Innovation in biosecurity management

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nnovation in connectivity at the global level in the 21st century has given rise to unprecedented interconnection processes. Although this phenomenon has brought about multiple benefits, including in the economic and social areas¹, it has also generated new risk factors and threats –biothreats– associated with high demographic growth rates and population concentra-

tion in cities. Should these risks and threats fail to be managed in due time, they may impair the governance of security in States and societies, with serious implications for every level of life.

The outbreak of COVID-19, which quickly generated a global pandemic, causing panic in the population as well as high mortality rates, has also revealed the limited capacities of states for strategic anticipation and epidemiological surveillance.

This situation clearly showed that the world is highly interconnected, that it is experiencing critical fractures and that power is condensed. In the coming years, the major challenge for modern societies will be to manage this interconnectivity through improved processes capable of linking needs and resources in an effective, binding and responsible manner. The discourse should project a social network that is more cohesive and more willing to address crises collectively. Public policies should be organized on a cross-cutting basis, allowing the processes to configure environments and individuals at micro, meso and macro level. People should establish local links, but without disregarding the global view of the world.

There is a strong and urgent need to build human and institutional capacities in the biosecurity area within specific legal frameworks. For this purpose, legitimation must be sought through international cooperation, in order to address a pandemic that has severely impacted the poor and people who are constantly on the move. The main challenge is to understand the quick geo-spatial proliferation of the aggressive behavior of this infectious and contagious disease and thence, the way it alters our biological security or biosecurity.

Additionally, from a prospective point of view, the challenge to governance reveals the need to understand the mutability not only of the virus but also of the threat and risk, and how this should be controlled by means of preventive and timely public policies and adequate courses of action, that is to say, through epidemiological surveillance. It may thus be seen that the present challenge requires domestic and international inter-agency actions based on the existing intercon-

¹ Yuval Noah Harari, De animales a dioses. Breve historia de la humanidad, trad. Joandomènec Ros i Aragonès (Editor digital:Titivillus, 2014).



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nectivity. Given the current asymmetries in early anticipatory processes, derived warnings and strategic prospective analyses about the pandemic, governments should develop prospective studies with the aim of determining the tools to be implemented and the measures to be taken in order to avoid catastrophic scenarios. In the next few years, a sustainable and cooperative approach will be crucial to appropriately handle the complex COVID-19 cycle. It is also necessary to process and learn from other countries' experiences in this crisis, and to consolidate scientific and institutional policies in order to anticipate and strategically manage future crises.

Risk and threat reduction in the near future

Any decisions taken after the COVID-19 crisis should meet at least three requirements: timeliness (UNICEF, 2011)², pertinence (Beisland, 2013)³ and creativity (Kimbell, 2009).⁴ The main decisions faced by governments involve the capacity to strengthen the internal mechanisms dealing with public management and anticipation, and enhancing the interoperability between governments and international organizations in order to prevent the threat from spreading and becoming a risk. In this line, the challenge faced by states is social in nature, since we as individuals must generate the sense and conscience for change as a learning opportunity to prevent a repetition of this crisis. The convergence between government actions and social attitudes should be geared towards a coherent projection of the future through the timely and pertinent management of threats and risks.

What is to be done? Faced with a future scenario of dynamic and severe risks, activities and spaces should be fostered where societies, responding to healthy state leadership, are oriented towards active, contingent, forward-looking, and sustainable attitudes. This will make it possible to anticipate future measures and act in a timely manner as required, in a spirit of advanced and comprehensive cooperation. On the other hand, plans articulated with a long-term vision should be developed with the aid of strategic intelligence as a major and concurrent tool. In Latin America, for example, plans and protocols that build upon this experience should be set up, so that future governments may be prepared to take adequate actions should such a crisis arise again.

The challenges are many and diverse. Each society should analyze and reflect on the events that occurred within its territory, how it faced the crisis and which lessons are to be learned across the world from the COVID-19 pandemic. Although each process within a crisis has its own features and characteristics, actors and decision-makers should take into account how the event began, the disorder and negation it brought about, and the stages of its intrusion, transvaluation and conclusion (Horowitz et al., 1979).⁵ Policy leaders should apply to each of these stages a creative, transdisciplinary and outspoken approach. A redefinition of concepts and their meanings is now required. This is a perfect opportunity to generate a debate on the concept of security and its components, as well as on the factors that alter it and cause security crises. Biosecurity and the new threats and risks, some of which are more solid than liquid or hybrid, are the emerging challenges for governments and for the world as a whole. From this point of view, intelligence and strategic prospective become the critical link that governments should address in order to achieve an optimum future where crises can be reduced, contained and countered.

Full version

⁵ Mardi Horowitz, Nancy Wilner and William Alvarez, "Crisis support: Impact of Event Scale: A study of subjective stress", *Psychosom Med 41, No. 3* (May 1979): 209–218.



² UNICEF, Opportunity in Crisis: Preventing HIV from early adolescence to young adulthood. (United Nations Children's Fund - UNICEF, 2011).
3 Leif Atle Beisland, "The value relevance of accounting information during the global financial crisis: Evidence from Norway", International Journal of Economics and Accounting 4, No. 3 (2013): 249–263.

⁴ Richard Kimbell, "Creativity in crisis", Journal of Design & Technology Education 5, No. 3 (2009): 206–211.



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