U. S. climate institutions and the intelligence community: Domestic and international collaboration

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Climate change presents an actorless threat. The most powerful world jurisdictions are undertaking efforts to tackle this global threat multiplier. The Biden-Harris administration, returning the U. S. back to international climate politics, claims the leadership role. The author of the article examines how the administration's climate rhetoric is backed up organizationally. The institutional architecture that powers Biden's climate policy is put at the center of the article's analysis. The United States intelligence community has been entrusted with a significant role in running current U. S. institutional climate recovery efforts. The article approaches the engagement of the intelligence community in climate policy from such angles as policymakers' expectations of the intelligence community and its role and capabilities for domestic and international collaboration. The article proceeds through three stages. The first stage presents theoretical frameworks for new-institutional analysis approaches to climate policy of the United States. The second examines how the Biden-Harris administration organizes institutions in the system of climate policy. The third approaches the role and functions of the U. S. intelligence community in climate change prevention policy. The author concludes that the U. S. intelligence community possesses a strong capacity to provide for responsible decision making in regard to the climate, however, mechanisms for domestic and international climate intelligence exchange have yet to be determined.

Keywords: USA, new institutionalism, Biden-Harris administration, intelligence community, climate change policy.

The article argues that the intelligence community holds substantial capabilities to contribute to the United States climate policy.

It will proceed through three stages. The first will present theoretical frameworks for new-institutional analysis approaches to climate policy of the United States. The second will examine how the Biden-Harris administration organizes institutions in the system of climate policy. The third one will approach the role and functions of the U. S. intelligence community in climate change prevention policy.

Climate change causes rapid environmental shifts around the world — rising temperature extremes during winter and summer periods, the melting glaciers and permafrost, rising sea level, shortages of fresh water, infectious diseases outbreaks, long time draughts affecting agriculture, severe forest fires and many others. The climate change implications are more rapid and more dramatic than they have ever been. Climate change is perceived as a threat multiplier potentially causing or substantially contributing to national, regional

and international instability. With such a background climate change agenda undergoes a securitization process.

The Biden-Harris administration has recognized that the USA along with all other nations faces numerous and profound existential threats of domestic, international and global nature. These threats have diverse actorness characteristics — some possess state actor format, while others have non-state nature. The third type of threats holds an actorless dimension — environmental threats and climate change in particular along with infectious diseases outbreaks represent a specific type of actorless threats. These threats have global impact and require immediate and close international cooperation. The United States under the Biden administration declares its readiness to meet new challenges and claims international climate leadership. However, the existing U.S. institutional approaches and organizational capacities regarding decision making and expertise to deal with actorless threats turns to be insufficient. To tackle the organizational issue president Biden has launched an institutional reorganization and is gradually building the Federal climate enterprise to provide for an integrative approach to climate change challenges.

A prominent role within the enterprise is attributed to the United States intelligence community which previously has not been institutionally incorporated into climate policy. Being transboundary, the climate change threat requires transparent and cooperative international efforts. The concept of joint multinational collaboration to prevent climate change implies the establishment of a new international security and intelligence paradigm which should be grounded on intelligence exchange. In these circumstances the function of the intelligence community within the U.S. mechanism of domestic and international cooperation is yet to be analyzed and determined.

To provide for effective and integrated management of climate change policy president Biden has declared the United States engagement to address climate crisis as the essential element of the United States foreign policy and National security [1].

The federal climate enterprise and institutionalism

To examine the Biden-Harris administration approach to climate change challenge this article draws on New institutionalism theories. New institutionalism consistently explains the behavior of actors and potential policy outcomes. New institutionalists argue that institutional architecture of policy is inherently important for policy implementation. They analyze formal and informal roles that institutions play within the system and determine policy outcomes relevant to institutional components. New institutionalism implies that the existing institutions and their organization reflecting specific configuration of challenges and responses determine the logic of consistent decisions [2–6].

New institutionalists' approach to objects of analysis goes beyond the traditional institutionalists' focus on conventional classification of institutions such as legislative, executive, judicial, national, regional or international etc., embracing interaction among them, mutual exchange of values and principles. New institutionalists worked out a number of reciprocally reinforcing approaches to analysis. A selected set of approaches has been applied for the purposes of this research.

The Biden-Harris administration's efforts are seen through the prism of Sociological institutionalism. Construction of the coherent system of federal executive institutions responsible for climate change agenda provides a model with its specific set of values, norms

and rules to be intuitively complied with by institutions of different levels and branches of power.

Constructivists' institutionalism offers another approach to analysis of President Biden's efforts to build the Federal climate enterprise from positions of formation of patterns to follow at international level. The Federal climate enterprise with the office of the United States Special Presidential Envoy for Climate — a specially designated official responsible for foreign policy on climate change — conveys the concept to other participants of international relations and performs a coordinating function, subtly identifying the U.S. leadership in the field.

Normative institutionalism stipulating that behavior of actors is affected by the norms and rules of the institution they act in allows a closer look at the new approaches to understanding the functioning of the intelligence community in the Federal climate enterprise. A new role of intelligence community as one of the key institutions necessary for a productive climate recovery policy has been, on the one hand, highlighted and explained by the principle officers in charge of the climate policy (President Biden, Special Envoy Kerry, National Climate Advisor McCarthy) and, on the other, recognized by the Director of National Intelligence (Avril Haines). It should be acknowledged that Normative institutionalism theory does not claim that actors are always and necessarily receptive to values, rules and norms of the institution they operate in. An actor can oppose the institutional pattern of behavior. Thus Scott Pruitt, the 14th Administrator of the Environmental Protection Agency, being an active opponent of the scientific consensus on climate change, made substantial efforts to reform the work of EPA and play down its institutional climate policy performance.

Rational choice institutionalism, assuming that institutions allow actors to maximize their utility and benefits [7], views the Federal climate enterprise as an institute that may be seen by the Biden-Harris administration as an arena for fulfilling, implementing and developing its green electoral agenda and striving for the best possible achievements not only environmental but of electoral nature as well.

Historical institutionalism suggests that once established institutions tend to form a relevant ecosystem for their future development, preservation and continuity [8; 9]. This theory has been publically admitted by the Special Envoy for Climate John Kerry stating that climate institutions established by President Biden would make decisions that could have fateful consequences, thus it would not be possible to reverse them in the future by other administrations [10].

Biden Climate institutional architecture and the role of intelligence community

Executive institutions

The Biden-Harris administration has launched a comprehensive climate policy since it entered the White House [1]. President Biden promotes an extremely ambitious climate agenda, vowing to cut greenhouse gas emissions by half, decarbonize the U.S. electricity sector by 2035, and put the country on a path to net-zero emissions by 2050. The realization of these ambitions will depend on many factors — institutional capacity being one of the most significant among them.

Previous administrations since 1970 have tended to run their environmental policies predominantly through two specialized federal institutions — the Council on Environmental Quality (CEQ) within the Executive office of the President and the Environmental Protection Agency (EPA). This pattern of national environmental management was formed under Republican President Richard Nixon with the adoption by the Congress of the National Environmental Policy Act (NEPA) in 1969, founding a Council on Environmental Quality and establishing by the presidential executive order an independent executive environmental agency — the Environmental Protection Agency in 1970.

NEPA, a prototype of "Magna Carta" for Federal environmental regulations, established "a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation". NEPA induced all federal agencies of the Federal Government to audit environmentally their statutory authority, administrative regulations and policies and procedures and assess their activities prior to implementation [11]. Federal institutions were required to incorporate an environmental component in their decision making in the form of Environmental Impact Statements or Environmental Assessments. The same requirement currently is set forth for federal agencies by President Biden's Executive order specifically with regard to climate change.

The Council on Environmental Quality, on the one hand, oversees NEPA implementation efforts to improve the environment and federal agencies compliance with NEPA and, on the other hand, mediates environmental disputes between federal agencies. The Council provides expertise to the President and develops policies on a wide range of environmental issues including coordination of the White House environmental and energy policies. The Council's decisions affect almost all large infrastructural projects in the country in light of its oversight of federal environmental permitting. President Biden has emphasized prevention of climate change as one of key priorities for CEQ performance.

The lead federal executive environmental agency — Environmental Protection Agency — is tasked with implementing the federal environmental protection measures, conducting research projects and environmental assessments, setting standards, having its mechanism of enforcement powers in accordance with the existing laws.

The formation of CEQ and EPA in 1970 did not aim to centralize environmental policy. Federal agencies maintain bureaus, services and administration in charge of particular environmental functions: Department of Interior (Bureau of Land Management, Bureau of Ocean Energy Management, Bureau of Safety and Environmental Enforcement, National Park Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, Bureau of Reclamation), Department of Energy, Department of Defense, Department of Commerce (National Oceanic and Atmospheric Administration) etc. CEQ and EPA established an institutional format of coordination and integration of environmental efforts.

The Biden-Harris administration applies the same approach to organizing its environmental policy by prioritizing the climate change challenge. The president has announced an institutional strategy, namely a "whole-of-government" effort to prevent climate change. President Biden greened all federal agencies, engaging them in climate policy, applied deep interdepartmental approach with the purpose to increase coordination and integration of climate activities and established a Federal environmental commu-

nity that represents a large scale, diverse comprehensive — "Federal climate enterprise". To these ends the Biden-Harris administration offers upgraded federal executive systemic and institutional approach to tackle the challenge not only by strengthening the existing organization, but establishing/reestablishing additional institutions and appealing to previously unengaged agencies. The former relates to the establishment of independent federal chief executive offices in charge of the U. S. foreign and domestic climate policies with the latter to energize the role of the U. S. intelligence community in support of climate decision making. The Federal climate enterprise is a sophisticated two-headed system led by the United States Special Presidential Envoy for Climate responsible for foreign climate agenda and by the Assistant to the President and National Climate Advisor (National Climate Advisor) responsible for domestic climate agenda.

Both chief governmental executive offices possess symbolic and instrumental significance. On the one hand, each of them symbolizes an influential leadership, while on the other, each enjoys powerful instruments of agenda setting, control and coordination in respective domains of responsibility.

All President Biden appointees to major environmental offices have either professional or political environmental backgrounds, and highly likely personal anti-Trump environmental legacy intentions.

The U. S. Special Presidential Envoy for Climate is a Cabinet level position established and introduced in 2021 to the National Security Council. For the first time, the National Security Council has embraced an official who is responsible for climate change. This has institutionally conceptualized climate change as a national security threat. It also reestablished the link between climate and security severed by President Trump who removed climate change from the list of national security threats in 2017 [12]. John Kerry — the Democratic party nominee for president (2004) and former Secretary of State (2013–2017) — who signed the UN Paris Climate Agreement on behalf of the U. S. in 2015 — has been designated to the position of Special presidential envoy for climate. John Kerry enjoys substantial personal authority and political capital to promote climate agenda internationally on behalf of the USA.

Another reinvented primary position of an Assistant to the President and National Climate Advisor was offered to and accepted by Gina McCarthy on January 27, 2021. She had served under President Barack Obama as the 13th administrator of the Environmental Protection Agency (2013–2017) and was named "Knight of Obama's global warming and climate change initiative". Her Senate confirmation to the office became the longest in the history of EPA's administrators' appointments. Her tough relations with the Congress had not ended then. In 2015 the House of Representatives unsuccessfully processed a resolution on the impeachment of Gina McCarthy. After leaving EPA McCarthy ran for president of the Natural Resources Defense Council and sued the Trump administration more than 100 times opposing his administration's environmental measures. McCarthy witnessed as one of the most prominent EPA and President Obama's environmental achievements — Clean Power Plan of 2015 was later modified and reversed by President Trump's officials [13]. Having come back to the top of one of the federal environmental institutions in the capacity of the National Climate Advisor, McCarthy is likely to reinstate some of the Obama environmental legacy. Her principle function is to coordinate and oversee interagency efforts to tackle climate change.

Collaboration of National Climate Advisor and Special Presidential Envoy for Climate on climate change agenda will definitely have cooperative nature but precise mecha-

nisms remain to be determined. Referring to the pattern of cooperation, Gina McCarthy described it as follows: "I'm the dude who's supposed to deliver this in a timely way — (laughter) — and he sets the timing" [14].

On February 11, 2021 the first National climate advisor convened and chaired the first National climate task force (NCTF) meeting of Cabinet-level executives from 21 federal agencies and senior White House officials to set a coordinate system to tackle climate change and discuss how each agency should adopt their prioritizing climate throughout all of their decision making and plan to collaborate with other agency partners.

The NCTF is comprised of the following 22 officers: National Climate Advisor (Chair), Secretary of the Treasury, Secretary of Defense, Attorney General, Secretary of the Interior, Secretary of Agriculture, Secretary of Commerce, Secretary of Labor, Secretary of Health and Human Services, Secretary of Housing and Urban Development, Secretary of Transportation, Secretary of Energy, Secretary of Homeland Security, Administrator of General Services, Chair of the Council on Environmental Quality, Administrator of the Environmental Protection Agency, Director of the Office of Management and Budget, Director of the Office of Science and Technology Policy, Assistant to the President for Domestic Policy, Assistant to the President for National Security Affairs, Assistant to the President for Homeland Security and Counterterrorism, Assistant to the President for Economic Policy [1, Sec. 203]. The task force embraces almost all key federal institutions. The process of effective organization of inter- and multi-agencies coordination and launching joint initiatives on climate recovery can become a swampy task.

The position of the White house "climate tsar" responsible for the U.S. energy and climate agenda is not new. In 2009 President Obama also appointed former EPA administrator Carol Browner to a newly established position of Energy coordinator at the White House executive office to coordinate energy and climate policy. Informally the position was named "climate tsar". The position lasted for three years and in 2011 the Republican-led House of representatives defunded President Barack Obama's senior advisers positions on policy issues including health care, energy and others, technically eliminating those offices [15]. The Biden-Harris administration revitalized and doubled the previously existed institution.

Both positions: the Special Presidential Envoy for Climate and the National Climate Advisor are the White House offices and do not require a Senate confirmation for appointees. However this does not release them from the pressure of the House of Representatives and the Senate when it comes to initiatives of the legislative approval process. If the Democratic party loses elections to the House of Representatives at some point, both positions could suffer the same fate as their predecessors.

The following four key climate related positions require the Senate conformation: the CEQ chair, the EPA administrator, the Secretary of Interior, and of the Department of Energy.

President Biden picked Brenda Mallory as the chair of the Council on Environmental Quality. Brenda Mallory was sworn in as the 12th Chair of Council on April 14, 2021. In this position her priorities will focus on the environmental justice and climate change [16]. She promises to revoke President Trump's changes to NEPA and environmental permitting law [17]. Her candidacy to the position was not subject to a long dispute within the Biden-Harris administration. Her academic degrees in history, sociology and law, her practice of environmental law in private and governmental sector and extended experience in EPA and CEQ during the Obama administration made her a highly qualified and

symbolic candidate to revise Trump's environmental legacy. However, the scabrous Senate confirmation signaled once again that not all President's initiatives and nominees would necessarily find legislators endorsement. The Senate Environment and Public Works committee voted 11–9 to approve Brenda Mallory, and she was finally confirmed by full Senate vote of 53 to 45.

The Environmental Protection Agency obtained its 16th Administrator Michael S. Regan in a less confrontational manner. He is climate-minded and a former environmental state level official who served as the Secretary of North Carolina Department of Environmental Quality. His limited prior interaction with federal legislators likely mitigated the Senate pressure on him at the confirmation stage.

On February 9, 2021, the Senate Committee on Environment and Public Works Committee confirmed Regan's candidacy for a full Senate vote of 14 to 6. On March 10, 2021, the full Senate confirmed his nomination by 66–34. The next day, Michael Regan was sworn in as the EPA Administrator.

The Department of Interior Secretary Debra Haaland — previously a Democratic Congresswoman — is well known for her strong record on environmental climate justice and opposition to the Trump administration's deregulatory agenda. As a Congresswoman for New-Mexico she endorsed limitations on fossil fuel development on federal lands. Serving as Secretary of Interior, Deb Haaland will be in charge of public lands and natural resources development standards.

On March 4, 2021, the Senate Committee on Energy and Natural Resources voted 11–9 and put the candidacy of Debra Haaland to full Senate vote. The needed support came from the moderate Republican Alaskan Senator Lisa Murkowski who joined 10 Democrats in confirming Haaland. On March 15, 2021, the US Senate confirmed the Democrat by a vote of 51–40.

The next critical nomination to the office of the Secretary of the Department of Energy of Jennifer Granholm went through more comfortable hearings. A former Attorney General and Democratic Governor of Michigan (2003–2011) and a staunch clean energy advocate possessing well developed relations with environmental advocacy organizations, she was not substantially challenged at the committee hearings. On January 27, 2021, the Senate Committee on Energy and Natural Resources voted 13–4 approving her nomination. On February 25, 2021, the Senate confirmed Granholm by a vote of 64–35 to the position.

Intelligence community

The Federal climate enterprise established by the Biden-Harris administration has a distinctive feature which previously had not emerged in a climate change context. It concerns the incorporation of intelligence community (IC) into the climate change prevention system. It should be recognized that the U. S. military and intelligence community have been reporting on the climate change to the government since the early 1990s [18]. However these efforts have been neither continuously supported nor institutionalized by successive administrations. All-of-the-government approach prescribes a noticeable role to the United States intelligence community in joint efforts on climate recovery.

The executive order of President Biden requires the Director of National Intelligence to prepare a National Intelligence Estimate on the national; economic and security impacts of climate change [1, Sec. 103, b].

The Director of National Intelligence also joins the taskforce headed by the Secretary of Defense on preparing an Analysis of the security implications of climate change (Climate Risk Analysis) that can be incorporated into modeling, simulation, war-gaming, and other analyses. The Task force is composed of "the Secretary of Commerce, the Administrator of the National Oceanic and Atmospheric Administration, the Chair of the Council on Environmental Quality, the Administrator of the Environmental Protection Agency, the Director of the Office of Science and Technology Policy, the Administrator of the National Aeronautics and Space Administration and the heads of other agencies as appropriate" [1, Sec. 103, c].

The Intelligence community has not hesitated to determine its efforts. On April 22, 2021, on the Earth day, President Biden convened world leaders to an online Leaders Summit on Climate. 40 national leaders, 17 world largest economies and green house emitters attended the Summit. The event for the second time symbolized a comeback of the USA to the world climate negotiations table. The first symbolic signal occurred when President Biden returned the United States to the Paris Agreement on the day he was sworn in as President on January 20, 2021. The Summit affirmed the U.S. course on securitization of the climate change. One of the Summit sessions was dedicated to Climate security. This session was hosted by U.S. Secretary of Defense Lloyd Austin. The Director of National Intelligence Avril Haines attended the session and put forward the intelligence community's vision of the climate change agenda [19]. The mere fact of the DNI presenting at the environmental conference reflected the significance of the agenda for intelligence community.

In her opening remarks Avril Haines proclaimed that the "Intelligence Community views climate change as an urgent national security priority…" and that "climate change is both a near-term and a long-term critical threat that will define the next generation and it is one that the intelligence community has long recognized as important to our national security, though we have not always made it a key priority…", as well as that climate change issues should "be fully integrated with every aspect of our analysis" [20].

Three questions should be raised in this context: 1) What are the expectations and demands of policymakers of intelligence community with regard to climate change? 2) What can the intelligence community contribute or offer to decision makers? 3) How should the intelligence community's collaboration with its foreign counterparts be organized?

What role is the Intelligence Community expected to play in climate change prevention?

Expectations and demands of decision makers determine the outputs they receive from the IC. The U.S. intelligence community's role in the climate change enterprise is to collect, process and evaluate intelligence, submit at the earliest possible time relevant assessments to customers of the intelligence related to climate change with the purpose to provide for an unbiased and free from political rhetoric decision making process [21]. In this context the Special Envoy for Climate and Director of National Intelligence highlighted a number of expected products of the intelligence community: 1) unbiased assessment of the legitimacy of judgements on climate change threat; 2) relevant intelligence back-up of negotiations by submitting their assessment of other countries' attitudes to the climate change and treatment measures taken by them — as a result, whether or not the U.S. ac-

tions are appropriate to tackle the problem; 3) their interpretation of climate intelligence for policymakers to help them understand the impact of climate change on a variety of issues they are dealing with on a daily basis; 4) the IC could play its legitimate arbitrary institutional role to consolidate confronting political and organizational parties by offering impartial and objective analysis. According to Avril Haines, environmental intelligence analytics had been recognized by "a series of Administrations, both Democratic and Republican, and for some time, we have regularly included climate change in our worldwide threat assessments to the Congress, as we did this year (2021)" [20].

How should the Intelligence Community operate within frameworks of Federal climate enterprise?

Human capital. The Director of National Intelligence stressed that "to address climate change properly it must be at the center of our country's foreign policy and national security and as such, it needs to be fully integrated into every aspect of our analysis, in order to allow us to not only monitor the threat but also, critically, to ensure that policymakers understand the implications of climate change on seemingly unrelated policies and in identifying opportunities to mitigate the challenge we face" [20]. The Intelligence community should become a center for climate change data analysis by developing its climate competency and expertise. This will require establishing its own teams of analysts possessing climate related scientific and technical knowledge and intensifying the engagement with a wide variety of scientists, processing data from intelligence and open data sources.

Collaboration capabilities. Such collaboration will reserve the responsibility to treat sensitive national security data to the intelligence community. Thus incorporation of new climate agenda will not affect intelligence community organizational identity and strategy. This understanding highlights once again that intelligence activity has two fundamentals: collecting and analytics/interpretation — both being vital for objective reports.

The U. S. military and the Central intelligence agency stated cooperating with scientists on environmental and climate related issues in 1990s. "The CIA opened an environmental center, cleared scientists to access classified information, and began re-examining thousands of archived satellite images of Russia, Asia, Europe, Africa, and the Arctic with the goal of better understanding how the global environment had changed over the prior decades. Ever since, our services have been raising increasing alarms about the impact that climate change has across every aspect of our work as geophysical features of the earth are being reshaped whether through the changing boundary lines of the tropics or the shrinking sea ice in the Arctic" [20]. However results of that analysis were seen principally through the geopolitical prism but not accenting climate change to the national security.

Technical capabilities. The intelligence community can bring powerful capacities to climate enterprise. It possesses an access to a variety of intelligence tools not available to regular scientific community which can be applied for climate policy — artificial intelligence technologies, space satellite fleet, radars, machine learning capacities to determine early warning signals, access to already classified data etc. The IC has a prolonged experience of modeling approach to examined phenomena and security analysis focused on building short-term and long term scenarios rather than on precise projections. Collecting and processing data with regard to negative effects of climate change to the United States people, property or interests correlates with one of three foundational mission ob-

jectives of the U.S. Intelligence community pertaining to Anticipatory intelligence addressing new and emerging threats, changing conditions and underappreciated developments [22]. Taking into account the actorless nature of climate change threat, it would be reasonable to assume that the IC will predominantly apply quantitative methods over qualitative methods of intelligence analysis [23; 24]. Intelligence community's capabilities make it an indispensable element of the Federal climate enterprise.

Reporting. Climate change analysis has already been integrated to the Security threat assessments, Global trends reports, Strategies and other special products by the U.S. intelligence community to varying degrees [25]. Certain assessments are fully or partly concentrated on climate agenda such as "2008 National Intelligence Assessment on the National Security Implications of Global Climate Change to 2030" [26], "Global Water Security, Intelligence Community Assessment of 2012" [27], "Water Insecurity Threatening Global Economic Growth, Political Stability" [28], "Global Food Security, Intelligence Community Assessment of 2015" [29] or "Implications for national security of anticipated climate change of 2016" [30] while others like "the National Intelligence strategy of the USA of 2019" [22] contain only one reference to climate threat. The most recent IC products demonstrate consistency in referring to the climate change agenda. "The Annual threat Assessment of the U.S. Intelligence community, 2021" [31] and "Global Trends 2040: A More Contested World, 2021" by the National Intelligence Council [32] contain independent chapters focused on climate and environment. However, regardless of a rather progressive character of the recent Threat assessment, John Kerry criticized the document for being sketchy [10].

Another aspect to be noted regarding Intelligence community environmental focus relates to the Central Intelligence Agency which recently has publically recognized the significance of environmental agenda and revealed intelligence interest to environmental issues by adding to the CIA's "World Factbook" countries' profiles a new category the "Environment". The CIA's World Factbook represents a very conservative data set. It has been structurally modified by adding new categories only three times for the last almost twenty five years. The other two "fresh" categories which preceded the "Environment" were the "Energy" and the "Terrorism" [33].

How should the Intelligence Community collaborate with foreign counterparts in performing its climate analysis function?

Climate change effects are inevitable and consequential. That is why unlike the reaction to another global challenge — pandemic, counter climate change measures will require not ad hoc, but long standing international collaboration.

In contrast to the hard security and strategic challenges with exiting mechanisms of intelligence data exchange within NATO or the Five eyes intelligence alliance, climate change intelligence exchange will require the formation of another "climate intelligence exchange consortium" simply because the existing intelligence exchange consortiums do not include many countries affected by climate change. International "climate intelligence exchange consortium" would suppose for the U.S. intelligence community 1) modifying principles and methodology of intelligence collection, 2) putting forward other forms and formats of partnership involving China, India, Russia, Iran and other nations previously not thought as receivers of the U.S. intelligence data on a regular basis, 3) determining

classified or unclassified nature of exchange and cooperation. At the same time the intelligence community has to protect its sources and methods as before.

A number of issues have to be recognized: on the one hand, it is problematic to share intelligence even within numerous U.S. national intelligence community, on the other hand, international intelligence exchange has been practiced for years with regard to nuclear materials smuggling. Climate intelligence becomes possible if national intelligence communities reconsider and recognize climate change threat as existential.

The U.S. intelligence community also is to determine its role and requirements in such collaboration — to take the role of a leader or the one of many participants of data exchange.

Consumers of climate intelligence in international context. John Kerry believes that the intelligence community should re-conceptualize its vision of customers of climate related information embracing not only governmental officials but public and business as well. Significant openness, free dissemination of climate intelligence assessments will contribute to holding governments all over the world accountable and responsible for their respective climate policies. The IC efforts grounded on the principle of objectivity thus can contribute to strengthening foreign civil society potential to influence corresponding governments on climate issues.

Avril Haines, DNI, speaking at the Leaders summit on climate urged world leaders "to think about the role that their intelligence communities can and should play in addressing the global problem" [20].

Conclusion

The Biden-Harris administration is facing a challenge to respond to the existential thereat of climate change which possesses actorless nature. The President has announced an extremely ambitions climate program which is built upon a coherent ideological concept and requires progressive governmental efforts.

To these ends president Biden is upgrading the U.S. institutional governmental architecture to organizationally correspond to climate challenges. The President has implemented "the-whole-government approach" anticipating a strong inter-agency collaboration on climate and environmental agenda. However this approach is not novel. The concept of inter- and multi- agencies environmental governance was originated by president Nixon in the early 1970s regarding institutionalization of the United States environmental policy.

President Biden has founded a strong institutional capacity by establishing the "Federal climate enterprise" committed to providing rational and efficient environmental and climate governance, impartial and objective expertise and services to decision makers on most urgent environmental and climate challenges.

The President has established a strong environmental leadership designating prominent greenest professionals to key offices in charge of environmental and climate agenda. This enhances accountability and public trust to consolidated federal climate community.

The diverse multiple "Federal climate enterprise" rests on two pillars — domestic and foreign. The domestic pillar is led by the White House Office of national climate policy, chaired by the Assistant to the President and National climate advisor. The foreign pillar is led by the United States Special presidential envoy for climate. The United States intelli-

gence community possesses a strong intellectual, technical and administrative capabilities to provide for climate responsible decision making.

Engagement of the U. S. intelligence community in the federal climate enterprise and climate recovery decision making process is the institutional innovation of the Biden-Harris administration.

The United States intelligence community will become a center of gravity for expertise on climate evolution for decision makers. The intelligence community can be considered a governmental climate super think-tank that brings scientific knowledge, intelligence analytics and technical capabilities to the federal climate policy making. Nonetheless, Special Envoy Kerry has expressed uncertainty as to whether the eighteen U. S. intelligence institutions could productively organize themselves around the climate change agenda.

Significance of the environmental and climate agenda for the intelligence community should not be exaggerated. The institutional design of the United States intelligence community architecture reflects the way the IC perceives key security challenges. Currently there is no national intelligence officer for the environment as in other fields such as space, weapons of mass destruction, terrorism, cyber sphere, economy, medicine etc.

Efficient international climate recovery efforts demand climate intelligence exchange to provide for rapid and comprehensive measures to be taken by national governments. The current international system does not offer any mechanisms for such data exchange. Three scenarios could be put forward: 1) establishment of international intelligence exchange institutions, 2) adaptation of existing institutions for these aims, 3) unilateral sharing of relevant climate intelligence as situation requires. The United States intelligence community currently tends to act unilaterally in rather limited formats.

The diverse climate enterprise is likely to experience a problem of coordination. This complex and coordination demanding system lacks the Office of the Director of National Climate Change Prevention to integrate and synchronize Federal climate community efforts domestically and internationally. The Director could lead in partnering with domestic and foreign counterparts, manage budget and resources of the Environmental Community, and promote the Enterprise agenda through the decision making bodies. Multi-stakeholders system also requires the preparation of a National Environmental Strategy reviewed and strengthened once every four years as an instrument to establish strategic directions and standards to enable integration and policy execution.

The Biden-Harris climate change prevention system represents a resilient mechanism, however, it experiences congressional resistance and relies on executive orders of the president and individual climate leadership. If President Biden is not victorious in the next election cycle, such an approach could be partly or fully reversed by any administration possessing another set of environmental priorities.

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