

Health and Development Resilience in the Face of COVID-19



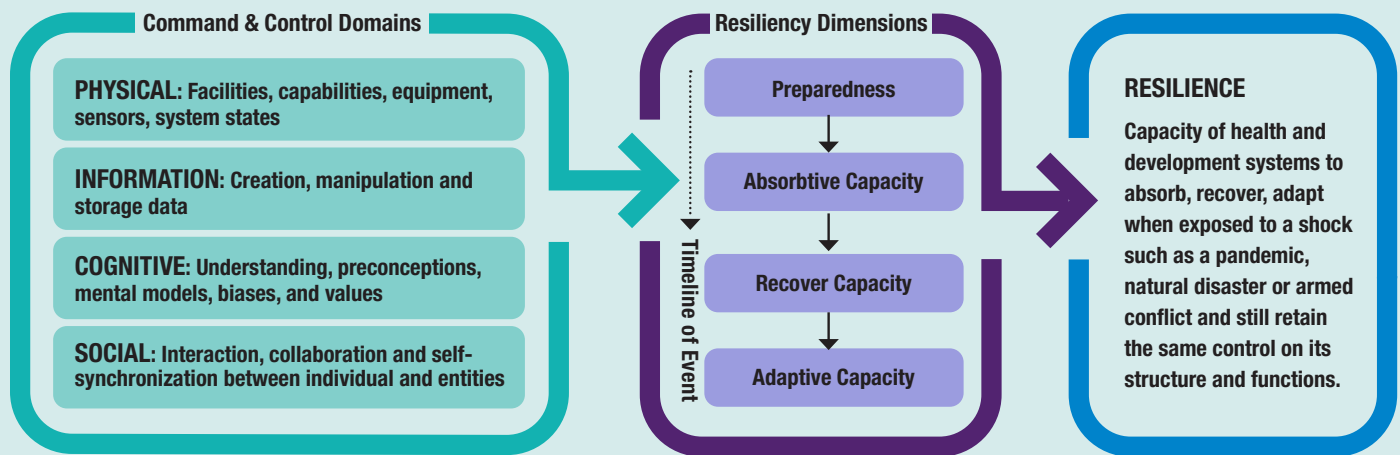


Health and Development Resilience in the Face of COVID-19

Considering the health and socioeconomic impacts of COVID-19, and its close relationship with policies that enable a DD-favorable policy environment, this DDEI has integrated a module to assess the resilience and sustainability of systems in each sector. The scoring follows existing frameworks and key principles of sustainable and resilient systems that can effectively respond to adverse events, security attacks, emerging infectious disease threats and other public health emergencies.

Our framework, presented in Figure 13, is an adaptation of existing frameworks to measure resilience in different sectors by Blanchet et al. and Linkov et al. This framework combines the National Academy of Sciences (NAS) recommended four stages of event management cycle that are needed for a system to be resilient and the four domains proposed by the Network-Centric Warfare (NCW) doctrine that ensure a shared awareness of the situation and inform effective decision making across system levels.^{16,17} Due to the critical importance of timely intervention and frequently irreversible impact of delayed action as proven by the COVID-19 pandemics, an additional element was added to assess timeliness of interventions to mitigate the impact of the crisis^{18,19}

Figure 13. A conceptual framework: Health and Development Systems resilience domains.



Source: Adapted from Blanchet et al. (2017)²⁰ and Linkov et al. (2013)¹⁶.



Sectoral Resiliency Summary Results

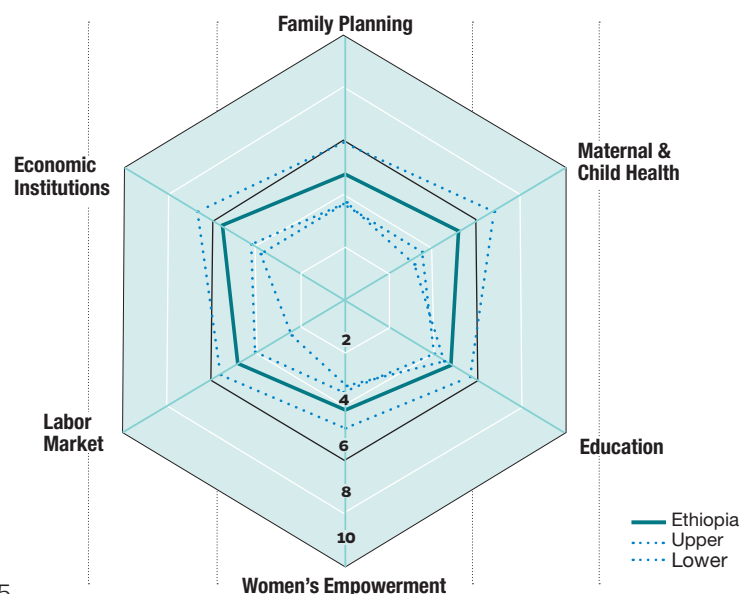
Up to 25 questions were asked over the 4 Command and Control Domains, pertaining to each of the Resiliency Dimensions. Responses were recorded on a Likert scale of 1 to 10, where 1 represents the lowest score (poor state/capability) and 10 represents the highest score (great state/capability). This resulted in a total of **59** surveys completed for the module across all sectors: FP (15), MCH (10), ED (13), WE (6), LM (8), GEI (7). Results by sector are presented in Figure 14. The score values are as follows:

- | | |
|--------------------|--------------------|
| 1. FP: 4.7 | 4. WE: 4.1 |
| 2. MCH: 5.2 | 5. LM: 4.8 |
| 3. ED: 4.9 | 6. GEI: 5.5 |

Confidence intervals are presented in the dotted lines to show the upper and lower bounds.

The overall resiliency score of the six sectors is **4.9** (95% CI: 4.5-5.3).

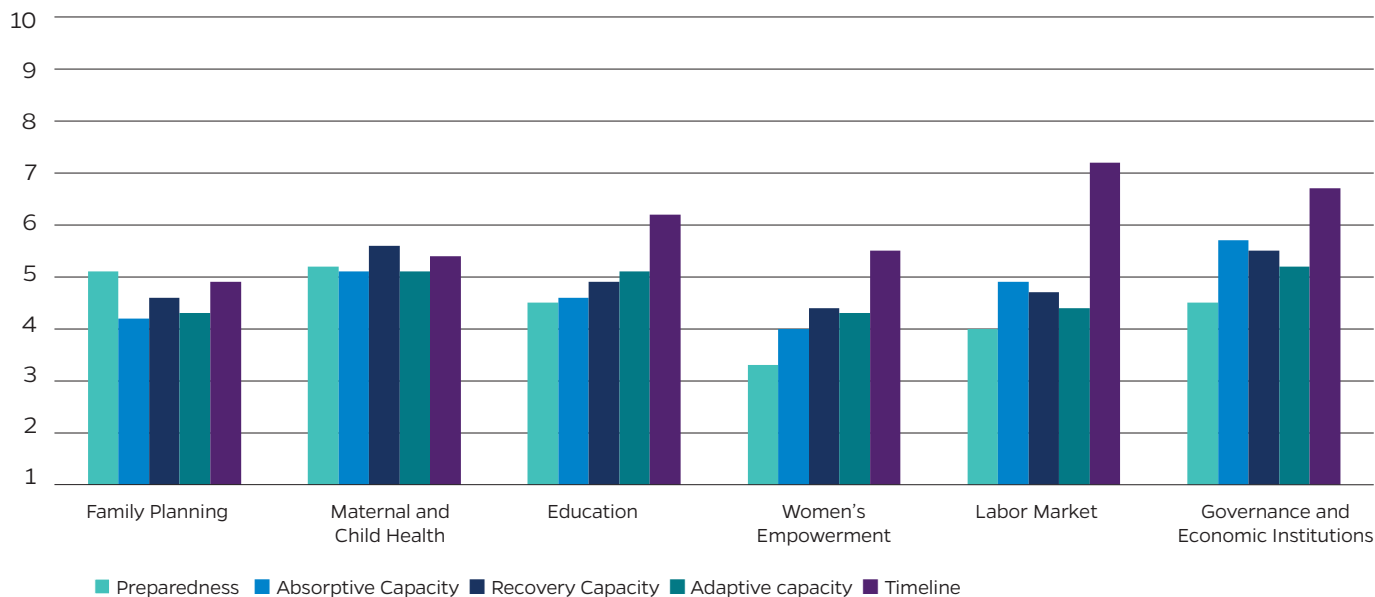
Figure 14: Radar plot of DDEI results across all sectors in Ethiopia.



Resiliency Module Results Across Sectors

The resiliency module results across sectors, by resilience dimension, are presented in Figure 15. This demonstrates the wide variations in scores within and across DDEI sectors.

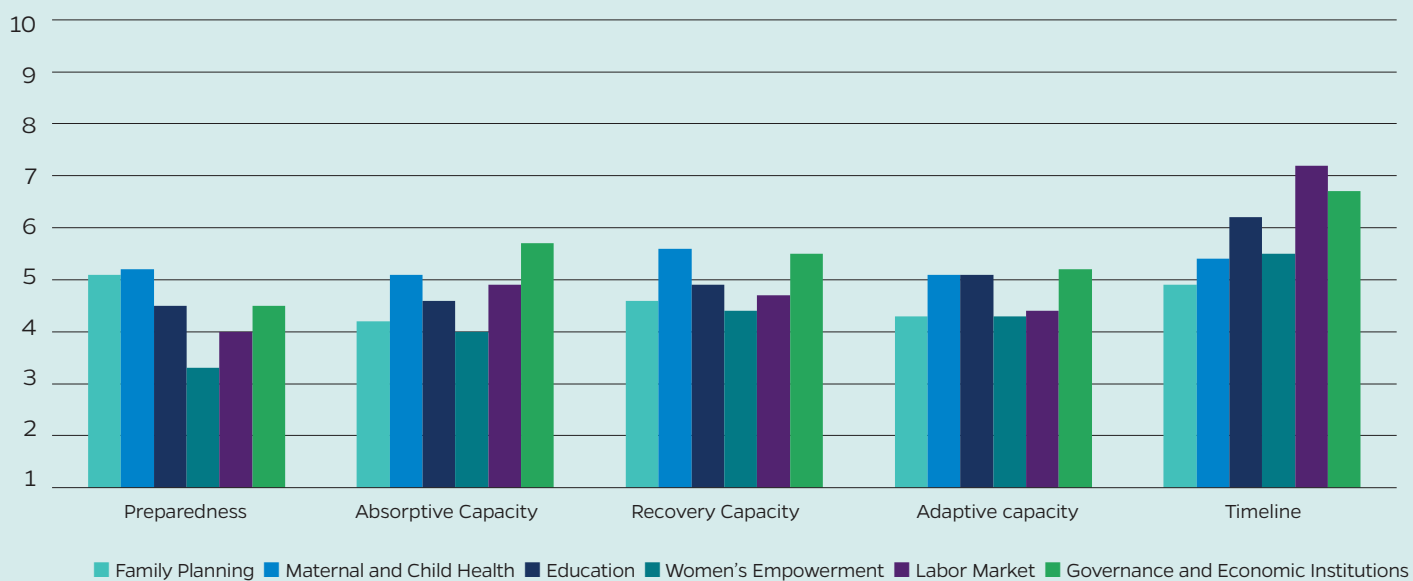
Figure 15: Bar chart of resilience module results across DDEI sectors, by resiliency dimensions in Ethiopia.



Resiliency Module Results Across Resiliency Dimensions

The resiliency module results across resiliency dimensions, by DDEI sector, are presented in Figure 16. This demonstrates the wide variations in scores within and across resiliency dimensions.

Figure 16: Bar chart of resilience module results across resiliency dimensions, by DDEI sectors in Ethiopia.





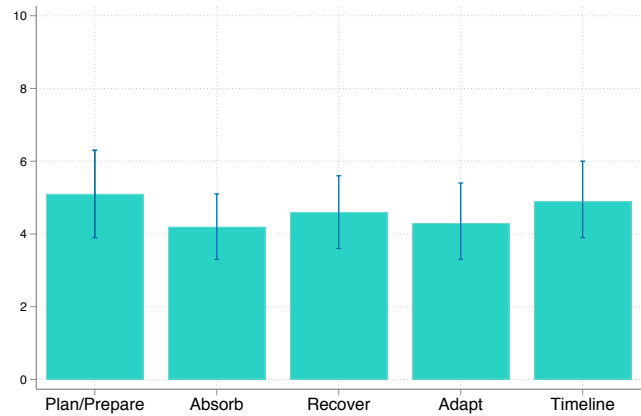
Family Planning Resiliency Scores

The FP sector survey included questions ranging across the four resiliency dimensions: preparedness, absorptive capacity, recovery capacity, and adaptive capacity, in addition to the timeline of responsiveness. Perceived resiliency scores are presented in Figure 17. The results are based on responses from **15** FP experts working in Ethiopia. The scores for each dimension within FP are as follows:

1. Preparedness: **5.1** (95% CI: 3.9-6.3)
2. Absorptive Capacity: **4.2** (95% CI: 3.3-5.1)
3. Recovery Capacity: **4.6** (95% CI: 3.6-5.6)
4. Adaptive Capacity: **4.3** (95% CI: 3.3-5.4)
5. Timeline: **4.9** (95% CI: 3.9-6.0)

Based on weighted statistical analysis, the overall score for the level of resiliency in the FP sector is **4.7** (95% CI: 3.6-5.9).

Figure 17. Bar chart of resiliency results in the FP sector in Ethiopia, by dimension. (95% Confidence Interval)



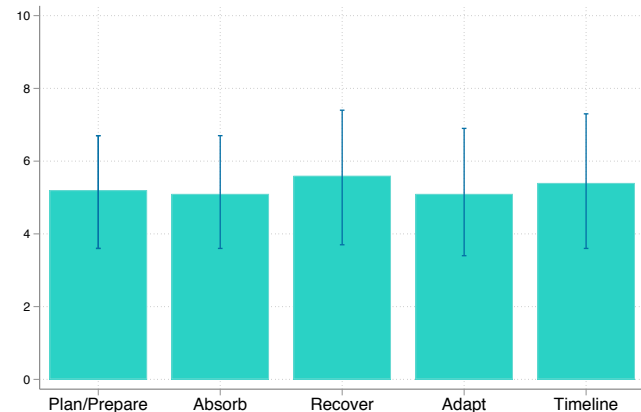
Maternal and Child Health Resiliency Scores

The MCH sector survey included questions ranging across the four resiliency dimensions: preparedness, absorptive capacity, recovery capacity, and adaptive capacity, in addition to the timeline of responsiveness. Perceived resiliency scores are presented in Figure 18. The results are based on responses from **10** MCH experts working in Ethiopia. The scores for each dimension within MCH are as follows:

1. Preparedness: **5.2** (95% CI: 3.6-6.7)
2. Absorptive Capacity: **5.1** (95% CI: 3.6-6.7)
3. Recovery Capacity: **5.6** (95% CI: 3.7-7.4)
4. Adaptive Capacity: **5.1** (95% CI: 3.4-6.9)
5. Timeline: **5.4** (95% CI: 3.6-7.3)

Based on weighted statistical analysis, the overall score for the level of resiliency in the MCH sector is **5.2** (95% CI: 3.6-6.8).

Figure 18. Bar chart of resiliency results in the MCH sector in Ethiopia, by dimension. (95% Confidence Interval)



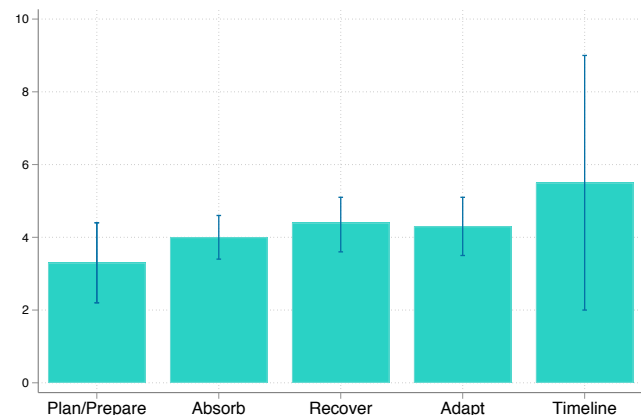
Women's Empowerment Resiliency Scores

The WE sector survey included questions ranging across the four resiliency dimensions: preparedness, absorptive capacity, recovery capacity, and adaptive capacity, in addition to the timeline of responsiveness. Perceived resiliency scores are presented in Figure 19. The results are based on responses from **6** WE experts working in Ethiopia. The scores for each dimension within WE are as follows:

1. Preparedness: **3.3** (95% CI: 2.2-4.4)
2. Absorptive Capacity: **4.0** (95% CI: 3.4-4.6)
3. Recovery Capacity: **4.4** (95% CI: 3.6-5.1)
4. Adaptive Capacity: **4.3** (95% CI: 3.5-5.1)
5. Timeline: **5.5** (95% CI: 2.0-9.0)

Based on weighted statistical analysis, the overall score for the level of resiliency in the WE sector is **4.1** (95% CI: 3.5-4.8).

Figure 19. Bar chart of resiliency results in the WE sector in Ethiopia, by dimension. (95% Confidence Interval)





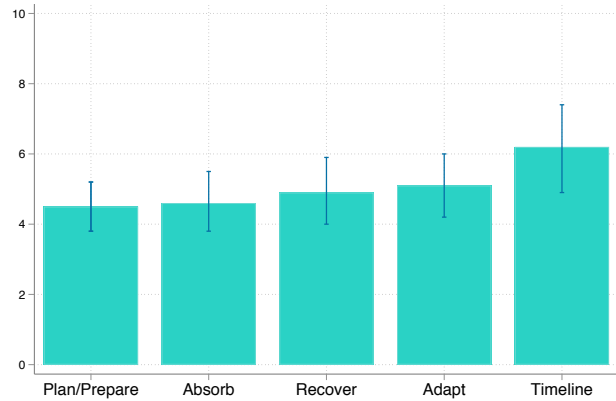
Education Resiliency Scores

The ED sector survey included questions ranging across the four resiliency dimensions: preparedness, absorptive capacity, recovery capacity, and adaptive capacity, in addition to the timeline of responsiveness. Perceived resiliency scores are presented in Figure 20. The results are based on responses from **13** ED experts working in Ethiopia. The scores for each dimension within ED are as follows:

1. Preparedness: **4.5** (95% CI: 3.8-5.2)
2. Absorptive Capacity: **4.6** (95% CI: 3.8-5.5)
3. Recovery Capacity: **4.9** (95% CI: 4.0-5.9)
4. Adaptive Capacity: **5.1** (95% CI: 4.2-6.0)
5. Timeline: **6.2** (95% CI: 4.9-7.4)

Based on weighted statistical analysis, the overall score for the level of resiliency in the ED sector is **4.9** (95% CI: 4.1-5.7).

Figure 20. Bar chart of resiliency results in the ED sector in Ethiopia, by dimension. (95% Confidence Interval)



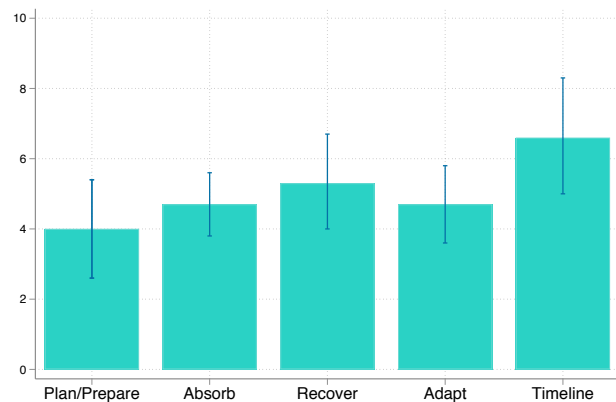
Labor Market Resiliency Scores

The LM sector survey included questions ranging across the four resiliency dimensions: preparedness, absorptive capacity, recovery capacity, and adaptive capacity, in addition to the timeline of responsiveness. Perceived resiliency scores are presented in Figure 21. The results are based on responses from **8** LM experts working in Ethiopia. The scores for each dimension within LM are as follows:

6. Preparedness: **4.0** (95% CI: 2.6-5.4)
7. Absorptive Capacity: **4.7** (95% CI: 3.8-5.6)
8. Recovery Capacity: **5.3** (95% CI: 4.0-6.7)
9. Adaptive Capacity: **4.7** (95% CI: 3.6-5.8)
10. Timeline: **6.6** (95% CI: 5.0-8.3)

Based on weighted statistical analysis, the overall score for the level of resiliency in the LM sector is **4.8** (95% CI: 4.0-5.6).

Figure 21. Bar chart of resiliency results in the LM sector in Ethiopia, by dimension. (95% Confidence Interval)



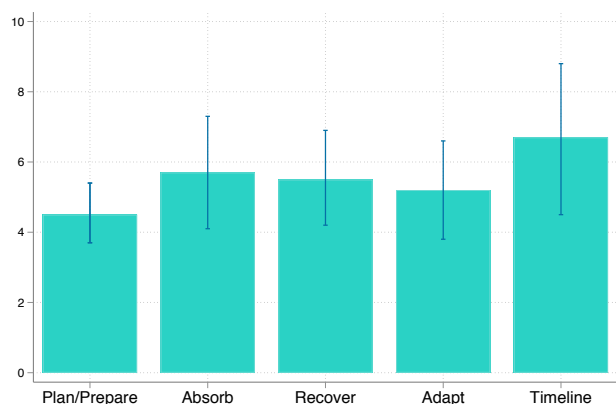
Governance and Economic Institutions Resiliency Scores

The GEI sector survey included questions ranging across the four resiliency dimensions: preparedness, absorptive capacity, recovery capacity, and adaptive capacity, in addition to the timeline of responsiveness. Perceived resiliency scores are presented in Figure 22. The results are based on responses from **7** GEI experts working in Ethiopia. The scores for each dimension within GEI are as follows:

11. Preparedness: **4.5** (95% CI: 3.7-5.4)
12. Absorptive Capacity: **5.7** (95% CI: 4.1-7.3)
13. Recovery Capacity: **5.5** (95% CI: 4.2-6.9)
14. Adaptive Capacity: **5.2** (95% CI: 3.8-6.6)
15. Timeline: **6.7** (95% CI: 4.5-8.8)

Based on weighted statistical analysis, the overall score for the level of resiliency in the GEI sector is **5.5** (95% CI: 4.5-5.3).

Figure 22. Bar chart of resiliency results in the GEI sector in Ethiopia, by dimension. (95% Confidence Interval)



Key Effort Levers to Improve Health and Development Resilience

Preparedness

1. FP: Develop methods to facilitate access to facility and community-based FP services by service providers, clients, and their supporters during periods of crisis.
2. MCH: Periodically conduct health system capacity assessment and facility readiness assessment for the MCH programs
3. WE: Ensure that gender-responsive institutions, policy and strategy frameworks and inclusive society are in place or Ensure that preparedness policy and legal frameworks and action plans are gender-responsive enough and adequately address GE and WE
4. LM: Scale up existing rural and urban safety programs and mobilizing informal social self-help institutions and linking them with the formal system.
5. ED: Strengthen collaboration between the public and private education system so that the needs of all children are equally met in future emergencies
6. GEI: Strengthen national institutions that deals with disaster risk management issues to support people who will be affected by such crisis and emergency situations.

Absorptive capacity

1. FP: Enhance community directed intervention approaches for FP including, dispensing through FBO, CSOs, private health facilities, shops, drug stores etc...
2. MCH: Enhance community directed intervention approaches for MCH including outreach and campaigns
3. WE: Strength the capacities of public agencies and organizations working with and for women to recognize the value of gender-based data and their ability to create, assimilate and apply it to achieve GE and WE ends.
4. LM: Support small and micro enterprises and foster deeper production linkages among the economic sectors.
5. ED: Work with the Education cluster of the National Disaster Management System and UN agencies to schools receive the necessary resources so that access and quality of education does not suffer.
6. GEI: Establish reliable system for disseminating information related to the pandemic using reliable media suitable to different social groups to avoid misinformation

Recovery capacity

1. FP: Improve engaging partners and knowledge sharing experience to enhance systematic recovery during crisis.
2. MCH: Develop health work force capacity and maintaining adequate MCH supplies and commodities to provide services and reduce risk of exposure of clients and service providers at all service delivery points
3. WE: Ensure that gender-responsive and women-friendly recovery policy and legal frameworks and strategies and action plans are put in place
4. LM: Provide financial resources in concessional terms to enable SMEs to successfully manage the impact of the COVID-19 outbreak and enable them to hire young people.
5. ED: Document lessons on how the education system (both public and private) coped with the pandemic and develop/ revise national guideline to effectively respond to any future pandemic.
6. GEI: Ensure transparent and accountable system of management of emergency support interventions and resources to avoid any corruption symptoms and practices.

Adaptive Capacity

1. FP: Ensure and demonstrate leadership at all levels for FP programs to mitigate the effect of crisis
2. MCH: Ensure and demonstrate leadership at all levels for MCH programs to mitigate the effect of crisis
3. ED: Strengthen e-learning and distance learning will immensely contribute to adaptive capacity of the system.
4. WE: Strengthen the capacity of public agencies and organizations at all levels working with and for women so as to help them adapt to damages easily, take advantage of opportunities, or respond to consequences effectively in their endeavors towards meeting GE and WE.
5. LM: Build the productive capacities of small and micro enterprise to ensure their survival during such pandemics.
6. GEI: Promote policies that encourage participation of local communities in the formulation of economic and social policies and ensure ownership of such policies by the stakeholders.

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