



Job Aid: Sample Indicators and Metrics of Adaptation Success and Progress: Environmental Aspects

This list constitutes a sample of possible indicators and metrics that point to climate adaptation success and/or progress. It is derived from work with communities in Maine, New York, New Jersey, California and Alaska. For a larger list of indicators and possible metrics brainstormed by these communities, look for a searchable Excel spreadsheet in the Resources section of www.resiliencemetrics.org, called "SAIM Project_Indicator Brainstorm_all.xlsx" (status January 2020). Indicators can be searched by adaptation strategy, location, sector, or the six dimensions of adaptation success described at www.resiliencemetrics.org. This list is not refined, ranked or vetted by any scientific or governance entity although some indicators are in use. The list is solely offered to support other users' creative thinking and brainstorming of indicators/metrics that suit their unique situations.

Adaptation Strategy	Indicators	Metrics	Process	Capacity	Barriers	Decision-making	Action	Outcome
Foster a better understanding of climate change and sea-level rise related risks	Access to site-specific information	Study of sand drift and effects on coastal erosion rates (completed // not yet begun // in progress)				x	x	
Maintain access to wilderness (public land) for recreation, trapping, subsistence activities	Access to wilderness	# of legal/illegal access points; # of private property violations; satisfaction with wilderness access (surveyed)						x
Compensate for increased coastal erosion	Existence of shoreline buffer	Sand replenishment project studied // planned // raised funds // obtained all/some relevant permits // completed					x	x
Maintain access to wilderness (public land) for recreation, trapping, subsistence activities	Noise	# of complaints about jet skis etc.; perception of how "quiet" place is (surveyed, expressed)						x
Increase use of green/nature-based solutions	Open/green space	# of acres of impervious surface converted to pervious surface; # of green infrastructure projects implemented; # of green infrastructure projects in low-income communities and in communities of color					x	x
Preserve natural assets for flood resiliency	Protected (existing or restored) shorefront areas	Acres of natural shoreline area protected or restored						x
Improve/maintain water quality	Regulatory change	Width of stream channel buffer in ordinance			x		x	x
Improve scientific understanding of sediment movement	Sediment monitoring	Annual sediment removal (t/year); completion of sediment dynamics model (yes // not begun // in progress)		x			x	x



This job aid was created to serve as a reference for individuals interested in indicators and metrics to help communities define and track progress on their climate adaptation goals. Additional background and resources are available on the website: www.ResilienceMetrics.org. This website was developed in partnership with the National Estuarine Research Reserve System with funding from NOAA.



Adaptation Strategy	Indicators	Metrics	Process	Capacity	Barriers	Decision-making	Action	Outcome
Ensure food security through growing more food locally	Seed bank	Modify seeds of spring lesson plans (distributed // completed // in progress // not yet begun); # of trainings on seed saving to interested local gardeners/growers (completed // in progress // not yet begun); Develop seed catalog (online)(completed // in progress // not yet begun); # of outreach activities about seed bank at Homer Farmers Market		x			x	x
Maintain use of wilderness (public land) for recreation, trapping, subsistence activities	Species abundance	# of ecologically significant species in different habitats; amount of culturally significant, harvested species (fish, hunted animals, plants/berries collected); research project on salmon habitat under climate change (proposal developed // grant submitted // grant received // project in progress // project completed // findings disseminated)						x
Improve private land owner land stewardship	Stewardship	# of private land owners attending workshop in ecosystem-based land management, values consistent with land ethic (surveyed), K-12 education in wilderness ethic		x			x	x