Department of Economic & Social Affairs

CDP Background Paper No. 51
ST/ESA/2021/CDP/51

May 2021

Towards a resilience-building framework for monitoring countries graduating and graduated from the Least Developed Country category

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ABSTRACT

This paper provides conceptual inputs on a potential bi-modal monitoring framework for the Least Developed Country (LDC) category. The focus is on discussing its general aspects, in order to help build, among key stakeholders, a common understanding of the general direction such an initiative might take. It intends to help move discourse (and practices) from (reactive) 'crisis management' to (proactive) 'resilience management', representing a change in perspective likely to help move the process of LDC monitoring forward in a meaningful manner, qualifying the contribution that the CDP might provide in this regard. With an improved framework, vulnerable countries will be able to preventively create and put in place contextualized mitigation and adaptation measures that increase their productive capacity and resilience, and help them create the necessary conditions to promote sustainable development and lessen the impacts of crises.

Keywords: Least Developed Countries, Crisis management, Vulnerability, Resilience, Productive capacity, Official Development Assistance, UN system

JEL Classification: F53 (international Organizations); F55 (International Institutional Arrangements); F63 (Economic Development)

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1 Introduction

The least developed countries (LDCs) are the ones left farthest behind from achieving the Sustainable Development Goals (SDGs), while being most vulnerable to shocks and crises, as demonstrated by the COVID-19 pandemic. Some LDCs that have made impressive development progress in the past decade and are approaching graduation from the LDC category[1], are now facing serious challenges in responding to the still-ongoing COVID-19 crisis, recovering their economies, and accelerating their progress towards the SDGs.

The 46 LDCs are not homogeneous. While the great majority (70 per cent) of LDCs are African countries, 36 per cent are landlocked and 17 per cent are islands. With geographical condition being an important determinant of development, these circumstances impose relevant development and economic constraints. Landlockedness (and islandness, for that matter) is a major impediment to trade and economic integration and landlocked developing countries are negatively impacted by their geographical characteristics, such as remoteness from international markets and lack of direct access to the sea.[2]

On the other hand, 83 per cent of LDCs are export-commodity-dependent countries[3], specifically with regard to: (i) agricultural products, (ii) fuel, and (iii) minerals, ores and metals (see Table A.1 in the Appendix). In this regard, UNCTAD highlights the importance of monitoring such countries, considering that commodity dependence can have a negative impact on a country's economic development[4] Additionally, most island LDCs also rely heavily on tourism, a sector whose performance is always very susceptible to external factors. In effect, tourism is a vital source of income in LDCs around the world, accounting for 9.5 per cent of their GDP and a similar share of employment.[5] Similarly, tourism was among the main contributors to enabling Cabo Verde, the Maldives and Samoa to graduate from LDC status.[6]

Ultimately, these dependencies and fragilities result from lack of economic diversification, which, coupled with LDCs' inherent structural vulnerability, undermines even further their development prospects, particularly in the event of shocks. Three countires mentioned above share these features.

Currently, for countries identified as being ready to graduate but reluctant to do so (such as Kiribati and Tuvalu), the COVID-19 crisis validates some of their major concerns: such as the inability to secure support outside of the category in the midst of a severe shock (economic or environmental).[7] Yet, to an important extent, crises are also opportunities to retool organizations and make them more purposeful, and, in this sense, effective development policymaking should be flexible and responsive to changes in context.[8]

The UN Commitee for Development Policy (CDP), as a subsidiary body of the ECOSOC, is mandated to examine the criteria of the LDCs, make recommendations for graduation and monitor the development progress of the graduating and graduated countries. The development of an LDC-specific crisis-response approach is expected to provide the UN with a framework that better informs and assists the Committee for Development Policy (CDP) to further qualify their work and improve its actions and policy recommendations. Specifically, this framework should improve LDC monitoring and provide an arrangement to identify relevant support for graduating and graduated LDCs, taking in due consideration deep-rooted vulnerabilities, which, more likely than not, persist after LDC graduation, given their economic preconditions (defined by dependence and non-diversification).

1 Kim (2018)

2 UN OHRLLS (2013)

3 So defined when more than 60 per cent of total merchandise exports are composed of commodities.

4 UNCTAD (2019)

5 EIF (2020a)

6 Agarwal and Mulenga (2020); Kim (2020); EIF (2020a); OECD (2020a, 2020b, 2020c); UN CDP (2020a); UN OHRLLS (2020); World Bank (2020)

7 EIF (2020a)

8 Audiguier (2013)

2 LDCs in vulnerability contexts

2.1 Man-made crises vs. natural disasters

The present paper defines vulnerability as a condition determined by physical, social, economic and environmental factors or processes, which increases exposure to the impact of hazards.[9] A shock is a sudden, unanticipated event that is not considered a part of a trend or cycle, and does not have a seasonal or random effect. A crisis is the effect of a shock or of a more gradually deteriorating situation. A crisis is, essentially, a peak of imbalance/stress in the social system, so much so that the survival of the system is threatened by a potential collapse, which will likely occur unless the system itself (or its inherent conditions) is comprehensively altered.[10] This holds true for both man-made crises and natural disasters. Economic shocks, political and social unrest, public health emergencies and natural disasters, although different in nature and consequences, depending on their severity, all spark socio-economic crises and represent serious challenges to the integrity of the established system.

The impact of shocks and crises is not the same for all, as the impact magnitude of a crisis is not only a function of exposure, but also of the level of resilience. Consequently, this definition of vulnerability takes these two aspects into account - exposure (likelihood to be affected) and resilience (ability to respond to impacts).

Hence, when dealing with crises, countries' adaptive capacity and resilience are crucial. Resilience is the country's ability to cope with or recover from a shock. That is, a country's resilience reflects its ability to counteract (quickly recover from) or withstand (absorb) the impact of a shock.[11]

In high vulnerability contexts, boosting resilience is key to minimize crisis scenarios.[12] Vulnerability can be reduced by either decreasing exposure to exogenous economic shocks (largely determined by the degree of exposure to the global economy) or by improving resilience (namely through expanding productive capacity). In this regard, both preventive and corrective resilience-building need to be considered. Preventively building resilience means promoting development in all of its dimensions, which is greatly dependent on individual countries, their specificities and how they are able to take ownership of their development process[13] (which attests to the impracticability of setting up generalizable triggers and thresholds beforehand). Contrarily, corrective resilience-building actions are palliatives and, as such, constitute reactive measures in response to crises.

The impact of shocks and crises is not the same for all countries. Advanced economies are usually better able to cope with shocks and adversities than under developed countries. Additionally, adaptive capacity (to respond to challenges imposed by serious shocks) is also expected from developed countries and multilateral organizations, in their roles as development partners. In effect, transboundary crises also place a premium on the nimbleness and adaptiveness of institutions. They must have an expansive repertoire of routines and be capable of rapid customization of their activity. They must be capable of rapid reinterpretation of circumstances and timely reorganization of activities and courses of action.[14]

This involves changes in behavior and in leadership, besides a renewed shared international commitment to continue joining forces to address the burden of development, particularly in crisis situations, ideally gearing countries towards resilience-building by, for example, developing productive capacity. In fact, countries that develop a denser and more

9 UN/ISDR (2004)

10 Svensson (1986)

11 UNDP (2015)

12 Guillaumont and others (2020); Triggs (2018)

13 Patrick Guillaumont, President of FERDI, interviewed on December 8th, 2020.

14 Ansell, Boin, Keller (2010)

diversified fabric of productive capacities have shown greater resilience and have been better prepared to weather different types of shocks.[15]

The COVID-19 pandemic is, arguably, one of the most intricate adaptive challenges that the national health systems of LDCs (and of all countries for that matter) have faced. Its global dimension, the great institutional fragility of LDCs, their structural vulnerabilities, as well as their financial, infrastructural, human and technological limitations, greatly affect national capacity to counteract the threat created by this pandemic. The structural vulnerabilities of LDCs, the fragility of their national health systems and their financial limitations unquestionably point to the need to prioritize resilience-building and/or crisis prevention measures, being them health-related or otherwise. The fact is that this pandemic has put consolidated and well-performing health systems everywhere, developed countries included, at breaking points.

As serious as the health situation of developed countries currently is, as a consequence of COVID-19, the situation in LDCs is fundamentally more complex. Contrary to LDCs, developed countries are able to, for example, mobilize financial, technological and human resources and print money. LDCs are not. Some developed countries benefit from regional solidarity networks and others from market preferences, which is not the case for poorer countries. LDCs in general still deal with a structural deficit in financing for both development and crisis management. Overseas Development Institute (ODI) corroborates this point, concluding that the economic stimulus (both fiscal and monetary) of advanced economies in response to COVID-19 reached 27 per cent of GDP, compared with 3 per cent of GDP in 23 Sub-Saharan African countries[16].

2.2 The disruptive nature of shocks in LDCs

In the event of crises, LDCs' geographic (landlockedness, islandness), economic (commodity-dependence) and social (poverty) vulnerabilities place them at a considerable disadvantage to fight back. Concerning poverty, and to fully grasp the disruptive nature of shocks in LDCs, it is crucial to understand their general reality at the micro level. According to Borges (2020),

1. The challenging living conditions of the majority of the population in developing countries in general, particularly in the peripheries of urban centers, are generally characterized by absence of urban planning, deficient sanitation infrastructures, weak basic health conditions, serious problems of access to clean water, and precarious housing.

2. The great socio-economic vulnerability of the population is an important factor. The unpredictability and unsteady income earning framework of many (generally in the informal sector) implies that survival is earned on a daily basis and on the streets, more often than not under strenuous conditions.

3. The circular dynamics of the reproduction of poverty and social exclusion are results from deficits in socio-cultural capital, underemployment, unemployment, precariousness and difficulties in accessing public goods and services. The causes and consequences of poverty intertwine and feed off each other. This can result in the emergence of a subculture of self-exclusion that further aggravates the situation in terms of personal and collective experience.

4. There is the psychosocial dimension of this reality. Daily struggle for income, uncertainty and the underlying social insecurity create resilience, without which there is no survival. On the other hand, this also creates excessive familiarity with risk, which becomes part of everyday life. This gives rise to a differentiated and peculiar understanding of risk and of the way risk is dealt with. It is fair to state that, under these conditions, the risk of death is dealt with in a *sui generis* way by the poor.

All-in-all, LDCs' general living conditions are greatly charaterized as poverty, and this should be factored in to assess the implementability and effectiveness of any crisis response mechanism in and for these countries.

15 UNCTAD (2020)

16 ODI (2020)

Under these inherent structural challenges, it seems fair to assume that LDCs are, understandably so, disproportionately hit by shocks, with which they have few weapons to deal with. Furthermore, when considering the limited fiscal stimulus capability in most LDCs, a longer, harder recovery than their advanced economies counterparts is expected for the group. In these fragile contexts, with large informal economies, poor infrastructure, limited social safety nets, and deficient health and fiscal capacity, options for responding to crises are more constrained and come with austere trade-offs.[17] In effect, while all countries face compound risks, poor countries and communities are particularly exposed, and especially vulnerable.[18]

Hence, an in-depth understanding of how shocks can disrupt development in LDCs will help in designing effective crisis response measures, but, most importantly, will help in designing and implementing effective resilience-building measures.

The World Bank considers that developing countries face an increasingly complex risk landscape, marked by interconnected hazards that threaten to roll back the development gains of recent decades and undermine efforts to end extreme poverty by 2030.[19] In general, LDCs were already off track to meet the 2030 agenda before COVID-19. Given their precarious conditions, shocks in LDCs have the potential to undo development gains that have taken years to achieve.

The case of Maldives, initially scheduled to graduate in 2004, is quite revealing of how exogenous shocks can nullify the development achievements of vulnerable economies and hinder their development outlook. Due to the devastating impacts of the 2004 Indian ocean tsunami, and the subsequent UN decision to postpone the LDC graduation of Maldives, the country graduated 7 years after initially scheduled, in 2011. Within a few minutes, the tsunami set the country back "by at least two decades as far as socio-economic development is concerned.[20]

Much like the effects of the 2004 Indian ocean tsunami, the Enhanced Integrated Framework (EIF) concludes that, for LDCs that are highly dependent on tourism, COVID-19's impacts on health and livelihoods will be – perhaps – exponential. Of all the LDCs, 14 are among the worst hit due to their relatively large reliance on tourism income and jobs.[21] For tourism-dependent LDCs on the path to graduation (e.g., São Tomé and Príncipe and Solomon Islands, as well as Vanuatu that has graduated in December 2020), that progress could indeed be impaired. Actually, "Both LDCs on the graduation path and those far from it will have experienced formidable setbacks to development trajectories in view of the coronavirus pandemic".[22] With LDCs experiencing a fall in average income levels, this is "the worst economic outcome in 30 years for this group of countries, and represents a significant reversal of the economic and social progress achieved in recent years".[23] To support this group of vulnerable countries, it is important to learn from crisis manamgement by international organizations.

3 Review of crisis management and International Organizations: planning for potential shocks

Forward-thinking allows organizations to strategically approach crisis management by frequently assessing risks. To minimize losses, a main challenge of crisis management is to establish risk-aware processes that facilitate the consideration of real and potential hazards on a regular basis, normalizing risk assessment and intervention, making it routine. Adopting a risk mindset is crucial.

17 The Economist (2020)

18 World Bank (2018)

19 Idem.

20 IFAD (2005)

21 EIF (2020a)

22 EIF (2020b)

23 UNCTAD (2020)

For International Organizations (IOs), it is no different: considering risk and addressing its effects should be a part of their daily effort. In the context of IOs, it is, however, important to consider that uncertainty provides technical and expert-oriented IOs with more space to define the problem and identify potential solutions[24], which, in turn, gives IOs legitimacy to act.

Therefore, for the CDP, forward-thinking should involve continuous and regular monitoring and assessment of the LDC category, and the establishment of an action protocol with clear roles and responsibilities and explicit triggers for quick action. The goal is to be prepared to swiftly assist in either circumventing or mitigating LDCs' vulnerabilities in the event of shocks and, in this way, qualify the work of the CDP, by strengthening, scaling-up and improving both its response capability and the (pre- and post-crisis) evidence-based policy advice it provides to LDCs.

When considering strategies to deal with shocks, it is useful to conceptually distinguish between 'framework' and 'mechanism'. For the purpose of the present paper, framework is seen as the structure, while mechanism is the tool that sets the process of responding to shocks in motion. Hence, in this context, a framework is more comprehensive and would include, besides a mechanism to deal with shocks, an institutional protocol to respond to crises and measures to tackle their effects. Mindful of this conceptual clarification, this section comparatively explores crisis management approaches adopted by selected cases and learns from good practices.

The EU's Risk Management framework places disaster prevention and risk reduction at the center of its approach, while incorporating disaster risk management considerations into key EU policy areas.[25] Thus, it works, to an important extent, as a crisis-knowledge creation platform and early warning system, complemented with a crisis response mechanism, which is activated when shocks strike. Through (i) risks mapping[26], (ii) prevention and preparedness missions, (iii) research and knowledge sharing, (iv) peer reviews, and (v) enhanced international cooperation, the EU has been able to boost crisis management.[27] Ansell, Boin and Keller (2010) consider that the Civil Protection Mechanism facilitates a coordinated surge of EU member states who want to contribute to a shared disaster response. The so-called Crisis Coordination Arrangements are explicitly designed with an eye on transboundary crises and a highly politicized dimension.

Additionally, the EU's Integrated Political Crisis Response (IPCR) is a flexible crisis mechanism for supporting the presidency of the Council of the European Union in dealing with major natural or man-made cross-sectorial disasters, as well as acts of terrorism.[28] IPCR's main operational modes are: monitoring, information-sharing, and full activation (see Figure A.1 in the Appendix).

Different from the EU's preventive and multidimensional approach to crisis management, the IMF crisis management framework is essentially on the response side, primarily through financial assistance provided after the occurrence of shocks. At least explicitly, the Fund does not incorporate an early warning system, nor a crisis prevention capability, in its framework to manage crises. It focuses on financial relief measures, namely through: (i) Emergency financing, (ii) Grants for debt relief, (iii) Calls for bilateral debt relief, (iv) Enhancing liquidity, (v) Adjusting existing lending arrangements, (vi) Policy advice, and (vii) Capacity Development.

The World Bank's framework identifies three different stages after the occurrence of shocks – *Relief, Restructuring and Resilient Recovery* – and 4 pillars that frame its intervention in the aftermath of crises – (i) Saving Lives, (ii) Protecting

24 Olsson and Verbeek (2018)

25 Hammargård and Olsson (2019); Stern and Sundelius (2002)

26 According to the European Commission (2017), "risk types range from meteorological (flooding, extreme weather), climatological (forest fire, drought), geo-physical (earthquake, landslide, volcano) and biological (pandemic, epizootic, animal and plant diseases) natural disaster risks, to non-malicious man-made disaster risks of technological origin (industrial accident, radiological accident, critical infrastructure disruption), and malicious man-made disaster risks and security threats (cybercrime, terrorism)".

27 European Commission (2019)

28 EU (2016); De Miguel Beriain and others (2015).

Poor and Vulnerable People, (iii) Ensuring Sustainable Business Growth and Job Creation, and (iv) Strengthening Policies, Institutions and Investments for Rebuilding Better. These pillars encompass specific measures previewed by the Bank to tackle the effects of shocks. Recognizing the need for the Bank's crisis management efforts to place much greater emphasis on prevention, when crisis risks can be mitigated, and preparedness, when they cannot be significantly mitigated[29], the Bank's Global Crisis *Risk* Platform is a step forward from its previous Global Crisis Response Platform.

On the other hand, FAO's Crisis Management Centre focuses on crisis surveillance, warning and response, to streamline its crisis response capacity, to put in place the infrastructure necessary to be able to respond to future animal and plant disease and food safety crises, and in the long term make a major contribution to safeguarding global biosecurity.[30] Much like the EU's early warning approach to crises, the FAO's crisis management framework "combines tracking capacity with verification, validation and alert mechanisms of partner organisations like the World Health Organisation (WHO) and the World Organisation for Animal Health (OIE).[31] Once equipped with this information, its response to crises is based on rapid assessment and rapid response.

The UNDP Crisis Response Unit centralizes the Program's crisis management efforts, essentially on the response side, doing so in an integrated, multifaceted and multi-sectoral manner. It develops, maintains and regularly updates a set of response tools and coordination mechanisms to respond quickly, predictably and effectively to crisis in a broad range of contexts.[32] The UNDP's crisis response toolbox includes fast deployment of first responders and planning teams for recovery[33], previewing actions/measures such as: (i) restore core government functions, (ii) stabilize livelihoods, (iii) manage debris and rehabilitate infrastructure, (iv) plan recovery. The goal is to ensure that resilience-building begins immediately and simultaneously with humanitarian activities.[34]

The UN Office for Coordination of Humanitarian Affairs (OCHA) work involves coordination, advocacy, policy, information management and humanitarian financing tools and services. Managing crises is OCHA's core business and, as the nerve-center of humanitarian aid, it alerts and informs before crises strike and coordinates the global emergency response to save lives and protect people in humanitarian crises.[35] Similar to the EU's and FAO's crisis management frameworks, OCHA humanitarian work includes early warning efforts and a response mechanism to crises.

Exclusively focused on climates risks and paying particular attention to the needs of countries highly vulnerable to the effects of climate change (namely LDCs, SIDS, and African countries), the Green Climate Fund, set up by the UN Framework Convention on Climate Change (UNFCCC), supports the implementation of Multi-Hazard Impact-Based Forecasting and Early Warning Systems (MH-IBF-EWS) in several countries. Its projects are implemented with the understanding that the MH-IBF-EWS will bring about more proactive and inclusive climate risk management and contribute to long-term adaptation efforts.[36] The Green Climate Fund's comprehensive crisis management framework considers all aspects of disaster risk management from risk reduction, preparedness to response and recovery, and contribute(s) to strengthening the resilience and the protection of vulnerable and disaster-affected populations.[37]

Evidently, existing crisis management frameworks differ greatly in terms of scope and priorities. While the institutional processes describing roles and responsibilities (as well as protocols for action) are defined for all of the seven cases

29 World Bank (2018)

30 FAO, Crisis Management Centre

31 Idem

32 UNDP website

33 Idem

34 UNDP website

35 UN OCHA website

36 Green Climate Fund (2019)

37 Green Climate Fund website

considered in the present paper, only three of them (the EU, the Green Climate Fund and OCHA) implement confirmedly holistic frameworks, focusing on pre- and post-crisis prevention, surveillance and support actions, to proactively anticipate and mitigate the effects of shocks. The EU's Disaster Risk Management Knowledge Centre and OCHA's Centre for Humanitarian Data are good examples of the importance that these organizations attach to crisis-knowledge creation to support their actions with regard to crisis management.

Among the seven cases identified above, and on the opposite side of the spectrum, the IMF and the UNDP, albeit implementing integrated, multifaceted and multi-sectoral measures, are the two most reactive examples of crisis management, with support actions that fall more heavily within the realm of crisis response and recovery. The FAO and the World Bank adopt what can be considered intermediate crisis management frameworks, as shown in Table A.2 in the Appendix.

All-in-all, the main challenge when implementing coping strategies to deal with shocks seems to be their capability (including political will and availability of resources) to move from crisis response to full-fledged knowledge-based early warning systems and crisis prevention/risk management/resilience-building platforms, and implement a range of tools/mechanisms that allow them to be efficient across the crisis management spectrum (see Figure A.2 in the Appendix).

4 A framework for CDP to monitor vulnerability and impact of crisis in LDCs

4.1 A bi-modal approach to crisis response for LDCs: (Ongoing) Vulnerability Status Monitoring vs (Dynamic) Crisis Impact Monitoring

The present paper reviews a possible crisis monitoring process, with a bi-modal approach to harmonize: (i) vulnerability status monitoring, or Crisis Vulnerability Assessment (CVA), with the specificities of (ii) within-crisis impact monitoring, or Crisis Impact Assessment (CIA), as shown in Figure 1.

Crisis Vulnerability Assessment

Vulnerability status monitoring is a default Crisis Vulnerability Assessment (CVA) framework, with focus on assessing the status of exposure and resilience to crisis:

$$Vulnerability = Exposure - Resilience$$

In fact, in its Report on the twenty-second session of the ECOSOC, the CDP reiterated its recommendation that the Fifth UN Conference on the LDCs adopt the theme *"Expanding productive capacity for sustainable development"* as an organizing framework for the new LDC Programme of Action for the decade 2021-2030. Expanding Productive Capacity (EPC) links quite closely with vulnerability concerns, as EPC is, at its core, aimed at economic transformation, which precludes economic diversification (ideally, into more sophisticated, higher yielding, economic activities) and the transferring of input resources from lower to higher productivity sectors.

When successfully implemented, EPC efforts are the best pathway towards resilience-building and overall economic and social development. In measuring progress towards EPC, it is imperative that progress towards building resilience be also monitored, as resilience improvements will provide confidence in the sustainability of progress towards EPC. Furthermore, this CVA framework takes into account not only crises resulting from sudden shocks, but also crises resulting from long-standing deteriorating conditions, as is, notably, the case with climate change.

Crisis Impact Assessment

Crisis Impact Assessment (CIA), on the other hand, switches gears to monitor the impact of crises, once one has initiated, both in terms of its immediate effects, as well as the subsequent pace of recovery. Unlike CVA, this is not a permanent monitoring activity. It only remains for the duration of an ongoing crisis. This is also a dynamic monitoring system, in the sense that it requires targeted design of a conceptual and measurement framework, adapted to the specifics of the crisis at hand. For instance, a crisis-specific monitoring framework would need to consider several defining aspects, such as if the crisis is of exogenous or endogenous nature, or of global, regional, national or local impact/reach. Furthermore, a crisis-specific monitoring is likely to require primary data collection and higher frequency data (with quarterly or even monthly periodicity). On the contrary, ongoing vulnerability monitoring can be performed with a defined set of publicly available key indicators.

Indicators, Triggers and Thresholds

It is recommended that both HAI and EVI thresholds be maintained as an initial set of CVA indicators, in order to guide the graduation process decision-making. Nevertheless, even though both indexes have strong linkages to the Productive Capacity Index (PCI), developed by UNCTAD, they do not always agree.[38] For instance, as countries progress towards EPC through exports diversification, this will lead to an initial period of higher exports instability, which will result in an increase in the EVI value. Therefore, by solely considering EVI on its own, it is hard to differentiate between a momentaneous spike in vulnerability, which leads to higher resilience, from a rising vulnerability level not associated with resilience improvements.

Thus, crisis vulnerability should be monitored with the HAI and EVI thresholds, while factoring in PCI trend and other complementary indicators. The CDP Policy Note[39] proposes a set of key indicators, on LDC graduation and EPC, well suited for the task. To that end, it is recommended that the initial set of indicators in Table 1 be made available on a yearly basis, for all countries, so as to allow for cross-country and cross-regional comparisons and benchmarking, i.e., a minimal monitoring and evaluation framework. In time, as the panel data augments, better and better forecasting or predictive models may be developed to project estimates into the future.

Since the CIA pillar is not intended as a permanent monitoring scheme, the framework proposed requires identifying two important business cycle turning points/thresholds:

1. A threshold value above, or below, which the onset of a crisis can be established and upon which a crisis-specific dynamic monitoring effort would be initiated[40], and
2. A second threshold value level above, or below, which the recovery period would be considered to have been finalized and after which CIA is suspended.

Once such values are stipulated, triggers can be set to those values. Indicators of an economic recession would be ideal candidates for identifying such triggers for monitoring and crisis response. Particularly when considering the weight given to the LDC graduation income criteria (GNI per capita). There is no official definition of recession, but two consecutive quarters of decline in a country's real (inflation-adjusted) GDP is commonly used as a practical definition of a recession. Yet, a focus on GDP alone is narrow and it is often better to consider a wider set of measures of economic activity to gauge the state of the economy.

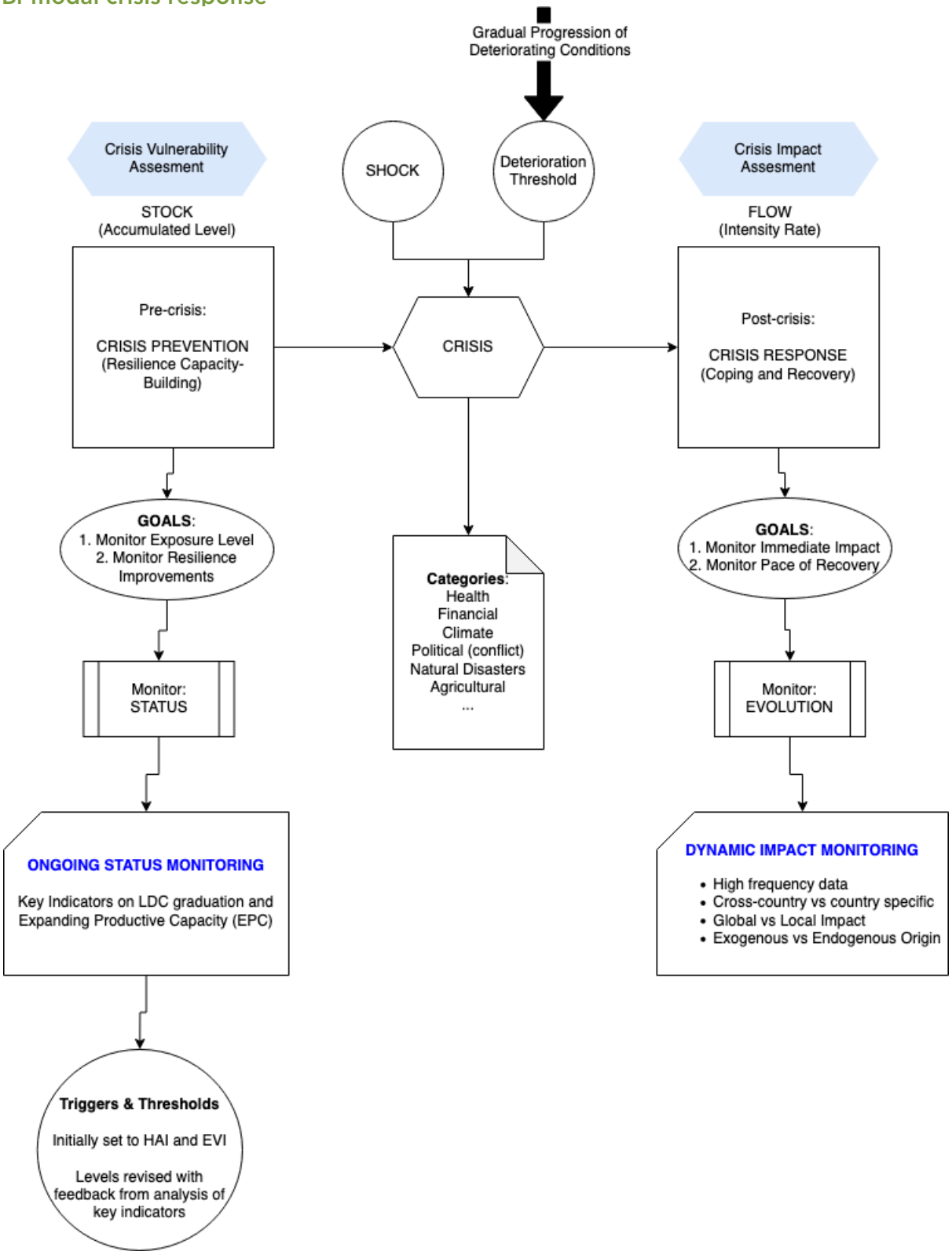
38 *Expanding Productive Capacity: Lessons Learned from Graduating Least Developed Countries*, CDP Policy Note, 2017. See the discussion on Appendix A: *The nexus between productive capacity and graduation criteria: Similarities and differences.*

39 Idem. *Table 1. Key indicators on least developed country graduation and expanding productive capacity*

40 See Figure 5 below, specifically the actions suggested under the Resilience-oriented Response stage.

Figure 1

Bi-modal crisis response



Source: Authors' conceptualization.

Table 1

Key indicators on LDC graduation and EPC, definition and data sources

Indicator	Definition	Unit	Main Data Source	Frequency
Per capita GNI (in US Dollar)	GNI per capita	$ per capita	CDP Secretariat, based on UNSD NAMAD	Annual
HAI (2017)	Human asset index	n/a	CDP Secretariat	Annual
EVI (2017)	Economic vulnerability index	n/a	CDP Secretariat	Annual
Life expectancy	Life expectancy at birth	Years	UNPD WPP	Biennial
Mean years of schooling	Average number of schools of persons age 15+	Years	Institute for Health Metrics and Evaluation	Annual
Poverty rate ($1.90 per day)	Poverty headcount ratio at $ 1,90 (2011 PPP)	per cent ofpopulation	World Bank	Annual
Access to water	per cent of population with access to improved water source	per cent of population	WHO/UNICEF, JMP	Annual
Access to electricity	per cent of population with access to electricity	per cent of population	World Bank	Annual
Gini coefficient (net)	Gini index of income distribution after taxes and transfers	n/a	Standardized World Income Inequality Database	Annual
Female labor participation	Labor force participation rate of female population age 15+	per cent	ILO estimate	Annual
Gender parity index (sec.)	Ratio of girls to boys enrolled in secondary schools	n/a	UNESCO	Annual
Government effectiveness	Index capturing perceptions of quality of government services and policies	n/a	World Bank, WGI	Annual
Investment rate (per cent of GDP)	Gross fixed capital formation as per cent of GDP	per cent	UNSD, NAMAD[41]	Annual
Per Capita Energy Use	Total energy supply per capita	Mj per capita	UNSD Energy Statistics	Annual
Share in renewable electricity	Share of electricity produced from renewable sources (hydro, wind, solar, geothermal)	per cent	UNSD Energy Statistics	Annual
Mobile telephones per 100	Mobile-cellular telephone subscriptions per 100 inhabitants	per cent	ITU	Annual
Cereal yield	Cereal yield per hectare	Kg/ha	FAO	Annual
Agricultural labor productivity	Value added per person employed in a griculture, forestry, hunting and fishing	$ per person	CDP Secretariat based on UNSD NAMAD and ILO WESO	Annual
Share of agriculture in GDP	Share of agriculture, forestry, hunting and fishing in total value added	per cent	UNSD NAMAD	Annual
Share of agriculture in employment	Share of agriculture, forestry, hunting and fishing in total employment	per cent	ILO WESO	Annual
Share of manufacturing in GDP	Share of manufacturing in total value added	per cent	UNSD NAMAD	Annual
Long term GDP growth rate	Annualized 20-year GDP growth rate	per cent	UNSD NAMAD	Annual
Marginal capital efficiency	Inverse of incremental capital-output ratio (two-year lag)	n/a	CDP Secretariat based on UNSD NAMAD	Annual
Total fertility rate	Expected number of births per woman	Children per woman	UNPD WPP	Biennial
Urbanization rate	Share of population living in urban areas	per cent	UNPD WPP	Biennial
Remittances (per cent of GDP)	Personal remittances as per cent of GDP	per cent	World Bank	Annual
FDI inflows (per cent of GDP)	FDI as per cent of GDP	per cent	World Bank	Annual
Share of Exports in GDP	Share of exports of goods and services in GDP	per cent	UNSD NAMAD	Annual

Source: UN CDP (2017). Expanding Productive Capacity: Lessons Learned from Graduating Least Developed Countries, CDP Policy Note.

41 Available through the World Economic Outlook database (IMF); IMF (2020)

In the United States, for instance, the National Bureau of Economic Research (NBER) uses a broader definition of recession and considers a number of measures of activity to determine the dates of recessions. The NBER's Business Cycle Dating Committee defines recession as a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in production, employment, real income, and other indicators. A recession begins when the economy reaches a peak of activity and ends when the economy reaches its trough. Consistent with this definition, the Committee focuses on a comprehensive set of measures[42] to analyze trends in economic activity - even so, the debate on which are the most suited indicators for the task is still not settled.[43]

Developing such an understanding of the business cycle dynamics (and its turning points/thresholds) in LDCs will require a more prolonged study of country-level historical economic microdata. This should be coupled with a continuous effort of evaluation and enhancement of the threshold(s) chosen, as time passes and more opportunities to test its performance emerge.

That said, the Monthly Bulletin Statistics[44] does present regularly updated, monthly data on Consumer Price Indices (CPI) and Exchange Rates for most LDCs. Various threshold levels have been identified by scholars in different contexts (with regards to inflation and its impact on growth), ranging from 1 per cent for developed countries and 11 per cent for developing countries (Khan and Senhadji, 2000; Sepehri and Moshiri, 2004). Below these rates the impact of inflation on growth would be positive and any threshold above these rates would deter growth. Furthermore, Kremer, Bick, and Nautz (2013) identified the threshold inflation of 2 per cent for industrialized countries (above this rate there is a negative association with economic growth) and 17 per cent for non-industrialized economies, in which any inflation below this threshold significantly reduces economic growth.

To define a trigger for CIA, a somewhat arbitrary threshold could be set, based on the available literature, which states that, in general, developed countries have a lower inflation rate (below ~5 per cent) than developing countries (more than ~15 per cent). Taking that into account, a trigger for values above these in LDCs could be set for monthly inflation rates (based on monthly CPI figures). Nevertheless, and for the same reasons presented above (regarding the definition of recession), this would be far from ideal and should be stipulated as a temporary solution, for lack of a better option. Again, the need for a push for better and more complete economic data from developing countries should remain a priority concern, if any hopes of developing a reliable monitoring framework is to be sustained.

4.2 Towards a resilience-oriented framework: Measures to improve CDP monitoring and support of graduating and graduated LDCs

The CDP recognizes that its current monitoring mechanism[45] is not effective, as no feedback or input has been received from the Governments and as there is no follow-up on the monitoring outcome.[46] Besides the need to improve the institutional design of LDC monitoring by the CDP (including, for example, more efficient modalities for consultations with countries and getting feedback from them[47]), it is imperative to take this opportunity to also improve the conceptual assumptions guiding LDC monitoring and follow-up.

42 Including, besides GDP, employment, income, sales, and industrial production

43 Forbes, 2019, *How Watching Unemployment May Prove A More Robust Recession Tracker Than The Yield Curve*, available at: https://www.forbes.com/sites/simonmoore/2019/06/12/how-watching-unemployment-may-prove-a-more-robust-recession-tracker-than-the-yield-curve/?sh=3f888a43c810; Brookings, 2020, *How will we know when a recession is coming?* available at: https://www.brookings.edu/blog/up-front/2019/06/06/how-will-we-know-when-a-recession-is-coming/

44 Available at: https://unstats.un.org/unsd/mbs

45 Annual CDP meetings (to evaluate LDCs' progress), triennial reviews of the LDC category (to decide on possible graduation recommendations), follow-up of graduated LDCs for 6 years following graduation, with graduated countries reporting back to the CDP on their progress.

46 UN CDP (2020b)

47 E.g.: by instituting a simplified prescriptive questionnaire for reporting on country data.

As indicated above, when comparatively analyzing selected IOs' crisis management approaches, a comprehensive resilience management framework incorporates 3 essential elements:

a. resilience-building/crisis prevention,

b. early warning arrangements, and

c. specification of predetermined response measures (supporting a possible reengineering of international support measures for LDCs).

Hence, moving discourse (and practices) from (reactive) 'crisis management' to (proactive) 'resilience management' represents a change in perspective likely to help move the process forward in a meaningful manner, especially when considering that, in between shocks, LDCs' social and economic systems are in permanent imbalance/stress. Without this change in perspective, vulnerable countries will be stumbling from one crisis to another and policy advisors might fall into the trap of advising on how to reactively manage the effects of crises, instead of encouraging countries to preventively create and put in place contextualized mitigation and adaptation measures that increase their productive capacity and resilience, and help them create the necessary conditions to promote sustainable development and lessen the impacts of crises. While resilience-building is a long-term goal, emergency shock assistance is a short-term need. Hence, the question should be: what does the CDP need to do (or, how should the CDP improve its monitoring capability) to help make LDCs more resilient, so that they can withstand shocks associated with crises and disaster?

Crisis prevention and resilience building

First and foremost, the high vulnerability of LDCs, their heightened propensity to crises and the disproportionately acute impacts of crises in these countries (considering their already difficult economic/social/geographical preconditions) is not to be disregarded. Therefore, improving CDP monitoring and support of LDCs in general, and of graduating and graduated LDCs in particular, is crucial to address: (i) the high structural vulnerability of these countries and (ii) their proneness to crises (which justifies preventive measures, including early warning efforts to help buffer LDCs from the worst effects of shocks and establish a basis for rapid response).

For LDCs, both crisis prevention measures and resilience-building efforts are critical. While crisis prevention would, most likely, require broad global leadership and coordination, resilience-building is forged at country level, where CDP advice can represent a relevant contribution. Additionally, it is useful to distinguish between CDP's monitoring role in times of crisis and the Committee's contribution in times of 'normality' (pre-crisis). While the former demands, for instance, well-grounded and evidence-based technical assistance and advice on how to best allocate and/or rapidly readjust the provision of LDC international support in response to the impact of crises, the latter calls for preventive resilience-building advice and support for both LDCs and their development partners. These constitute two types of (complementary) monitoring: pre-crises and during crises. Pre-crisis monitoring demands proactive action and preparedness, while monitoring during a crisis demands emergency/reactive response, to improve coping and recovery capability.

COVID-19 has illustrated that resilience capability is a major area that the CDP needs to consider as an additional LDC assessment measure. Hence, rethinking some of the criteria used to assess and monitor LDCs seems inevitable. With regard to disasters, for example, the Sendai Framework for Disaster Risk Reduction 2015-2030 is a useful UN resource, which the CDP could benefit from[48], as some of its elements could be adopted in CDP's assessment and monitoring of LDCs[49].

48 It outlines 7 targets and four priorities for action "to prevent new and reduce existing disaster risks: (i) Understanding disaster risk; (ii) Strengthening disaster risk governance to manage disaster risk; (iii) Investing in disaster reduction for resilience and; (iv) Enhancing disaster preparedness for effective response, and to "Build Back Better" in recovery, rehabilitation and reconstruction". (UNDRR website)

49 Keith Nurse, CDP Rapporteur, interviewed on December 4th, 2020.

Early warning

Also, in designing a purposeful resilience management framework for LDCs, the regularity with which the CDP assesses the development progress of these countries is paramount. In the context of crisis prevention, time is key and analyses undertaken annually or triennially (as is the case for the reviews of the LDC category) clearly lack usefulness. The usefulness of long-term trend analysis cannot be disputed when assessing long-term growth and development. However, to meaningfully measure shocks, assess countries' performance as a result of those shocks and be able to provide rapid policy advice, is critically relevant to resilience-building. It will further contribute to more frequent and continuous country monitoring, if data is reliable and available at ahigher frequency.

Assessment of the impacts of shocks in LDCs, and, consequently, decisions on whether or not to accelerate, adjust and/or reengineer development support measures and crisis-specific mitigation and response efforts, can only be improved if based on data with a frequency higher than annual. Therefore, compiling and maintaining a high frequency database of indicators capable of demonstrating whether or not LDCs are struggling in their short-term development progress (as resource-intensive as this task might be) is an undertaking that the CDP should consider contributing to. By translating possible risks into concrete readily available short-term indicators, it is possible to select suitable risk assessment indicators, design appropriate mitigation measures and systematize the learning process behind risk prevention. However, with resilience-focused monitoring (instead of shock/crisis-focused monitoring), high frequency indicators are less urgent, when compared to the need to guarantee accurateness and completeness of yearly data.

Adding to the complexity is an apparent void in terms of risk mapping and risk categorization for LDCs, which also hinders any efficient risk assessment effort undertaken by the CDP. For instance, considering that Africa has dealt in the past with several serious epidemics, such as the Ebola outbreak, it would have been useful to have those experiences mapped out, as well as the process of contagion of health crises in the economy, especially for African LDCs. This is the type of knowledge that would have prepared the UN (and other organizations) to better address the impacts of COVID-19 in Africa (and in LDCs in general), especially considering that the effects of the current pandemic are expected to be more severe on the continents' economy than on the health of its relatively young population[50].

In fact, both risk mapping and statistical work to guarantee completeness of yearly data constitute important contributions to the establishment of a possible quantitative risk assessment mechanism, which would allow the CDP to determine specific triggers and thresholds for action, to more realistically evaluate LDCs' development challenges and, consequently, improve its monitoring capability, based on that knowledge.

Mobilizing support to respond to crisis

The question is: how to proceed in setting up a resilience-focused monitoring framework for LDCs? The most efficient and cost-effective route is to begin by laying out all similar initiatives in place within the UN system and, from that, work towards leveraging and mobilizing existing expertise, gearing it, through a resilience management perspective, to benefit LDCs.

Thus, the CDP should be able to leverage the UN's vast crisis management expertise and integrate available (but scattered) resources, to lay the ground for new solutions to comprehensive resilience management in LDCs. This creates synergies across the UN system, ultimately benefiting the LDC category. The CDP's power to convene and power to collaborate[51] should help the Committee accomplish this task. For instance, considering the current incompleteness of yearly data, it would be useful for the CDP to mobilize UN Statistics, presenting the case for the need to design a measurement framework suitable for risk and resilience assessment in LDCs. Also important, although possibly not as urgent, is the need to produce a monthly or quarterly vulnerability measurement framework. Evidently, the root-cause of this lack of data relates to the well-known deficiencies in data availability and management in LDCs, an issue that could also merit CDP's attention and advocacy for more capacity building support in that direction.

50 UNCTAD (2020)

51 Keith Nurse, CDP Rapporteur, interviewed on December 4th, 2020.

Additionally, in implementing an effective crisis prevention and resilience monitoring framework, there is the need for an institutional action protocol with unambiguous roles and responsibilities: who does what, when, how and why. Setting up this institutional structure, specifically geared towards LDCs, will improve CDP's preparedness and response capability and will permit swift and 'automatic' activation of assistance to mitigate LDCs' vulnerabilities in the event of crises. Essentially, this means setting up a sequence of steps, measures and institutional actors to respond to crises or to the possibility of crises, with definition of explicit institutional roles and responsibilities and well-defined courses of action.

At the culminating end of a CDP resilience monitoring framework is the (re)definition of international support measures to more purposely promote resilient development in LDCs and provide crisis relief. In fact, the CDP recognizes that there is a great need for the CDP to support the reinvention or the reengineering of international support measures for LDCs and advocating for it.[52] This entails policy recommendations to help LDCs build resilience in the face of unpredictable global shocks. For LDCs, this could signify additional special and differential treatment and/or the adaptation of current international support measures to specifically target resilience-building and crises preparedness and relief, given their persistent vulnerability.[53] Hence, the (re)design of clear support measures and the Committee's ability to mobilize development partners in that direction and create political will to guarantee UN member states' engagement are crucial. Enhanced international support towards development-oriented capacity building in LDCs is a good example of a resilience-boosting support measure, allowing countries to autonomously contextualize development solutions, while guaranteeing greater ownership of the development process.

Additionally, the CDP should continue to play a strong role in advocating for the effective implementation of UN Resolution 67/221, on smooth transition for countries graduating from the list of LDCs, specifically its paragraph 23[54], highlighting the need for development partners to also take into account countries' vulnerability when allocating ODA.[55]

By advocating for resilience-boosting international measures and crisis-specific support that respond to the particular needs and conditions of LDCs, the CDP will be promoting their sustainable development and the improvement of their ability to deal more efficiently with the impacts of crises. In this regard, the CDP could qualify its contribution to LDCs by determining priorities for the provision of international support, based on the consideration of vulnerability and resilience factors. This also involves guaranteeing the engagement of ECOSOC, UN member states and other key stakeholders and partners. Politically, these advocating efforts could also mean linking LDC monitoring to the SDGs monitoring process (for example, through the SDGs Secretariat)[56], given the general international consensus towards the latter and the resources already in place.

Taking all this into account, Figure 2 presents a hypothetical resilience monitoring institutional framework. The Committee should be able to leverage its current collaborations with other institutions (within the UN and beyond), and forge new ones, to allow it to put such a framework into practice. In this regard, joining forces with UN OHRLLS is key.

To address the key question of how to deliver a long term resilience-building while emergency shock assistance is adequately provied, the monitoring framework should go beyond just regular update of the status, but cover three different stages – 1) risk and resilience management; 2) early warning; 3) resliience oriented response. In the first stage, CDP identifies the inherent and long term vulnearaility and capacity need for resilience building for these LDCs, including not only policies but also physical infrastructure. In the second stage when the countries are hit by shocks, CDP will send an early warning, based on data or request by the countries, to initiate a full evaluation of the impacts of the crisis and challenges in maintaining stability of the countries. In the final response stage, CDP will call for coodinated response of the UN system to assist the countries to overcome the shocks and crisis. This possible framework includes improved monitoring by CDP, but also commitment and cooperation from LDCs being monitored, as well as development and trading partners, UN agencies and other stakeholders.

52 Keith Nurse, CDP Rapporteur, interviewed on December 4th, 2020.

53 Fialho (2015)

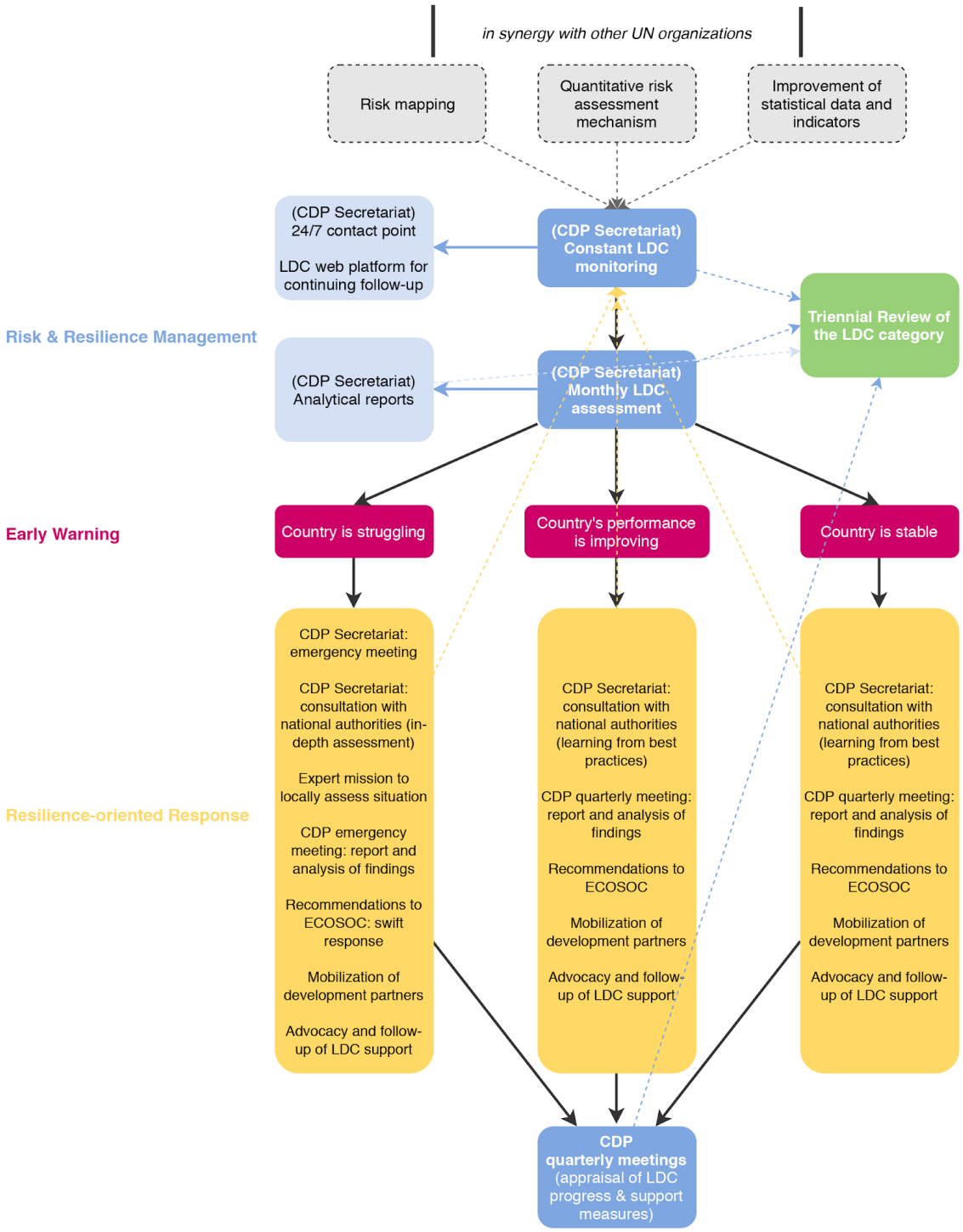
54 Invites development partners to consider least developed country indicators, gross national income per capita, the human assets index and the economic vulnerability index as part of their criteria for allocating official development assistance.

55 Patrick Guillaumont, President of FERDI, interviewed on December 8th, 2020.

56 Rolph Van der Hoeven, CDP member, interviewed on December 4th, 2020.

Figure 2

Proposed CDP Resilience Monitoring Institutional Framework



Source: Authors' conceptualization.

5 Recommendations on actions and next steps

The present paper provides conceptual inputs on a potential bi-modal LDC monitoring framework. The focus is on discussing its general aspects, in order to build, among key stakeholders, a common understanding of the general direction of such an initiative.

When considering a CDP resilience-oriented monitoring framework and, within that process, possible options to serve as short-term monitoring indicators (essentially, to prevent and/or better address the effects of shocks in LDCs), questions arise regarding the suitability of current LDC criteria and the need to reconsider/restructure them, with the goal of having the CDP engage more proactively and more constructively with LDCs' development issues. The current system is measuring what countries have done and not what they need to do.[57]

With regard to the EVI specifically, it is the LDC criterion that determines long-term capacity to be resilient and whether LDCs will experience reversal in their development progress. Therefore, resilience management and any consequential LDC monitoring effort is directly linked with the set of indicators included in the EVI. The EVI is the clearest signal that the CDP can give to the international donor community about the importance of reframing the development equation, putting resilience and sustainability at the center of the equation[58]. Thus, in order to be able to set up a meaningful LDC monitoring framework, the EVI should be more heavily weighted when assessing and monitoring LDCs' development performance.

Additionally, in striving to be a more proactive advisory body, the CDP should also work towards strengthening its power to: (i) convene, (ii) collaborate and (iii) build consensus, by, for instance, instituting quarterly CDP meetings and reinforcing collaboration with other organizations. To legitimately and more purposefully do so, however, the Committee's mandate might need to be adjusted and its Secretariat further resourced.

All-in-all, in leveraging the UN's vast crisis management expertise, the following are concrete examples of actions and measures to improve CDP monitoring and support of LDCs, allowing the Committee to create the conditions for the establishment of a monitoring framework that takes in due account the particular resilience-building needs of these countries:

1. Guaranteeing completeness of yearly data (in partnership with UN Statistics)
2. Risk mapping and risk categorization for LDCs (building on experiences such as that of the EU's Risk Management framework)
3. Establishing a quantitative risk assessment mechanism (in collaboration with UN OCHA, the EU and the Green Climate Fund)
4. Guaranteeing frequent and continuous LDC assessment and monitoring (by, for instance, instituting both quarterly CDP meetings and monthly CDP Secretariat assessments)
5. Setting up an institutional structure for resilience management in LDCs and swift crisis response, previewing a protocol with clear roles and responsibilities and explicit triggers for action
6. (Re)Defining international development support measures by promoting greater consideration of resilience and vulnerability factors (in partnership with UN OHRLLS and with ECOSOC support)
7. Advocating for support measures centered on resilience-building and crisis relief (in partnership with UN OHRLLS)

Underpinning these recommendations is the premise that boosting resilience in LDCs is a key precondition to minimize crisis scenarios, much more so than reactively managing crises.

57 Keith Nurse, CDP Rapporteur, interviewed on December 4th, 2020.

58 Keith Nurse, CDP Rapporteur, interviewed on December 4th, 2020.

Appendix

Figure A.1

European Union Integrated Political Crisis Response

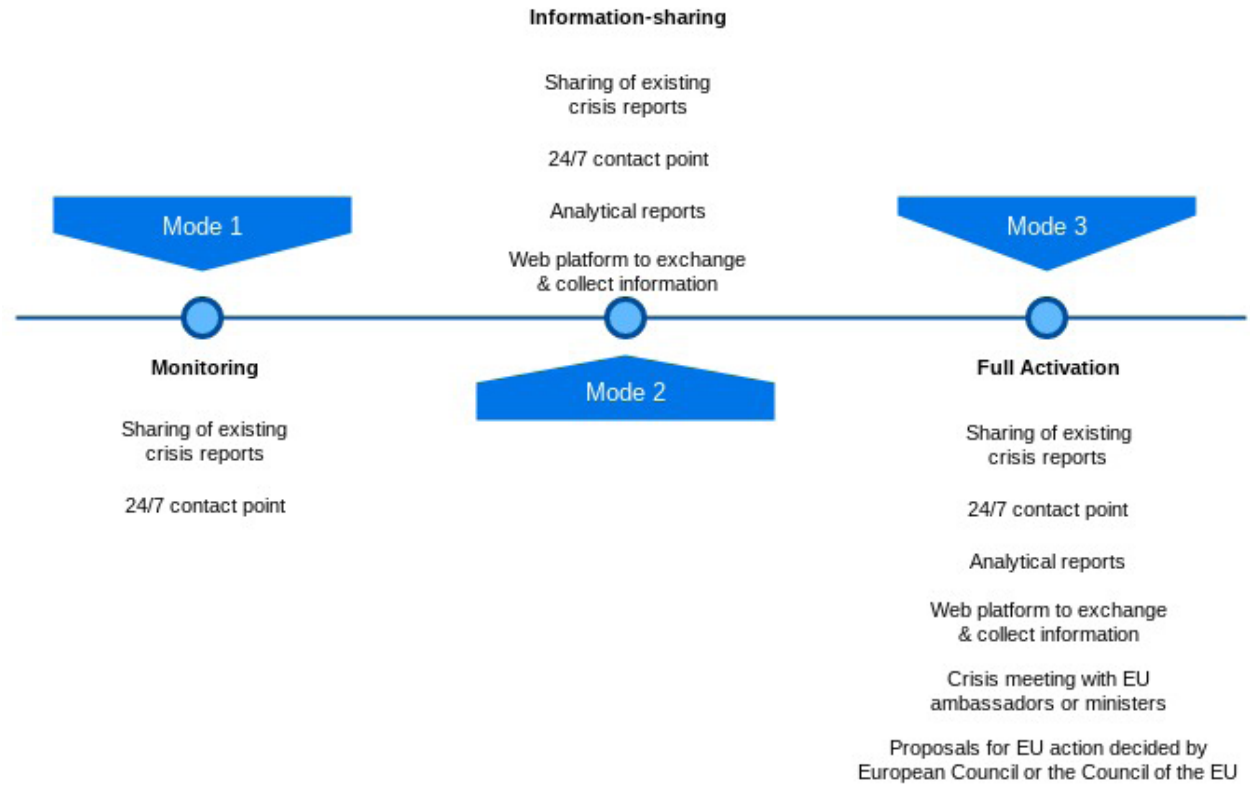


Figure A.2

Crisis Management Spectrum

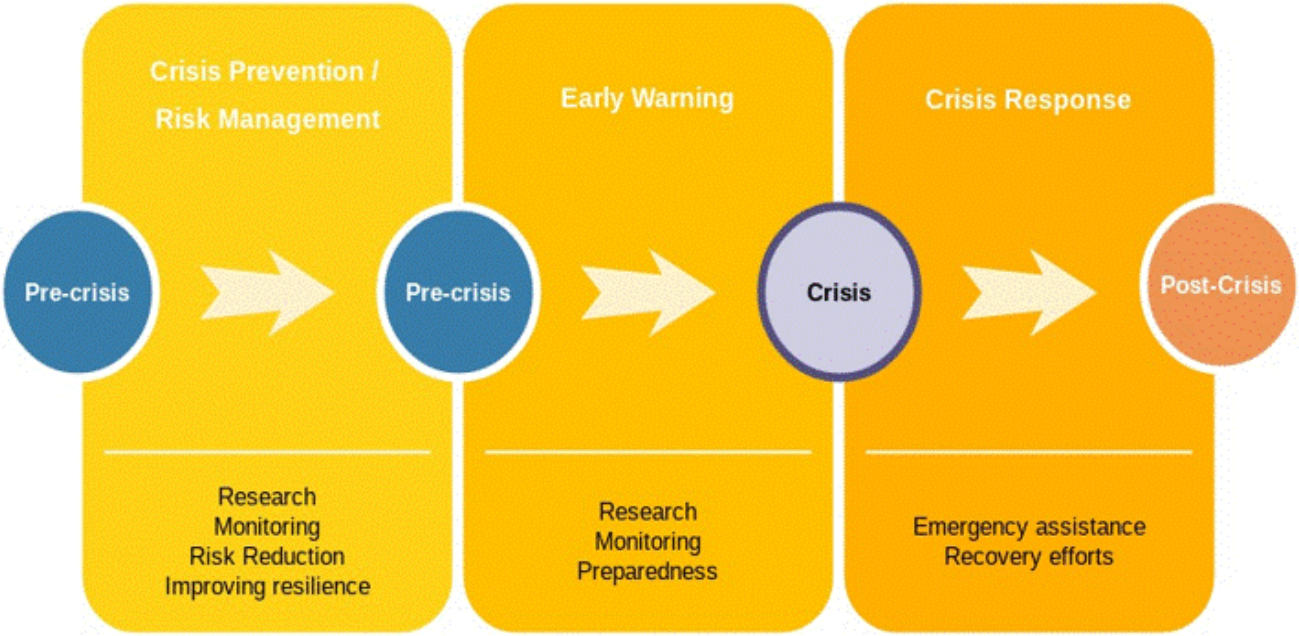


Table A.1

LDCs State of Commodity Dependence

African LDCs	Asian LDCs	Landlocked LDCs	Islands LDCs
1. **Angola****	1. **Afghanistan***	1. Afghanistan	1. Comoros*
2. **Benin***	2. Bangladesh	2. Bhutan	2. Haiti
3. **Burkina Faso*****	3. Bhutan	3. Burkina Faso	3. **Kiribati***
4. **Burundi*****	4. Cambodia	4. Burundi	4. Madagascar*
5. **Central African Republic***	5. **Lao People's Democratic Republic*****	5. Central African Republic	5. São Tome and Principe*
6. **Chad****	6. **Myanmar***	6. Chad	6. **Solomon Islands***
7. **Comoros***	7. Nepal	7. Ethiopia	7. Tuvalu
8. **Democratic Republic of the Congo*****	8. **Timor-Leste****	8. Lao People's Democratic Republic	8. **Vanuatu***
9. **Djibouti***	9. **Yemen****	9. Lesotho	
10. **Eritrea*****		10. Malawi	
11. **Ethiopia***		11. Mali	
12. **Gambia***		12. Nepal	
13. **Guinea*****		13. Niger	
14. **Guinea-Bissau***		14. Rwanda	
15. Lesotho		15. South Sudan	
16. **Liberia*****		16. Uganda	
17. **Madagascar***		17. Zambia	
18. **Malawi***			
19. **Mali*****			
20. **Mauritania*****			
21. **Mozambique*****			
22. **Niger*****			
23. **Rwanda*****			
24. **Sao Tome and Principe***			
25. **Senegal***			
26. **Sierra Leone*****			
27. **Somalia***			
28. **South Sudan**			
29. Sudan**			
30. **Togo*****			
31. **Uganda***			
32. **United Republic of Tanzania*****			
33. **Zambia*****			

Countries marked in **green** are commodity-dependent LDCs.

* Dependence on exports of agricultural products

** Dependence on fuel exports

*** Dependence on exports of minerals, ores and metals

Source: UNCTAD (2019).

Table A.2

Comparing Selected Crisis Management Frameworks

	Pre-crisis		In the aftermath of crises
	Risk Management/ Reduction	Early Warning System	Response/Recovery Mechanism
European Union	X	X	X
Food and Agriculture Organization		X	X
Green Climate Fund	X	X	X
International Monetary Fund			X
UN Development Program (UNDP)			X
UN Office for Coordination of Humanitarian Affairs (OCHA)	X	X	X
World Bank		X	X

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