How Belt and Road Initiative Builds Resilience and Coping Mechanism for Pandemics

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Globally renowned as one of the most ambitious foreign initiatives, China's Belt and Road Initiative (BRI) seeks to reify global connectivity via infrastructure development along the Silk Road Economic Belt and the 21st Century Maritime Silk Road.

While it seems that infrastructure connectivity is the centrepiece of BRI, it is not the only central tenet that pertains to the initiative's bedrock. Instead, China's BRI is underpinned by five significant elements of connectivity that it seeks to pursue: facilities connectivity, policy coordination, unimpeded trade, financial integration, and people-to-people exchanges of which infrastructure connectivity falls under facilities connectivity.

Serving as the social foundation of any allegiances, people-to-people bond entails the often unexplored necessity of cultural exchanges and academic dialogues. On the other hand, policy coordination addresses the multi-dimensional challenges faced amongst member states by delivering a communication channel and cooperation network which allow its members to yield positive-sum solutions and find ways to cooperate on solutions that can benefit all the member states involved (Peters, 2018). Altogether, the two aforementioned elements purvey the necessary elements to substantiate the political and social foundations prerequisite for hard infrastructure investments to take place. In return, connectivity of facilities will help to propel exchanges of goods, capital, and human resources at a greater magnitude.

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However, BRI is not necessarily a set in stone concept, but is rather an ever-changing initiative that recasts itself every now and then. When it is first conceived, China's BRI is composed of one belt and one road. The belt refers to the transnational routes or corridors that bind East Asia, Central Asia, and Europe together, also known as the Silk Road Economic Belt, and the road describes the 21st Century Maritime Silk Road, which connects East Asia with Southeast Asia, South Asia, Middle East and Eastern Africa. But recent developments have shown that the initiative is not strictly confined to these two routes alone (or routes for that matter). In the spent of five years after BRI was first announced, several novel components were co-opted and added onto the initiative, this includes: the addition of The Polar Silk Road in 2018, The Digital Silk Road in 2015, and The Health Silk Road in 2016. Albeit one might argue that the addition of new initiatives proves how elusive and deceitful BRI is; nevertheless, the broad nature of the initiative actually provides room for flexibility and growth, which can be useful in changing conditions.

These days, regions and states are continuously staring down the barrel of a gun. Amidst the hastened pace of globalization, the world is now at its peak of interconnection, where international trade, travel, and supply chains grow vigorously. While it is true that the blossoming of international trade and travel offers immense promise towards economic growth, the procreation of jobs, and the proliferation of businesses (Surugiu and Surugiu, 2015), it is not without any adverse consequences. For instance, La Croix et al. (2011) have shown that improvement of people's mobility throughout the world has surged the spread of various diseases (i.e., HIV/AIDS, SARS). If this trend continues, regions and states will be bombarded by sporadic series of profound shocks that will heavily restrain their proficiency to operate whenever it occurs.

On top of that, most, if not all regions and states, are now facing the dangers of uncontrollable population growth. Albeit the explosive rate of population growth might not seem to be a threatening issue, some scholars (i.e., Purcell et al., 2015) have suggested otherwise. Purcell et al. (2015), for one, argued that the staggering growth of the world's population is disrupting our patterns of consumption and production, reflecting a sign of overconsumption. In this sense, 'overconsumption makes it difficult for the environment to replenish itself and bounce back from shocks and stresses' (Purcell et al., 2015, pp. 4). For these reasons, the world is now dealing with endless possibilities of shocks and stresses. If not handled, the aforementioned elements – and their subsequent implications - are most likely to undermine the ability of regions to deliver essential services and reign harm upon their respective inhabitants; therefore, it is of utter importance for regions and states to be resilient in defending or absorbing those shocks and stresses.

According to Purcell et al. (2015, pp. 2), resilience is about sustaining and transforming the ecosystem or 'the systems and conditions within a [region] that affect its ability to function and deliver essential services, especially to poor and vulnerable communities.' As a set of components working together as parts of a wider mechanism, the ecosystem is construed of various underlying elements/systems that eventually made it whole. Thus, to be resilient, one must unravel these elements to find what is lacking from those states and regions and find solutions to make up for those vulnerabilities. Albeit there is no definitive consensus of what construct such an ecosystem, but for the purposes of this article, it believes that there are two essential components that make up for any ecosystem: health resilience and economic resilience.

Health resilience is one of the key tenets that compose ecosystem resilience at both local and global levels. Ultimately, this is because health is often deemed as one of the prerequisites necessary to

preserve human health and complement various economic activities. In this particular manner, health resiliency serves to maintain, and to some extent, transform the ability of the healthcare system to deliver its services. This way, health resilience can be defined as the ability of a healthcare system to recover, defend, and adapt to any possible adversities (U.S. Department of Health and Human Services, 2015).

According to Martin and Sunley (2014, pp. 13), economic resilience is:

'the capacity of … [an] economy to withstand or recover from market, competitive and environmental shocks to its developmental growth path, if necessary by undergoing adaptive changes to its economic structures and its social and institutional arrangements, so as to maintain or restore its previous developmental path, or transit to a new sustainable path characterized by a fuller and more productive use of its physical, human and environmental resources.'

In other words, economic resilience can be conceived as the ability of an economy to bounce back, absorb, and leap forward from (unforeseen) shocks and stresses, whilst placing a strict emphasis on the nature of economic resilience as a process that takes account of vulnerability, shocks, resistance, robustness, and recoverability.

When COVID-19 first struck, it sent out ripples of shocks that flowed through one country to another. Considering the unknown nature of the virus and the alarming rate of which the virus spread, many countries were astounded and left clueless in dealing with the situation. Although some have regained their consciousness and began finding their own paths of salvation, the true nature of COVID-19 is yet to be discovered. However, at this point, it was clear that the current system does not have the ability to bounce back on its own. In other words, COVID-19 was deemed to bear too much force for the system to handle, making it impossible for the system's own mechanism to correct or restore itself

to its *ex ante* equilibrium; which, in turn, pushes the ecosystem onto a state of less favourable developmental path. Per February 2020, the pandemic has resulted in over 23,007 confirmed cases globally and is only expected to progress rapidly in the nearest future (WHO, 2021). Meanwhile, the number of people infected by the virus is filling up hospital beds rather quickly, incorporating a lot of stress onto the health care system worldwide. Therefore, countries must quickly learn from the system's failing mechanism and utilize those information so that they can undergo 'various structural and organizational changes in order to restore its pre-shock functionality and performance' (Martin and Sunley, 2014, pp. 6).

Reckoning the damages derived from COVID-19, various measures of containment and prevention were introduced by governing authorities, this include: self-isolation, lockdowns, travel restrictions and bans, as well as social distancing – albeit some have initiated these measures early on. Although the aforementioned efforts are considered key in handling the pandemic, it will inevitably purport adversarial consequences on the economy and its subsequent resilience. In a similar manner, Nicola et al. (2020, pp. 185) have highlighted that 'social distancing, self-isolation and travel restrictions have led to a reduced workforce across all economic sectors and caused many jobs to be lost.' Substantiating the former claim, a study conducted by Nicola et al. (2020) have shown that COVID-19 prevention measures caused a 20% drop in agricultural prices, a fall of hotel occupancy rate and revenue, as well as a sharp decline in international passenger traffic. However, it is an inevitable price that countries would have to pay in order to eradicate the virus, or if not, reduce the spread of the virus to manageable levels.

Other than sole domestic efforts, one can utilize international cooperation initiatives and platforms as to strengthen or build resiliency. In 2015, a document encompassing a comprehensive plan for

international health cooperation was erected. The very document, containing the ambition of the Chinese government to expand the wings of BRI, would later be known as the Health Silk Road. In the document, enlisted eight priority areas of the cooperation: (i) securing political support for health cooperation; (ii) construction of mechanisms to exchange information and control the spread of infectious diseases; (iii) capacity building and talent training; (iv) construction of a cooperative framework over public health crises; (v) honing the potentials of traditional medicine; (vi) cooperation and mutual learning of various healthcare issues with BRI countries; (vii) provision of medical aids to BRI countries; and (viii) collaboration in healthcare industry amongst BRI countries (Chow-Bing, 2020). These priorities, of course, were developed from connectivity priorities that compose the bedrock of HSR's parent concept (i.e., people-to-people exchanges). And much like BRI, the broad description of HSR allows for elastic interpretation and implementation of the initiative.

During the pandemic, capacity building, talent training, and provision of medical aids seem to dominate China's HSR. Over the course of 2020 alone, the Chinese government has managed to send out billions of masks, millions of protective equipment throughout the globe, and even dispatched thousands of health experts to friendly countries (Chow-Bing, 2020). Through these efforts, especially the latter, the Chinese government is actively playing a role in disseminating knowledge to countries affected by the pandemic. And with the rapid spread of the COVID-19 virus being the utter concern of affected countries, knowledge is now at the epicentre of planning and formulation of strategies in most, if not all, states. Because without a sufficient amount of knowledge, states may not be able to deliver a strategically sound approach in dealing with the pandemic. According to Horwitch and Armacost (2002 cited in Gao et al., 2018, pp. 45), knowledge management (KM) is 'the creation, extraction, transformation and storage of the correct knowledge and information in order to design

better policy, modify action and deliver results.' Viewing KM as a process, Gao et al. (2018) divides KM into four stages: knowledge creation, knowledge storage, knowledge transfer, and knowledge application. Referring to how knowledge is formed, knowledge creation largely revolves around how contents are developed and replaced within the tacit and explicit knowledge. Following the process of knowledge creation, knowledge storage is often thought to encompass the process of inscribing knowledge and caching it in databases. Of course, the retention of knowledge is not without purpose. To some scholars (i.e., Johannsen, 2000), knowledge storage serves as the basis of something bigger: it acts to underpin knowledge transfer should an entity requires it. Imperatively, then, knowledge transfer is the sharing of knowledge to where it is needed and can be utilized. And finally, knowledge application is the process of actualizing the knowledge given or derived from the previous stages. In said process, one can utilize knowledge to design better policy framework/approach and introduce new instruments to solve a relatively novel issue, modify pre-existing initiative, and attain desired social outcomes.

In the case of China, the act of sending out health experts to friendly countries exemplifies transfer knowledge and set forth an enabling condition for knowledge actualization in affected countries to take place. If conducted properly, the medical assistance the HSR provides could lead to better information on the virus: the additional information affected countries gained from the Chinese government can be utilized to deepen their depth of understanding and identify the practices that works. With greater retention of knowledge serving as the underlying evidence, countries are supposedly enabled to utilize evidence-based policy-making to construct an entirely novel yet sound policy framework, improve current practices, as well as get rid of poor practices. Implementing these informed measures on COVID-19, then, could strengthen the overall healthcare system, reduce the daily number of confirmed cases, help to flatten the curve, and eventually allow health

resiliency to bounce back to its preceding path – but if not, said initiatives could, at least, push the equilibrium close to its preceding developmental path. In the long-run, those actualization efforts can even contribute to expand the knowledge base itself, and thereby perpetuating the cycle of knowledge building.

While the conception of new tools and policies - derived from evidence and knowledge - serves as the backbone to which health resilience bounce back on, the provision of masks and medical equipment, on the other hand, acts to complement those tools and policies. In this sense, medical aids help to sharpen countries initiatives' so that it would be easier for them to yield their desired outcomes.

Systems are often intertwined to one another. Imperatively, a shock received by a system can ripple to other system. In the wake of COVID-19, it inflicted a tremendous amount of shock into the healthcare system (and its subsequent responses) that induces disturbance in the way global economy operates. Perceiving the underperforming health resilience as the culprit of global economic downfall, the betterment of health resilience will, therefore, be able to relief some of the strains it cause on the economy and help economic resilience to bounce back. In this manner, the strengthening of healthcare system would lead to improved healthcare quality and prevention measures, the lessening of people infected by the virus, and eventually the lifting of public health restrictions. The latter, in particular, is believed by scholars (i.e., Nicola et al., 2020) to trigger some of the biggest stressors onto the economy. Hence, lifting such stressors could recuperate economic resilience to its previous point of equilibrium.

Seeing how some countries are still struggling against the wrath of COVID-19, it is important to underline some factors that may influence the efficacy of HSR's aids: (i) knowledge can be bounded by context; (ii) receiving countries have different interests and priorities that may

differ from that of the Chinese government. Knowledge can be entirely unique and specific to a particular geographical scope; in this case, the information retained and transferred by the Chinese government may only be tailored to them alone. This may pose as a significant barrier for receiving countries who wish to actualize the given information in their respective territories. Furthermore, there are some countries who refrain from conjuring a 'bold' prevention measures akin to that of the Chinese government, making some of the knowledge irrelevant for those recipients. Nevertheless, this is not to say that the aids given by the Chinese government's HSR are futile. Rather, it had been reported that countries are grateful and appreciated the additional set of hands (or piece of mind) China lent onto them (Chow-Bing, 2020).

Although the pronounced impacts of HSR are solely tailored to COVID-19 alone, this does not necessarily limit the ability of BRI and HSR to mere medical aids and assistance. With its cooperation and connectivity priorities, BRI could underpin a series of positive responses (i.e., efforts of resilience building) that enhance systems' ability to withstand and cope with future shocks, such as epidemics. Conceived this way, the Chinese government could help vulnerable BRI countries to increase their adaptive capacity by constructing basic medical infrastructure such as sanitation and clean water supply (Chow-Bing, 2020).

Moreover, the vast yet effective usage of information and communication technologies during the COVID-19 pandemic have underlined the importance of ICT in dealing with health-related shocks. Simply because:

'mobile computing devices and reliable internet infrastructure allow delivery of crucial information to the citizens on time, access to far-flung areas by healthcare professionals, and applications of contract tracing and monitoring systems … [these instruments are] also crucial

for the continued sustainability of economic activities and supply chains … after COVID-19' (Chow-Bing, 2020, pp. 16).

Therefore, in the efforts to strengthen BRI countries' future resiliency, the Chinese government could dispatch its own resources and aid countries in developing, utilizing, and eventually integrating ICT infrastructures with that of medical infrastructure.

Expanding the ability of BRI beyond hard infrastructures, the Chinese government could also provide BRI countries with policy coordination and learning platforms as to prepare BRI countries against future epidemics.

Over the past year, COVID-19 has had a tremendous impact on societies and states throughout the globe. Amongst other sectors, health resiliency is one of the sector that had been hit the hardest: as of 8th April 2021, the pandemic has resulted in 2,875,672 deaths, 132,485,386 confirmed cases worldwide (WHO, 2021), and is not expected to end any time soon. Early on, various measures were introduced to reduce the spread of COVID-19 and counteract the impacts of COVID-19 on health resilience: travel bans, social distancing, and self-isolation are just one of the many methods of prevention that were introduced by governing authorities. While these measures are believed to be the most satisficing prevention measures, it have, inevitably, induce strains onto the economy. According to Nicola et al. (2020), COVID-19 prevention measures caused a 20% drop in agricultural prices, a fall of hotel occupancy rate and revenue, as well as a sharp decline in international passenger traffic.

Considering the magnitude at which COVID-19 is affecting countries worldwide, states have decided to assist struggling countries and join hands with one another to resolve the pandemic. For the Chinese government, the assistance they have given fall under the banner of

BRI’s Health Silk Road. Capacity building, talent training, as well as provision of medical aids were conjured as part of the HSR in the hopes of aiding COVID-19 affected countries against their battles with the pandemic. Although some have labelled the aid as a mere ploy to redeem its harmed reputation, but normatively speaking, the assistance they dispatched should propel greater depth of understanding, induce the actualization of those knowledge as to yield better practices, and will, in the long-run, help those affected countries to restore their systems to its *ex-ante* equilibrium. As for the live after COVID-19 pandemic, HSR could contribute to enhance the ability of BRI countries (and other countries) to defend against future epidemics. In this sense, the Chinese government could assist BRI countries in developing basic infrastructures, provide platforms for academic exchanges, and integrating information and communication infrastructure with that of health infrastructure.

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