POST-PANDEMIC: RETHINKING AND REARRANGING THE CRITICAL INFRASTRUCTURE IN GEORGIA
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“In the midst of chaos, there is also an opportunity”, Sun Tzu

“The aim of the wise is not to secure pleasure but to avoid pain”, Aristotle
Global Context

Thucydides (460-395 BC) and his masterpiece “History of the Peloponnesian War” is the must read for almost every international relations, strategy or security studies class. Importance of this Greek classics has been brought once again when COVID-19 was declared as the pandemic. Thucydides interrupted his account of the Peloponnesian War to describe the famous Plague of Athens, which occurred at the start of the summer in 430 BC. This description was long considered among the first descriptions of an epidemic. More importantly, the plague was a decisive factor, not only in the war but in the development of the city (city-state) and would influence the history of Athens for many years after it had moved on from the region. We will be returning to this piece of history in these series of policy papers, not only for the reason that disease changed the course of the war, and shaped the peace that came afterward, planting the seeds that would destroy Athenian democracy, but also for it featuring almost all the components that we call today the Critical Infrastructure – governance (democracy vs. oligarchy), ports, public health, city-state infrastructure, safety etc.

Modern globalized world brought significant benefits to the economic prosperity and security of the societies and opened new opportunities, but also the risks and challenges became globalized. This is how the world has been visualized from the risks’ perspective and their interconnectedness in 2019:

![Global Risk’s Interconnections Map](image)

*Figure 1: Global Risk’s Interconnections Map (Source: World Economic Forum, 2019)*

2. [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3373038/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3373038/)
COVID-19 would dramatically affect perspective of 2020 and beyond – marginal risk of “spread of infectious diseases” shown on the above infographic will appear in the center with a bigger shape. What will not be changed are the numerous connecting lines and complexity of the outcomes. Therefore, COVID-19 is more than just a health issue – it is the challenge that tested political, economic, social and governance systems globally. Due to the significant differences in those systems in different countries, one of its effects is the amplification of different systemic problems whether in democracies, authoritarian countries or countries in transition. It is too early to talk about post-COVID world, but being in the midst of the pandemic it is important to apply some strategic thinking on the complex nature of threats to our societies posed by global disruptive events.

Pandemic disruption slowed down global economic relations, but geopolitical processes have accelerated even more than before. Special attention needs to be given to the opportunistic and revisionist powers like Russia and its situational allies, who are seeking to advance their geopolitical goals by attacking the “targets of opportunities”. These targets are democratic countries and democratic values. They will be chosen upon the weak links in the complex grid of interdependent components of democratic states.

The following trends could be observed so far: importance of the alliances based on the same values and principles for effective responses; necessity of further investing in national critical infrastructure; cascade effect of pandemic on other components of critical infrastructure, like supply chains, food supply, good governance, etc.

Critical Infrastructure and Resilience

What can be considered as critical infrastructure? These are systems, assets, facilities and networks that provide essential services for the functioning of the economy and the safety and well-being of the population. There are ten principal critical infrastructures to consider: government, finance, water, energy and utilities, health, manufacturing, safety, transportation, food, information and communication.

Critical Infrastructure and Resilience

While definitions of critical infrastructure differ across countries, this definition is not prescriptive and aims to encompass the largest set of definitions identified in the OECD Survey on Critical Infrastructure Resilience. https://www.oecd-ilibrary.org/governance/good-governance-for-critical-infrastructure-resilience_fca124df-en
COVID-19 revealed, the necessity of proper understanding of the key critical infrastructure, risks associated with them, but more importantly complex interdependence of those infrastructure that challenges economies but societies. In Georgia, critical infrastructure is mostly discussed under the cyber security and also in terms of its physical protection. Again, the problem and the issue are much wider than that.

COVID-19 is an opportunity to rethink the Critical Infrastructure security and resilience of the society. “Resilience” is the key word used for describing the effective outcome of the critical infrastructure policies. Resilience can be defined as the capacity of critical infrastructure to absorb a disturbance, recover from disruptions and adapt to changing conditions, while still retaining essentially the same function as prior to the disruptive shock. This definition includes the ability to withstand shocks with as little loss of functionality as possible under the specific circumstances, limiting the duration of potential service interruption by minimizing the recovery time, as well as adapting to new conditions and improving systems’ functionality.

It is anticipated that COVID-19 aftershocks and cascade effects will be observed in the nearest future first of all for the society and therefore, for the economy. Bringing the “resilience” into the equation of proper public policy is important to widen the scope and avoid narrow approach to the risk analysis that aims only at the physical protection of the system. While analyzing risks are important to help the Government prepare for particular contingencies, implement prevention measures, deploy immediate responses or recovery means, the biggest challenge is the interdependence of these critical infrastructure and cascading effect of the disruption, causing the follow up crises. One of those contingencies has been mentioned by the NATO Secretary-General Jens Stoltenberg. Speaking after a virtual meeting of defense ministers, he noted that the “geopolitical effects of the pandemic could be significant” if economic difficulties make “some allies more vulnerable for situations where critical infrastructure can be sold out.” He said that ministers had discussed the point that “resilience” is enshrined in Article 3 of the alliance’s founding treaty and talked about “making sure that we have resilient, critical infrastructure, industries, and that we are able to, for instance, provide critical equipment during crises.”

Various other examples could be brought, but the challenge is how to prioritize the resource allocation among many short-term pressing issues and long-term strategic perspective, particularly for the countries with transitional economies.

Case of Georgia

Referring to the successful democracies, where Georgia intends to belong, coping with short- and long-term consequences of the pandemic and increasing the resilience of the society for any future contingencies requires sophisticated critical infrastructure policy. These policies, as well as definitions of the critical infrastructure, are varying country by country, but considering Georgia’s strategic development vector towards free, democratic and market-oriented society, OECD countries’ model and approach could be considered as the most appropriate: “The shift from critical infrastructure protection to resilience aims to address key changes of the risk landscape, marked by increased uncertainties. In order to better integrate the complexity, interdependencies and interconnectedness of critical infrastructure, adopting a systemic approach to critical infrastructure resilience provides complementary perspectives.”

Georgia, as the new and fragile democracy with geopolitically important location and frontline of freedom is one of the abovementioned “targets of opportunity” for Russian hybrid offensive. Georgia is not defenseless against these challenges: it is the strategic partner of the US and EU, NATO aspirant country with significant contribution to Euro-Atlantic security, there is public consensus on its western integration and good track record of democratic transformation. The abovementioned “targets of opportunity” for Russian hybrid offensive. Georgia is not defenseless against these challenges: it is the strategic partner of the US and EU, NATO aspirant country with significant contribution to Euro-Atlantic security, there is public consensus on its western integration and good track record of democratic transformation. The biggest challenge though, is the still lacking institutionalized good governance system and growing public polarization exploited by Russian malign influence.

4 https://www.oecd-ilibrary.org/docserver/02f0e5a0-en.pdf?expires=1591340414&id=id&accname=guest&checksum=9AD4AD2F307062A58EE10508A681433D
5 “The greatest threat to countries like Georgia, Moldova and Ukraine lies in their own poor governance and abuse of informal power” https://www.politico.eu/article/eastern-europe-problem-ist-russia-georgia-abuse-of-power-governance/
6 “As malign disinformation capitalizes on the structural vulnerabilities of the targeted societies, the countries with inherently more internal fractures offer more cracks for exploitation. In that regard, countries like Georgia have long offered a fertile ground to the Kremlin’s malign activities.” https://www.europeanvalues.net/wp-content/uploads/2020/01/Comparing-Lessons-Learned-from-Countering-Russian-Disinformation-in-Georgia-and-the-Czech-Republic.pdf
COVID-19 provides a perfect opportunity to conceptually rethink the critical infrastructure network in Georgia. COVID-19 has highlighted several important priorities for Georgia’s Critical Infrastructure strategy whether the pandemic will reoccur, or any new risks arise. COVID-19 induced debate in Georgia largely follows the question of “Health vs. Economy.” In the political dimension this is the right debate, but in terms of Governance, the situation is much more complex and complicated. As was indicated in the graph above, governance is one of the key dimensions of Critical Infrastructure.

Governance challenge is designing proper polices that will be adequate but also flexible and adaptable enough for any future contingencies. Governments have decisive role in adopting, implementing and overseeing the critical infrastructure resilience policies. This Critical Infrastructure strategy of Georgia should start from the fundamentals – national level conceptual document describing the key definitions as well as list of the Critical Infrastructure sectors or items, their characteristics and interdependencies and the effects on societies. Conceptual document should describe the whole-of-government approach to the management of the Critical Infrastructure. Currently Georgia lacks well streamlined overarching and holistic conceptual documents. There are individual sectoral strategic documents, but not having the institutionalized whole-of-Government approach, diminishes the possibility of effective resilience.

An important component should be an institutionalized constant oversight and a review process for adjustability of the policy. A careful study and mapping of the interdependencies, has a paramount importance to make policy adaptable and oriented towards increasing the resiliency. Clearly identified priorities should be identified as well as relevant resources allocated. While immediate COVID-19 health protection results are good, the first three months of lockdown in Georgia clearly showed that Georgian government has been criticized by its opponents for not revising its measures and being in the mode of preserving its political reputation or consolidating the power rather than adapting the measures for the needs of society.

11 The lack of the renewal of the national-level conceptual documents required by law in the field of national security creates a feeling, within and without, that the country does not appreciate the dangers it faces, does not plan its national security policies in accordance with the threats and, therefore, fails to coordinate them. https://www.gfsis.org/files/library/opinion-papers/135-expert-opinion-eng.pdf
12 https://eurasianet.org/georgia-gets-rare-plaudits-for-coronavirus-response
13 Transparency International Georgia, a local watchdog, issued a statement on May 19 criticizing a draft law, which – if adopted – will grant the Government powers to restrict certain rights after the current state of emergency is lifted on May 23. https://civil.ge/archives/352590; https://transparency.ge/en/post/it-unconstitutional-impose-restrictions-without-state-emergency
Besides the government ownership, most of the Critical Infrastructure are private entities, with international financial stakeholders or ownership. Private business risks are not a matter of public concern but in the modern interconnected and interdependent economy seemingly minor event may cause cascading failures and lead to a major crisis affecting thousands of businesses and private citizens. This is particularly the case when the business in question is a major utility that provides essential services to the public.  

Therefore, robust but adaptable legislation and regulations need to encompass for sharing the information and granting the access to the vulnerable components. Key to the success of this policy would be incentivizing the voluntary cooperation for common good while providing security guarantees for not damaging their business interests. Information sharing in the modern era is not a complicated process, but protecting the information, confidentiality, privacy or other interests might be a challenging issue to regulate. It is the government responsibility to provide such a platform. Notwithstanding the fact that Georgia has a relevant PPP law\textsuperscript{15}, since the COVID-19 reached Georgia, we have witnessed foreign donor supported PPPs\textsuperscript{16}, some voluntary actions by the private sector\textsuperscript{17} and ad-hoc engagement of the government with the private sector\textsuperscript{18}.

Incentivization of all non-government actors can only be achieved if they are incorporated in the policy planning, review and oversight process. Instead of ad-hoc arrangements, policy should consider institutionalized process of the dialogue. This type of process would benefit the government’s interest to have more structured understanding of the public expectations towards the Critical Infrastructure resilience and its social, economic and security implications. As a result, government can set common objectives which will be understood and shared by the society as well and give legitimacy to their actions and enable them to make decisive steps without damaging the credibility or legitimacy. Strategic communication or engagement with other stakeholders in Critical sectors has been the most criticized aspect of the Georgian government’s response to the pandemic.

Abovementioned conceptual and comprehensive policy approach would enable individual sectors of the Critical Infrastructure to be more protected and have more efficient (cost-effective and mission-effective and adaptable) risk management without long-term devastating effect.

Most of the Critical infrastructure are directly or indirectly linked with various services. Any disruption and its cascade spillover as well as attempted sectoral regulations will impact the costs and some cases might have long lasting economic consequences. This should be considered as the most important pillar of the policy – that brings financial institutions in the center of the Critical Infrastructure resilience. While itself being the target, financial institutions have more proactive role in policy planning. This itself increases the possibility of corruption\textsuperscript{19}. Or, for example, Department of Homeland Security (DHS) designated U.S. election systems as a sub-sector of the Government Facilities critical infrastructure sector, which also includes national monuments and icons and education facilities.\textsuperscript{20} The components of the election systems as described by DHS include physical locations (storage facilities, polling places, and locations where votes are tabulated) and technology infrastructure (voter registration databases, voting systems, and other technology used to manage elections and to report and validate results).\textsuperscript{21} The criticality of these facilities, systems, and assets derives primarily from their essential role in supporting the nation’s civic life.

Considering the abovementioned inherent problems of credibility, accountability and oversight, there is the necessity of independent monitoring mechanisms for the policy implementation. This mechanism, as all the others, must be institutionalized and cover both transparency as well as performance of the system.

\textsuperscript{14} Many OECD countries policy documents claim 85\% of CI is privately owned (It would be worthwhile to calculate this number for Georgia). The actual percentage has never been empirically established, and in any case, would vary widely depending on how CI is defined and identified.

\textsuperscript{15} In May 2018, the Parliament adopted the PPP law and corresponding amendments to other primary laws enabling practical application while the PPP secondary legislation prepared by the ADB with EBRD’s extensive comments were issued in summer 2018. https://www.ebrd.com/cs/Satellite?c=Content&pageName=EBRD%2F%2FContentLayout&cid=1395281551647

\textsuperscript{16} The U.S. Government, through USAID, announced that its Economic Security Program is supporting the production of packaging for nearly one million domestically manufactured medical masks to be distributed throughout Georgia. A partnership between USAID, Enterprise Georgia, and private sector manufacturers, this activity is helping protect the health and safety of Georgia’s citizens during the COVID-19 prevention period. https://ge.usembassy.gov/usaid-partnering-with-enterprise-georgia-to-combat-covid-19/

\textsuperscript{17} https://agenda.ge/en/news/2020/974

\textsuperscript{18} https://www.ebbrd.com/cs/Satellite?c=Content&pageName=EBRD%2F%2FContentLayout&cid=1395281551647

\textsuperscript{19} The Council of Europe’s Group of States against Corruption (GRECO) has published guidelines addressed to its 50 member states aimed at preventing corruption in the context of the health emergency caused by the Covid-19 pandemic. https://www.coe.int/en/web/tbilisi/home/-/asset_publisher/oce8KQ7XEBs/content/covid-19-pandemic-greco-warns-of-corruption-risks?inheritRedirect=false

\textsuperscript{20} https://idfi.ge/en/pandemics_and_corruption_risks


\textsuperscript{22} CRS In Focus IF10677, The Designation of Election Systems as Critical Infrastructure, by Eric A. Fischer.
Lastly - policy should have a significant foreign policy dimension – developing the common approaches with like-minded countries as well as neighbors, conducting relevant multinational exercises as well as closely following the global context. In Georgia’s case Critical Infrastructure protection policy should be synchronized with the EU and NATO Critical Infrastructure programs and needs to be given a top priority. Also, it would be important to synchronize with the global push back of democracies to authoritarianism. Pandemic period has been marked by very intensive criticism of the Georgian Government by its western partners on key elements of the Critical Infrastructure: Governance and backslide of democracy, stalled strategic logistical infrastructure process. This makes strategic goal of side with the democracies hard to achieve, and vulnerable to Russian malign influences. Also, numerous problems have been instigated with our neighbors (Ukraine, Azerbaijan). State security service had to admit the existence of the groups intending to stir “ethnic hostilities”.

More developed economies/societies have more complex network of such infrastructure which requires sophisticated policies. For Georgia this infrastructure is less complex, but besides the national interests it has regional importance: e.g. Kars-Akhalcalaki-Baku railway connecting Turkey, Georgia and Azerbaijan to European and Central Asia network; Energy infrastructure of pipelines bringing Caspian hydrocarbon resources to the European markets bypassing Russia; Hydro power production and abundant water resources; Black Sea has got significant strategic interest and is a region of several Critical Infrastructure intersections. Few could be named: fiber optical cable connecting all the South Caucasus countries to the internet, Poti and Anaklia deep-sea ports. The latter has been an issue of significant political controversy in Georgia. Georgia’s functional role on the Black Sea as the logistical hub for the regional supply chains, but more importantly its future role in regional security and stability has strategic connectivity to the EU Critical Infrastructure.

Without proper strategy and policy, it would be impossible to materialize these advantages into the tangible political or economic benefits and increase resilience to persuade a successful statecraft for more developed economy and prosperous society.

Government and private sector functions and their interdependence in owing, managing and operating the Critical Infrastructure are extremely important for the country’s resilience, therefore any form of their disruption through various risks, supported by corruption and dysfunction would have a devastating effect on economy, security, public health safety and their combination. That is why, Government itself is labeled as the Critical Infrastructure. It has to provide security and safety to citizens, make infrastructure policies and regulations, in some cases own and operate them, but besides this be a major user or client. This requires coordination of all relevant functions, clear objective setting and trade-offs.

Government should be conducting thorough threat assessment process, including the interdependencies among various Critical Infrastructure sectors. As the owner, operator and consumer of critical services, Government should ensure necessary investments, reserve capacities while supporting healthy market competition for sustainable costs of those services but ensuring this through minimizing possible risks.

To sum up, Critical Infrastructure policy for Georgia should be resting on holistic approaches to the risks and its management in the context of the connectivity and cascade effect of possible disruption, and institutionalized national and international coordination mechanisms of inclusive nature. Besides the Governance policy described in this paper, there will be follow up policy paper series on other Critical Infrastructure policies in Georgia.

https://lmc.icds.ee/building-the-post-pandemic-world/?fbclid=IwAR2E0aO46G7e1mMdTzp_28IIIXVPzJ9Kfx-kUhKU06Rph_glLID2nK-QW8
26 https://www.asfa.org/state-democracy-europe-and-eurasia-four-challenges
25 https://www.defenseone.com/ideas/2020/05/increasing-natos-presence-black-sea-time-get-creative/165760/?fbclid=IwAR1eutmINWwmzJA3buJKKx5v1WpxX23oADw_FyFU8OyAzS7TwJQzo
23 The Anaklia deep sea port is the most strategically important project Georgia has undertaken since the Baku-Tbilisi-Ceyhan pipeline opened in 2005. Strategically for Georgia, the Anaklia port is a game changer. It provides Georgia, for the first time I might add, direct access to large-scale shipping from around the world. Obviously, it has a national security impact in terms of traditional military security, but it also has a great impact on Georgia’s economic place in the world. I’m already seeing here in Turkey, that there are promising new logistical opportunities to deliver, for example material, food and other support, goods. For example, US military personnel in Afghanistan might consider using the Anaklia Port instead of having to transit military cargo into Afghanistan from Turkish ports, like Mersin, and drive across Turkey into Georgia. https://iwpr.net/global-voices/georgias-strategic-game-changer