predicted risk of civil war is 4.6 percent in a hypothetical country at the mean of their sample while the predicted risk increases to 5.34 percent if the level of income is halved.[9] James Fearon and David Laitin found that per capita income is strongly significant and that a country at the tenth percentile of per capita income has an 18 percent chance of civil war outbreak over a decade while a country at the median percentile has an 11 percent chance.[10]

SSA currently has low per capita income and is more prone to civil war than other regions. According to the World Bank, SSA per capita income at purchasing power parity was $1624 in 2017, lower than any other geographic region except South Asia ($1194). The list of countries with low per capita GDP is dominated by SSA, with twenty-one of the lowest twenty-two countries in SSA (the exception is Haiti).[11] The Correlates of War Project observes that eighteen of thirty-one intra-state disputes since 1998 have occurred in SSA.[12] Monty Marshall observed that about 40 percent of "major episodes of political violence" between 1998 and 2016 occurred in SSA versus about 17 percent in the Middle East and North Africa.[13]

Growth shocks increase the frequency of civil war outbreak. Collier, Hoeffler, and Rohner found that the predicted risk is decreased by 0.6 percent for every percentage point of economic growth. They also find that the growth rate of GDP per capita during the five years prior to the outbreak of civil war averages -0.05 percent while it increases 2 percent in peaceful countries.[14] Edward Miguel, Shanker Satyanath, and Ernest Sergenti found that the likelihood of civil war increased by almost one-half following a five percentage-point negative growth shock.[15] Oeindrila Dube and Juan Vargas found that a fall in price of a labor-intensive good (e.g., coffee) will disproportionately increase violence in areas where that good is produced by reducing wages and lowering the cost of recruiting workers into armed

groups. Hanne Fjelde found that "negative changes to the value of local agricultural production increases the risk of armed conflict in Africa."[16]

It may be more useful to analyze per capita income at a disaggregated level, looking at opportunity cost for potential rebels and at other metrics (e.g., military expenditures) for state capabilities. Climate change will likely reduce income among those dependent on the agricultural sector; this will reduce the opportunity cost of rebellion while not necessarily affecting the trajectory of rents available to elites. Elites may be able to continue to buy the coercive capabilities sufficient to support government authority in some areas. However, demand for coercion may exceed supply and there will be areas where coercive capability is less effective. The less wealthy governments of SSA will continue to be challenged to generate coercive capability that can pervade the areas experiencing reduced income consequent to climate change.[17]

Channel 2: Strategies of Survival and the Social Matrix

Climate change (and conflict) may also affect qualitative strategies of survival, defined by Joel Migdal as "blueprints for action and belief in a world that hovers on the brink of a Hobbesian state of nature." Strategies of survival help an individual survive, provide meaning and help an individual meet material needs, and link individuals with groups.[18] As an illustration, Julie Flint and Alex de Waal write of a woman living in Darfur on the edge of the desert who:

> …*will know how to gather a dozen varieties of wild grasses and berries to supplement a meager diet of cultivated millet and vegetables, along with goat's or camel's milk. She will know the farms and village markets within a hundred miles or more, and will not hesitate to walk or ride such distances to buy, sell, or work.*[19]

Existing strategies may not support long-term survival as the climate changes. The farmer's strategies in the form of knowledge of how to grow and gather on land and buy and sell at area markets will be less functional. This will not be a straight-line decrease: subsistence agricultural income from a single growing season is affected by weather; inasmuch as "climate in a narrow sense is usually defined as the average weather," climate change is a change in average weather over multi-decadal periods.[20] Climate change will affect average weather and thus growing conditions, and strategies that enabled populations engaged in subsistence agriculture to survive will be less and less functional. This will be worsened by increased frequency of extreme weather events.[21]

Quantitative per capita income and qualitative strategies of survival are related – strategies include knowledge that can lead to monetary and non-monetary income, and strategies of survival that are less salient likely lead to reduced income. However, the effects of reduced salience are broader because a person's strategies may not enable survival anywhere. She will need to acquire new strategies, a socially disruptive process.

The quantitative effect of faster climate change projected by the IPCC – half as much warming again in the coming twelve to thirty-four years as in the preceding 118 with increasingly severe effects- will reduce income. It will also likely have substantial qualitative social effects in lower income countries. Many in lower income countries will have to help themselves.

Part of a person's strategies of survival is integration in a social matrix – a network of family, tribal, social, and economic interrelationships, traditions, and relationships with authority and sources of support. As climate changes, she will look to the social matrix in which she is embedded.

Adaptation may include involvement with new organizations that can help her survive in a changed or new setting. Organizations can help coordinate work, redistribute work to aid those in need, set and enforce mutual expectations, help resolve disputes, and provide a sense of purpose and meaning. Governments can provide many of these functions. Representatives may provide some aid and assistance, enforce property rights, and help resolve disputes quickly, and they can provide a roof and framework in which non-governmental organizations can supply others. On the other hand, governments may also lack capacity (e.g., budgetary funds and Weberian bureaucrats). They may provide selective or no aid; selective, corrupt, and slow dispute resolution; and cover for extraction and self-gain.

People encountering the latter situation may turn to alternatives, such as non-governmental organizations that can provide services, which will supplant government and government-sponsored organizations. Some of these will provide social services such as, alternative dispute resolution, or educational systems. Some may engage in armed self-help in competition with government authorities. Some organizations may attempt to overthrow the government, engaging in civil war. The effect will be to reduce the level of attachment to government and increase attachment to non-governmental alternatives, so decreasing the ambit of government authority and fragmenting authority between organizations. While climate change could cause dislocation in society which would allow for the emergence of Midgal's "strong state" which is able to exert social control, on the other hand society through the above mentioned organizations will compete with states and

fragment social control, thus weakening state institutions.

ADAPTATION

People will attempt to adapt to the effects of climate change. The woman in Darfur will emphasize remaining sources of food and income, sell assets to buy food, and she may find different sources of food. She may move to an area where her strategies of survival are relevant, but that area will itself be changing over years because climate change is a large-scale phenomenon. She may move to where she has relatives, but residents may object to increased competition for resources and the social differences of an outsider.[22] She may move to an urban area in her country, in another lower-income county, or to a high-income country intending to use a social network to find work, though many would already have availed themselves of economic opportunities in cities if they were available and cities will be affected by climate change as well. Lacking better alternatives given her resources, she may move to an internally displaced persons (IDP) camp.

She will have to learn new strategies of survival in each of these situations, including formation of a new social network. The strategies suitable farming in, say, Nigeria, will be loosely related to those suitable for life in Lagos and even less for life in Berlin. And those living in the areas where she moved may encounter a presence they view as foreign. Awareness of migrants, and possibly encounters with migrants, has increased support for European political movements opposed to migration, thus making migrants' strategies of survival and access to supportive social networks even more important.[23] Social networks may help gain access to resources to sustain a livelihood in rural and urban environments, will help people minimize exploitation by helping them understand who is trustworthy and who is not, and will help resolve disputes. Social networks may be informal, or they might be formalized. But, under pressure of collapse of earlier strategies of survival and reduced income, both of which are possible consequences of climate change, people will seek the shelter of groups.

CONCLUSION

Climate change likely leads to reduced income.[24] It will also likely reduce the functionality of existing suites of survival. Quantitatively, reduced income points to more frequent civil war, which further reduces income and increases the likelihood that conflict will return. In the words of Collier, Hoeffler, and Rohner, "The principal legacy of civil war is a

grossly heightened risk of further civil war."[25] Reduced income and lowered salience of strategies of survival reduce the opportunity cost for joining an organization involved in civil war. All lead to a search for new survival strategies and social networks that can increase the odds of survival.

So why is this significant? Heat waves occur more often and last longer and extreme precipitation events become more intense and frequent. The agricultural sector and its dependencies in SSA are sensitive to a warming climate. People experience reduced income, lowered salience of strategies of survival, and undernourishment. They move within the country of their birth to another rural area or to a city to look for work, or to an IDP camp. Or they move to the rural or urban area of a nearby country. They acquire new strategies of survival and modify the social matrix in which they were embedded. That adjusted matrix will likely involve organizations that reduce transaction costs, help avoid and resolve disputes, and provide some sense of meaning. Reduced transaction costs may mean access to necessities like food and income, dispute resolution may entail armed self-help, and meaning may mean the mission of "protecting" a community and the comradeship of arms. Some of these organizations will be parties to a civil war, contesting with a central government. Others will be engaged in lesser armed conflict. Others will be engaged in banditry. All will stress central government authority. Governments might attempt to maintain their authority in critical areas, like cities, but government authority will decrease in rural areas and will be fragmented among competing organizations. The cycle will be climate change reducing income and salience of strategies of survival and increasing undernutrition, the emergence of armed organizations and civil conflict, stressed governments, and propagation of armed conflict as earlier conflict reduces income and salience of strategies of survival. None lead to greater peace, tranquility, and stability.

Per Bill Gates, we may not see much change in two years but we may see much in ten as the effects of climate change accelerate in a SSA that already has low income and high frequency of conflict. The effects of low income and climate change might be mitigated by economic growth that absorbs labor from the agricultural sector and increases per capita income, technological change that mitigates climate change, increased coercive capacity of lower-income countries, or some combination. However, the effects of accelerating climate change in low-income SSA is likely to decrease central government authority faster than offsetting factors increase it. The net result is likely to be increasing disorder in low-income areas. It will be visible early in SSA but will include Asia over time.

This will have implications for policy. First, mitigation of global

warming would make these channels moot. Aid might enable adaptation that eases pressure on people and policy. Failing effective mitigation and aid, security demands in low-income areas will be closer to armed social work, Conflict will motivate people to move; some of those able to do so will move to high-income countries, which will become an issue of political contestation. Finally, countries may need to find ways to deal with unrecognized armed entities that behave like governments, including control of territory, without alienating central governments.

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Notes

1   Intergovernmental Panel on Climate Change, *Climate Change 2014: Synthesis Report* (Geneva: IPCC, 2014), 2 and 40, http://ipcc.ch/report/ar5/syr/.
2   *Climate Change 2014*, 58.
3   IPCC, "Summary for Policymakers," in IPCC, *Special Report Global Warming of 1.5° C*, October 6, 2018, http://ipcc.ch/report/sr15/.
4   IPCC, *Climate Change 2014*, 54. SR1.5 includes similar language: "Populations at disproportionately higher risk of adverse consequences of global warming of 1.5°C and beyond include disadvantaged and vulnerable populations, some indigenous peoples, and local peoples dependent on agricultural or coastal livelihoods (*high confidence*)." IPCC, *Global Warming of 1.5° C*, 11; "Displacement will likely be multi-causal, with climate change both driving migration and affecting other drivers of migration." See: Richard Black, *et al.*, *Foresight: Migration and Global Environmental Change Final Report* (London: The Government Office for Science, 2011), p. 9 and p.12, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/287717/11-1116-migration-and-global-environmental-change.pdf which identifies five drivers affected by environmental change: the environment itself, politics, demographics, economics, and society.
5   IPCC, *Climate Change 2014*, 73.
6   Isabelle Niang *et al.*, "Chapter 22: Africa" in IPCC Working Group II, *Climate Change 2014: Impacts, Adaptation, and Vulnerability*, http://www.ipcc.ch/report/ar5/wg2/.
7   Organization for Economic Cooperation and Development and Food and Agricultural Organization, *OECD-FAO Outlook 2016-2025*, 60 and 65, https://www.oecd-ilibrary.org/agriculture-and-food/oecd-fao-agricultural-outlook-2016_agr_outlook-2016-en.
8   Christopher Blattman and Edward Miguel, "Civil War," *Journal of Economic Literature* 48, no. 1 (March 2010): 4, https://doi=10.1257/jel.48.1.3.
9   Paul Collier, Anke Hoeffler, and Dominic Rohner, "Beyond Greed and Grievance: Feasibility and Civil War," *Oxford Economic Papers* 61 (2009): 12, https://www.csae.ox.ac.uk/papers/beyond-greed-and-grievance-feasibility-and-civil-war.
10   James D. Fearon and David D. Laitin, "Ethnicity, Insurgency, and Civil War," *American Political Science Review* 97, no. 1 (February 2003), 83.
11   World Bank Development Indicators, "GDP per capita, PPP (current international $)," https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?year_high_desc=-

false.
12   Correlates of War, "Intrastate War Data (v4.1)," http://www.correlatesofwar.org/data-sets/COW-war.
13   Monty G. Marshall, "Major Episodes of Political Violence, 1946-2016," http://www.systemicpeace.org/warlist/warlist.htm.
14   Collier, Hoeffler, and Rohner, "Beyond Greed and Grievance," 12.
15   Edward Miguel, Shanker Satyanath, and Ernest Sergenti, "Economic Shocks and Civil Conflict: An Instrumental Variable Approach," *Journal of Political Economy* 112, no. 4.
16   Hanne Fjelde, "Farming or Fighting? Agricultural Price Shocks and Civil War in Africa," *World Development* 67 (March 2015): 533, http://dx.doi.org/10.1016/j.worlddev.2014.10.032.
17   Jeffrey Herbst, *States and Power in Africa: Comparative Lessons in Authority and Control* (Princeton: Princeton University Press, 2000).
18   Joel S. Migdal, *Strong States and Weak Societies: State Society Relations and State Capabilities in the Third World* (Princeton: Princeton University Press, 1988), 27.
19   Julie Flint and Alex de Waal, *Darfur: A New History of a Long War, Revised and Updated* (New York: Zed Books, 2008), 1.
20   IPCC, *Climate Change 2014*, 119.
21   IPCC, *Climate Change 2014*, 16.
22   Rafael Reuveny theorizes that environment-induced migration may lead to conflict or intensify it because of competition, ethnic tension, distrust, fault lines, and auxiliary conditions like the difficulty of absorbing migrants, and political instability and civil strife; Rafael Reuveny, "Climate Change-Induced Migration and Violent Conflict," *Political Geography* 26 (2007), p. 659.
23   See, for example, Gary Chazan and Tobias Buck, "Germany's CDU toughens line on immigration," *Financial Times*, February 11, 2019 and Miles Johnson, "Migration spat stokes tension within Italy's coalition," *Financial Times*, January 7, 2019. Migration was particularly salient in 2015 and 2016. See, for example, "Forming an orderly queue; Europe's Migrant Crisis," *The Economist*, Feb. 2, 2016, "The Migration Crisis" at https://www.economist.com/migrationcrisis, and Richard Wike, Bruce Stokes, and Katie Simmons, "Europeans Fear Wave of Refugees Will Mean More Terrorism, Fewer Jobs," Pew Research Center, July 11, 2016., http://www.pewglobal.org/2016/07/11/europeans-fear-wave-of-refugees-will-mean-more-terrorism-fewer-jobs/.
24   IPCC, *Climate Change 2014*, 73.
25   Collier, Hoeffler, and Rohner, 12-13.

Melting Arctic:
Implications for the 21st Century
Ziad Al Achkar

Introduction

The Arctic region has not traditionally been the focus of international politics and world economics; however, recently environmental scientists have flooded the news with the effects of global warming in the region concerning the significant melting ice caps, dramatic ecological degradation, and potential irreversible loss of many species. Climate change is manifesting around the world through floods, ecological degradation, and potentially driving violence and conflict; in the Arctic, all these risks are compounded. The nature of the Arctic pole means that what will happen in the region is guaranteed to have an impact elsewhere.

While environmentalists have sounded the alarm about the risks to the environment in the region, there is an ever-growing security danger that faces the Arctic. With ice caps melting and retreating to unprecedented levels, the arctic seabed is now open for nations to explore its reported vast amount of natural resources.

This article will identify issues that will shape the twenty-first century of the Arctic. The scope of the article is not meant to be exhaustive of the problems and challenges but offer a thematic overview of the problems. There are three broad categories covered in this article. First, an overview of the changing climate, its ecological and environmental impact, and the challenges of operating in the Arctic. Second, an overview of the economics and international law implications that are a result of climate change and of increased activity in the region. Third, the geopolitics of the Arctic region.

Environmental Impact

Ice and Snow Trends

Increased temperatures observed globally have led to noticeable changes in the ice accumulations and ice caps in the Arctic Ocean. The Intergovernmental Panel on Climate Change (IPCC) 2007 report indicated that satellite data showed an annual reduction of the Arctic Sea ice by 2.7% on average per decade, with a 7.4% decrease per decade during the summer months[1]. The National Oceanic Atmosphere and Atmospheric Administration's projection models revealed that ice extent and thickness

during summer months will decrease to unprecedented levels and reach a complete ice-free state. On the other hand, during the winter season, ice thickness is reported to decrease as the ice extent retracts but not to levels low enough to open the Arctic Ocean to shipping from all kind of vessels.[2]

The Arctic Climate Impact Assessment (ACIA) scenario estimated an ice-free summer within 30-50 years. The ACIA report predicted that by the end of the 21st century the Arctic route will be accessible for 120 days of sailing, mainly during the summer when the ocean is ice-free.[3] Vessels sailing through the Arctic during winter will require the use of icebreakers.[4]

According to NASA Researcher Maria-José Viñas, Arctic sea ice has diminished by 21,000 square miles each year since the 1970s. Sea ice extent at the end of the summer in 2018 was below the average for the 1980-2010 area; and 2018 tied with the sixth lowest summer time ice extent on record, tied with 2008 and 2010.[5]

Ice in Greenland, an area that is roughly three times the size of the state of Texas, is melting at an accelerating rate.[6] Greenland is reportedly losing between 200 to 250 billion tons of ice a year, up from 50 billion in the 1990s. Ice loss in Greenland leads to increasing global sea levels.[7] Monitoring the rate of melting of ice sheets in Greenland helps assess the level of sea rise that can be expected due to climate change. The National Snow and Ice Data Center reports that if the Greenland ice sheet melted completed, sea level would rise by twenty feet (or six meters) globally.[8] This would impact dozens of major cities around the world and hundreds of millions of people.

Ecological Impact

The importance of environmental protection in the region is critical. The region's ecological diversity and its impact on global climate are of utmost importance. Spills or other environmental disasters in the Arctic would not be limited to the region but spread across the globe. As part of this, environmental activists have lobbied, campaigned, and even engaged in activities to stop the exploration of the Arctic. Chief among them is Greenpeace, whose volunteers have boarded ships and exploration platforms in attempts to bring them to a halt.

As climate change negotiations continue and states push for a reduction in CO2, the risks associated with companies operating in the region are increasingly evident. Environmental advocates worry that drilling in the Arctic will ultimately lead to ecological degradation. Anti-Arctic advocates are wary of the risk of oil spills and that an increase in operations in the Arctic —whether for oil and gas exploration, or transit shipping—will increase the rate of ice loss and ecological degradation. An increase of ice

loss and the melting of icebergs leads to the release of carbon dioxide (CO_2) that has been captured and held in the ice over the past centuries.

Increasing temperatures in the Arctic, the retreating of snow and ice, and the resulting increase in human activity in the region is threatening the ecological balance of the region. Scientists worry that the migratory species are going to be dramatically impacted by these changes. Moreover, these new stress factors on the environment will have an impact on the fauna and flora of the region. Hans Metltoffe, chief author of the Arctic Biodiversity Assessment says, "An entire bio-climatic zone, the high Arctic, may disappear. Polar bears and the other highly adapted organisms cannot move further north, so they may go extinct. We risk losing several species forever."[9]

The Operating Environment in the Arctic

This section highlights that even if there are no ecological impacts, the environment for operation is challenging. One such challenge to operating in the Arctic seas is linked to the infrastructure available to service the region. As a report from the World Economic Forum indicates, the region has limited infrastructure available for the numerous industries wanting to operate there. This includes: transportation, energy supply, and telecommunication networks. The report notes that "these types of infrastructure, currently lacking relative to anticipated needs, are important preconditions for sustainable Arctic development."[10]

One of the unique features of the Arctic is sea ice that renders operating in the Arctic hard and unpredictable. Driving this problem is the lack of information and oceanic data that will help guide ships away from areas of heavy sea ice concentration; "Sea ice is what sets the Arctic apart - what makes navigation in the Arctic especially unique and hazardous."[11] The demand for this information will undoubtedly grow as more businesses and countries grow their activities in the region, relying on the routes to ship their products through.[12]

Other factors that hinder the navigation through the North Pole and Arctic seas are "polar darkness, poor charts, lack of critical infrastructure and navigation control systems, low search-and-rescue capability, [and] high insurance/escort costs."[13] Shipping and operating in the Arctic's hazardous environment increases the risk of incidents occurring at sea, which would require assistance and emergency response operations. Such response capacities are practically non-existent due to the remoteness and nature of the geography. Moreover, "cold, ice, a harsh operating environment on

response personnel and equipment, and the lack of shoreside" are additional factors that impede operations and add costs, as these investments are crucial for operations.[14]

Micheal Klare points to another unique feature of operating in the Arctic that sets Arctic drilling operations apart from other areas. Klare notes that drifting ice can damage facilities and boats, so firms and states will not be able to operate regular drilling platforms. Platforms will need to be reinforced with armor to safely withstand impact of drifting ice and Arctic waves. Alternatively, firms may opt to only operate in the region during summer months to reduce the risk of accidents and costs.[15]

ECONOMIC IMPACT

Natural Resources

Driving the increasing interests from the private sector in the Arctic is the promise of access to natural resources. The research conducted by the U.S Geological Survey (USGS) with the collaboration of the Geologic Survey of Denmark and Greenland has revealed large amounts of technically recoverable natural resources in the Arctic ocean. The geological survey's Circum-Arctic Resource Appraisal (CARA) has concluded that the estimates of natural resources *technically recoverable* are as follows: "9,300 million barrels of oil equivalent, including approximately 3,069 million barrels of crude oil, 32,252 billion cubic feet of natural gas, and 861 million barrels of natural gas liquids."[16] The recent USGS assessment made in 2008 has revised the estimated of natural resources in the Arctic ocean and determined that, "90 billion barrels of oil, 1,669 trillion cubic feet of natural gas, and 44 billion barrels of natural gas liquids may remain to be found in the Arctic, of which approximately 84 percent is expected to occur in offshore areas."[17] The term *technically recoverable resources* is defined by USGS as "those producible using currently available technology and industry practices."

Other research and assessment made by Wood Mackenzie and Fugro Robertson have led to different estimates in relations to the percentage of un-recovered natural resources. While USGS estimated that natural resources in the Arctic amount to approximately 25 percent of total undiscovered natural resources, the Wood Mackenzie and Fugro Robertson Assessment estimated a smaller percentage of approximately 14 percent of total undiscovered natural resources. Both assessments, however, estimate that natural gas will amount to approximately 75 percent of the potentially undiscovered resources in the region. The Wood Mackenzie and Fugro

Robertson Assessment estimated that at peak level of output for the region, oil may reach three million barrels per day, whereas gas output peak will be reached at five million barrels of gas per day.[18] Most of the resources are in four provinces: the West Siberian, East Barents, East Greenland Rift basins, and Arctic Alaska. The Wood Mackenzie and Fugro Robertson Assessment indicated that Russia owns 69 percent of the undiscovered but technically recoverable gas in the Arctic. The report also indicated that Russia's South Kara Yamal basin is home to approximately ninety billion barrels of oil.[19] The Arctic region offers a tremendous potential for companies and countries to explore new sources of energy.

Law of Sea Treaty

The exploration of natural resources in the Arctic Ocean will come across a critical issue: border delimitations. To understand this problem, there is a need to explain two legal definitions: territorial water and economic exclusivity zones. The United Nations Convention on the Law of the Sea (UNCLOS) has established in Part II, Section 2, Article 3 that "every state has the right to establish the breadth of its territorial sea up to a limit not exceeding 12 nautical miles, measured from baselines determined in accordance with this convention."[20] Furthermore, Article 2.2 states that "this sovereignty extends to the air space over the territorial sea as well as to its bed and subsoil."[21] These two articles highlight the sovereignty of each state over its territory and the rights to explore the resources that lie within those borders.

The economic exclusive zone, as stated in Part V, Article 56 1(a), explains that,

> *The coastal State has: sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds.*[22]

Article 57 explains that "the exclusive economic zone shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured."[23]

One of the main areas of contention amongst some of the Arctic nations concerns border disputes because of the proximity of the coastlines, leading to disputes over who has rights over exploration of natural resources.

The Law of Sea Treaty Article 74.1 states that "The delimitation of the exclusive economic zone between States with opposite or adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution."[24] This clause puts an emphasis on the importance of inter-governmental cooperation and negotiation to resolves the issues and work together to reach agreeable solutions.

The Russian-Norway treaty signed at the end of September 2010 highlighted a positive move forward. The treaty followed an incident in which Russia had planted a Russian flag in the sea bed of the Arctic, claiming ownership of the sea bed and its resources.[25] The move was highly controversial and sparked comments from Arctic nations highlight the delicate nature of the region and the need for resolving disputes. Russia's flag gesture was merely symbolic and under international law held no weight. Events like these highlighted the need for serious work on border delimitations between the Arctic nations through existing legal international frameworks.

The United States, for its part, remains the only Arctic state which has not ratified UNCLOS, despite the U.S. Navy and major businesses supporting ratification. The group of lawmakers that oppose ratification believe the treaty impedes on the sovereignty of the U.S. and limits the ability of its Navy to operate freely and take unilateral actions at sea. Advocates for UNCLOS ratification, including the U.S. Navy, argue that opposition to the treaty has hurt the U.S. position in the international arena.[26] Failure to ratify UNCLOS limits the ability of the U.S. government to seek legal recourse through the existing mechanisms. In particular, the U.S. cannot seat U.S. nationals on the Commission on the Limits of the Continental Shelf, a commission whose work is of particular importance when taking into account that U.S. border disputes with both Russia and Canada.[27]

The U.S.-Russia maritime border dispute in the Bering and Chukchi Seas lingers to this day. The region's border has not been defined since the U.S. purchased Alaska in 1867. The U.S. and Soviet Union had reached an agreement but, with the collapse of the USSR, the treaty has yet to be ratified. Russia sees the treaty in its current form as unfair, claiming that it deprives Russia of 15,000 square miles.[28] The region is of strategic interest to both nations, as it can serve as a chokepoint to halt shipping.

Trade

Trade through the Arctic is of interest to the nations of the Arctic

council, as the retreating ice and opening seas are radically changing the dynamics of the region. Scott Borgesson, an expert on the Arctic, notes that climate change "is turning what has traditionally been an impassible body of water ringed by remote wilderness into something dramatically different: an emerging epicenter of industry and trade akin to the Mediterranean Sea."[29] These countries will benefit from the opening up of the routes, reducing time and distance for ships to sail from their coast to markets.

The Arctic is of interest to China, the world's largest explorer. China has been keeping an eye on the development in the Arctic, as retreating ice may provide an opportunity to deliver product to European markets through a new route. Analysts suspect that China may benefit from savings provided by a shorter route, cutting distance to European markets substantially. In the beginning of 2018, China released its first Arctic policy. In it, China outlines its goals and policies for the Arctic, deeming itself as a "near Arctic" state, which has a stake in the development of the region. China is a proponent of what it calls the "Polar silk-road." China views the Arctic as an opportunity to project its influence and power beyond its region. Through the Arctic, China hopes to be able to participate in oil and gas exploration, the development of a robust shipping infrastructure, and to be included in the regional bodies that manages the affairs of the Area.[30]

Shipping Disputes

Shipping through the Arctic Ocean raises another political problem. Russia is exercising its right under Article 234 of UNCLOS, which stipulates that "coastal states have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction, and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone."[31]

Russia has demanded that ships wishing to sail through the Northern Sea route and Russia's Exclusive Economic Zone (EEZ) submit an application for guiding and pay a set fee to use the route, often referred to as the icebreaker fee.[32] The fees that Russia demand are expensive and are required year-round, even throughout summer months when icebreakers are not typically required. The U.S has strongly opposed Russia's regulation, noting that ships sailing through international waters should not be required to pay any fees or to adhere to any state's regulations or rules.

Icebreakers

The lack of icebreakers among non-Russian Arctic nations is problematic. There is great inequality in the world's icebreaker fleet. Russia dominates the market with around seventeen icebreakers, six of which are new generation icebreakers. These nuclear-powered icebreakers generate enough force to break through ice twice as thick as regular icebreakers. Russia also has plans for new icebreakers to be introduced over the next decade.

On the other hand, the U.S. only boasts one icebreaker that is qualified as heavy, the Polar Star. The Polar Star was originally decommissioned; however, due to the lack of investment and new appropriations, the ship was re-commissioned and upgrades were made in order to render it operational for the time being.[33] At the moment, there are no plans for the U.S. military to upgrade its icebreaker fleet. This is evident by the lack of new funds appropriated in the latest defense budget. A report on the Arctic notes this icebreaker gap, as "the world's icebreaker fleets are aging and will require significant investment during the coming years to maintain their effectiveness and capability."[34]

Geopolitical Impact

The reopening of the Arctic has not only attracted nations' economic interests and concerns for environmental degradation, but it has meant that Arctic nations, and others, have looked to the Arctic through a militaristic and security lens.

Russian Federation

Arctic countries have been building up their forces and infrastructure in the Arctic region. Leading the charge has been the Russian Federation. Russia, which has half of the Arctic ocean coastline, has been the most active state in the region, deploying its northern fleet to the region and rebuilding its Arctic command, including four new Arctic brigade combat teams, fourteen new operational airfields, and sixteen deep water ports.[35] In August 2018, Russia held surprise drills to test their forces' readiness and new navy installations in the region.[36] As part of these tests, Russia tested a new coastal defense system called Bastion, meant to target enemy ships.[37] In addition to new anti-ship systems, Russia had recently deployed its S-400 air defense system in the Kola Peninsula near the Finnish border, with new submarines and anti-submarine ships.[38]

As the nation with the most Arctic territory, it is expected that Russia would undertake efforts to protect its border and coastline.

However, the annexation of Crimea, disputes over border delimitation in the region, and rising tensions with NATO countries create a risk military confrontation in the region.

United States

The United States, for its part, is playing catch-up in the region. Since the end of the Cold War, the U.S. has shifted its attention away from the region to focus more closely elsewhere, be it the Middle East, or the pivot towards China. As a result, U.S. policy has failed to react to the growing concerns in the Arctic region. A depleted icebreaker fleet is but one of the areas where the U.S. lacks behind other Arctic states, most importantly Russia.[39] In 2013, the U.S. released a national security document detailing its strategy for the region. It focused on three major pillars: advancing U.S. security interests, pursuing responsible Arctic region stewardship, and strengthening international cooperation. The first pillar of this strategy focused on evolving the Arctic infrastructure and strategic capabilities, preserving the freedom of the seas in the region and crucially providing for the energy security needs of the U.S. The document defines access to energy resources in the Arctic as a "core component of our national security strategy."[40] The 2013 document established that signing onto UNCLOS is a principal objective, noting that accession would "protect U.S. rights, freedoms, and uses of the sea and airspace throughout the Arctic region, and strengthen our arguments for freedom of navigation and overflight."[41]

The U.S. Navy for its part has issued two separate Arctic roadmaps, one in 2009 and more recently in 2014 in which it describes the challenges and the role that the Navy sees itself playing in the evolving region. The roadmap provides four major tenets of the U.S. Navy strategy: ensure U.S. Arctic sovereignty and provide homeland defense, provide ready naval forces to respond to crisis and contingencies, preserve freedom of the seas, and promote partnerships within the U.S. government and with international allies.[42]

The U.S. lacks the necessary infrastructure to operate in a meaningful way in the Arctic. Outdated charts of the region, lack of deep ports, icebreakers, and communication facilities are what the U.S. will need to invest in. Additionally, the U.S. remains to be one of the few states that has not adopted UNCLOS, hindering the country's ability to utilize existing legal mechanisms to defend its interests in the region.[43] The U.S. Navy is expected to release a new Arctic roadmap that will outline the Navy's priorities and objectives for the region.

The U.S.–E.U. imposed sanctions on Russia had a direct impact on existing partnerships between Western and Russian companies operating in the Arctic seas. Exxon Mobil's partnership with Russia's Rosneft in the Arctic has been terminated as a result. The two had been in partnership to explore the Russian Kara Sea, where an estimated 87 billion barrels of Oil are available.[44] Due to the sanctions imposed by the West, companies are barred from sharing technologies and money to Russian companies therefore forcing Exxon Mobil to abandon the project.[45]

Denmark – Greenland

In recent years, Russia and China have taken more active steps to exert their influence. As was noted previously, China considers itself a *near Arctic state* and has been attempting to establish a foothold in the region. Denmark denied China's attempt to purchase an old naval base in Greenland. A Chinese mining company was eyeing that base to gain access to the Arctic region. Denmark, which has had a defense agreement with the U.S. since 1951, has so far resisted the temptation to allow Chinese companies to get access to its territories in Greenland, fearing repercussions for its alliance with the U.S.[46]

Norway

Norway is the only Arctic nation that shares a ground border with Russia. It is also one of the few nations that has resolved its territorial disputes with Russia. In September 2010, the Norwegian government issued a detailed document highlighting its policy for the High North. In this document, Norway identifies the region as the "most important strategic priority area in the years ahead."[47] Norway's economy relies heavily on hydrocarbons; defending its rights in the Arctic and ensuring access to the fields for exploration is therefore a priority.

The document highlights Norway's focus on taking its "international and national obligations seriously." It notes the importance of ecological and environmental protection for the region. Moreover, the government of Norway highlights the importance of developing suitable frameworks for the exploration of natural resources in the region, focusing on cooperation and the protection of the lives and cultures of the indigenous populations there.[48]

In recent years, however, tensions between Norway and Russia have grown. With concerns following Russia's annexation of Crimea, Norway

has invited NATO countries, particularly the U.S. and U.K. to deploy forces. The U.S. will deploy over 700 marines to Norway in 2019, and the U.K. will deploy 800 Royal Marines as part of the U. K's new defense Arctic strategy.[49] In October and November of 2018, Norway will host Trident Juncture, a large-scale NATO exercise. The exercise will seek to reinforce NATO's seriousness in the region.

Canada

  Canada's Arctic foreign policy statement reads that:

> Canada's vision for the Arctic is of a stable, rules-based region with clearly defined boundaries, dynamic economic growth and trade, vibrant Northern communities, and healthy and productive ecosystems. Canada's Arctic foreign policy provides the international platform from which to project our national interests in the world across all four pillars of the Northern Strategy: exercising our sovereignty, promoting economic and social development, protecting the Arctic environment, and improving and devolving governance…Exercising sovereignty over Canada's North, as over the rest of Canada, is our number one Arctic foreign policy priority…Canada's Arctic sovereignty is long-standing, well-established and based on historic title…When positions or actions are taken by others that affect our national interests, undermine the cooperative relationships we have built, or demonstrate a lack of sensitivity to the interests or perspectives of Arctic peoples or states, we respond.[50]

  Canada believes in the importance of diplomacy and engaging the Arctic nations to work collectively to ensure the Arctic development. Canada argues that "the rapid pace of change and growing importance of the Arctic requires that we strengthen our capacity to deliver on Canada's priorities on the international scene."[51] Canada's statement describes a Canada that is serious about the Arctic and its rights to the resources that are available within its EEZ; furthermore, it highlights Canada's commitment for security and development notably regarding environmental protection.

  Canada has taken major steps to act upon its Arctic foreign policy. It has adopted a new defense policy based on the notion of Canada first, showing intentions that Canada's interests will come first, over any other nations. This stance has manifested itself with Canada's claim to authority over the Northwest Passage, whereas nations like the U.S., Russia, and even the European Union

argue that the passage is an international strait. In August 2007, then-Prime Minister Harper declared that the "first principle of Arctic sovereignty is use it or lose it," noting Canada's strong position about the strait's ownership.[52]

Looking Ahead

  The Arctic will once again regain an important role in the affairs of the twenty-first century and both Arctic and non-Arctic states would be wise to take heed and to prioritize the region. The race for the Arctic might have been driven by state interests, but saving the region and the planet will require a group effort.
  The future of the region will be governed by how serious and effective the global response to climate change is. If current trends continue, it is likely that snow and ice will melt at faster rates, leading to a drastic rise in sea levels around the world. The interests in resource exploration and shipping through the region are likely to only increase.
  The existing tensions in the region can only be resolved through diplomatic and existing governance. The Arctic Council will see its role and importance increase as more nations and corporations seek to engage within the region. The likelihood of military confrontations in the region are slim, but the dangers linked with the increased militarization of the area are ever-present. Arctic states will have to continue to work under the framework of the Arctic Council to resolve disputes and to establish a governing mechanism for the region that prioritizes environmental protection and promotes sustainable economic development. Solving border disputes would be an important first step, along with establishing an agreement for combined search and rescue operations and scientific cooperation among Arctic states.

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Notes

1   Core Writing Team, Rajendra K. Pachauri, and Andy Reisinger, eds., *Climate Change 2007: Synthesis Report* (Geneva, Switzerland: IPCC, 2007), http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_synthesis_report.

htm.

2   "Future of Arctic Sea Ice and Global Impacts - Sea Ice," *NOAA Arctic Theme Page: a comprehensive Arctic resource*, http://www.Arctic.noaa.gov/future/sea_ice.html.

3   Robert W. Corell and Cutler Cleveland (ed.), "Arctic Climate Impact Assessment (ACIA)," in *Encyclopedia of Earth*, ed. Cutler J. Cleveland (Washington, D.C.: Environmental Information Coalition, National Council for Science and the Environment).

4   Claes Lykke Ragner, *Northern Sea Route Cargo Flows and Infrastructure—Present State and Future Potential, FNI Report,* (Lysaker, Norway: The Fridtjof Nansen Institute, 2000).

5   Maria-Jose Vinas, "2018 Arctic summertime sea ice minimum extent tied for sixth lowest on record," *NASA,* September 27, 2018, https://climate.nasa.gov/news/2811/2018-arctic-summertime-sea-ice-minimum-extent-tied-for-sixth-lowest-on-record/.

6   Alessandra Potenza, "Here's what vanishing sea ice in the Arctic means for you," *The Verge*, May 10, 2018, https://www.theverge.com/2018/5/10/17339046/arctic-sea-ice-decline-albedo-effect-climate-change-global-warming.

7   Nicole Mortillaro, "Glacier half the size of Manhattan breaks off Greenland," *CBC,* July 12, 2018, https://www.cbc.ca/news/technology/greenland-glacier-calving-1.4742691.

8   "Quick Facts on Ice Sheets," *National Snow and Ice Center,* accessed October 2, 2018, https://nsidc.org/cryosphere/quickfacts/icesheets.html.

9   Jens Christian Pedersen, "Arctic biodiversity under serious threat from climate change," *Science Daily*, February 14, 2014, https://www.sciencedaily.com/releases/2014/02/140214075511.htm.

10   World Economic Forum Global Agenda Council on the Arctic, "Demystifying the Arctic," *World Economic Forum*, January 2014, http://www3.weforum.org/docs/GAC/2014/WEF_GAC_Arctic_DemystifyingArtic_Report_2014.pdf.

11   Arctic Council, "Arctic Marine Shipping Assessment 2009 Report," *Arctic Council*, April 2009, https://www.pmel.noaa.gov/arctic-zone/detect/documents/AMSA_2009_Report_2nd_print.pdf.

12   Arctic Council, "Arctic Marine Shipping Assessment 2009 Report."

13   World Economic Forum Global Agenda Council on the Arctic, "Demystifying the Arctic."

14   Arctic Council, "Arctic Marine Shipping Assessment 2009 Report."

15   Michael T. Klare, *The Race for What's Left* (London: Picador, 2012).

16   USGS World Assessment Team, "U.S. Geological Survey World Petroleum Assessment 2000-Description and Results," *U.S. Geological Survey Digital Data Series -DDS60*, last modified November 23, 2016, http://pubs.usgs.gov/dds/dds-060/.

17   Bird, Kenneth J et al., "Circum-Arctic resource appraisal: estimates of undiscovered oil and gas north of the Arctic Circle," *U.S. Geological Survey*, http://pubs.usgs.gov/fs/2008/3049/.

18   P.E. Long, et al., "Preliminary Geospatial Analysis of Arctic Ocean Hydrocarbon Resources," *U.S. Department of Energy,* 2008, PNNL-17922, (Richland, WA: Pacific Northwest National Laboratory).

19   P.E. Long, et al., "Preliminary Geospatial Analysis of Arctic Ocean Hydrocarbon Resources."

20   United Nations, "United Nations Convention on the Law of the Sea," (Montego Bay, Jamaica: UN, 1982), http://www.un.org/depts/los/convention_agreements/conven-

21   United Nations, "United Nations Convention on the Law of the Sea."

22   United Nations, "United Nations Convention on the Law of the Sea."

23   United Nations, "United Nations Convention on the Law of the Sea."

24   United Nations, "United Nations Convention on the Law of the Sea."

25   Douglas Birch, "Russians reach North Pole in race for Arctic oil and gas," *AP,* August 1, 2007, http://www.washingtonpost.com/wp-dyn/content/article/2007/08/01/AR2007080100252.html?noredirect=on.

26   Thomas Wright, "Outlaw of the Sea: The Senate Republicans' UNCLOS Blunder," August 7, 2012, http://www.foreignaffairs.com/articles/137815/thomas-wright/outlaw-of-the-sea.

27   Roncevert Ganan Almond, "U.S. Ratification of the Law of the Sea Convention," *The Diplomat,* May 24, 2017, https://thediplomat.com/2017/05/u-s-ratification-of-the-law-of-the-sea-convention/.

28   Klare, *The Race for What's Left*.

29   Scott G. Borgerson, "The Coming Arctic Boom," *Foreign Affairs*, July/August 2013, https://www.foreignaffairs.com/articles/global-commons/2013-06-11/coming-Arctic-boom.

30   The State Council Information Office of the People's Republic of China, "China's Arctic Policy," *The State Council Information Office of the People's Republic of China,* January 26, 2018, http://english.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm.

31   United Nations, "United Nations Convention on the Law of the Sea."

32   Claes Lykke Ragner, "The Northern Sea Route—Commercial Potential, Economic Significance, and Infrastructure Requirements," *Post-Soviet Geography and Economics* 41, no. 8 (2000): 541-580.

33   "Melting Arctic Ice Is a Challenge for U.S. Military," *Wall Street Journal*, 12 January 2014. http://www.wsj.com/video/melting-Arctic-ice-is-a-challenge-for-us-military/8F36CEC8-0274-40E3-A471-F912498B142B.html#!8F36CEC8-0274-40E3-A471-F912498B142B.

34   Arctic Council, "Arctic Marine Shipping Assessment 2009 Report."

35   The Arctic Institute, "Russia: Facts and Figures," *The Arctic Institute*, accessed October 7th, 2018, https://www.thearcticinstitute.org/countries/russia/.; Robbie Gramer, "Here's What Russia's Military Build-Up in the Arctic Looks Like," *Foreign Policy,* January 25, 2017, https://foreignpolicy.com/2017/01/25/heres-what-russias-military-build-up-in-the-arctic-looks-like-trump-oil-military-high-north-infographic-map/.

36   Atle Staalesen, "Russia holds surprise drill in east Arctic ahead of giant war games," *Radio Canada International,* August 22, 2018, http://www.rcinet.ca/eye-on-the-arctic/2018/08/22/russia-navy-military-training-exercise-arctic-laptev-sea-vostok/.

37   "Russia Deploys Coastal Missiles in Arctic Drills," *The Moscow Times,* September 25, 2018, https://themoscowtimes.com/news/russia-deploys-coastal-missiles-arctic-drills-62987.

38   "Russia moves missiles to Finnish border," The *Barents Observer,* September 26, 2016, https://thebarentsobserver.com/en/security/2016/09/russia-moves-missiles-finnish-border.; Daniel Brown, "Russia's Northern Fleet beefs up its nuclear capabilities to phase 'NATO out of Arctic," *Business Insider,* June 1, 2017, https://www.businessinsider.com/russias-northern-fleet-beefs-up-its-nuclear-capabilities-phase-nato-out-arctic-2017-6.; "Russian Northern Fleet warships set off on Arctic voyage," *Russian News*

Agency, August 8, 2018, http://tass.com/defense/1016426.

39   Robbie Gramer, "U.S. Coast Guard Chief Warns of Russian 'Checkmate' in Arctic," *Foreign Policy,* May 3, 2017, https://foreignpolicy.com/2017/05/03/u-s-coast-guard-chief-warns-of-russian-checkmate-in-arctic-military-high-north/.

40   "National Strategy for the Arctic Region," *White House*, May 10, 2013. https://www.whitehouse.gov/sites/default/files/docs/nat_Arctic_strategy.pdf.

41   "National Strategy for the Arctic Region," *White House*, May 10, 2013. https://www.whitehouse.gov/sites/default/files/docs/nat_Arctic_strategy.pdf.

42   NAVY Task Force on Climate Change, *US- Navy Arctic Roadmap 2014-2030* (Washington, D.C.: Department of the Navy), February 2014, http://www.navy.mil/docs/USN_Arctic_roadmap.pdf.

43   Dermont Cole, "The US keeps falling further behind other nations in preparing for the opening of the Arctic Ocean," *Arctic Today*, June 23, 2018, https://www.arctictoday.com/us-keeps-falling-behind-nations-preparing-opening-arctic-ocean/.

44   Tom DiChristopher, "Exxon Mobil could tap huge Arctic assets if US-Russian relations thaw," *CNBC,* December 13, 2016, https://www.cnbc.com/2016/12/13/exxon-mobil-could-tap-huge-arctic-assets-if-us-russian-relations-thaw.html.

45   Clifford Krauss, "Exxon Mobil Scraps a Russian Deal, Stymied by Sanctions," *New York Times,* February 28, 2018, https://www.nytimes.com/2018/02/28/business/energy-environment/exxon-russia.html.

46   Erik Matzen, "Denmark spurned Chinese offer for Greenland base over security: sources," *Reuters*.,April 6, 2017, https://www.arctictoday.com/denmark-spurned-chinese-offer-for-greenland-base-over-security-sources/.

47   Norwegian Ministry of Foreign Affairs, "The Norwegian Government's High North Strategy", December 2006 https://www.regjeringen.no/globalassets/upload/ud/vedlegg/strategien.pdf\.

48   Norwegian Ministry of Foreign Affairs, "The Norwegian Government's High North Strategy."

49   U.K. Ministry of Defense. "Defense Secretary announces new Defense Arctic Strategy," *Gov.uk*, September 30, 2018, https://www.gov.uk/government/news/defence-secretary-announces-new-defence-arctic-strategy.

50   Government of Canada, *Statement on Canada's Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada's NORTHERN STRATEGY Abroad,* (Canada, 2010), http://international.gc.ca/world-monde/assets/pdfs/canada_arctic_foreign_policy-eng.pdf.

51   Government of Canada, *Statement on Canada's Arctic Foreign Policy.*

52   Randy Roswell, "Time to 'use it or lose it,' Harper declares," *Montreal Gazette*, August 11, 2007, https://www.pressreader.com/canada/montreal-gazette/20070811/281496451889934.

The Reality of Updating China's Nationally-Determined Contributions:
Effects of Long-Term Economic Growth and Global Carbon Emissions Budget
Ang Zhao

In June 2015, prior to the COP21 talks in Paris, China committed to peak its carbon emissions around 2030. For many, China's commitment was an aggressive move to combat climate change, demonstrating its leadership in the global climate engagement. Yet, more critical voices questioned whether China's commitment adequately considered global average temperature increase target of 2 degrees Celsius within this century. As the upcoming COP24 talks in Katowice, Poland draw closer, participating countries delegations may focus on the main negotiation objective, an implementation plan of the Paris Agreement. However, in this conference there will be plenty of discussion on how big economies, like China, set Nationally Determined Contributions (NDCs) targets, not only according to their own economic and technological capacities but also based on the precondition of meeting the global carbon emission goal suggested by the Paris Agreement.

The following piece will investigate economic factors behind China's predicted carbon emissions (including GDP, urbanization, and energy consumption), as well as global predicated carbon emissions in 2030 and 2050 to discuss whether China can promise to peak much earlier and begin decreasing its total carbon emissions around 2025.

The Reality of Long-term Economic Growth: Peaking Early, A Lower Peak

In 2015, China based its 2030 carbon emissions peak target on optimistic economic growth forecasts. Specifically, China predicted that between 2015 and 2030, the country would be able to maintain its relatively rapid economic growth and energy consumption trends. However, since 2015, the Chinese economy has not performed as well as predicted, and recent short-term forecasts are similarly less optimistic. As a result, China's carbon emissions may be on track to peak earlier than expected. Moreover, the quantity at which emissions peak may also be lower than expected.

Between 2000 and 2015, China's breakneck pace industrialization, urbanization, and infrastructure construction drove the country's economic growth. According to World Bank data, however, China's rate of economic growth has declined from a 10.6% increase in GDP in 2010

to 6.9% in 2017.[1] Similarly, population growth decreased from 0.80% in 2000 to 0.53% in 2010. The new family planning policy, which was enacted in late 2015 and allows a family to have two children, has not curbed the extremely low population growth trend, and the population growth remained at 0.51 percent in 2017.[2]

Such a marked decrease in population growth has significant consequences for economic growth. Current rates of population growth cannot support optimistic economic forecasts. On the other hand, levels of urbanization are still low compared to those of high-income countries, like members of The Organization for Economic Co-operation and Development (OECD) . While people will continue to immigrate to cities in the future, urbanization pace may slow. Between 2000 and 2017, the proportion of Chinese people residing in urban areas increased from 36 percent to 58 percent.[3] During the next 20-30 years, urbanization will continue to grow, just at a slower pace.

In the 40 years since China's economic liberalization, particularly in the past 20 years, the high-speed development of China's infrastructure, including highways, railways, airports, and civil architecture has supported GDP growth and increases in carbon emissions. Since 2015, there are signs that China's transition from an investment- and trade-based economy to one driven by services and consumption has decreased the economy's energy consumption and carbon emissions. It will be difficult for levels of infrastructure building to return to their prior pace, and both urbanization and population growth are slowing down. Consequently, China's GDP growth will likely fail to meet prior expectations. In other words, China's estimates for its GDP between 2016 and 2030 were more than overly optimistic.

The above view is gaining popularity among economists. In July 2017, the International Monetary Fund's (IMF) World Economic Outlook predicted that China's GDP annual growth rate would be 6.6% and 6.4% in 2018 and 2019, respectively.[4] Entering 2020-2025, it predicted that growth would reach below 6% and continue to decrease going from 2025-2030.[5] Nonetheless, experts remain optimistic about China's ability to combat climate change. China's National Development and Reform Commission's Energy Research Institute (ERI), one of the nation's most influential climate and energy policy think tanks, released a report discussing the possibility of China meeting its national goal for 1.5 degrees Celsius temperature growth in this century. In the report, their GDP forecasts were as follows: 7.9 percent growth from 2015 to 2020, 6.7 percent growth from 2020 to 2025, and 6.3 percent from 2025 to 2030.[6]

The GDP growth has a direct impact on energy consumption and levels of carbon emissions. According to World Bank data, China's annual GDP increased by 88 percent between 2009 and 2013, and by 27 percent between 2013 and 2017.[7] At the same time, the annual national primary energy consumption grew by 25 percent between 2009 and 2013, and by eight percent between 2013 and 2017; the annual energy-related carbon emissions increased by 20 percent from 2009 to 2013, and by 0.3 percent from 2013 to 2017, based on the statistics from 2018 BP Statistical Review of World Energy.[8] A comparison of past growth in GDP, primary energy use and carbon emission demonstrates that China's cooling-down economy has led to a significant low growth pace of carbon emission. Slower economic growth influences not just *when* emissions hit their peak, but also dictate the level at which emissions peak. The disparate projects of the IMF and ERI have drastically different implications for China's economy and naturally, China's carbon emissions 10-20 years in the future. Hypothetically, using China's 2018 GDP as a reference value, IMF and ERI projections put China's GDP at 1.96 and 2.19 times 2018 levels at 2030, respectively.[9] Assuming a consistent relationship between GDP and carbon emissions in these two models, environmental implications are clear: carbon emissions would be 11.7 percent higher following ERI's economic model compared to the one put forth by the IMF.

Based on the above, we can see that higher GDP estimates also correspond to higher carbon emission estimates. The tendency for researchers to overestimate GDP growth can be understood when we put it into the context of the national five-year plan for economic and social development. Every five years, the Chinese government creates a plan and strategy for social and economic development with each period using GDP growth as its target. Additionally, historically, China has used GDP growth as a guidepost for economic governance, sending off a signal to inspire optimism and confidence in China's economy among the population, including researchers themselves.

LOWERING COAL CONSUMPTION: GOVERNING AIR POLLUTION AND PUSHING FOR ENERGY TRANSITION

Advancing China's energy transition has several driving factors, including energy security, technological development, energy resource endowment, climate change policy, and other factors. However, in the author's point of view, since 2013, controlling air pollution has remained the most important factor behind reducing the consumption of coal.

Cutting the coal use is the most effective way to address air pollution. China's coal consumption has increased from 1.36 billion tons in 2000 to 4.24 billion tons in 2013. After that, the coal consumption has been declining gradually. According to the 2018 BP Statistical Review of World Energy, from 2013 to 2017, China's national coal consumption declined by 3.89 percent.[10] Some researchers believe that China's annual coal consumption has peaked because of slowing economic growth and subsequent reduced demand for energy.[11] Another important but often overlooked reason for coal's peak is that 2013 was the first year of China's Action Plan for the Prevention and Control of Air Pollution (2013-2017). Uniting the central, provincial, and local governments, particularly where pollution is most severe (Beijing, Tianjin, and Hebei province), the plan set out to aggressively reduce coal consumption while simultaneously equipping residents in these areas with controllable natural-gas-powered and electric heating.

Between 2013 and 2017, the government invested heavily in pollution control, employing command and control policies to accomplish its pollution reduction targets. Such an aggressive strategy had a profound influence on China's energy transition. In a short period of time, pollution reduction efforts had already exceeded goals put forth by the Renewable Energy Law passed in 2005.

Recent emphasis on environmental protection and advances in China's energy transition have a strong and direct influence on the country's carbon emissions. Between 2015 and 2030, we can expect China to continue substituting coal heating with natural gas-powered alternatives, causing China to meet its carbon emission reduction goals earlier than expected, much like how coal consumption peaked earlier than expected. Combined with the development of renewable energy, the intensity of carbon emission per unit of GDP will decrease dramatically, leading to a lower carbon emission peak than expected.

CHINA'S DETERMINED CONTRIBUTION GOALS AND THE PARIS AGREEMENT ACTION PLAN: THE ELEPHANT IN THE ROOM?

The Paris Agreement requires participating countries to submit Nationally Determined Contributions between 2015 and 2017. In December 2018, the COP24 talks in Poland is predicted to result in actionable plans to carry out goals originally set forth by the Paris Agreement. COP24 remains an urgent meeting, as projections indicate that global greenhouse gas emissions are to exceed levels required for 2 degrees

Celsius of temperature change by the end of the 21st century. In October 2018, the Intergovernmental Panel on Climate Change (IPCC) published a special report "Global Warming of 1.5°C," where it detailed the benefits of controlling global average temperature change below 1.5 against between 1.5 and 2 degrees Celsius on humans and ecosystems. The report's analysis revealed that achieving the 1.5 degrees Celsius mark requires urgent and comprehensive reform in land use, energy, industry, architecture, and transportation to the point where global carbon emissions in 2030 must be 45 percent of those in 2010 and totally neutral by 2050.[12] In 2010, carbon emissions amounted to 50.9 billion tons, making the 2030 goal 28 billion tons.[13] In 2016, the world's total carbon emission hit 36.2 billion tons and China emitted 10.2 billion tons.[14] It is obvious that the world carbon emission must enter a rapid declining pathway after 2020 if the 1.5 degrees Celsius scenario is a real serious goal. On top of this, the dominating carbon emitters of the world, China, U.S., and EU hold high expectation during the COP24 talks in Poland.

The IPCC special report provides a significant discussion background and policy rationale for the upcoming COP24 talks. For China, achieving its commitment of carbon emission peak by around 2030 is not sufficient to comply to emission goals underlined by the 2 degrees Celsius target in the Paris Agreement. This paper argues that due to the changing faces of China's economic, social, and environmental situation, as discussed above, China may have larger room to update the climate goals, from carbon peaking to carbon reducing in the near future. For China, acting according to the Paris Agreement's 2°C goal may not generate unaffordable impacts on economic growth as it is pursuing a technology and innovation driven model. In addition, the slowing down economy in the long term has allowed the government to take more measures to reign in the ever-growing carbon emission. In the global arena, the risk is extremely high; without China's increased and deeper actions, the international efforts towards fighting climate change under the Paris Agreement will fail. As the biggest carbon emitter in the world for over 10 years, China has the accountability to do more.

Conclusion: a New Leader?

Many expect that China will move towards a low carbon economy at a faster pace in the next decade. This scenario can bring Chinese people the greatest benefits such as a more resilient economy, clean air and water, and a livable environment. In this sense, lower economic growth rates,

higher energy expenses, and an aging population may not be bad things for China's transition to an advanced market economy. However, other researchers have serious concerns that the short-term political calculations from the country's leaders, such as the China-U.S. trade dispute, could play a role in China's climate change policy making. It's difficult to judge which direction China will go. Nevertheless, this paper argues that China could upgrade its climate commitment in the near future, but the new goal might be still far from what China is expected to do as there is a huge gap between China current emission scale and designated size suggested by the very limited global carbon emission budget. The turbulent outlook for China's economic growth means that China is unlikely to act as a real world leader in the climate change arena. China's weak economic outlook should become a significant factor in continual scenario-based carbon emission analysis and updating NDCs.

Notes

1   The World Bank, Development Indicator Data – China's GDP Growth (annual %) 2000-2017, https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2017&locations=CN&start=2000.
2   The World Bank, Development Indicator Data - China's Population (total) 2000-2017, https://data.worldbank.org/indicator/SP.POP.TOTL?locations=CN.
3   Ibid.
4   International Monetary Fund, "World Economic Outlook Update July 2018: Less Even Expansion, Rising Trade Tensions," accessed October 25, 2018, https://www.imf.org/en/Publications/WEO/Issues/2018/07/02/world-economic-outlook-update-july-2018.
5   Katy Barnato, "China GDP growth to fall below 6% by 2020: IMF," *CNBC*, August 12, 2016, https://www.cnbc.com/2016/08/12/china-gdp-growth-to-fall-below-6-by-2020-imf.html.
6   China's Energy Related Emission Scenario Analysis: to Achieve 1.5 Degree Target. (WOGUOSHIXIANQUANQIU1.5SHESHIDUMUBIAOXIADENENGYU-ANPAIFANGQINGJINGYANJIU). Energy Research Institute of National Development and Reform Commission, 2018, http://coalcap.nrdc.cn/pdfviewer/web/?15306856261452779958.pdf.
7   The World Bank, Development Indicator Data – China's GDP Growth (annual %) 2000-2017, https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2017&locations=CN&start=2000.
8   BP, Statistical Review of World Energy, 2018, https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html.
9   It is assumed that in 2019-2029, ERI's GDP annual growth rate forecast is 7.9%

(2019-2020), 6.7% (2021-2025), and 6.3% (2026-2030). IMF's forecasts are 6.4% (2019-2020), 5.9% (2021-2015), and 5.5% (2026-2030).

10   BP, Statistical Review of World Energy, 2018. https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html.

11   Qi Ye and Jiaqi Lu, "The End of Coal-fired Growth in China," Brookings, March 2, 2018,https://www.brookings.edu/zh-cn/opinions/.

12   Intergovernmental Panel on Climate Change, "Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C Approved by Governments," IPCC Press Release 2018/24/PR, October 8, 2018, http://ipcc.ch/pdf/session48/pr_181008_P48_spm_en.pdf.

13   The World Bank, Development Indicator Data - Total Greenhouse Gas Emissions (kt of CO2 Equivalent), https://data.worldbank.org/indicator/EN.ATM.GHGT.KT.CE?view=chart.

14   Boden et al., UNFCCC, BP, and USGS, CO2 Emissions, Global Carbon Atlas, 2017, http://www.globalcarbonatlas.org/en/CO2-emissions.

Changing Weather Patterns, Clmate Change and Civil War Dynamics:
Institutions and Conflicts in the Sahel

Buddhika Jayamaha, Jahara Matisek, William Reno & Molly Jahn

Changing weather patterns increasingly shape battlefield dynamics in civil wars. Civil wars have complex origins and once violence erupts, local, regional, and global drivers, including changing weather patterns, shape the processes of conflict.[1] As one study published in *Nature* indicated, the "stability of modern societies relates strongly to the global climate." Others have shown that climate change undermines 'human security' and that warming temperatures lead to an increase in crime. Some contend that climate change research has overdramatized the causes of certain wars while downplaying important pre-war cleavages. Finally, some studies show the difficulty of drawing a direct causal link between climate change, statistically significant changes in weather patterns due to anthropogenic activity, and civil war on-set.

Our field research provides further clarity and greater nuance on these debates and studies by investigating various processes and variables involved with local-level violence, environmental changes, and weather shifts. Additionally, there has been a change in the character of battlespaces, fragile food systems, and food (in)security, which highlights how changing weather patterns directly impact the formation of new battlespace dynamics and the processes of violence in the Sahel. Indeed, there is significant evidence that links temperature and rainfall shifts with decreases in political stability in the Sahel (see Figure 1). For the purposes of this article, we restrict our analysis to the central portion of the Sahel, specifically the Lake Chad Basin (LCB) area, which is bordered by Chad, Cameroon, Niger, and Nigeria. Already, there is substantial evidence linking temperature and rainfall shifts with decreases in local and regional political stability across the Sahel (see Figure 1). While some research finds "limited support for viewing climate change as an important influence on armed conflict," our field work and research into the LCB illustrates how weather is impacting it specifically regarding new dynamics of violence.

Figure 1. Regional Sahel changes in political stability, temperature, and rainfall between 1996 and 2015. Source: Molly Jahn, Buddhika Jayamaha, William S. Mulhern, Douglass E. Ross, Matthew A. Rose, Gregory F. Treverton, "Global food system stability and risk: At the nexus of defense and development," *Thomson Reuters*, April 2018, https://www.thomsonreuters.com/content/dam/ewp-m/documents/thomsonreuters/en/pdf/reports/global-food-system-stability-and-risk-0718.pdf.

We conceptualize changing weather patterns as a global structural change where some countries and regions experience the suite of effects of climate change far more intensely than others. Then, we contend that geography, levels of economic development, and institutional capacity of the state, in combination with changing weather patterns, play a direct role in how battlespaces are defined and shaped. We briefly explain how changing weather patterns affect conflict dynamics as militias, rebel groups, and civilians adopt to the change – sometimes "weaponizing" it to their own advantage. Consequently, in some instances, changing weather patterns become part of (and influence) the endogenous violent processes inherent to civil wars. Finally, to explain the emergence of these new processes, we rely on our research and field work in the Lake Chad Basin (LCB) bordering Chad, Nigeria, Cameroon, and Niger to highlight how climate change is increasingly impacting civil wars.

Changing Weather Patterns, State Institutions, and Civil Wars

Geography, alongside the nature of formal and informal state institutions, shapes the complex processes of how climate change influences civil war dynamics. The impacts of harsh geography compounded by climatic change unfold in distinct ways in countries where government institutions are very weak. These are countries where political leaders typically exercise authority through personal networks that they construct behind the façade of formal statehood. The real basis of their power is rooted in the politician's capacity to control markets, including illicit sectors of the economy, and to manipulate other people's access to these resources in ways that enhance the politician's own power. State offices give these politicians access to foreign aid and other resources channeled through state institutions that can then be converted to patronage to distribute to supporters. In our analysis, it is especially important to focus on how climate change influences conflict within this key realm of political authority. Formal institutions are best characterized as the bureaucratic agencies and the procedures and constitutional rules that define governance on paper, whereas informal institutions describe how patron-client networks operate in asserting power and authority.[2] Thus, we contend that the institutional configurations and state capacity bear directly on any attempt to explain the variations of climate change and any attendant effects on conflict and its severity.

There is an indubitable consensus in the scientific community that global weather patterns are changing as a result of anthropogenic activity (i.e., humans). In addition, geography coupled with the resiliency of ecosystems also play a role in how and why climate change impacts some places in the world more significantly relative to other places. Though the effects of climate change are broad, the specific nature of these impacts varies across different societies and political systems. Each of these factors shape how individuals and communities adapt to this change. This adaptability is very much contingent on both the nature of the institutional structure and capacity of the state that governs social, political, economic and military affairs.

Climatic change impacts the Arctic islands of Northern Canada just as it does the many Philippine archipelago islands. However, Canada's government and society are better situated to handle such changes because they have institutional structures in place that assist societal actors to adapt with low costs and risks. Similarly, variations in institutional capacity within countries and the territorial reach of institutional capacity also matter significantly. For example, Manila is better situated to manage the adverse impacts of climate change and adapt at a relatively-low cost compared to those on the southern end of the Mindanao Island. Individuals in Manila

experience better state capacity and an institutional structure that absorbs some costs, thereby providing a public good while creating an incentive structure that shapes individual decisions. Mindanao's local political environment is dominated by personalist networks of politicians and neighborhood strongmen who leverage their relationships to the formal institutions of the state to build extensive patron-client networks rooted in the formal and illicit economies. Consequently, as weak and inefficient as institutions may be, citizens in Manila can handle changes better than many of the smaller islands. Likewise, the disruptions of climate change have different social and political effects in these two places due to the different weaknesses and flexibilities of these two kinds of authority structures.

Civil wars add an extra inimical layer to an already complex relationship between climate change, state institutions, and society. The effectiveness of the state and its institutional reach across territory play a direct role in shaping civil war dynamics to include how insurgencies recruit and fight. Historically, rough terrain always provided perfect rear bases to conduct protracted insurgencies because the rebels could take advantage of the terrain due to the inability of the state to maintain order, monopolize violence, and regulate social behavior. However, insurgency in urban environments are becoming increasingly common due to changes in state strategies and policies in the employment of military force. In the current milieu, our ongoing research on insurgencies, food insecurity, and climate change indicates that the Sahel region is in the 'eye of the storm.'

The Sahel sits at the nexus of rapidly changing weather patterns due to its geography and ecosystem between the Sahara Desert and tropical Africa. The region is also host to countries in which formal state institutions are very weak. This incapacity is a chronic stressor that impedes development and leads to endemic corruption, political instability, and poor physical infrastructure, et cetera. Multiple conflicts are emerging in the Sahel that span national boundaries along ethnic, ideological, economic, and religious cleavages (see Figure 3). Understanding the role of formal and informal institutions is crucial in understanding how one state can collapse due to dramatic weather changes, whereas other states can improvise and adapt their institutions (i.e., the informal personalist patron-client networks as well as government bureaucracies) to ensure that various elites and local powerbrokers are satiated.

Perfect Storm in the Sahel: Weak Institutions, Climate Change, and Insurgency

The Sahel hosts numerous fragile states with weak institutional and infrastructural capacity that rank at, or very close to, the bottom in most indices of state capacity and citizens' well-being, and near the top of measures of official corruption. These geographically large states also contain what scholars refer to as "ungoverned spaces," where the primary economic activity outside of agriculture remains concentrated in smuggling routes and other illicit activities. These areas should not be understood as devoid of political authority, however, as the informal personal networks of key politicians often play an important role in organizing these activities. This "ungoverned" aspect of these spaces creates opportunities for some of these politicians and their partners to exploit their official positions to gain competitive advantages in these illicit and often violent markets. This can occur when an official is able to selectively gain exemption from the enforcement of laws or is provided with official documents to facilitate illicit opportunities. Likewise, this manipulation of state authority can be used to shield criminals from official scrutiny.[3] The primary means of supporting oneself (and their family) is through various criminal networks: working either as a smuggler; assisting smugglers with logistics; or if one holds territory, taxing smugglers in return for safe passage. With the addition of ideology and grievances, organized violence against the state (even when smugglers collude with and receive protection from specific state officials) becomes an obvious strategy in maintaining these smuggling networks, with most states in the Sahel unable to adequately respond – militarily and bureaucratically – to these threats (see Figure 2).

Figure 2. Current violence in the Sahel and military responses. Source: "Headquarters of West African G5 Sahel force in Mali attacked: sources," *Africa News*, June 29, 2018, http://www.africanews.com/2018/06/29/headquarters-of-west-african-g5-sahel-force-in-mali-attacked-sources/

In most parts of the Sahel, even a veneer of formal state authority is binding only in the major cities – and even that is a mixture of informal networks tied in with formal institutions. As one moves out from urban areas, this formal aspect of state authority and capacity dissipates quickly, forcing communities that are most affected by climate change to rely increasingly on informal authorities at best. At worst, these dynamics force the world's poorest and most impoverished people to be self-sufficient in one of the world's most underdeveloped areas with only the most limited infrastructure and extremely inhospitable terrain. Lastly, the peripheral regions of the Sahel that have not experienced state penetration in its modern form have been the sites of numerous violent conflicts over the years. This has ranged from inter-state wars (e.g., Chadian-Libyan Conflict, 1978-1987), ethnic and secessionist conflicts (e.g., five Tuareg Rebellions since 1916), and sustained banditry, where smugglers fight it out to maintain their illicit economic networks that are a default employment opportunity for most youth in the region. Figure 3 shows how closely aligned smuggling and trafficking networks are to conflict zones throughout the Sahel region (and their linkages beyond).

Figure 3. Smuggling and trafficking routes situated around conflict zones in the Sahel region. Source: Norwegian Center for Global Analysis, 2015.

Ecosystems in the Sahel are acutely sensitive to changes in weather patterns that affect basic sustenance issues of communities in the region, which subsequently alter political, economic, and security relations between communities. Meanwhile, changing weather patterns may have no or only

very limited bearing on the lifestyle of a white-collar professional in a city such as Bamako or Lagos, while it can have life-and-death consequences for communities in a transitory desert-jungle region. Such areas are inhabited by pastoralists, nomads that migrate between seasons, communities that engage in subsistence farming, and fishers that are dependent on some consistency in weather patterns. Climate change makes weather cycles, temperature, humidity, rainfall, and biomes more highly variable. Consequently, this leads to issues with soil nutrient regeneration, desertification, pests, and other agricultural and water cycle trends that are difficult to reverse. Such unpredictability increases the fragility of agriculture systems, making food supply systems extremely volatile. Small holder subsistence farming communities in the Sahel consist of a mixture of cash crops, subsistence crops, and a diverse livestock that are degraded by changing weather patterns. The average agriculture system in the Sahel makes it extremely difficult for farmers and pastoralists to absorb costs that result from erratic meteorological conditions. Unlike most Western states, governments in the Sahel do not provide insurance or subsidize changes in agricultural supply and demand issues.

Climate change distorts agriculture and food systems from production and distribution and all the way to consumption. This immediately puts a heavy premium on the issues of basic sustenance. Moreover, years of bad governance, endemic corruption, large numbers of chronically malnourished and impoverished people, illicit arms, human and drug trafficking networks, and protracted low-intensity conflict across national borders complicate and impede state and international responses to crises spurred by extreme weather changes (e.g. severe droughts, flooding, etc.).[4] Extremist violent non-state actors (VNSA) have leveraged these enumerable factors to gain a foothold and rely on informal networks, including ones that are associated with the political networks of some state officials, to enhance their power and reach. The injection of these new actors, alongside the tendency for deteriorating conditions to push politicians to search for new resources to maintain their patronage networks, destabilizes political systems in the Sahel region. This destabilization is particularly acute in countries like Mali and northern Nigeria where these networks are central to the real exercise of authority. In 2017, this combustible combination nearly pushed many Sahel states to the edge of possible famine at the same time that it destabilized existing political order.

As it currently stands, there are 30 million people in the Sahel that lack adequate nutrition, with over 12 million people requiring emergency food aid. Such information about these issues comes from the Integrated Phase

Classification (IPC), a multi-partner initiative, which is dedicated to providing "decision-makers with a rigorous, evidence- and consensus-based analysis of food insecurity and acute malnutrition situations, to inform emergency responses as well as medium- and long-term policy and programming." The IPC is a global standard that classifies five levels of food insecurity: Phase 1 (Generally Food Secure), Phase 2 (Borderline Food Insecure), Phase 3 (Acute Food and Livelihood Crisis), Phase 4 (Humanitarian Emergency) and Phase 5 (Famine/Humanitarian Catastrophe). Four countries across the Sahel and the Horn of Africa – Nigeria, Somalia, South Sudan and Yemen – are rated as an IPC Phase 4 due to food insecurity. Neighboring areas around LCB in Chad, Niger, Cameroon, and the peripheral regions of Mali are assessed as IPC Phase 3, while northeastern Nigeria is suffering with an IPC Phase 5. Spillover security effects are felt in neighboring regions, with refugees and insurgencies causing economic and political shocks (refer back to Figure 2). The LCB area that borders Chad, Niger, Nigeria, and Cameroon provides a field site to explicate the complex relationship between climate change, weak institutions, and civil war dynamics.

Civil War Dynamics in the Lake Chad Basin (LCB)

The LCB is one of the largest sedimentary groundwater basins in Africa. Its geographic location and character of its ecosystem make the LCB highly vulnerable to changing weather patterns. Approximately 17 million people rely solely on the LCB, and over 30 million people in the surrounding countries indirectly depend on the LCB as it constitutes a core part of the agriculture system that includes farming, livestock, fisheries, and grazing for pastoralists. Consequently, the regional economic system also depends on, and is built around, the LCB. However, as a result of rainfall variability, temperature changes, population growth, and unplanned irrigation, the water surface has shrunk by 90 percent (see Figure 4). As a result of climate change, it is rapidly shrinking, degrading the economic and social well-being of millions of people, thereby providing new battlespace opportunities for insurgents and local "big men" to exploit.
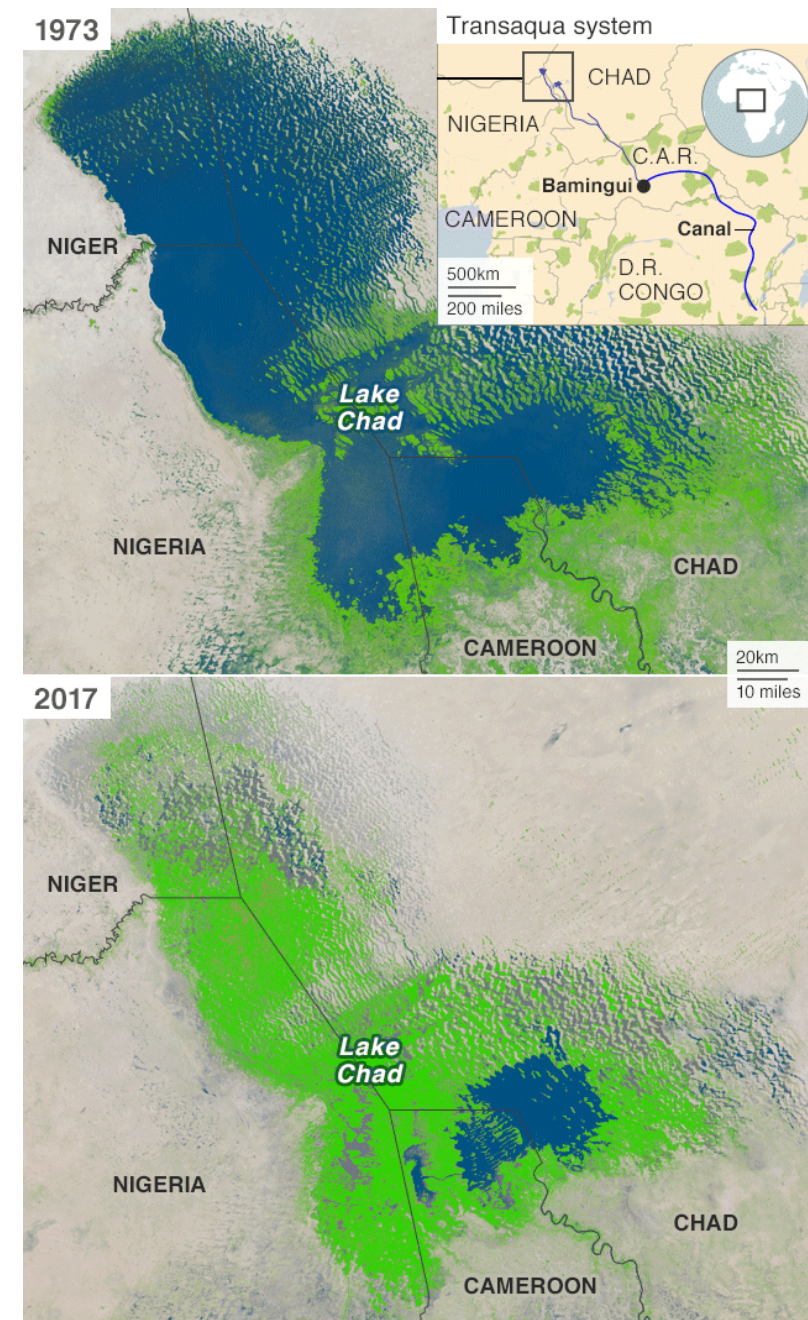

Figure 4. The dramatic decrease in water availability in the Lake Chad Basin from 1973 to 2017. Source: Will Ross, "Lake Chad: Can the vanishing lake be saved?" *BBC*, March 31, 2018, https://www.bbc.com/news/world-africa-43500314
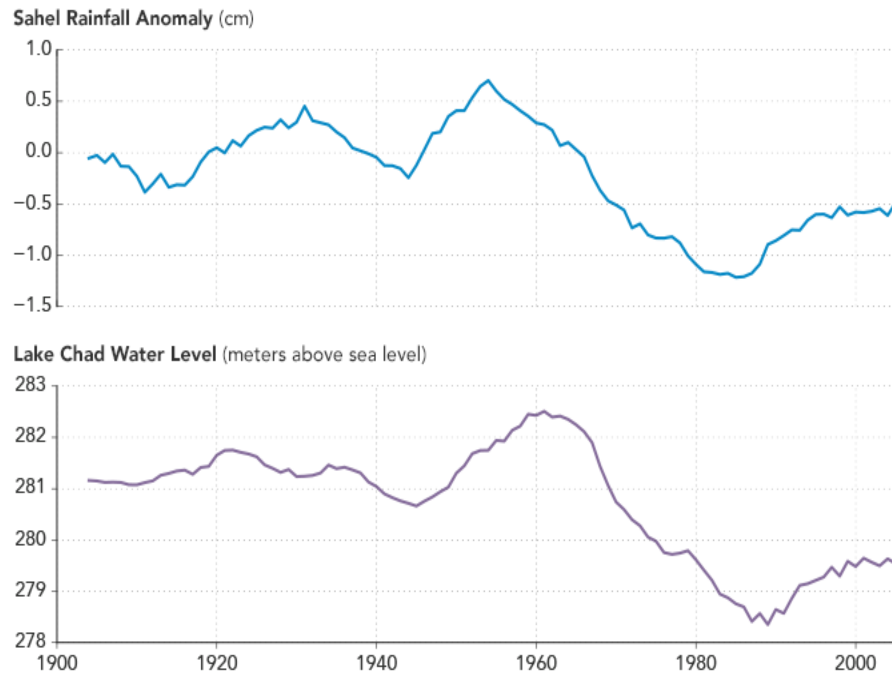
Figure 5. Rainfall and Lake Chad water levels from 1900 to 2010. Source: Kathryn Hansen and Paul Przyborski, "The rise and fall of Africa's Great Lake," *NASA: Earth Observatory*, November 9, 2017, https://earthobservatory.nasa.gov/Features/LakeChad.

The area around Lake Chad has historically been a neglected peripheral region of surrounding countries where state institutions have the least capacity. The region was long marked by banditry, transnational smuggling networks, and acute food insecurity. Thus, it has been perpetually in need of emergency food aid. The rise of an ideologically driven insurgent group – Boko Haram – made an already dire situation worse as the LCB became a secure rear-base for Boko Haram leadership. Now, insurgent activity, government counter-measures, and international military interventions reinforce the vicious cycles of violence as climate change has become endogenous to the regional conflict. Finally, Figure 5 illustrates how dependent the LCB is on rainfall in the Sahel. Current trends make it unlikely to return to pre-1960 water levels.

Climate Change and 'Weaponizing' the Agriculture System

Boko Haram began as a localized, ideologically inclined rebel movement that sought to challenge existing secular and religious power relations in the Borno state of Nigeria. Boko Haram clerics, charismatic preachers influenced by Wahhabi and Salafist variants of Islam of the Gulf region (and some with financial assistance from sympathizers in the Persian Gulf), highlighted the long-neglected areas of northeastern Nigeria as a failure of the traditional secular power structure. Simultaneously, the clerics attacked the local religious hierarchy that adheres to the more inclusive Sufi version of Islam as both apostates and complicit in the oppression of the people – since they had clientelist relations with the secular power centers of Nigeria into which the religious establishment in Nigeria had largely integrated through formal and informal linkages. Boko Haram re-contextualized their local crisis in terms of the global jihad, to be increasingly seductive to the minds of the disenfranchised and disenchanted youth, under the auspices that Western education/enlightenment was a sin. This phenomenon unifies global and local circumstances for easy consumption with the Salafist-Jihadist narrative as the unifying theme.

Transnational VNSAs such as Al-Qaeda (AQ), Al-Qaeda in the Islamic Maghreb (AQIM), and the Islamic State (IS) exploited local crisis contexts to the benefit of expanding the jihadist franchise. As it stands, food shortages, underdevelopment, disenfranchisement, and any number of local grievances become ammunition for the extremist ideology as the VNSAs have effectively subsumed localized grievances into their global ideology. Boko Haram initially gained an ideological foothold in the Borno state of Nigeria through its slow Islamic proselytization. Given the socio-economic interconnectedness in the region between Niger, Chad, Cameroon, and Nigeria – where people travel freely due to a lack of border controls and indeed the regional economy is built on trans-border networks – Boko Haram's message of altering existing authority relations spread readily across national borders but without the same success as seen in the Borno state.

Boko Haram transformed into a classical guerilla group with a firm ideological basis, an established organizational structure, a core group of believers, and a territory-centric military strategy. Due to a lack of state capacity in the region, Boko Haram killed, coerced, and/or co-opted regional informal governance structures to embed their movement within the fabric of society. This helped expand their influence and territorial control. Though harsh and militant, Boko Haram became a parallel governance structure alongside ineffective states. Within this context, Boko Haram realized both the revenue generation capacity of the extremely strained regional agriculture system due to changing weather patterns and the advantages of "weaponizing" it for recruitment and a broader military strategy.

Rainfall variability impacted subsistence farming, temperature changes decreased grazing lands, and shrinking water levels reduced fisheries; each shift made food into a precious commodity. Boko Haram imposed taxes on both production and accessibility aspects of the agriculture system, where controlling access became a core mechanism of asserting control. The strains of the agriculture system from climate change, shrinking water sources from unplanned irrigation, depleted agricultural land, and shrinking grazing land suddenly become endogenous to the conflict dynamics in the LCB. The counter-response by regional governments reinforced the vicious cycle.

The Nigerian government's coordinated response alongside the armed forces from Cameroon, Chad, and Niger had a direct and positive military impact, drastically decreasing Boko Haram's territorial control. It compelled Boko Haram to fall back on their rear-base of support in the LCB. As a direct consequence of military action, population displacements, and inadvertent collateral damage due to the counterinsurgency campaign, this led to a precipitous drop in agricultural production. Consequently, these factors undermine the regional economic system. In northeastern Nigeria, Boko Haram is not only extorting rural populations but is killing prominent farmers and dispersing landmines in the fields thereby reducing the ability of the remaining population to harvest out of fear for their safety. Finally, crops are destroyed and food stores pillaged, exacerbating the food security crisis, as wheat production in northeastern zones has declined by 80 percent, worsening Nigeria's trade deficit in staple foods.

Displacement not only disrupts agricultural production in areas where farmers move away or are killed but also hampers the productivity of in-migration regions where internally displaced persons (IDPs) relocate. This situation has resulted in staple food price spikes of between 50-100 percent, making it difficult for many communities to survive. In the Borno state, cereal production collapsed between the years 2010-2015, with decreases in sorghum (87%), rice (67%), and millet (55%). Worse, the Borno state, which historically produced about a quarter of wheat in Nigeria, no longer grows it. This was the economic center of the agriculture-based regional economy. Drops in production have also had a direct impact on decreasing the purchasing power of affected populations, while the destruction of economic infrastructure also has made food accessibility difficult, compounding production-induced scarcity. A "weaponized" food system that was already under extreme strain and combatant strategies and counter-strategies have created a vicious cycle rendering third party intervention and food aid the only remaining option

to alleviate the suffering. This, of course, only creates further dependencies and moral hazards, making the prospect of a long-term solution much more difficult for the international community to achieve.

The aid community faces severe challenges, including deliberate barriers due to endemic corruption. Formal government bureaucrats attempt to turn food aid into economic windfalls. The Nigerian military has failed to maintain control in the areas they have liberated, even failing to control territories in Nigeria liberated by neighboring military forces. The traditional informal governance structures that have provided law and order have been completely destroyed by insurgents and criminal networks. In these lawless environments where food aid is most needed, aid workers are subject to harassment; aid convoys are interdicted by bandits and local vigilantes. In many cases, more resources (and foreign peacekeeping troops) are dedicated to protecting aid convoys than trying to resolve local level conflicts, and the violent politics that sustain them.

In this precarious "environment," strained agriculture and food systems are "weaponized" to the advantage of groups such as Boko Haram, which leverage food insecurity in the LCB as a tool for recruitment. There is a distinction, however, as changing weather patterns, strained ecosystems, and agricultural production as a primary source of employment, has a complex link to insurgent recruitment. The combination of such factors makes the LCB an acute grievance environment, where leveraging one's capacity for violence, whether on behalf of smugglers, ideologically driven insurgents, or local vigilante groups, is an optimal source of income. Boko Haram, along with other localized violent groups, are exploiting the acute grievance environment, recruiting a mixture of believers and accidental guerillas into their midst. In sum, changing weather patterns have now become an elemental part of the civil war dynamic that is directly contributing to processes of violence in the Lake Chad Basin battlespace.

Conclusion

Changing weather patterns directly shape civil war dynamics. We use our case study of the Lake Chad Basin to highlight with added urgency how the impact of climate change has fused into the micro-level dynamics of violence. Moreover, these violent patterns shape the overall battlespace making a dire situation worse, enhancing acute difficulties for the international community working to address both humanitarian and security concerns in these regions. Indeed,

our ongoing research in central Mali indicates that the Inner Niger Delta (*Macina*) in central Mali faces a similar threat based on climate change and local level violent actors as formal state institutions and the informal patronage-based aspects of that government's political authority break down. Across the Sahel, climate change is altering livelihoods, straining agriculture systems, and VNSAs are 'weaponizing' the negative ramifications of climate change to their advantage.

We do not make causal claims about climate change and the on-set of conflict, but climate without a doubt, impacts the nature of civil war dynamics once violence erupts. Proper investigation into the impact of climate change in civil wars requires us to unpack the complex micro-level and institutional level dynamics that are nested within the broader human-terrain of the Sahel. That is, we need a better understanding of how individuals and communities relate to their geographic position, environment, and the broader ecosystem. It is a novel way to contextualize civil wars since existing literature assume away human relations to the broader physical geography and little discussion is ever found on the complex relationships that exist between individuals, the place they inhabit, and the broader ecosystem.

Our analysis on the Lake Chad Basin (and our ongoing field research in Mali) clearly indicates that it is the negative ramifications of ecosystem changes that create a new 'social space' that VNSAs can exploit. While many people in the Sahel have been provided or have access to various modern tools and technologies, major impediments often preclude their maximum benefit including anachronistic technical, social, cultural or economic practices that are far removed from modernity. This is an ironic paradox as members of Boko Haram preach anti-Western ideals through technology (mobile phones) and social media (YouTube) that was invented by the West. If there is to be any long-term stability in the Sahel – and with the expectation that weather trends will continue decreasing livability in that environment – the international community and governments in the region need to develop strategies and ways of circumventing insurgents, terrorists, and local "big men" that exploit such precarious climate shocks. This will require state capacity to be exercised in a way that curtails the development of new battlespace dynamics that are fueled by the uncertainty created by dramatic ecosystem disruptions caused by volatile weather patterns. Achieving such an 'ideal' however, seems difficult to achieve given how various armies in the Sahel have engaged in coups, or are coup-proofed (preventing them from being effective in addressing internal and regional threats). Stable governments

and reliable militaries are hard to come by in the Sahel, and it appears the international community will need to be there (as a mediator) for the foreseeable future until the formal and informal institutions in each country can find a suitable equilibrium that reduces the payoffs and local incentives for engaging in organized violence and criminal behavior.

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NOTES

1   Stathis N. Kalyvas, *The logic of violence in civil war* (New York: Cambridge University Press, 2006).
2   Solomon M. Hsiang, Kyle C. Meng, and Mark A. Cane, "Civil conflicts are associated with the global climate," *Nature* 476 (2011): 438-441.
3   Jon Barnett and W. Neil Adger, "Climate change, human security and violent conflict," *Political geography* 26, no. 6 (2007): 639-655; Marshall Burke, John Dykema, David B. Lobell, Edward Miguel, and Shanker Satyanath, "Incorporating climate uncertainty into estimates of climate change impacts," *Review of Economics and Statistics* 97, no. 2 (2015): 461-471.
4   For example, recent research pushes back against claims that the draught in Syria acted as a 'threat multiplier' in the current Syrian Civil War (2011-Present). Jan Selby, Omar S. Dahi, Christiane Fröhlich, and Mike Hulme, "Climate change and the Syrian civil

war revisited," *Political Geography* 60 (2017): 232-244.

5   Halvard Buhaug, "Climate not to blame for African civil wars," *Proceedings of the National Academy of Sciences*, *107*, no. 38 (2010): 16477-16482.

6   For the purposes of this essay, we define Sahel countries as: Burkina Faso, Chad, Cameroon, Mali, Mauritania, Niger, Nigeria, Senegal, and The Gambia.

7   Nils Petter Gleditsch, "Whither the weather? Climate change and conflict," *Journal of Peace Research* 49, no. 1 (2012): 3-9.

8   Some of these factors make up the various traps identified in some of the poorest countries in the world. Paul Collier, *The bottom billion: Why the poorest countries are failing and what can be done about it* (New York: Oxford University Press, 2008).

9   Robert H. Bates, *When things fell apart: State failure in late-century Africa* (Cambridge, UK: Cambridge University Press, 2008).

10   The best elaboration of this system of governance is in: Jean-François Bayart, *L'État en Afrique* (Paris: Fayard, 1989).

11   Michael Bratton, "Formal versus informal institutions in Africa," *Journal of Democracy* 18, no. 3 (2007): 96-110.

12   Michael E. Mann, Stefan Rahmstorf, Kai Kornhuber, Byron A. Steinman, Sonya K. Miller, and Dim Coumou, "Influence of anthropogenic climate change on planetary wave resonance and extreme weather events," *Scientific Reports* 7, no. 45242 (2017), https://www.nature.com/articles/srep45242.

13   Colin H. Kahl, *States, scarcity, and civil strife in the developing world* (Princeton: Princeton University Press, 2006); William Reno and Jahara Matisek, "A New Era of Insurgent Recruitment: Have 'New' Civil Wars changed the Dynamic?" *Civil Wars* (2018): 1-21.

14   Paul Staniland, "Cities on fire: Social mobilization, state policy, and urban insurgency," *Comparative Political Studies* 43, no. 12 (2010): 1623-1649.

15   Molly Jahn, Buddhika Jayamaha, William S. Mulhern, Douglass E. Ross, Matthew A. Rose, Gregory F. Treverton, "Global food system stability and risk: At the nexus of defense and development," *Thomson Reuters*, April 2018, https://www.thomsonreuters.com/content/dam/ewp-m/documents/thomsonreuters/en/pdf/reports/global-food-system-stability-and-risk-0718.pdf.

16   J.J. Messner, "Fragile States Index 2018: Issues of fragility touch the world's richest and most developed countries in 2018," *The Fund for Peace*, April 19, 2018, http://fundforpeace.org/fsi/2018/04/19/fragile-states-index-2018-issues-of-fragility-touch-the-worlds-richest-and-most-developed-countries-in-2018/.

17   Refer to: *The Fund For Peace Index of Fragile States*, http://fundforpeace.org/fsi. Ungoverned Spaces are areas within a national boundary where state administrative authority, de-jure sovereignty of the state, does not reach. In every single Sahel country, state authority dissipates the further you move from the administrative capital. For a longer discussion, see: Anne Clunan and Trinkunas A. Harold, eds. *Ungoverned spaces: Alternatives to state authority in an era of softened sovereignty* (Palo Alto, CA: Stanford University Press, 2010).

18   Jean-François Bayart, Stephen Ellis, and Béatrice Hibou, *The Criminalization of the State in Africa* (Bloomington, IN: Indiana University Press, 1999); James McDougall and Judith Scheele, eds., *Saharan frontiers: space and mobility in Northwest Africa* (Bloomington: Indiana University Press, 2012); Fieldwork, Mali, August 2018.

19   Tor A. Benjaminsen, Koffi Alinon, Halvard Buhaug, and Jill Tove Buseth, "Does climate change drive land-use conflicts in the Sahel?" *Journal of Peace Research* 49, no. 1 (2012): 97-111.

20   Stephen A. Harmon, *Terror and insurgency in the Sahara-Sahel region: corruption, contraband, jihad and the Mali war of 2012-2013* (New York: Routledge, 2016).

21   Tor A. Benjaminsen, "Does supply-induced scarcity drive violent conflicts in the African Sahel? The case of the Tuareg rebellion in northern Mali," *Journal of Peace Research* 45, no. 6 (2008): 819-836; Gary Busch, «The logistics of the war in the Sahel,» *Stability: International Journal of Security and Development* 2, no. 2 (2013); Field work, Mali, August 2018.

22   Patrick Gonzalez, Ronald P. Neilson, James M. Lenihan, and Raymond J. Drapek, "Global patterns in the vulnerability of ecosystems to vegetation shifts due to climate change," *Global Ecology and Biogeography* 19, no. 6 (2010): 755-768; Brett R. Scheffers, Luc De Meester, Tom CL Bridge, Ary A. Hoffmann, John M. Pandolfi, Richard T. Corlett, Stuart HM Butchart, et. al., "The broad footprint of climate change from genes to biomes to people," *Science* 354, no. 6313 (2016), http://science.sciencemag.org/content/354/6313/aaf7671?casa_token=u6xAVMxvx_gAAAAA:rIaMyX5NSg94._rQyWHOCn7JHC90qev0OTUhY_y4BJhBR0dCTRM_CbhY8kEXyprC4Bjq-fzzZZBa-Dw

23   Alex Vines, "Combating light weapons proliferation in West Africa," *International Affairs* 81, no. 2 (2005): 341-360; Francesco Strazzari and Simone Tholens, "'Tesco for Terrorists' Reconsidered: Arms and Conflict Dynamics in Libya and in the Sahara-Sahel Region," *European journal on criminal policy and research* 20, no. 3 (2014): 343-360; Asim Zia and Courtney Hammond Wagner, "Mainstreaming early warning systems in development and planning processes: Multilevel implementation of Sendai framework in Indus and Sahel," *International Journal of Diasaster Risk Science* 6, no. 2 (2015): 198-199.

24   "Instruments of Pain: Conflict and Famine," *International Crisis Group*, April 13, 2017, https://www.crisisgroup.org/global/instruments-pain-conflict-and-famine; "IPC Overview and Classification System," *IPC*, 2018, http://www.ipcinfo.org/ipcinfo-website/ipc-overview-and-classification-system/en/.

25   For more elaboration on the IPC phases and its framework, refer to: "Overview of the Integrated Phase Classification (IPC)," *Famine Early Warning Systems Network*, May 2017, http://fews.net/sites/default/files/IPC%20Overview_May_2017_final.pdf.

26   "Instruments of Pain: Conflict and Famine," *International Crisis Group*, April 13, 2017, https://www.crisisgroup.org/global/instruments-pain-conflict-and-famine.

27   Uche T. Okpara, Lindsay C. Stringer, Andrew J. Dougill, and Mohammed D. Bila, "Conflicts about water in Lake Chad: Are environmental, vulnerability and security issues linked?" *Progress in Development Studies* 15, no. 4 (2015): 308-325.

28   Alexander Thurston, *Boko Haram: the history of an African jihadist movement* (Princeton: Princeton University Press, 2017).

29   Virginia Comolli, *Boko Haram: Nigeria's Islamist insurgency* (New York: Oxford University Press, 2015); Mike Smith *Boko Haram: Inside Nigeria's unholy war* (London: IB Tauris, 2015).

30   "How Boko Haram is killing off farms," *IRIN News*, December 17, 2015, http://www.irinnews.org/analysis/2015/12/17.

31   "Boko Haram blamed for farmers deaths in Maiduguri," *Al Jazeera*, May 15, 2017, https://www.aljazeera.com/news/2017/05/boko-harm-kills-nigerian-farmers-170515134702648.html; Mustapha Muhammad; "Boko Haram Conflict Cuts Nigeria Wheat Crop as Farmers Flee," *Bloomberg*, April 20, 2017, https://www.bloomberg.com/news/articles/2017-04-19/boko-haram-conflict-erodes-nigeria-s-wheat-crop-as-tems in development and planning processes: Multilevel implementation of Sendai framework in Indus and Sahel," *International Journal of Disaster Risk Science* 6, no. 2 (2015): 189-199.

farmers-flee.

32   This is a result of increased pressure on what are already fragile food systems. For example, in the Adamawa state of northeastern Nigeria, a massive influx of IDPs has exacerbated existing climatic pressures and land constraints on agricultural systems. Most migrants are farmers, thus their coping strategies revolve around agricultural activities in their homes. This causes increased land disputes, expansion of conflict and food system deterioration, which leads to reduced output. Emmanuel Akinwotu, "Drought worsens deadly battle between Fulani herdsmen and farmers in Nigeria," *The Guardian*, January 3, 2017.

33   This is increasingly a concern as IDPs relocate back to their traditional homes, which have severely degraded infrastructural and agronomic characteristics, which will combine with farmer vulnerability and limited access of aid, making recovery extremely difficult. "FAO in emergencies and Western Africa and the Sahel," *Food and Agricultural Organization (FAO) of the United Nations*, 2017, http://www.fao.org/emergencies/regions/western-africa/intro/en/.

34   "Nigeria: Grain and Feed Annual," *USDA Foreign Agricultural Service*, April 6, 2017, https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Grain%20and%20Feed%20Annual_Lagos_Nigeria_4-6-2017.pdf.

35   "Instruments of Pain (IV): The Food Crisis in North East Nigeria," *International Crisis Group*, May 18, 2017.

36   Interview, Médecins Sans Frontières (MSF) logisticien, Mali, August 2018.

37   Interview with a military officer from Niger who has had to deal with the inadequacy of the Nigerian military, October 2018.

DISCUSSING CLIMATE CHANGE ACTION WITH AMBASSADOR THERESE ADAM
Interview conducted by Meagan Torello

Could you please discuss your background in the foreign service?

For 28 years I was in the Swiss foreign service serving in different functions. I started in the late 80s as a foreign service officer. First, I was an analyst for the Africa region and after this period I was sent abroad and was the Head of Mission in the Republic of Niger. As I have an environmental science background, I was asked to take the lead of the global environment division in the Ministry which was a new division created shortly after the Rio Convention. I was also in charge of representing the Swiss government for the UN Convention to Combat Desertification. For five years I did this among many other tasks, and it was a good initiation to multilateral negotiations. Then I was the Assistant Director-General of the Directorate of Bilateral and Multilateral Cooperation of the Ministry and was also the Director of Cooperation for Eastern European countries for 9 and a half years. When I left this position, [Kosovo] had gotten their independence, making it very rewarding to be part of the peacebuilding process. Later, as an Ambassador to Mozambique, I was very much involved in peacebuilding issues too. In a nutshell, these are some of the highlights.

From your experience as a diplomat, do you feel that states are adequately addressing the Sustainable Development Goals (SDGs) which concern the environment in their foreign services (mainly goals 6, 7, 11, and 12, which are clean water and sanitation, clean and affordable energy, sustainable cities and communities, and sustainable consumption respectively)?

This question is many-fold. Internally, the Ministry of Foreign Affairs has a coordination with domestic affairs ministries for negotiations and also reports what has been implemented. I wouldn't say that this is the same for every country, but a lot of European countries, namely Nordic countries, follow a similar framework. In this respect, I can say yes, countries are addressing the SDGs, because we have to represent the whole agenda through negotiations. In Switzerland, specifically in relation to the UN Agenda 2030 for Sustainable Development, the Ministry of Foreign Affairs does the reporting and coordination to implement the SDGs.

To address the specific targets, I would add goal 13 because we must take urgent action to combat climate change. I think they are all well

considered except for goal 11 about city planning because it is considered to be a sub-national agenda item. Another important factor regarding the SDGs in many countries, cooperation or support of least-developed countries is integrated in the Ministry of Foreign Affairs. It's not a separate agency, and in this respect, there is even a stronger link to implementation of support and partnerships to pursue goals like drinking water, sanitation, or access to affordable and green energy which cannot be supported by LDCs alone.

The Paris Climate Agreement has been hailed as a monumental diplomatic success. Drawing from your experience as an Ambassador, what is your opinion on the achievements of the Paris Climate Agreement?

I absolutely think that the Paris Agreement was a landmark in climate change management. I was involved with the Rio Convention in the 1990s and the Kyoto Protocols which were designed solely for industrial countries to reduce their greenhouse gas emissions. Up until the Paris Agreement, I think there was a top-down approach to setting targets. They negotiated for four years or so to get these targets fixed because the UN framework to combat climate change established norms where every party to the convention must agree on the method of reducing certain targets.

In the negotiation of the Paris Agreement there was a shift. It took about three years to get out of the top-down framework. The Paris Agreement took a completely different approach with the same norms, but all the countries are contributing through self-designed targets to reduce their greenhouse gas emissions and to undertake adaptation measures to protect against environmental hazards. This mechanism is called the "state-determined contributions" method, where each country sets their own country-specific targets. For this reason, I say it is bottom-up since there is no set negotiated target for all countries, as seen with the Kyoto Protocols.

However, there should still be a reduction of greenhouse gas emissions so that the global average temperature does not surpass 2 degrees Celsius and every effort should be made to go below 1.5 degrees Celsius. Of course, it is the aim not to exceed 2 degrees Celsius, with the reference being the pre-industrial temperature average. We are already 1 degree above pre-industrial levels, and now there is a big fear that by 2030 the 1.5-degree mark will be surpassed anyway. We are already seeing the huge environmental impact under the 1.5-degree average with draughts, storms, and floods. There is evidence that the number of environmental hazards are increasing along with their intensity and frequency. So now there is a big fear, that the efforts countries have made to reduce their

greenhouse gas emissions are not enough and that sum of all the efforts will not be enough to reduce emissions to what is needed. But in any case, the Paris Agreement is a great success because at least now there is a base to go forward. In 2020 there is a conference where all countries who agreed on the Paris Agreement will announce their commitments and plants for emissions reduction and adaption. There will also be a debate for what additional efforts are needed. To me, this was a great achievement.

In your opinion, has President Donald Trump's withdrawal from the Paris Climate Agreement poked a significant hole in the framework and overall success of the Agreement?

There are different considerations to that. The UN scientific panel's report (ICCP) which stated that even if temperatures go up to 1.5 degrees Celsius, the environmental consequences will still be disastrous. There will be a lot of negative effects on the environment, the economy, and it will have social implications as well. It's been known for quite a long time that climate change is the biggest threat of the century and it's very pressing to act. So, to have one country not involved in this common action is a big loss.

On the other hand, the Paris Agreement is up to the fight because the other countries didn't follow the U.S.'s exit. I think that's already a very good sign that all the countries and political leaders – the European Union, China, or India – have remained. The European Union also just indicated they would make greater efforts after the release of this report. I think it's really a move in the right direction, but the question is whether it will be enough. In the U.S. there are also a lot of private and sub-national efforts to reduce emissions but, of course, this does not compare to the efforts an entire nation can commit to. However, ultimately this is a big loss.

Economic stability and security are major precursors to sustainable development. How can wealthy states better invest in developing states to ensure environmentally sound practices are implemented?

There are a lot of possibilities, particularly in the energy production and consumption fields. Since the existence of the Rio Conventions, the Global Environment Facility (GEF) has been established to focus on energy efficiency, biodiversity, and deforestation in less wealthy countries. A lot of programs have already been financed by this multilateral fund along with others. Of course, the Paris Agreement also has established the Green Fund which is a commitment of about $100 billion per year from

wealthy countries specifically for energy and adaptation measures and programs in LDCs. For instance, in many countries there are a lot of losses in the production of food after harvest in storage. There are conservation technologies to save these products which wealthier countries can invest in. This type of investment could only be positive for the economy since there is no loss of food which ultimately creates more economic security.

Women and girls face more challenges than men when it comes to climate change since they are statistically more likely to be impoverished, live in environmentally insecure areas (i.e. living close to or in flood plains). They also often bear the sole burden of childcare, thus making relocation and the ability to easily source drinking water and food more difficult. Where can international institutions and governments begin to help remedy and alleviate some of these climate burdens/pressures?

It's a well-established fact that the negative impacts of climate change affect women and girls more as the victims of such hazards. Floods and draughts impact access to drinking water when there may already be little access. This is not only isolated to rural areas where the problem is more extensive, but also in urban areas also face similar issues. There's not always running water in houses, requiring women to get drinking water, which is a very hard and time-consuming task even in normal climate conditions. Investing in drinking water facilities is a very important project which can greatly help women and make it safer for them since they won't have to travel for hours every day just to get drinking water. It's also about sanitation. It's important to see that sanitation problems are tackled to combat disease. For example, investing in toilets, or public toilets if it's not possible in every house, will provide for safer management of sanitation for healthier environmental conditions.

The government can also invest in amendments or new laws which grant women access to land and have their own property titles. Often, women cultivate land but do not have the right to own it. This can be changed. Women must also have access to finance mechanisms so that they can get credit to start a business if they have lost their land due to climate change impacts or they cannot cultivate anymore, thus demanding a new means to sustain their families. If women don't have access to credit, they will continue to get more and more impoverished. Access to finance is a very important tool to raise the status of women and to involve them in public life. Women's financial advancement is a good way to ensure a better outlook for a country in regard to climate change. They must also have access to education for themselves or their children

since they are more sensitive to the fact that all their children will succeed.

How can organizations like the UN help states and local governments to ensure women's and girls' security in environmental terms?

It's through the kinds of support systems I have described. In addition, it is important to support adaptation measures to prevent climate change's environmental hazards since it's more economically sound to have prevention measures than to constantly repair damaged infrastructure. If there is some external support from the UN or other organizations, they should never assume that women have the same access to whatever they implement. Often, a gender lens is not applied enough or at all, but there is a possibility for outside organizations to support women through their programs. Again, there must also be policy dialogues to get women and girls better access to education. This a long-term project but it's happening and it's an important way to counter environmental damages as well.

Do you believe that the security costs and risks of climate change are often overlooked?

Oh, yes. You cannot look to only one hazard and ask, "Is it due to climate change or not?" In the last 10 years there have been so many more hazards – flood, draughts, and so on. It's destroying human lives physically, emotionally, and infrastructurally. Climate change has broken bridges, roads, harbors, and social facilities like schools and houses which are big emotional and infrastructural losses. If a city is damaged, their population must reconstruct on their own since the city cannot finance everyone's housing and they have work for years to rebuild what they once had. It's a huge loss in this sense.

In the transition period until nations get into a better situation to manage global warming, there will be many more hazards ahead. Financing protection and adaptation measures are very important when possible. It's an investment, yes, but it's less costly to protect a coastal zone with a wall than to rebuild the harbor, houses, the streets, and ships each year. We must also consider that rising sea levels has a huge impact in certain regions – like on islands and lowland nations like Bangladesh. For these countries, every second year the land is inundated by salt water and the it becomes unusable for agriculture use. Then people are driven to leave since they can no longer sustain themselves there. Frequent draughts in some regions also prevents cultivation and drives people to leave. Now there is forced migration induced by climate change which has sparked a lot of debate. In some regions, if the land

gets poorer and poorer [in quality], the possibility for conflict rises politically and socially. Environmental degradation is a driving factor of conflict – this is for sure. You can now say that there is forced migration because of violence, the environment, or political and social changes, but there is evidence that in some areas it's [only] global warming, droughts, and coastal erosion which are clearly driving people out. The issue of forced climate migration will become more important these coming years and the international community must consider its impact on legal agreements on migration and the internationally recognized definition of refugees along with security costs.

Arguably, all the SDGs concern environmental change. Reduced inequalities, infrastructure development, education, and gender equality can all be tied to means of avoiding the 2 degrees Celsius temperature cut-off. Are diplomats, governments, and international organizations considering this fact enough?

We are at the beginning of considering these policies in a different way. In the last century it was a much more sectorial, specialized approach in addressing climate change. It was looked at much more technically and policymakers did not look at the linkages between economic and social aspects. You mention inequalities such as gender, as a socially important issue, which wasn't considered as a means to mitigate the effects of climate change. It's now recognized that these critical dimensions are interlinked. Policies must be integrated, transformative approaches which rely on sustainable development based on the SGDs as a systemic understanding which links the economy, the environment, social, and political processes. Policies may be planned so differently by considering all social inequalities such as ensuring affordable public transport for all to reduce pollution and energy consumption.

There are also efforts by private firms, NGOs, and international organizations which are thinking and acting in this capacity. I would say we are in the beginning of a shift in implementing socially-aware policies; there are examples, but we are still not fully there yet. Governments must adapt comprehensive changes in policy not only geared towards reducing greenhouse gases, but also considering the social implications which continue to drive climate change. If we abolish subsidies for fossil fuels (for countries who are producing and consuming) this will of course have a positive environmental and social impact. If a country decides to facilitate installation of solar energy it does not need extra money, it just needs to invest what it has differently – this is part of reorienting governments' thinking. It's challenging, but governments can really do a lot without spending a cent more.

Can civilians play a larger role in encouraging their governments and international organizations to better address their environmental concerns?

Yes, of course. For example, there are a lot of small-initiatives by civil society organizations and NGOs which address energy consumption and production methods or aim to reduce waste. They are encouraging their governments to reduce CO2 emissions and advocating for new laws and incentives to change [energy] production methods. Subnational efforts have a very important role to play because they have a much closer relationship to civil society. Local governments can take common initiatives with their inhabitants, as seen in the communities which are adopting zero-waste policies. This type of shift must engage civil society from the beginning, and it needs the commitment of the local government or municipality. For instance, communal lands (in smaller cities and counties) can be given for use for urban gardening. There are a lot of local initiatives and the civil society and NGO advocacy role is very important in relation to the SDGs since the UN Agenda 2030 is having states submit voluntary reports on implementation and debates with civil society. This is not to say every country is doing this, but it's an incentive imbedded in the SDGs which civil society organizations can rely on. Both civilians and private sector organizations can call up their government and say they want to implement and be associated with the SDGs based on this report. They have an anchor: the SDGs.

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"Making America Great Again" Against the Backdrop of an
"Africa Rising"?
The Trump Administration and Africa's Marginalization
within U.S. Foreign Policy

Peter J. Schraeder

ABSTRACT

This article explores what Donald J. Trump's victory in the 2016 presidential elections has meant for U.S. foreign policy toward Africa. It is devoted to answering a simple question: What do the policies associated with "Making America Great Again" mean for an African continent in the midst of profound transformations that this special issue of *The Journal of Diplomacy and International Relations* has referred to as "Africa rising"? Despite expectations that a successful businessman would usher in a new era of U.S. trade and investment, the reality of U.S.-Africa relations has been a period of continued White House neglect, intensified by unfilled Africa-related posts throughout the national security bureaucracies and especially the State Department. The Trump administration has instead pursued a military-based, counter-terrorism approach originally set in place by the George W. Bush and largely continued under the Barack Obama administrations. Other broad foreign policies, especially those related to immigration, have had negative repercussions on the African continent. Africanists have been particularly dismayed by racist, Africa-related statements, most notably by President Trump. The net result has been the exact opposite of "Making America Great Again," at least within the context of U.S.-Africa relations. The Trump administration has instead marginalized a rising Africa within the regional hierarchy of U.S. foreign policy, in essence ceding the field of maneuver for the immediate future not only to U.S. allies, such as France and Great Britain, but U.S. competitors, most notably a rising China and a resurgent Russia.

INTRODUCTION

On November 8, 2016, first-time political candidate Donald J. Trump defied expectations and was elected president of the United States on the campaign theme of "Making America Great Again," taking office on January 20, 2017. He defeated seventeen rivals during the Republican Party primaries, as well as Democratic Party nominee Hillary R. Clinton during the general campaign. Trump's successful electoral campaign was built on an isolationist-inspired, conservative populism that emphasized four broad foreign policy themes: the destructive domestic economic impacts of unfair free trade agreements; the need to build walls to reduce the number of undocumented immigrants entering the U.S., including the deportation of those already residing within the country; the need to reduce U.S. military intervention abroad, most notably the termination and further avoidance of "dumb wars" in the Middle East, so that U.S. financial resources can be properly spent rebuilding America and especially its infrastructure; and the need to more proactively protect the American homeland from terrorist attacks from abroad. Trump's campaign themes were aptly captured in his book, *Crippled America*, which was re-released during the presidential campaign under a new title, *Great Again: How to Fix Our Crippled America*.[1] Africa not surprisingly was completely ignored in these books. It was also barely mentioned during the presidential campaign, and when it was, the focus was on the more sensationalist side of U.S.-Africa relations. Of particular note was the 2011 killing of U.S. Ambassador Robert Stevens in Benghazi, Libya, and the politically-inspired Benghazi hearings by a Republican-controlled House of Representatives that were designed to wound the presidential campaign of Hillary Clinton, who served as Secretary of State under President Barack Obama.[2]

The primary purpose of this article is to provide initial reflections about what Trump's victory has meant for U.S. foreign policy toward Africa. Specifically, now that we have twenty observable months (January 2017-September 2018) of U.S.-Africa relations under the Trump administration, this article is devoted to a simple question: What do the policies associated with "Making America Great Again" mean for an African continent in the midst of profound transformations that this special issue of *The Journal of Diplomacy and International Relations* has aptly referred to as "Africa rising"? Despite expectations that a successful businessman who was the co-author of a popular book, *Trump: The Art of the Deal*, would usher in a new era of U.S. trade and investment in Africa's rising economies, the reality of U.S.-Africa relations has been a period of continued White House neglect, intensified by unfilled Africa-related posts throughout the national security bureaucracies and especially the State Department. The Trump administration has instead pursued a military-based, counter-terrorism approach originally set in place by the George W. Bush administration

(2001-09) and largely continued under the Obama administration (2009-17). Other broad foreign policies, especially those related to immigration, have had negative repercussions on the African continent. Africanists have been particularly dismayed by racist, Africa-related statements, most notably by President Trump. The net result has been the exact opposite of "Making America Great Again," at least within the context of U.S.-Africa relations. The Trump administration has instead marginalized a rising Africa within the regional hierarchy of U.S. foreign policy, in essence ceding the field of maneuver for the immediate future not only to U.S. allies, such as France and Great Britain, but U.S. competitors, most notably a rising China and a resurgent Russia.

The remainder of this article is divided into two sections. The first establishes the realities of the U.S. policymaking system that contribute to Africa's marginalization within U.S. foreign policy, including under the Trump administration. For the purposes of this essay, reference to Africa refers to all five regions of the African continent, including North Africa and those regions that comprise Sub-Saharan Africa (Central Africa, East Africa, Southern Africa, and West Africa). A second section sets out emerging trends in Trump foreign policy toward Africa. A final section offers conclusions for the implications of Trump administration policies for the future of the African continent's relationships with other great powers within the international system.

A Policymaking System that Works against a Proactive Foreign Policy toward Africa

There are several realities of the U.S. policymaking system that work against a proactive U.S. foreign policy toward Africa. Whereas some of these are historical, marking all U.S. administrations from the founding of the American Republic in 1776 to the present,[3] others are more recent and specifically tied to the Trump administration.

The first and most basic reality is the necessity of balancing domestic priorities with foreign affairs necessities, especially during a first term in office in which the ultimate priority of all presidents is to assure re-election, with simple electoral logic dictating that Africa is not a priority for the majority of the voting public. Presidents are re-elected or voted out of office principally on the basis of their domestic achievements, with public perceptions of the state of the U.S. economy playing a central role. It is no accident that the Trump administration's first domestic legislative priority was abrogating, and when that failed, undercutting the 2010 Affordable Care Act

(ACA), typically referred to as "Obamacare." This was a repeated domestic promise that Trump made to his base during the electoral campaign, with a "win" perceived as critical to the administration's domestic agenda. Not surprisingly, and more in tune with classic Republican tenets, the second domestic legislative priority involved rewriting significant portions of the U.S. tax code and passing massive tax cuts. This was achieved at the end of December 2017, just prior to the one-year anniversary of the Trump administration. A third domestic priority, which has languished amid partisan rancor, involves the restructuring of the U.S. immigration system, including resolving "Deferred Action for Childhood Arrivals" (DACA), or "Dreamers." The challenge, of course, is that the White House and President Trump personally have to expend tremendous amounts of political capital to promote these and other domestic priorities, leaving little political oxygen for foreign policy initiatives, let alone those specifically targeted toward Africa.

A second historical reality of the U.S. policymaking system is that even when a White House focuses on foreign affairs during its first term in office, the African continent is neglected in favor of other international priorities. Presidents traditionally have devoted less attention to Africa compared to other regions of perceived greater concern, most notably Europe, including Russia and the other countries that were once part of the Soviet Union and that were central to the cold war struggle (1947-89), and more recently the Middle East and South Asia in the aftermath of the attacks of September 11, 2001 and the emergence of a "global war on terrorism." Historic neglect of Africa at the highest reaches of the U.S. policymaking establishment is the direct result of a variety of factors: a president's typical lack of knowledge and therefore the absence of a deep-felt interest in a region that historically enjoyed few enduring political links with the U.S. as compared with the former European colonial powers; a tendency to view Africa as the responsibility of those same European colonial powers, especially France, whose leaders were often willing to take the lead in crisis situations; and the impracticality of one person monitoring relations with 195 countries worldwide, including fifty-four in Africa, and therefore the necessity of delegating responsibility for handling foreign policy for those regions considered marginal to the White House. Even President Obama, the son of a Kenyan national whose presidency raised "great expectations" on the part of Africans that their continent would finally be a priority within the U.S. policymaking establishment, relegated Africa to the region of least importance in U.S. foreign policy during his administration.[4]

The Trump administration is no different, essentially being consumed

by foreign policy issues in other geographical regions of perceived greater importance, leaving little time for high-level White House attention to Africa. The regional foreign policy hierarchy that has dominated during the last twenty months is captured by the Trump administration's December 2017 *National Security Strategy of the United States of America* as well as the administration's actual foreign policy initiatives.[5] At the top of the foreign policy hierarchy is Asia, which witnessed immediate U.S. withdrawal from the Trans-Pacific Partnership (TPP), brinkmanship with North Korea and a planned presidential summit between Trump and Kim Jong-un over nuclear weapons, and confronting China on trade and intellectual property theft, which as of this writing was resulting in a burgeoning U.S.-Chinese trade war. Second place in the U.S. foreign policy hierarchy is claimed by Europe, the leaders of which have been dismayed by mixed signals over the U.S. commitment to the North Atlantic Treaty Organization (NATO) and the European Union, amid a clear desire on the part of President Trump to strengthen U.S. relations with Russia. The third and fourth regions of foreign policy priority are the Middle East and South and Central Asia, respectively, where the White House is committed to making the pursuit of a Middle East peace a priority, has adopted a more bellicose attitude toward Iran as part of misgivings over the Iranian nuclear deal signed by the Obama administration, undertook a military surge in Afghanistan, and expanded direct U.S. military intervention in Iraq and Syria as part of a broader military campaign against the Islamic State of Iraq and Syria (ISIS). Fifth place is claimed by the Western Hemisphere, where the Trump administration is undertaking the renegotiation of the North American Free Trade Agreement (NAFTA) with Canada and Mexico, sparring with Mexico over the entry of undocumented immigrants into the U.S. and payment for a U.S.-Mexican border wall, and an increasingly bellicose relationship with Cuba and other perceived radical regimes in the Western Hemisphere. Where is Africa in this foreign policy hierarchy? At the very bottom.

A third historically-based policymaking reality that works against a proactive U.S. foreign policy toward Africa is congressional neglect of the African continent. A variety of constitutionally mandated prerogatives, including the confirmation of presidential appointees, the convening of hearings, and the drafting and voting of key legislation, suggests that Congress theoretically should play an important role. Like their White House counterparts, however, members of Congress historically have neglected Africa relative to other regions of perceived greater interest. Re-election pressures and time constraints imposed by terms of office (two years for Representatives and six years for Senators) force them to select

and prioritize the domestic and the international issues which will receive their attention. Since the primary objective of most members is to be re-elected, and since most U.S. citizens know or care very little about the African continent, conventional wisdom suggests that it is politically unwise to focus too much time on Africa. As a result, membership on the Africa subcommittees is among the least desired congressional positions in both houses of Congress, and is often relegated to relatively junior Representatives and Senators. Senator Jeff Flake (R-AZ), for example, elected for the first time in 2012 and who is not running for re-election in 2018, currently serves as chair of the Africa and Global Health Policy Subcommittee of the Senate Foreign Relations Committee. The more veteran Representative Christopher Smith (R-NJ), elected for the first time in 1980, serves as the chair of the Africa, Global Health, Global Human Rights, and International Organization Subcommittee of the House Foreign Affairs Committee. The biography maintained on his congressional website nonetheless makes clear that his interests lie more with the topical aspects (e.g., Global Health) rather than the regional (i.e., Africa) aspects of his subcommittee's work.[6]

Congressional neglect of Africa ensures that even highly motivated chairpersons of the Africa subcommittees face an uphill task in pushing African issues to the forefront of congressional debate. In the absence of crisis, partisan and ideological differences within Congress prevent activist groups from achieving congressionally-mandated changes in U.S. foreign policy toward Africa. Even during short-term crises when an issue may attract the attention of a significant number of members of Congress, control of the policymaking process naturally flows to the White House and the bureaucracies of the executive branch. It is precisely for this reason that Congress in recent years has only sporadically passed Africa-related legislation. Legislative accomplishments related to foreign policy in general, let alone Africa, also have been sparse due to growing partisan gridlock in both the Senate and the House, most recently dating back to the November 2010 mid-term congressional elections in which a conservative anti-Obama wave, including many members of the ultra-conservative Tea Party Movement, captured the House and significantly reduced the Democratic Party majority in the Senate. As of the current 115th Congress (2017-19), Republicans now maintain slim majorities in both the House (237 Republicans, 193 Democrats, and 5 vacant seats) and the Senate (51 Republicans, 47 Democrats, and 2 Independents). One of the cornerstones of this conservative wave, in part at least due to the demands of Tea Party members, is little new spending outside of the global war on terrorism and especially the wars in Afghanistan, Iraq and Syria, as well as growing

pressures for cuts in existing spending, including foreign aid to Africa.[7]

The net result of White House and congressional neglect of Africa is that U.S. foreign policy toward Africa, perhaps more so than that toward any other region of the world, remains largely delegated to the high-level bureaucrats and political appointees within the bureaucracies of the executive branch. Exceptions exist, as demonstrated by the willingness of both the White House and Congress to pressure Sudan's government in 2004 to seek a peaceful resolution of civil conflict in the southern portion of the country, but these are rare occurrences typically due to pressures from grass-roots constituencies that have the ear of the president and senior congressional leaders and that most importantly are considered crucial to re-election. In the case of Sudan, for example, a wide array of Christian groups deemed essential to Republican victories in 2004 effectively lobbied both the White House of President George Bush and the Congress to "do something" to stop what they perceived as a genocidal policy that a northern-based Islamic regime was carrying out against a southern-based, predominantly Christian population, including the practice of southern Christians being sold as slaves in northern Sudan.

In order to fully understand U.S. foreign policy toward Africa, one must therefore focus on the policies and interactions of the African affairs bureaus of the traditional national security bureaucracies, such as the State Department, the Pentagon, and the Central Intelligence Agency (CIA), as well as their counterparts within the increasingly important economic realm, most notably the Department of Commerce. To be sure, the White House sets the overall parameters of U.S. foreign policy which impacts all regions of the world, including Africa. But the unique nature of the U.S. policymaking system ensures that specific policy initiatives related to Africa often emerge from and are coordinated by the national security bureaucracies with little White House input. The net result of what can be referred to as "bureaucratic influence" in the policymaking process is the continuation of established policies toward individual African countries, even when an administration with different beliefs than its predecessor takes office, such as in the shift from the Obama to the Trump administration.[8]

There are also policymaking realities specific to the Trump administration that work against a proactive U.S. foreign policy approach to Africa. The first involves the inherent instability associated with governance as marked by the high turn-over in Trump administration senior leadership positions. This has been a dilemma across cabinet-level and executive office positions, including those related to U.S. foreign policy, as aptly captured in the best-seller by Michael Wolff, *Fire and Fury: Inside the Trump White*

House.[9] During the first twenty months of the administration, the position of National Security Advisor – the lead foreign policy expert in the White House – has been held by three individuals: Michael T. Flynn (January-February 2017), former U.S. Army Lieutenant General and director of the Defense Intelligence Agency, who was replaced after lying to Vice President Michael R. Pence about his contacts with Russia; U.S. Army Lieutenant General H. R. McMaster (February 2017-April 2018), who was replaced after numerous policy disagreements with President Trump; and the current holder of the office, John R. Bolton (April 2018-present), a neo-conservative member of the George W. Bush administration who served as U.S. Ambassador to the United Nations. Similarly, Secretary of State Rex W. Tillerson (February 2017-March 2018) was fired on the very day that he returned home from a tour of five African countries – Djibouti, Chad, Ethiopia, Kenya, and Nigeria – which was the first such overseas visit to the African continent by a senior member of the Trump foreign policy team. Tillerson was replaced by Mike Pompeo, also of the neo-conservative wing of the Republican Party, who served as Trump's CIA director (January 2017-March 2018), and prior to that as elected member (R-KS) of the House of Representatives (2011-17). Imagine the potential confusion on the part of the senior African policymakers who met with Tillerson – often their first senior interaction with the new administration – as to what Tillerson's firing means for the future of U.S. relations with their individual countries. Indeed, the Brookings Institution heralded Tillerson's trip, just prior to his departure, as "the beginning of a dialogue that will inform a yet to be released U.S.-Africa strategy."[10] The critical point is that it is unlikely that an administration with such high turnover at the top will foster a proactive foreign policy, let alone one toward a region of the world (Africa) of least importance to that administration. Indeed, such high turnover makes it difficult to effectively manage even the more limited goal of effectively implementing existing foreign policy objectives.

A second reality specific to the Trump administration that works against a proactive U.S. foreign policy approach to the African continent involves the growing number of legal scandals that are enveloping the Trump White House. At the heart of these scandals is the investigation into potential Trump campaign collusion with Russia to interfere in the 2016 U.S. presidential elections, as well as potential Trump administration involvement in covering up these activities after entering the White House in January 2017.[11] This investigation has been led since May 2017 by Special Counsel Robert S. Mueller III, with several former White House officials being charged with crimes, such as Paul Manafort (Trump's former campaign

chair) and Michael Flynn (Trump's first National Security Advisor). One of the unanswered questions as of this writing was whether President Trump would be willing voluntarily or would be compelled by Special Counsel Mueller to be interviewed under oath. To this Justice Department-initiated probe can be added a number of private law suits and scandals, ranging from a lawsuit that the Trump-owned family businesses have violated the "Emoluments Clause" of the U.S. Constitution by accepting payments from foreign governments to stay at Trump hotels, to the more salacious allegation that Trump had authorized hush money just prior to the 2016 presidential election to hide an affair with an adult film star, Stephanie A. Gregory Clifford, who goes by the name Stormy Daniels. Scandal is not unique to the Trump White House, as witnessed by the Watergate hearings that ultimately forced President Richard Nixon to resign in 1974, and the impeachment hearings surrounding the Monica Lewinsky affair under President Bill Clinton, who was impeached by the House but not convicted by the Senate. What is unique is that the Trump scandals have dominated the first year of the administration, increasingly occupying political space that otherwise could be used for domestic and foreign policy initiatives. The net result is that an already neglected African continent finds itself further marginalized within the regional hierarchy of U.S. foreign policy.

EMERGING IMPACTS OF TRUMP ADMINISTRATION FOREIGN POLICY ON AFRICA

It is important to remember, however, that Africa's marginalization does not mean that Africa has remained unaffected by U.S. foreign policy under a Trump administration. To the contrary, the last twenty months have witnessed the emergence of numerous broad foreign policy initiatives, with significant impacts on U.S. foreign policy toward Africa. The following is not meant to be exhaustive, but rather indicative of key emerging trends in Trump administration foreign policy toward Africa.

It was widely expected immediately following the 2016 election that a business-savvy Trump would usher in a new era of business-friendly trade and investment that characterized the first 171 years of U.S.-Africa relations from 1776 to 1947, as well as the 12-year interregnum (1989-2001) in between the more national security-oriented cold war (1947-89) and global war on terror (2001-16) eras.[12] From this perspective, Trump is the embodiment of an "America First," economically-driven foreign policy that not only is proper, but that had correctly dominated U.S.-Africa relations for a total of 183 years of the American Republic's 242-year history. Expectations

rose as Trump filled senior administration positions with business-friendly members of the corporate world, such as Tillerson as Secretary of State (former CEO of ExxonMobil), Steven Mnuchin as Secretary of Treasury (former investment banker and manager at Goldman Sachs), Wilbur Ross as Secretary of Commerce (former independent investor through his WL Ross & Co. private equity firm), and Gary Cohn as Director of the National Economic Council (former president of Goldman Sachs), which typically serves as the president's top economic advisor. A common denominator of these and other senior appointees, which was applauded in African circles, was a firm belief in the global benefits of free trade.

Optimism has faded, however, with the departure of many of these appointees, most notably Tillerson and Cohn, amid the rise of the more populist wing of the Trump administration, which criticizes the destructive domestic impacts of free trade, and therefore is more prone to pursue a restructuring of U.S. free trade agreements and the imposition of protectionist tariffs. The destructive domestic economic impacts of "unfair" free trade agreements was one of the foreign policy hallmarks of Trump's successful presidential campaign, and its growing centrality in Trump administration foreign policy is demonstrated by the rising policy influence of Robert Lighthizer, U.S. Trade Representative (former lawyer and partner at Skadden, Arps, Slate, Meagher & Flom LLP, and deputy trade representative under the administration of Ronald Reagan). Lighthizer has become the public face of the administration's determination to restructure existing free trade agreements (e.g., pulling out of the TPP and re-negotiating NAFTA); the imposition of tariffs on steel and aluminum products from China, the EU, and other global partners such as Canada and South Korea; and Trump's comments that "trade wars" are not necessarily a bad thing, in that America can "easily win them."

Although originally not on the radar screen of Trump administration officials, the African Growth and Opportunity Act (AGOA), originally signed under the Clinton administration and currently including thirty-eight African countries, has now entered the emergent trade conflicts of the Trump administration. Specifically, the Trump administration announced in April 2018 that it was suspending duty-free privileges enjoyed by African countries such as Rwanda that had raised tariffs on used clothing imported from the United States. "The move is an extension of Trump's 'America First' stance seen in the ongoing tariff battle between the U.S. and China," explain two observers, who further note that the business-friendly Trump administration is "being lobbied by the Secondary Materials and Recycled Textiles Association, which says a ban will lead to the loss of 40,000 U.S. jobs

and negatively impact the environment with pounds of textile waste ending up in landfills."[13] This announcement followed on the heels of Lighthizer's August 2017 participation in a two-day ministerial meeting in Lome, Togo, designed to review AGOA. The larger issue of great concern to Africans is what these events portend for U.S.-Africa free trade and specifically AGOA's future, which although set for renegotiation in 2025, is expected to be altered much sooner.

A second aspect of the early months of the Trump administration involved the filling of senior administration positions with military personnel, or what Trump refers to as "the Generals." John F. Kelly, retired Marine Corps General, was originally appointed Secretary of Homeland Security, the first time that a military officer had been named to this post, and subsequently was tapped to serve as Trump's White House Chief of Staff, after Reince Priebus was fired in July 2017. As already noted, the position of National Security Advisor was first held by Flynn (retired U.S. Army Lieutenant General) and subsequently by McMaster (acting duty U.S. Army Lieutenant General). And, James N. Mattis, retired General, U.S. Marines Corps, was appointed Secretary of Defense. This latter choice was noteworthy, in that this position historically has been held by a civilian, with the only exception in the modern era occurring under the administration of President Dwight D. Eisenhower, himself a former General. Together the Trump Generals have guided the most military-influenced White House in the post-World War II history of the United States. They also ensured that a military-based counter-terrorism approach would serve as the focal point of Trump foreign policy toward Africa.

The practical implications of this approach was the Trump administration's embrace and strengthening of inherited national security initiatives, typically set in place by the Bush administration in the post-9/11 era and continued by the Obama administration. One of the best examples of this inherited national security structure is the set of three regionally-based, counter-terrorism programs in the Islamic coastal regions of the African continent, including the Trans-Saharan Counter-Terrorism Initiative (TSCTI) that includes North Africa; the Combined Joint Task Force-Horn of Africa (CJTF-HOA) that is responsible for the "Greater Horn of Africa;" and the East African Regional Strategic Initiative (EARSI), which replaced the East African Counter-Terrorism Initiative (EACTI). These counter-terrorism initiatives are buttressed by the U.S. Africa Command (AFRICOM), which is responsible for coordinating U.S. military interventions on the African continent; the International Military Education and Training (IMET) and other U.S. military aid programs; and the Gulf

of Guinea Initiative, the primary goal of which is to gradually build up an effective regional security program capable of ensuring the safe transport of oil resources to the United States.[14]

Together these regional security programs provide useful insights into Trump administration foreign policy toward Africa, which like its predecessors under the Bush and Obama administrations, divides the African continent into at least four spheres of variable foreign policy interest: (1) those regions (North and East Africa, inclusive of the Horn of Africa) destined to receive priority attention due to their connection to the wider Middle East, sizeable Muslim populations, and U.S. struggle against global terrorism; (2) regional powers, typically Nigeria and South Africa, but also including Algeria, Democratic Republic of Congo, Ethiopia, and Senegal, that are perceived as crucial to the maintenance of regional stability and U.S. foreign policy initiatives; (3) countries deemed important to U.S. economic interests, most notably oil-producing countries, especially in the Gulf of Guinea; and (4) the remainder of Africa, which remains relegated to the back-burner of U.S. foreign policy. Not surprisingly, U.S. foreign policy especially focuses on those countries in which core foreign policy interests intersect, as in the case of Algeria, a regional power with oil resources that is considered crucial to combating perceived terrorist threats in North Africa.

The essence of the Trump approach to Africa has been the increased militarization of U.S. foreign policy, with an emphasis on providing the military with a freer hand to counter potential terrorist threats. For example, the Trump administration authorized the expansion of U.S. drone strikes in Libya and Somalia from drone facilities in Djibouti, Italy, and Tunisia, and reached an accord with Niger to fly armed drones from the capital of Niamey.[15] The U.S. military has also undertaken direct air strikes against ISIS and Al-Qaeda in the Islamic Maghreb (AQIM) affiliates in Libya and Somalia.[16] As of 2018, AFRICOM oversaw the presence of nearly 6,000 U.S. troops in Africa, approximately 2,000 of which are U.S. Special Operations forces.[17] These expanding operations, as well as a Trump White House directive to give the Pentagon a freer operational hand, has led to the deaths of U.S. soldiers in counter-terrorism operations, such as in Niger in December 2017, widely reported on in the U.S. press and contributing to a debate about the proper role of U.S. forces in African military theatres.[18] These debates notwithstanding, Trump's spring 2018 shake-up of his foreign policy team, which includes appointees from the more "neo-conservative" wing of the Republican Party, including Pompeo as Secretary of State and Bolton as National Security Advisor, ensures the further intensification of this military-based, counter-terrorism approach to Africa.

The militarization of U.S. foreign policy toward Africa is part of a "profound shift" in U.S. foreign aid policy proposed by the Trump administration that favors military aid and funding over that typically targeted for diplomacy and development.[19] The Trump administration's intentions in this regard were captured in the Fiscal Year 2018 budget request, which envisioned reducing by as much as 30 percent funding to the State Department and the United States Agency for International Development (USAID), further proposing that the two be folded into one agency. Especially hard-hit by the proposed budget were health, development and peacekeeping programs, including the Obama era-Power Africa initiative, but not the Bush-era President's Emergency Plan for AIDS Relief (PEPFAR). These budget-cutting pressures were resisted by the U.S. Congress in the budget that was released in March 2018. According to that budget, the Congress only approved a 6 percent cut in State Department and other foreign operations from that authorized in Fiscal Year 2017; a total of $54 billion was authorized (Saldinger 2018). An inherent challenge in this budget is that it adds to the U.S. deficit, which is already envisioned to increase due to the tax cuts passed in December 2017. Although significant cuts to African aid were avoided in Fiscal Year 2018 (which was already six months old as of bill passage), the months leading up to Fiscal Year 2019, which begins October 1, 2018, witnessed the re-emergence of deficit hawks seeking to reduce what was decried as a "ballooning budget"; development and diplomacy-oriented aid and funding, especially that targeted toward Africa, may be the first to go. President Trump, and his Ambassador to the United Nations, Nikki Haley, have also underscored that the administration will be "taking names" to determine which countries stand with the U.S. at the United Nations, especially regarding the controversial White House decision to move the U.S. embassy in Israel from Tel Aviv to Jerusalem.[20]

President Trump has been much more successful moving forward with conservative social issues favored by the Christian fundamentalist base of the Republican Party. The earliest example of this trend, which had important implications for U.S. health policy on the African continent, occurred on January 23, 2017, just three days after the inauguration, when Trump officially re-instated U.S. restrictions on international family planning policies officially known as the "Mexico City Policy" but typically referred to by critics as the "global gag rule." Originally put in place under Ronald Reagan, maintained by George H. W. Bush senior, lifted by Clinton, re-imposed by George W. Bush, and lifted once again by Obama, the Mexico City Policy remains a charged ideological policy that serves as a litmus test on both sides of the abortion debate. As explained on the Population Action

International (PAI) website, this policy ensured during the Reagan and all following Republican administrations, including that of Trump, that no U.S. family planning assistance could be provided to foreign non-governmental organizations (NGOs) "that use funding from any other source to: perform abortions . . . provide counseling and referral for abortion; or lobby to make abortion legal or more available in their country." [21] In essence, the Mexico City Policy places U.S. health assistance to Africa and other regions of the developing at the center of the abortion debate in the United States. This policy, and others like it, are either reversed or re-instated by an administration intent on demonstrating the fruits of electoral victory to its supporters, whether "pro-choice" members of the Democratic Party or "right-to-life" members of the Republican Party.

The Trump administration's concern over undocumented immigrants entering or already residing in the U.S. was fused with the need to prevent any further terrorist attacks on the U.S. homeland, to launch a foreign policy initiative – the so-called "Muslim ban" – in the early months of the administration, with important impacts for several African countries. A first Executive Order 13769, "Protecting the Nation from Foreign Terrorist Entry into the United States," was signed on January 27, 2017. This order, which was challenged in court, limited travel from seven predominantly Muslim countries, including three in Africa (Libya, Somalia, and Sudan), and lowered to 50,000 the number of refugees that could be admitted into the U.S. in 2017. Confronted with legal challenges, the Trump administration issued a revised Executive Order 13780 on March 16, 2017, followed by Presidential Proclamation 9645 on September 24, 2017. The revised order restricted travel from a variety of Muslim-majority and non-Muslim countries, including the African countries of Chad, Libya, and Somalia. Sudan was removed from the original list. The U.S. Supreme Court on December 4, 2017 permitted the ban to go into effect, pending the resolution of legal challenges.

This series of bans not surprisingly has caused ill-will and trepidation over potential travel to the U.S. among Muslim populations throughout the African continent, especially in North and East Africa. Moreover, the Trump administration's determination to aggressively restructure the U.S. immigration system via executive fiat in the absence of comprehensive legislation has affected both undocumented Africans residing in the United States, as well as those with legal standing. For example, in March 2018, the Trump administration allowed the expiration of the Deferred Enforced Departure program for Liberians, originally established by the Clinton administration in 1999 that permitted several thousand Liberians fleeing

civil war in their country to temporarily live and work in the United States. The Trump administration has ended the "temporary protected status" for these and other immigrant groups in the U.S., including from Sudan, typically giving them one year to return home or to face deportation, essentially "arguing that conditions have significantly improved" in their countries of origin.[22]   In the case of the Liberians, this means uprooting families, including children, who have lived in the U.S. for nearly two decades.

The intensification of debate between the Trump administration and Democrats over immigration policy in January 2018 resulted in a now infamous statement about African, Haitian and other immigrants of color by President Trump in the Oval Office that quickly went viral throughout the African continent: "Why are we having all these people from s***hole countries come here?" The reaction on the part of Africans was swift, and highly negative. Cyril Ramaphosa, who as of February 2018 had assumed the presidency of South Africa, captured the sense of a continent by calling Trump's comment "really, really derogatory" and "hugely offensive." He further noted of President Trump: "It demonstrates precisely the type of leader he is."[23] Critics note that this was not the first time that Trump had used such language. In June 2017, for example, he reportedly noted that undocumented Nigerians living in the United States would not "go back to their huts" in Nigeria.[24] Although President Trump issued a letter to fifty-four African leaders indicating that he "deeply respects" Africa and its peoples, the potential damage to perceptions of the United States and U.S.-Africa relations was immense.[25] "Of all the vile, offensive Trump comments, what he said about Haiti and Africa might have been the worst in the eyes of people overseas," explained R. Nicolas Burns, former Under Secretary of State for Political Affairs at the State Department. "It was a cruel, ignorant, blanket indictment of entire countries. The blow to U.S. credibility is real and long-lasting."[26]

A final dimension of Trump administration foreign policy toward Africa involves the president's disavowal of democracy promotion as a foreign policy priority. Historically speaking, when the normative goal of promoting democracy has clashed with a strategic goal, whether anti-communism during the cold war or counter-terrorism during the post-9/11 era, the strategic goal typically has won, often associating the U.S. with unsavory African regimes.[27] U.S. presidents during the post-World War II era nonetheless have demonstrated varying levels of commitment for the promotion of democracy and human rights, ranging from the more concrete policies of the administration of Jimmy Carter, to the more rhetorical flourishes of the administration of Ronald Reagan. The Trump

administration has disavowed both the rhetoric and the actual policies of democracy promotion, instead pursuing a "transactional" approach based on U.S. national security and economic interests. It is precisely for this reason that Trump has publicly praised U.S.-allied "strongmen" when it suits Trump administration policies. An excellent case in point is Trump's praise for Egyptian President Abdel Fattah el-Sisi, who took power in a military coup d'état in 2013, and subsequently "won" elections in 2014 and 2018. What matters for the Trump administration is not whether el-Sisi is democratically elected, but rather his support for a comprehensive Middle East peace process, as well as coordination with the U.S. in a wider war against ISIS and other perceived radical Islamist groups.

CEDING THE FIELD OF MANEUVER IN AFRICA TO U.S. ALLIES AND U.S. COMPETITORS?

This essay began with a simple question: What do the Trump administration policies associated with "Making America Great Again" mean for an African continent in the midst of profound transformations that this special issue of *The Journal of Diplomacy and International Relations* has aptly referred to as "Africa rising"? The simple answer is the marginalization of a rising Africa within the regional hierarchy of U.S. foreign policy, in essence ceding the field of maneuver for the immediate future not only to U.S. allies, such as France and Great Britain, but U.S. competitors, most notably a rising China and a resurgent Russia.

In terms of U.S. allies, Africa's enduring relationship with Europe as a result of European colonialism historically has prompted U.S. presidents to look upon the continent as a special area of influence and responsibility of those same European powers. U.S. presidents have therefore generally deferred to European sensitivities and maintained a low profile during routine periods when one of these has taken the lead on a particular foreign policy issue. This European component of U.S.-Africa policies was best summarized in 1968 by George Ball, Under Secretary of State in the Kennedy administration, who noted that the U.S. recognized Africa as a "special European responsibility," just as European nations recognized "our particular responsibility in Latin America."[28] Although these spheres of influence have been increasingly broached by both sides of the Atlantic during the last fifty years, there is no disputing the fact that the White House from Kennedy to Obama continued to look to its European allies – especially France and Great Britain, and to a lesser degree, Belgium, Germany, Italy, Portugal, and Spain – to take the lead in their former colonial territories.

It is arguable that the Trump administration has adopted this stance to a degree not seen in recent history, and in fact harkening back to 1968 when Ball made his classic statement. To be sure, the Trump administration will take the lead in undertaking military strikes against perceived terrorist threats in countries and regions considered to be of strategic importance to the U.S., as witnessed by recent strikes in Libya in North Africa or Somalia in East Africa. The difference with the Trump administration is a very public ceding of responsibility to the former European colonial powers for major undertakings on the African continent, and especially those requiring a more extensive U.S. physical or financial presence. A case in point is Libya, which as a result of Arab Spring-inspired civil conflict resulted in an Obama administration-supported and NATO-led military campaign that ultimately led to the overthrow of the Qaddafi regime. In the aftermath of Qaddafi's overthrow, Libya not only became a transit point for undocumented immigrants seeking entry into the European Union, but ground zero in North Africa for continuing civil war and the emergence of ISIS and AQIM-allied Islamist groups. When "implored" by Italian Prime Minister Paolo Gentiloni for the U.S. "to step up its 'critical' involvement in Libya, a former Italian colony," Trump responded by thanking Italian leaders "for your leadership on seeking stabilization in Libya, and for your crucial efforts to deny ISIS a foothold in the Mediterranean," but then rebuffed his Italian counterpart by noting, "I do not see a role in Libya . . . . I think the United States has, right now, enough roles. We're in a role everywhere."[29] This case is not unique, but rather indicative of the Trump administration's isolationist-inspired, conservative populism that the European powers should be responsible for their former colonies across the Mediterranean. In short, the Trump administration is ceding the field of maneuver to the European allies, which are expected to take the lead.

The Trump administration's neglect of the African continent is also potentially ceding the field of maneuver to U.S. great power competitors, most notably Russia and China. It has been argued, for example, that the lack of a proactive Libya policy on the part of the Trump administration is paving the way for a resurgent Russia under Vladimir Putin to reassert Russian influence in the wider Middle East and North Africa, and subsequently Sub-Saharan Africa. "The instability in Libya and North Africa may be the most significant near-term threat to U.S. and allies' interests on the continent," explained Thomas D. Walhauser, Lieutenant General, U.S. Marine Corps, and AFRICOM Commander, in congressional testimony in March 2017. "But perhaps just as concerning, he indicated, were intelligence reports that Russia was helping a former Libyan general turned military strongman in

a fight for control over the country's government and vast oil resources."[30] A related trend occurred in Egypt in December 2017, when el-Sisi's Egypt, in "what appeared to be a snub to the Trump administration," was seriously negotiating with the Putin regime to permit Russian military jets the use of Egyptian military bases and air space.[31] "If completed," continues Kirkpatrick, "the agreement would give Russia its deepest presence in Egypt since 1973, when Cairo expelled the military of the Soviet Union and instead became Washington's closest Arab ally."

The rising role of China on the African continent is even more serious for the future foreign policy influence of the United States, in that China's current influence lies predominantly in the economic realm. Economically speaking, there exists a growth industry of scholarship devoted to China's evolving relationship with Africa, ranging from Philip Snow's classic book, *The Star Raft: China's Encounter with Africa* (1988), which begins with the arrival in October 1415 (361 years before the founding of the American Republic) at the Ming palace in China of a giraffe from Malindi (present-day Kenya), to the more recent and globally-oriented Martin Jacques, *When China Rules the World: The End of the Western World and the Birth of a New Global Order* (2009; see also Rachman 2016). Although space constraints do not allow for a full exposition of this topic, three brief points suffice: First, whereas U.S. exports to Africa increased from $10.96 billion in 2000 to $21.81 billion in 2015, China's exports to Africa during this same period had increased to $102 billion, nearly five times the U.S. total (Wroughton 2017).[32] In terms of investment, pro-U.S. Ethiopia, which historically has served as a U.S. client state in the Horn of Africa, is illustrative: Whereas the U.S. has invested $550 million in recent years, China has invested $15 billion (twenty-seven times the U.S. amount) during the same period, including building the African Union headquarters, a new rail line linking the capital, Addis Ababa, with the coast, and a ring road in the capital. To this can be added the fact that as of July 11, 2017, the Chinese government opened a military base in Djibouti, its first military base on the African continent, marking the true beginning of a Chinese military presence. In short, China has already dwarfed U.S. trade and investment on the African continent, and if past is prologue, it will eventually surpass the U.S. presence in the strategic realm as well. Current Trump administration policies arguably ensure that this will happen sooner rather than later.

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Acknowledgements

Notes

1   Donald Trump, *Great Again: How to Fix Our Crippled America* (New York City: Threshold Editions, 2016)

2   House Select Committee on Benghazi. House of Representatives, *Final Report of the Select Committee on the Events Surrounding the 2012 Terrorist Attack in Benghazi (Report 114–848)*. (Washington, DC: U.S. Government Publishing Office, 2016)

3   e.g., see Schraeder 1994a.

4   Peter, J. Schraeder, "The Obama Administration's Engagements in Africa within Historical Context: Great Expectations versus Daunting Challenges." in *African Engagements: Africa Negotiating an Emerging Multipolar World*, eds. Ton Dietz, Kjell Havnevik, Mayke Kaag, and Terje Oestigaard (Leiden: Brill Publishers, 2011) pp. 300-24.

5   White House, *National Security Strategy of the United States of America*. (Washington: White House, 2017)

6   "Biography," *U.S. Congressman Chris Smith,* January 2018, https://chrissmith.house.gov/biography/.

7   Walter Russell Mead, "The Tea Party and American Foreign Policy," *Foreign Affairs* 90, no. 2 (April 2011): 28-44.

8   Peter J. Schraeder, "Bureaucratic Incrementalism, Crisis and Change in U.S. Foreign Policy toward Africa," in *Foreign Policy Restructuring: How Governments Respond to Change*, eds Jerel A. Rosati et al (Columbia: University of South Carolina),111-37.

9   Michael Wolff, *Fire and Fury: Inside the Trump White House* (New York: Henry Holt and Company, 2018)

10   Brahima Sangafowa Coulibaly, "The Trump Administration's Africa Policy," *Brookings Institution,* March 23, 2018.

11   Michael Isikoff and David Korn, *Russian Roulette: The Inside Story of Putin's War on America and the Election of Donald Trump* (New York: Twelve, 2017)

12   Peter Duignan and L. H. Gann, *The United States and Africa: A History* (Cambridge: Cambridge University Press, 1984)

13   Abdi Latif Dahir and Yomi Kazeem, "Trump's 'Trade War' Includes Punishing Africans for Refusing Second-Hand Clothes," *Quartz,* April 5, 2018, https://qz.com/1245015/trump-trade-war-us-suspends-rwanda-agoa-eligibility-over-second-hand-clothes-ban/

14   Lauren Ploch, "Countering Terrorism in East Africa: The U.S. Response," *Congressional Research Service,* November 3 2010.

15   Helene Cooper and Eric Schmitt, "Niger to Let U.S. Fly Armed Drones," *The New York Times,* December 1, 2017.

16   Eric Schmitt, "U.S. Intensifies Attacks against Somali Militants," *The New York Times*, November 21, 2017; 17   Gardiner Harris and Dionne Searcey, "Tillerson Pledges New Aid to Africa," *The New York Times,* March 7, 2018.

18   Rukmini Callimachi et al, "A Risky Patrol, a Desert Ambush and New Anguish Over 'an Endless War,'" *The New York Times,* February 18, 2018.

19   Harris and Searcey, "Tillerson Pledges New Aid to Africa," *The New York Times*, March 7, 2018.

20   Carol Morello, "Foreign Aid Cuts Proposed, but 'Friends' Might Be Protected," *The Washington Post,* February 12, 2018.

21   *Population Action International,* https://pai.org/

22   Michael D. Shear, "Temporary Status Ends for Liberians in the U.S.," *The New York Times,* March 28, 2018.

23   Kimon De Greef and Sewell Chan, "Setback for U.S. Is Feared as Africa Recoils at Trump Remark," *The New York Times*, January 16, 2018.

24   Ibid.

25   Jon Sharman, "Trump Letter to African Leaders Says He 'Deeply Respects' People of Continent after 'S***hole' Furore," *Independent.* January 27, 2018. https://www.independent.co.uk/news/world/americas/us-politics/donald-trump-letter-africa-respect-shithole-countries-a8181031.html

26   De Greef and Chan, "Setback for U.S. Is Feared as Africa Recoils at Trump Remark," 2018.

27   F. Ugboaja Ohaegbulam, "Containment in Africa: From Truman to Reagan," *TransAfrica Forum* 6, no. 1 (Fall 1988): 7-34; 28   George W. Ball, *The Discipline of Power: Essentials of a Modern World Structure* (Boston: Atlantic Little Brown, 1968).

29   Glenn Thrush, "No U.S. Military Role in Libya, Trump Says, Rejecting Italy's Pleas," *The New York Times*, April 20, 2017.

30   Jo Becker and Eric Schmitt, "U.S. Seesawing On Libya Paves Path for Russia," *The New York Times*, February 7, 2018.

31   David D. Kirkpatrick, "Egypt Agrees to Open Bases to Russian Jets," *The New York Times,* December 1, 2017.

32   Lesley Wroughton, "Trump Administration's Africa Policy in Focus at AGOA Trade Talks," *Reuters*, August 8, 2017. https://www.reuters.com/article/us-usa-trade-africa/trump-administrations-africa-policy-in-focus-at-agoa-trade-talks-idUSKBN1AO108

Dealing with Islam in North African Politics:
Ideology and Power in Morocco
Dr. Juan A. Macías-Amoretti

Islamic Ideology and Political Power in Morocco: the 'Alawi' Monarchy

One of the key factors to understanding contemporary politics in North Africa is the ideological use of Islam in the political sphere.[1] Understood as a main foundation of North African cultural background and political identity, Islam has been present in the political discourse since the very emergence of the National states in the post-colonial era. Pre-dating self-government in the form of sovereign states in the mid-1950s, Islam and Islamic law were also used by colonial forces to deal with the local elites and to legitimate their political rule and their economic and military administration. In any case, Islamic history has provided a powerful element of unity to North African societies in the form of Sunni and Mālikī trend, thus contributing to the social, political, and juridical order. Despite the diverse trends and symbolic representations of Islam in the cultural and spiritual fields in North Africa, there is little doubt about the centrality of the Islamic discourse in contemporary politics as it can be stated that Islam is one of the main power resources in the political competition among elites. The case of the 'Alawī Kingdom of Morocco is especially relevant.

Since the very beginning of its political history in the Middle Ages, Morocco was founded on the legitimacy of the Islamic rule. Even though its first political experience as an Islamic sovereign political entity came in the form of a Shi'īte emirate ruled by the Idrissid dynasty in the 8th century AD, in the modern period the ideological weight of reformist Sunni Islam was able to gather the government and the population around a common religious and political identity. The important role played by the *wahhābi* trend[2] in the eighteenth century must be stressed in this ideological process, as can be seen in the figure of the sultan Muhammad b. 'Abd Allāh (1757–1790). Once adapted to Moroccan tradition, Wahhābism was the ideological foundation of the Islamic reformism implemented by the state. However, Moroccan Islamic tradition was also heavily influenced by Sufism, the mystical trend of Islam, so the 'Alawī dynasty and the Makhzen always tried to keep the balance between both Islamic ideological forces.[3] Later on, Islamic reformism found its place in the political sphere in the form of the Salafi ideology imported from Egypt. According to reformist Salafism, Islam should be reformed to accommodate its principles to the social, cultural,

economic, and political needs of modern Muslim societies. Very rapidly, reformist Salafism gave a modern religious legitimation to anti-colonial sentiment, and led the Moroccan National Movement to transform this religious ideology into an active political anti-colonial ideology and practice in the first half of the twentieth century.

Eventually, anti-colonial political practice led to a renewed Islamic legitimization of the 'Alawī dynasty, which played a very active role in the last period of the French and Spanish protectorate (1912–1956). After the official independence of the country in 1956, the monarchy was legitimated as the main pillar of the modern sovereign state both in political terms and religious terms. In this sense, the Constitution consecrated the King with the caliphal title of "*amīr al-mu'minīn*," literally the "Commander of the Faithful."[4] That made the monarch the highest Islamic authority in the country, adding a strong legitimation to his wide political powers and strengthening them symbolically in the religious sphere. This was also the result of a political fight between the monarchy and the *Istiqlāl* Party (Independence Party, IP), the main actor of Moroccan anti-colonial process. Once national unity was ensured, King Mohammed V (1956–1961) managed to re-appropriate the symbolic hegemony accumulated by the nationalist movement in the process of decolonization, partly due to the crucial support given by the rural areas, where the monarchy controlled local networks, and played a symbolic role from the religious point of view.[5] The first Moroccan Constitution proclaimed in 1962 under the government of Hassan II (1961–1999) grants this special royal status, both in political and religious terms, consecrating his figure as the highest guarantor of the Islamic principles in the country.[6] Since then, with article 41 of the Constitution of the Kingdom of Morocco reformed in 2011, stressing the religious authority of the King as *amīr al-mu'minīn*, and first *imām* in the country, his legitimacy relies mainly on the religious field. This is something that is not a mere symbol. It implies the religious legitimacy of his power as an "emirate," one of the most important titles historically held by the Sunni Caliphs, referring originally to their highest military powers.[7] This *moral* legitimacy is accompanied by the use of *esthetic* Islamic elements and rituals as the *bay'a* (act of allegiance) in order to show publicly the religious status of the king, symbolically linked to a political structure that was characterized in the 1970s and 1980s by favoring authoritarianism. As the first *imām*, the King's powers do not come from any human institution, but directly from God who appoints a caliphal order under the authority of the king. Indeed, Moroccan sovereigns possess a symbolic capital that irrefutably legitimizes their position as political and religious leaders, and decisively situates power relations within the framework of the state itself.

The king of Morocco (Mohammed VI since 1999) is not merely the head of the Moroccan state, a modern and secular Muslim state-nation, but is also the highest religious authority and the personification of the Islamic community leadership in the country and even outside of it, as the Moroccan 'imārat al-mu'minīn' is recognized by other Islamic authorities in Western Africa and among the Moroccan diaspora.

It is important to stress that the imposition of the caliphal model means the victory of traditional Islam over Salafí Islam in postcolonial Morocco. That is to say, the victory of the traditionalistic nobility over modernist Islamic intellectuals. As Dialmy states, the symbolic flow of Moroccan monarchy lies on its religious foundation. [8] Islamic tradition has symbolic elements that work as power springs: *'ilm* (knowledge), *baraka* (thaumaturgy), and *sharaf* (prophetic ancestry). All of them are attributions of Moroccan monarchs. Possessing any of these three elements is having some power in Muslim societies; accumulating the three of them confers the greatest power. Even though these powers are not political *stricto sensu*, they are the referential basis of any kind of political power within an Islamic society, as is the case of Morocco. Moroccan monarchs have played very well with these Islamic symbols in the political field, exclusively used by them from the top of the political structure. Nevertheless, after many years of using Islamic symbols as political tools to advance the monarch's political goals, a new political movement emerged in the 1970s to reorient and use these symbols of Islamic legitimacy in opposition to that of the monarchy. Political Islam gathered the support of a very wide set of social sectors, which were included in a new Islamic narrative that talked about justice and equality in a clear discourse of Islamic opposition addressed against traditional political elites.

While official Islam in Morocco is headed by the king, it is also represented by the *'ulam*ā,' the Islamic scholars who have always supported and legitimated the political order. As representatives of traditional religious knowledge, Islamic scholars take care of the fulfilment of the principles of the *sharī'a* within the state's institutions and in the public sphere from a Sunni, *mālikī* and *ash'arī* point of view to guarantee the "islamicity" of Morocco. In political practice, the body of *'ulam*ā' works as a political institution in charge of legitimating the powers of the state in Islamic terms. The relationship between the monarchy and the *'ulam*ā' is thus very close, as is their relationship with the traditional religious institutions, the *al-Qarawiyyīn* Islamic University in Fes and the *Dār al-Hadīth al-Hasaniyya* in Rabat. This institution, founded in 1964, is devoted to training future religious civil servants, but its main objective is controlling religious

discourse and spreading the official ideology of the state through the religious discourse within the country and beyond. A very similar role was played by the League of *'ulam*ā' (*Rābitat al-'ulam*ā'), founded by the king as a council of Muslim scholars in charge of advising the state on religious terms and issuing fatwas in benefit of the monarchy. In ideological terms, there is a clear identification between Islam and the established order which limits any possibility of political confrontation with the political regime, as long as Islam itself is identified with the state in every level: political, juridical, and administrative.[9] In the political level, Islam is represented by the *imārat al-mu'minīn* and by the structure and the action of the Ministry of Islamic Affairs, which is one of the most important and stable institutions within the government. In the juridical level, the Islamic reference is present in the legal development of the family laws contained in the Family Code (*Mudawwanat al-usra*), whose rules are directly extracted from Islamic jurisprudence and regulates marriage, offspring, and inheritance. The social weight of this level is evident, for there is no possibility of dealing with these facts outside of the Islamic legal framework. Finally, in the administrative level, Islam is codified as an ethical reference always present in Islamic discourse linked to the administration and the monarchy. From this point of view, any political opposition against the monarchy would be symbolically defined as an opposition against religion and tradition, as was the case with the political opposition movements founded on ideologies such as Marxism or Islamism.

Political Islam and the New Islamic Political Legitimacy

Along with the 'Alawī Monarchy and the body of official interpreters of Islam, the other important actor dealing with the political use of religion in the public sphere is political Islam.[10] Obviously, there are many different aspects dealing with political Islam as a political actor in Morocco. Most of the organizations belonging to the 'Islamic movement' (*al-haraka al-islāmiyya*) in the country share a historical background, dating back to its first emergence in the early 1970s when the first Islamic political organisations developed as an ideological response to the declining leftist secular opposition to the 'Alawī Monarchy regime. They also share an epistemological combination of ideological components based on both the influence of the Egyptian Muslim Brotherhood (*ikhwānī*) and that of the charitable religious associations traditionally linked with Sufism (*da'wī*), as Mohamed Darif states.[11] There are many associations and small organizations around the Islamist ideological parameter, sometimes showing important

divergences among them. In fact, the two most important and influential Islamist organizations attending to their ideological influence and their political practice, the Community of Justice and Spirituality (Jamāʿat al-ʿAdl wa-l-Ihsān, CJS) and the Unicity and Reform Movement (Harakat al- Tawhīd wa-l-Islāh, MUR) –politically linked with the Justice and Development Party (Hizb al-ʿAdāla wa-l-Tanmiyya, PJD) since 1998–have gone through very different political experiences.[12] On the one hand, the CJS is an outsider movement located outside the boundaries of the regime in terms of non-violent political resistance. It is officially illegal but still tolerated by the state, so its clear stand against the monarchy eventually leads to the repression of their members and the persecution of their activities. On the other hand, the PJD is a main institutional political actor located in the parliamentary opposition who reached the government for the first time in November 2011, in a coalition with other political parties.[13] In October 2016, the PJD managed to once again become the most voted option in the legislative elections, leading the coalition government since then.

Thus, the CJS calls for the restoration of an authentic Islamic leadership in the country, starting with the 'conversion' of the king. Since the very beginning of the CJS as a movement in the early 1980s, its founder and leader, Abdessalam Yassine (1928–2012) sent a message to the king, based on his own Islamic moral legitimacy, to apply justice and equality as essential Islamic values. They have refused to participate in political competition many times, as they do not consider the political structure to be valid with an illegitimate monarch presiding over it. However, they are very active participants in the social sphere, mainly through education. They also have shared social and political space with other opposition organizations from very different ideological backgrounds, as can be seen in their active participation in the M20F (February 20 Movement) in 2011 along with leftist organizations demanding political reforms against corruption. The CJS joined the anti-corruption demonstrations in a clear proactive way, organizing and taking part in the protests throughout the country. Nevertheless, in December 2011, the CJS announced its withdrawal, claiming reasons related to effectiveness, while also trying to avoid future conflicts with other leading organizations within the movement, especially with the left-wing and secularist organizations.

The PJD obviously accepts the political and religious legitimacy of the ʿAlawī Monarchs, but they seek an end to corruption in public life. They do not blame the monarchy for the situation of inequality, poverty, and corruption in the country. Instead, they blame their political competitors and some close friends of the Royal Palace.[14] In their official discourse and

practice, the PJD displays respect for the figure of the king as the highest Islamic authority in the country as he guarantees the maintenance of religious traditions and the state's Islamic national identity. In this sense, their perspective is rather conservative, compared to the CJS, who could be seen as the representation of a revolutionary spiritual modernity. In general terms, political Islam emerged as the expression of an ideological and political alternative in Morocco that underlines Islamic morality as a core element. Islamist ideologues, such as Saad Eddine El Outhmani (b. 1956), former Secretary General of the PJD (2004–2008) and Moroccan Prime Minister since 2017, or the above mentioned charismatic founder and leader of the CJS, Abdessalam Yassine, claim that the foundation of their Islamic political action derives from Islamic moral reference. Yet, they chose opposite ways of dealing with political power in the country. In this sense, the moral element in their political discourse represents an attempt to craft a whole new contemporary "Islamic narrative" and, therefore, to present the historical dynamic of political Islam as a movement that is essentially moral and "prophetic," as it foresees a specific kind of Islamic utopia. They translate this vision of political Islam into their political discourse in terms of real democracy and social justice. The PJD did not participate officially in the M20F in 2011, nor did it support the demonstrations; however, it supported some of the demonstrators' general demands and allowed individual members to join the demonstrations. Thus, it kept a low profile as an institutional political actor while using the protests ideologically as a source of power with a reactive and ambiguous discourse opposed to the demonstrations that showed empathy for the demonstrators and their demands against corruption at the same time.

Islamic morality is – ethically and aesthetically – a core reference in the use of ideology[15] as an almost exclusive resource in competing for power.[16] Thus, the Islamist alternative in Morocco is based on a political and social ideology founded on a new Islamic legitimacy present in a new religious discourse of political change and social reform. Symbolically linked to the concepts of "democracy" (or its Islamic endogenous alternative, the *shūrà*) and "justice" (*ʿadl*) as the foundations of their opposition, Moroccan political Islam issues a discourse that is embedded within national and religious tradition but, at the same time, is clearly located within the framework of political modernity. Filled with concepts derived from the juridical tradition of classical Islam, Moroccan Islamist discourse is primarily addressed to the monarchy and the competing political actors (*Makhzen*), and secondarily to the rest of society. In both cases, the Islamist discourse displays a very powerful message in terms of "democratizing" the Islamic reference as the

main source of political legitimacy.[17] This discourse, beyond its immediate connection to very concrete historical contexts, uses Islamic concepts that are easily recognizable by the Moroccan population. These concepts are politicized in their origin and re-politicized in the discourse with the addition of a contextual political meaning, and based pragmatically on the conditions of the power competition in Morocco and the position of each of the Islamist actors in this setting. The main specific factor here is linked with the specificity of the religious and political context of contemporary Morocco. In this sense, the non-negligible role of the 'Alawī Monarchy. In moral terms, it is not possible to refuse the legal authority of the 'Alawī Monarchy from an "Islamic" standpoint, as their political power is inseparable from their religious legitimacy.[18] This status makes the Islamic political action of political Islam in Morocco far more ideological than in other Muslim contexts. The use of juridical and political Islamic concepts as the 'imamate' (*imāma*) and the 'caliphate' (*khilāfa*) by the main Moroccan Islamist actors, the PJD and CJS, in their discourse is thus directly linked to the monarchical 'imārat al-mu'minīn' in terms of acceptance-reform or refusing-resistance. In that sense, it is linked to a concrete model of 'Islamic government' in ideological terms. Islamic actors try to develop their own Islamic conceptualization to deal with political power regarding this specificity. This is the case of the use of the concept of 'imāma' by the PJD, given that they accept the religious and political legitimacy of the king and the current political system. [19] To them, the 'imāma' would be not only a concept related to the exercise of a religious power by the monarch, but also the implementation, in Islamic terms, of a kind of 'straightaway governance' in moral terms, for it would be a general framework of good governance, a kind of prophetic moral guideline which is perfectly compatible with democracy as a technical system of political representation. This is the way they claim to share Islamic legitimacy in the exercise of their political power from the opposition to the government within the Moroccan political context they try to reform (*islāh*) in ethical terms from the inside in the name of Islamic morality. That is rather different from the perspective of the CJS, whose starting point is putting an end to the "tyrannical" and "despotic" government implemented by the 'Alawī Monarchs in the name of Islam. The dialectical opposite to this concept is that of 'khilāfa,' representing the general framework for the implementation of the government of the *shūrà* instead of "corrupted" liberal democracy, so that the CJS locates the moral reference in the first place. In this sense, its reactive standpoint rejects arbitration as a constitutional role of the monarchy, considering it illegitimate in moral terms, as long as it pursues its own economic and political interest instead of implementing

justice in political, juridical, and administrative levels according to Islamic prescriptions. It is therefore the concept of 'justice' (*'adl/'adāla*) they claim to emphasize, as opposed to those of the 'despotism' (*istibdād*) and 'corruption' (*fasād*) of the ruling elites in the dialectics of opposition facing the primary political elites (PJD) or the monarchy itself (CJS).[20]

Their standpoints regarding political and symbolic opposition vary in a wide diversity of ideological options in terms of acceptance/reformism or refuse/resistance, but they always have a shared claim of Islamic legitimacy in common.[21] However, the discourse of Islamist organizations differs in terms of political strategy, as the ideological element is the essential power resource for them, and it is by using this resource that each of them attempts to turn themselves into a main political actor and into a moral point of reference within the framework of the political power competition in Morocco.[22] The main vector of their discourse and the ideology that backs it up (and which essentially frames Islamist political practice) is the use of Islamic moral references linking the role of Islamic governance to the governed (*al-hākim wa-l-mahkūm*), within the framework of the 'Islamic state' (*al-dawla al-islāmiyya*) as the ultimate horizon of political change, in which political Islam is situated either in resistance, opposition, or reformism.

Conclusion

As a general conclusion, it is possible to state that there is a postmodern cultural element that provokes a rupture between two Islamic political conceptualizations: hierarchical (Islamic monarchy) and popular (political Islam). This cultural element is related to political narrative, so that is to say, to history and discourse. This narrative is set between structuralism and political pragmatism, for Islam is still the most powerful ideological element linking ideology and political power in Morocco. In this sense, every political and social actor, in order to share this Islamic legitimacy, is forced to locate their ideological and political proposal regarding the 'Islamic reference' parameter. Historically, the 'Alawī Monarchy has had control over the magnitude of this parameter, but the inclusion of a new discourse legitimating political practice in Islamic terms eventually led to the progressive "democratization" of the Islamic political legitimacy. In short, Islam is in every case an ideological tool to legitimize political standpoints before society, so that it can be adapted according to the political and historical circumstances regarding power relationships.

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Notes

1   ʿAbd al-Ilāh Bulqazīz, *Al-Islām wa-l-siyāsa. Dawr al-haraka al-islāmiyya fī sūgh al-majāl al-siyāsī,* (Casablanca: al-Markaz al-thaqāfī l-ʿarabī, 2001): 7-10.
2   C. Holes, s.v., "Wahhābiyya," *EI²*, v. XI: 39-47.
3   Hind ʿArūb, *Al-Makhzan fī l-thaqāfa al-siyāsiyya al-maghribiyya,* (Rabat: Al-Najah al-Jadīda, 2004).
4   H. A. Gibb, s.v., "Amīr al-muʾminīn," *EI²*, v. I: 445.
5   Rémy Leveau, *Le Fellah marocain défenseur du trône,* (Paris: Presses de la Fondation Nationale des Sciences Politiques, 1985).
6   Mohamed Darif, *Al-Dīn wa-l-siyāsa fī l-Maghrib,* (Casablanca: Manshūrāt al-Majalla al-Maghribiyya li-ʿIlm al-Iŷjtimāʿ al-Siyāsī, 2000).
7   Youssef Belal, *Le cheikh et le calife. Soiologie religieuse de l'islam politique au Maroc,* (Lyon: Ecole Normale Superieure, 2011).
8   Abdessamad Dialmy, "L´islamisme marocain entre révolution et intégration," *Archives des Sciences Sociales des Religions* 110 (2007): 7.
9   Mohamed Darif, *Monarchie marocaine et acteurs religieux,* (Casablanca: Afrique Orient, 2010): 23-25.
10   Malika Zeghal, *Les islamistes marocains,* (Casablanca: Le Fennec, 2008): 11-14.
11   Darif, *Monarchie,* 2010.
12   Juan A. Macías-Amoretti, "Political Islam in Morocco: from Islamic ethics to political power," in *Political Islam in a time of revolt*, edited by Ferran Izquierdo, John Etherington and Laura Feliu, 227-248, Series: Islam and Nationalism, (London: Palgrave Macmillan, 2017).
13   Eva Wenger, *Islamist Opposition in Authoritarian Regimes: The Party of Justice and Development in Morocco,* (Syracuse: Syracuse University Press, 2011).
14   Khadija Mohsen-Finan and Malika Zeghal, "Opposition islamiste et pouvoir monarchique au Maroc: Le cas du Parti de la Justice et du Développement," *Revue française de science politique* 56 (2006): 79-119.
15   Juan A. Macías-Amoretti, "Imamate and Caliphate: Islamic Governance Theory in Moroccan Islamist Discourse," in *Caliphates and Islamic Global Politics*, edited by Timothy Poirson and Robert L. Oprisko, 24-33, (Bristol: E-International Relations Publications, 2014).
16   Ferran Izquierdo Brichs, ed., *El islam político en un contexto de revueltas,* (Barcelona: CIDOB, 2013): 319-349.

17   Lise Storm, *Democratization in Morocco: The political elite and struggles for power in the post-independence state,* (London: Routledge, 2008).
18   Darif, *Monarchie,* 2010.
19   Saad Eddine El Outhmani, *Al-Dīn wa-l-siyāsa. Tamayyīz lā fasl,* (Casablanca: al-Markaz al-Thaqāfī l-ʿArabī, 2009).
20   Juan A. Macías-Amoretti, "Seeking an 'other' desperately: the dialectical opposition of Political Islam in Morocco," *Journal of North African Studies* 20(3) (2015): 336-348.
21   Ibid.
22   Francesco Cavatorta, "Neither participation nor revolution the strategy of the Moroccan Jamiat al-Adl wal-Ihsan," *Mediterranean Politics* 12(3) (2007): 381-397.

Morocco and Africa:
Toward a New Model of Regional Cooperation
Karim Bejjit

Introduction

In January 2017 at the 28th African Union (AU) Summit held in Addis Ababa, King Mohammed VI made a historic speech which made headlines in numerous African newspapers. Addressing heads of African States, the Moroccan monarch announced that the return of Morocco to its African fold was an inevitable course given the historical ties and strong political and economic interests that have always united his country with the African continent. Amid the warm welcome of the majority of African member states, the king outlined his "vision of South-South cooperation" insisting that it was time for African political elites to recognize their strengths and potentials, and empower their own political, judicial and economic institutions to face the enduring challenges of development and political stability.

The galvanizing rhetoric of this speech had a particular resonance for both media commentators and political analysts as it marked a decisive policy shift in Afro-Moroccan relations and ended a long period of incoherence and misunderstanding after the admission of SADR as a member state into the defunct Organization of the African Unity (OAU) in 1984. For over three decades, successive Moroccan governments adopted the empty seat policy in various African organisms that recognized the Polisario Front and worked hard to build and maintain strong bilateral relations with a number of Francophone African states as an alternative strategy to the country's formal exit from corporate African institutions.[1]

Nevertheless, for many commentators this was only the beginning of a more intriguing phase in the tortuous history of the conflict over the Sahara. Despite the massive support for the re-admission of Morocco into the African Union (39 states for versus 9 against), it is not clear if the AU would be disposed or able to play any role in securing a solution to this conflict in the future. Morocco's decision to regain its seat in various African committees and summits means that it will be in position to preemptively offset any measures that seek to undermine its sovereignty over the Sahara or curb its ambition to expand its economic interests in the continent. Moreover, Morocco's determination to consolidate its position as a key player in African affairs, using its accumulated experience and strategic partnerships with the United States, the European Union and the Gulf States,

threatens to weaken further the base of solidarity with the Polisario Front within the AU. Zimbabwe's ousted president, Robert Mugabe, for instance, was outspoken in his rebuke of African leaders for their willingness to cede to Morocco's wish to rejoin the AU even though the conflict in the Sahara remains locked in stalemate.[2] In his speech, however, King Mohammed VI noted that Morocco had "absolutely no intention of causing division" and that it would instead "help bring about unity and progress."[3]

Observers familiar with Moroccan political affairs realize that foreign policy remains largely a reserved domain of the king who, in concert with his own advisors, not only defines the strategic vision and sets up the priorities, but also takes an active role in implementing such policies.[4] In recent years, this proactive disposition has involved frequent and extended official visits to scores of countries including several that for decades had uneasy relations with Morocco. The cornerstone in the royal agenda as far as the African continent is concerned is building strong economic partnerships and enabling both the governmental and private sectors to invest in projects that have a clear structural impact on the national economies of African countries such as agriculture, energy, industry, tourism, telecommunication, banking, and Human Resources. As much as it seeks to establish solid and lasting frameworks of profitable cooperation, this economic orientation goes a long way toward consolidating political rapprochement and helps create a suitable environment for other forms of cooperation at the regional and international levels.

Domestic Political and Economic Reforms

The pragmatic, level-handed policies with their pronounced economic drift pursued by King Mohammed VI in Africa are an integral part of his political doctrine[5] and constitute a rupture with the approach of his predecessor, King Hassan II for whom ideological affinities and political considerations took priority over concrete forms of economic cooperation. Since 1999, when Mohammed VI succeeded his father, economic growth has formed the staple of his domestic policy paving the way for slow but steady chain of reforms involving public administration, the legal system as well as the business environment. The transition from a repressive and centralized regime to a relatively open and liberal one contributed to shaping a new image of Morocco as a regional model in political and economic reforms. On the social plane, there were various initiatives taken by the king to restore public faith in the establishment. They include launching a process of national reconciliation aimed to redress the systematic abuses of human

rights in the past, the introduction of the National Human Development Initiative (INDH) intended to reduce the extreme levels of poverty in rural and underdeveloped urban areas, and the issuing of a new Family Code (*Mudawana*), which sought to provide holistic answers to longstanding conjugal and parental problems. In the aftermath of 2003 terrorist incident in Casablanca, the king, in his religious capacity as Commander of the Faithful (*Amir Al-Mu'minin*), undertook drastic reforms of the religious domain by empowering the Ministry of Habous and Islamic Affairs and its various regional councils to fight radicalism and preach moderate and tolerant teachings of Islam. The social arenas, on which these reform policies were focused, in fact, are not particular to Morocco, and have always generated a great deal of controversy among contending forces in the Arab World.

Starting form 2011, the legacy of these unresolved social questions coupled with the exceeding tyranny of the Arab regimes provided the fuel for wide-scale popular protests. Nevertheless, the Arab Spring had far less disruptive effects on social and political stability in Morocco than in many neighboring countries. Inspired by the successes of Tunisian and Egyptian militants and the quick fall of their rulers, young Moroccan protesters alongside activists from various political organizations, united under the banner of what was to become 20th February Movement, took to the streets in a dozen cities and raised radical slogans demanding immediate political reforms and the end of institutionalized corruption. It was striking that slogans calling for the fall of regime raised in other countries had little echo or appeal among the demonstrators. Even amid the mounting tensions between security forces and angry militants, the figure of the king came out unscathed.[6] Apart from the high esteem that the king enjoyed in the public opinion, it was also the political dynamism already initiated in the preceding decade, which assuaged the tensions and served as a buffer against destructive outcomes of the protests. It was true that the ongoing political process suffered from chronic dysfunction; the accomplishments were meager in comparison with the broad expectations of the public. Yet for many Moroccans the political establishment needed not so much dissolution as serious overhauling. Even the most radical voices felt that regime change was a risky and an open-ended venture.

In his televised speech three weeks after the youth movement descended to the streets, the king revealed his full commitment to heed public demands for serious constitutional reforms. Among many propositions, he pledged to "consolidate the rule of law and the institution-based State; expand the scope of collective and individual freedoms and guarantee their practice; promote all types of human rights – political, economic, social, and

cultural rights."[7] The swift reaction of Mohammed VI and his unequivocal proclamation to undertake serious democratic reforms explain why in subsequent weeks the protests gradually lost their momentum and why the numerous partisans of 20th February Movement dwindled after every march. The king's speech, revolutionary for some, another temporary gimmick to weather the storm for others, breathed a new energy in the humdrum political process. The committee appointed by the king to write the new constitution met and consulted for weeks with the political entities and civil society organizations across the board. Their final draft of the constitution was presented by the king in June 2011 and put to a national referendum two weeks later. While the hopes raised by the king's speech of March 2011 for a genuine democratization process have not yet been fully concretized, at least not in the swift way so many expected, public interest in domestic politics has never been as strong and sustained as it is today. One of the sobering lessons of the Arab Spring for the political elite in Morocco is that economic success must ultimately be measured by the wide and concrete impact it has on the social scale.

On the other hand, the relatively peaceful dynamics of the Moroccan Spring can be attributed partly to the structural reforms conducted by successive governments to boost and diversify national economy. Since the mid-1990s, Morocco had developed strong economic relations with Europe and benefited from financial support through various programs. In the ensuing two decades, Moroccan economy underwent profound readjustment to face the increasing domestic demand and face the fierce competition of world markets. Morocco signed a free-trade agreement (FTA) with the United States in 2004, which entered into force in January 2006 offering a new major outlet for Moroccan exports. In October 2008, Morocco concluded the Advanced Status agreement with the European Union enhancing the integration of Moroccan economy within the European structure. The liberalizing process of key sectors such as telecommunication, air transport, and energy coupled with Morocco's increasing attractiveness for Foreign Direct Investment (FDI) had invigorating effects on the economy leading to reassuring annual growth rates despite the effects of the global economic crisis. Starting from 2008, the sectorial plans involving agriculture, industry, solar and wind energy, tourism, fishing industry, railway transport, logistics, roads, and mining formed the principal pillars of the national strategy for sustained development. These national programs were complemented by the creation of poles of regional development, which are inscribed in the broader project of regionalization and decentralization. The 2011 constitution offers general terms of how to implement advanced regionalization giving considerable

autonomy to regional and local administrative entities. At the heart of the regionalization program is the process of rehabilitation and empowerment of urban centers. In recent years, King Mohammed VI presided over several grand projects seeking the improvement of infrastructure and services in major cities in a step to win social approval and reinforce the tourism industry.

Among these projects, Tangier Med Port, one of the largest cargo ports in Africa, had a significant impact on the growth of national economy. Located at the crossroads of international trade and linked to the major Moroccan urban centers through railway and highway lines, it is the principal outlet for agricultural and industrial exports, particularly the expanding automotive industry. The rapid growth of Tangier Med Port and its strategic geographical location have attracted a constellation of technological industries that set up its plants in Morocco in recent years. The Launching of the 2014-2020 Industrial Acceleration Plan comes as a new measure to promote the country as a hub of industry enjoying not only proximity to the world markets and political stability, but also well-developed communication and logistical infrastructure.[8]

The ensemble of these economic and political reforms have not resolved structural problems of development, or reduced the disparities between various regions in Morocco, nor have they created enough opportunities to absorb rising demand for decent jobs notably among young graduates. Nevertheless, they have inspired enough confidence among the large public in the ability of the political class to continue the process of reform, and confront the lingering legacy of corruption, inefficiency and bureaucracy. In the broader context of the Arab World plunged into a cycle of violence and chaos, Morocco has in the eyes of international organizations fared well and was on its way to become an emerging state.

In Search of African Markets

The return of Morocco to the African Union may have benign political effects, enabling the country to consolidate its position in this large and influential organism, and enlist the support of its member states in issues of regional and global concern. Certainly, Morocco's initiatives to plead for the right of Africans for sustainable development opportunities and fair immigration policies, as well as its participation in the UN peacekeeping operations in several parts of Africa have received commendable attention from the international community. Moreover, under the auspices of African

solidarity, Morocco can pursue, even more rigorously, its goal of patching up its strained relations with a handful of African member states that have supported the Polisario Front, and swaying them to adopt a more accommodating political attitude. However, it was the profound recognition that the African continent holds enormous untapped resources and human capital that led the Moroccan political and economic elite to reverse the traditional reserved approach and invest heavily in the African space. The need to transcend the old economic paradigm constrained by its heavy reliance on government protectionism and dependency on the European market drove the Moroccan government to adopt a steady process of liberalization of its economy and the privatizations of key sectors. Given the failure of regional Arab organisms like the Arab Maghreb Union (AMU) and the Arab League (AL) to develop solid economic integration of their member states and create alternative markets, Morocco was compelled to explore new venues of economic cooperation with different and important partners such as the United States, India, China, Russia and Turkey. In an attempt to diversify and strengthen the bases of its national economy, and restructure the entire economic model, Morocco undertook a rigorous policy of rehabilitation of its key sectors through legislating liberal and transparent policies as well as investing capital and expertise to enhance international competitiveness. By 2014, Morocco posed as a creditable regional ally for its various partners in Europe and Asia boasting a thriving economy and political stability.

The genuine opportunities that African markets represented for Morocco's developing economy needed the political backup to set up the frameworks of cooperation, create bonds of trust, and above all remove the constraints that inhibit the flow of capital. Morocco had traditionally maintained strong political relations with several West African countries such as Senegal, Mali, Guinea, Guinea Bissau, Gabon, and the Ivory Coast. Beside their economic and political aspects, these relations involve religious and spiritual dimensions, since the Maliki School of jurisprudence (*Madhab*) is the doctrine of Sunni Islam followed entirely or partly in these countries. Moreover, the existence of strong spiritual ties between influential brotherhoods in Morocco and some of these countries constitutes a powerful source of popular affection and esteem for Morocco and its monarch given his *Sharfian* descent. The religious component in Moroccan foreign policy particularly in this part of Africa has always functioned in favor of the overall political cooperation. Thanks to these stable and solid relations, Morocco's interests in Africa suffered little damage during the long period of its absence from the AU. More importantly, Morocco's efforts to rejoin the

AU received salutary backing from these traditional allies.

It was in March 2013 that the king began as series of official visits to a number of West African countries to give new momentum to growing economic relations. During this official tour, King Mohammed VI visited Senegal, the Ivory Coast, and Gabon and concluded several trade agreements involving transport, agriculture, fishing, tourism, mining, and healthcare sectors.[9] When he visited Rabat in July 2013, Senegalese President, Macky Sall and the king supervised the signature of six agreements strengthening bilateral economic relations and collaboration between various government institutions in both countries.[10] In September of the same year, the king attended the inauguration ceremony of the Malian President, Ibrahim Boubacar Keita and delivered a speech to confirm Morocco's commitment to support Mali's people and government through a process of reconciliation and reconstruction.[11] It was during this visit that an agreement was concluded enabling some 500 imams from Mali to be trained in Morocco over the ensuing years.[12]

During the period 2014-2016, the king accompanied by important delegations representing the government and the major operators in the private sector, made several official visits to Mali, Senegal, the Ivory Coast, Gabon, Guinea, and Guinea Bissau. Along with his fellow head of African states, he presided over the signature of numerous agreements involving economic, cultural and scientific cooperation, and participated in the launch and the follow-up of major projects of infrastructure. These extended visits confirmed the engagement of Moroccan authorities to foster strategic economic partnerships with Sub-Saharan African countries. The active role played by the Confederation of Moroccan Enterprises (CGEM) and its counterparts in these countries gave the bilateral cooperation a strong business impetus. In his speech, Mohammed VI observed that while "previously, diplomacy was at the service of the consolidation of political relations today, it is the economic dimension that prevails and is one of the fundamental diplomatic relations."[13] Although until 2015, Sub-Saharan Africa represented a marginal trade partner with only 3.4% of the overall Moroccan trade compared to the European Union and MENA region,[14] the volume of this trade has increased considerably over the last decade. The same tendency of growth has defined Moroccan trade relations with the African continent. Thus, according to the Moroccan Ministry of Economy, national trade exchanges with Africa "grew by an average of 11% annually over the period 2005- 2015, to nearly MAD 40 billion in 2015, which represents about 7% of Morocco's foreign trade compared with 5% in 2005."[15]

In terms of the flow of Moroccan capital into African markets, Morocco has consolidated its position as one of the major investors in Africa. Recently, the president of the African Development Bank saluted Morocco's commitment to invest in the continent noting that 85% of the country's total FDI goes to Africa.[16] The figures stated by the African Investment Report 2017 indicated that besides being one of the major recipients of FDI in Africa, Morocco has expanded its own share of the African market reaching 5% (after China 39% and UAE 12%) which represented $4.8bn worth of 17 projects. Among these projects, four were destined for Ivory Coast with an estimated capital of $213 million.[17]

The salient feature of these projects is that they are part of a broader dynamic of close political and economic cooperation and are not merely profitable business transactions. The return to the African Union in 2017 makes a great deal of sense in the context of Morocco's firm desire to reposition itself as an important regional actor in the African continent. While preserving its strategic partnership with the EU and US, Morocco has sought to widen the range of its trade partners in an effort to reduce its dependence on Western markets and shield its economy from their tough trade legislations. Moreover, the chaos that has overcome Arab political landscape since the American invasion of Iraq in 2003 and the social upheavals triggered by the Arab Spring events have further weakened the prospects of Arab regional economic integration. The fact that the king has consistently abstained from attending Arab League summits in person reflects his limited confidence in the ability of the Arab League to promote any form of pan-Arab solidarity and cooperation. Although Morocco continues to maintain excellent political relations with oil rich Gulf States, it has adopted a largely passive role in the current political imbroglios of the region.

By contrast, Morocco's full reintegration in the African space in early 2017 was an important political decision that provoked a lot of interest among the media and the large public. Besides the clear economic drives, Morocco was particularly keen on fortifying its position against the contingencies of international politics concerning the unresolved conflict in the Sahara and redeeming its image as a friendly nation enjoying a good reputation in its African entourage. These pursuits also dovetailed with the country's desire to increase its attractiveness as a platform for international investors using its strategic location, open economic policies, and business-friendly environment as incentives to gain more visibility in an increasingly competitive world.

The king's visits to Rwanda, Tanzania, Senegal, Ethiopia, Madagascar,

and Nigeria toward the end of 2016 were motivated by a combination of political and economic factors. As part of his campaign to gain support for the decision to rejoin the AU, the king's official visits to these countries helped invigorate bilateral relations and lay the foundations of long-term economic cooperation. Like the numerous deals signed with West African countries, the agreements concluded with these countries involved various economic sectors notably agriculture, industry, mining, energy, transport, logistics, renewable energies, construction, healthcare, and tourism. The most ambitious of these projects undertaken jointly by Morocco and Nigeria involves the building of a 5000 km long gas pipeline supplying several West African countries and Morocco with an estimated cost of $20 billion. Despite the ecological fears the project has raised among regional environmental organizations,[18] the estimated benefits are considerable. The gas pipeline, it is stated, "will promote the emergence of an integrated North-West African zone and allow the region to achieve energy independence, accelerate electrification projects in benefit of the populations and stimulate important economic and industrial activities."[19] During an official meeting in Rabat in May 2017, Nigerian and Moroccan officials signed documents relating to the implementation of this giant project. Besides gas, cooperation between the two countries involved the development of the fertilizer industry in Nigeria. The OCP (Office Chérifien des Phosphates) Group and Fertilizer Producers and Suppliers Association of Nigeria (FEPSAN) agreed to collaborate in matters of expanding fertilizer production and distribution capacity in Nigeria to meet the rising demand of the local market.[20] The OCP Group, which had increased its exports to Africa by 70% in 2016, also launched two important projects in Ethiopia and Rwanda involving the construction of two fertilizer plants. It is expected that these plants will boost agricultural production and satisfy the needs for fertilizers suited for the crops and soil of these countries.[21]

Given the importance of the agricultural sector in African economies, the Moroccan government, deployed remarkable efforts to promote close cooperation in the field with its various partners in the African continent. During the COP22 conference held in Marrakech in 2016, attended by numerous African heads of state, Morocco proposed the initiative of "Adaptation of African Agriculture" (AAA) which provides a panoply of measures to minimize the nefarious effects of climatic change and draught over farming programs in Africa.[22] In particular, the initiative seeks to enable farmers to better valorize and adapt their limited resources to the challenges posed by global warming.

CONCLUSION

Morocco's heavy investment in African markets will begin to yield its results only in the years ahead. The productive impact of Morocco's overtures will eventually consolidate its position as a key regional state. However, much depends on the ability of the Moroccan political establishment to continue to display dynamism and openness in its relation to its African partners. Beside its economic interests, Morocco's experience in fighting terrorism and its strong security and intelligence apparatuses can constitute solid foundations of bilateral and multilateral cooperation especially in an environment increasingly threatened by extremist religious and ethnic ideologies. The effects of climatic change and the immediate and long-term challenges that economic development pose to African nations constitute strong arenas of collective action. The return to the African Union paves the way for Morocco to contribute to and benefit from the enormous opportunities that the continent holds in terms of its natural resources and human capital. For Morocco to maintain its influence and promote its image as regional model of stability and growth, however, its elected governments need to address domestic difficulties involving gross economic disparities between various regions and empower the population politically and economically. In fact, in strengthening its political edifice through implementation of democratic measures and the promotion of fair and efficient governance, Morocco will not only be able to redress social and economic inequalities, but will also supply a pathway for its African partners to achieve stability and durable economic development. The important political reforms undertaken by the king following his accession in 1999 and the adoption of a new constitution expanding the scope of democratic practice are important steps on the path of democratization and can be inspiring for numerous countries still in the process of transition from totalitarian to elective government.

The enduring conflict in the Sahara remains a major handicap to Moroccan political and economic emergence. In spite of Morocco's efforts to reach a peaceful solution under the auspices of the United Nations, which included the proposal of autonomy under Moroccan sovereignty, deemed credible and serious by numerous states, there seems to be little hope for a speedy settlement acceptable by both parties. The specter of war is never far and threatens to plunge the entire region into turmoil. While the ultimate solution to this conflict will necessitate an *entente* between the principal states in the Maghreb, Morocco and Algeria, Moroccan authorities need to continue to improve the living conditions in the Sahara provinces and empower local Sahraoui population to contribute to the welfare of their

region. The greater role the Sahraoui population assume in the management of their administrative and economic affairs, the less chances the Polisario will have to market their separatist agenda. The readmission to the African Union will create further channels of communication for Moroccan officials to convince their African partners of their positive disposition to work for peace and stability in the Sahara and across the African continent.

NOTES

1   Miguel Hernando de Larramendi and Beatriz Tomé-Alonso, "The Return of Morocco to the African Union," *IEMed Mediterranean Yearbook 2017*, http://www.iemed.org/observatori/arees-danalisi/arxius-adjunts/anuari/med.2017/IEMed_MedYearbook2017_morocco_african_union_Larramendi_alonso.pdf/.
2   Kitsepile Nyathi, "Mugabe hits at African leaders for Morocco return to AU," *Daily Nation,* February 1, 2017, https://www.nation.co.ke/news/africa/Mugabe-hits-at-African-leaders-for-Morocco-return-to-AU/1066-3796250-qb5e2c/.
3   King Mohammed VI, Speech, 28th African Union Summit, Addis Abba, January 31, 2017, http://www.maroc.ma/en/royal-activities/full-speech-hm-king-28th-african-union-summit.).
4   Irene Fernández Molina, *Moroccan Foreign Policy under Mohammed VI, 1999–2014* (London: Routledge, 2016), 35-36.
5   As early as 1993, then Prince Mohammed VI defended a doctoral thesis on cooperation between the European Economic Community (EEC) and the Arab Maghreb Union (AMU) at the University of Nice-Sophia Antipolis in France; see Foreign Service, "Un jury de thèse 'royal' pour le prince héritier du Maroc," *Liberation,* May 8, 1996, http://www.liberation.fr/planete/1996/05/08/un-jury-de-these-royal-pour-le-prince-heritier-du-marocmention-tres-honorable-pour-sar-sidi-mohammed_172296.
6   Mohammed Daadaoui, *Moroccan Monarchy and the Islamist Challenge: Maintaining Makhzen Power* (New York: Palgrave Macmillan, 2011), 1.
7   King Mohammed VI, Royal Speech to the Nation, Rabat, March 9, 2011, https://www.diplomatie.ma/en/DiscoursRoyaux/tabid/2893/vw/1/ItemID/8270/language/en-US/Default.aspx.
8   Royaume du Maroc Ministere de I'lndustrie, de I'lnvestissement, du Commerce et de I'Economie Numerique (Ministry of Industry, Investment, and ,the Digital Economy; Kingdom of Morocco), "The Industrial Acceleration Plan 2014-2020," *Royaume du Maroc Ministere de I'lndustrie, de I'lnvestissement, du Commerce et de I'Economie Numerique,* http://www.mcinet.gov.ma/en/content/industrial-acceleration-plan-2014-2020.
9   Agence Marocaine de Presse, "SM le Roi et le président ivoirien président la cérémonie de signature de six accords de coopération," *Agence Marocaine de Presse,* March 19, 2013, http://www.mapnews.ma/fr/activites-royales/sm-le-roi-et-le-president-ivoirien-president-la-ceremonie-de-signature-de-six-acco.
10   Agence Marocaine de Press, "SM le Roi et le président sénégalais président la cérémonie de signature de plusieurs accords bilatéraux," *Agence Marocaine de Presse,* http://www.mapnews.ma/fr/activites-royales/sm-le-roi-et-le-president-senegalais-president-la-ceremonie-de-signature-de-plusie.
11   King Mohammed VI, "Discours de SM le Roi lors de la cérémonie d'investiture du nouveau président malien Ibrahim Boubacar Keita," Speech, Inauguration Ceremony

of Mali's President Ibrahim Boubacar Keita, Bamako, September 19, 2013, http://www.
maroc.ma/fr/activites-royales/discours-de-sm-le-roi-lors-de-la-ceremonie-dinvestiture-
du-nouveau-president.

12   Agence Marocaine de Press, "SM le Roi et le Chef de l'Etat malien président à
Bamako la signature d'un accord en matière de formation des imams maliens," *Agence
Marocaine de Presse,* September 20, 2013,
http://www.mapnews.ma/fr/activites-royales/sm-le-roi-et-le-chef-de-letat-malien-pre-
sident-bamako-la-signature-d%E2%80%99un-accord-en-.

13   King Mohammed VI, Royal Message, 5th African Union-European Union
Summit, Abidjan, February 24, 2014, http://www.maroc.ma/fr/discours-royaux/texte-
integral-du-discours-de-sm-le-roi-au-forum-economique-maroco-ivoirien-abidjan.

14   Rim Berahab, "Relations between Morocco and sub-Saharan Africa: What is
the potential for trade and foreign direct investment?" *Policy Brief*, PB-17/04 OCP Policy
Center, February 2017, http://www.ocppc.ma/sites/default/files/OCPPC-PB1704vEn.pdf.

15   Directorate of Financial Studies and Forecasts, Ministry of Economy and Fi-
nance, "Summary of the 2017 Economic and Financial Report," 2017 https://www.financ-
es.gov.ma/Docs/DB/2017/EN-DEPF_SyntheseREF.pdf.

16   African Development Bank, "Morocco in Line with AfDB's High 5s," July 22,
2016, http://allafrica.com/stories/201607221044.html.

17   Financial Times, *The African Investment Report 2017*, pp 6-9, http://itemsweb.
esade.edu/wi/Prensa/TheAfricaInvestmentReport2017.pdf.

18   Attac Maroc, "Gazoduc Nigeria-Maroc : un projet qui n'est pas dans notre inté-
rêt," March 23, 2018, http://attacmaroc.org/fr/2018/03/23/gazoduc-nigeria-maroc-un-pro-
jet-qui-nest-pas-dans-notre-interet/.

19   2M.ma with Agence Marocaine de Presse (MAP), "SM le Roi préside une séance
de travail consacrée au projet de gazoduc Nigéria-Maroc," December 12, 2016, http://
www.2m.ma/fr/news/20161213-sm-le-roi-preside-a-casablanca-une-seance-de-travail-
consacree-au-projet-de-gazoduc/.

20   Agence Marocaine de Presse, "SM le Roi préside à Rabat la cérémonie de signa-
ture d'accords relatifs au projet du Gazoduc Nigéria-Maroc et à la coopération maroco-ni-
gériane dans le domaine des engrais," *Agence Marocaine de Presse,* May 15, 2017, http://
www.mapnews.ma/fr/activites-royales/sm-le-roi-preside-rabat-la-ceremonie-de-signa-
ture-daccords-relatifs-au-projet-du-g.

21   OCP, "Annual Report 2016," http://www.ocpgroup.ma/sites/default/files/alldocs/
RA%20OCP%202016%20VUK.pdf.

22   AAA Initiative, "Initiative pour l'adaptation de l'agriculture africaine (AAA) aux
changements climatiques,"
http://www.aaainitiative.org/sites/aaainitiative.org/files/AAA_livre%20blanc_FRA.pdf.