

NS Credit: Resilience Planning

This credit applies to

- ▶ Cities (6 points)
- ▶ Communities (6 points)

Intent

To strengthen the resilience of communities to climate change risks, natural and man-made hazards and extreme events.

Requirements

CITIES, COMMUNITIES

Vulnerability and capacity assessment (3 points)

Identify the local environmental context and conduct a vulnerability and capacity assessment for climate change risks, natural and man-made hazards and extreme events as per the table below. Map the impact (affected groups and sectors) of these events against the planned socio economic profile, urban health and urban infrastructure.

Table 2. Classification of impacts for Vulnerability and Capacity Assessment

Natural		Man-made	
Geo Physical	Earthquake	Social	Complex Emergencies/Conflicts
	Landslide		Displaced Populations
	Tsunami		
	Volcanic Activity	Technological	Cyber Attack
Hydrological	Avalanches	Industrial	Infrastructure failure
	Flood		Fire
Climatological	Extreme Temperatures	Transport	Explosion
	Drought		Accidents
	Wildfires	Pollution	Accidents On Road, Air, Railway, Maritime
	Extreme heat/ cold		Air and water
	Heat Island Effect		
Meteorological	Cyclones		
	Storms/Wave Surges		
Biological	Disease Epidemics		

Requirements for vulnerability and capacity assessment:

- **Risk Identification-** Identify the impacts from which an area is at risk. Use national/state level maps and historic data of occurrence to identify the potential threats.
- **Risk Assessment-** Estimate the probability of occurrence of the extreme events. Study their characteristics, frequency and potential severity. Conduct a socio-economic and environmental assessment of the impact.
- **Vulnerability and Capacity Assessment-** Assess the most exposed and affected sections of the city or community.

- **Adaptation and Mitigation Goal-** Set goals based on the vulnerability and capacity assessment. Highlight threats having maximum damage potential and most vulnerable areas that require mitigation strategies. The goal should address the top two natural and man-made hazards.

AND

Resilience Plan (3 points)

Develop Resilience Plan for the city or community. The plan should meet at least two of the following requirements:

- Adaptation and Mitigation Strategies- Adaptation and Mitigation strategies to meet the goals identified under Vulnerability and Capacity Assessment above.
- Fundamental Emergency planning and preparedness- Access to basic needs - First aid, emergency supplies, water, food communication, temporary shelter.
- Early Warning Systems- Strategies for early warning systems during the extreme event. Demonstrate at least one early warning system in practice.
- Critical Infrastructure- Operation of critical facilities during the extreme event and post-event rehabilitation. Map and reduce over time any critical infrastructure that is located in designated high risk areas.
- Policy Intervention- Incorporate building structure resilience strategy to withstand the potential damage due to natural hazards in the building regulations.
- Meet the requirements of *PEER v2 Rating System*¹⁶, *RR Credit: Damage and Exposure Prevention* to achieve a minimum of 2 points. (Appendix 1)

References:

- RELI v1: Risk Adaptation + Mitigation for Acute Events
- STAR v2 CE-1: Climate Adaptation
- STAR v2 HS-6: Hazard Mitigation
- PEER V2 RR Credit: Damage and Exposure Prevention

Guidance Behind the Intent

Common signs of climate change include higher annual average temperatures, rising sea levels, and extreme weather. Serious impacts of climate change may involve flooding, drought, prolonged heat waves, and/or increased frequency of dangerous storm events. Such impacts can radically shift ecosystems, destabilize economies, and threaten quality of life. Climate change exacerbates the stress on already-strained infrastructure systems. Communities that make the choice to address future stresses and shocks from climate impacts today are likely to save money and experience a safer, healthier community now and in the future.

Further Explanation

Required Documentation

Documentation	Vulnerability and capacity assessment	Resilience Plan
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¹⁶ <http://peer.gbci.org/sites/default/files/resources/PEER-v2-Rating-System.pdf> , accessed on December 17, 2018.

Narrative describing the risks identified and assessed, vulnerability and capacity assessment along with adaptation and mitigation goals for each of the top two natural and manmade hazards.	X	
Annotated resilience plan clearly highlighting the sections within the plan that demonstrate achievement of at least two of the listed requirements.		X

Exemplary Performance

This credit is not eligible for exemplary performance.