### Hashtags: #earth, #communityvisions

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### Tags: Model

**Challenge Description**

Create an app, web interactive, map, 3D model, or visualization for actionable community plans about climate adaptation to better enable communities to prepare for weather and climate patterns. You can base your plans on the latest scientific data from sources like the National Climate Assessment, the 2007 Intergovernmental Panel on Climate Change Report, or the 2012 EPA Climate Indicators Report. Work with community residents, urban planners, and city officials to create these plans so they are realistic and reflect community needs. You can use scientific visualizations, imagery, data, graphics, and artist renderings as motivation and inputs for creating detailed maps and plans of action for the next ten, twenty, or fifty years.

Potential questions to consider in developing your plan:

What does a community that has adapted to climate look like? What does a resilient community look like?

What is the house of the future? What socioeconomic interactions need to happen in order to put these plans into action? What community and physical infrastructures need to be rebuilt, repurposed, or reimagined to prepare for climate impacts? What decisions need to be made to achieve this? How might we express climate preparedness in other ways than graphs, numbers, and scenarios?

**Background**

Communities already are adapting to or preparing for change in weather patterns. For example, entire villages in Alaska are being relocated to adapt to receding coastlines ([2009 National Climate Assessment](http://nca2009.globalchange.gov/)). Communities can prepare for changes like these by reviewing the latest science and planning ahead. They can use projections from climate models to understand the potential impacts on their community. For example, do a large percentage of senior citizens exist who are vulnerable to high temperatures? Communities also can evaluate if their infrastructure can handle changes, for example, assessing their bridges and roads to see if they are high enough to handle potential floods. With this information in hand, communities can decide what actions they are ready to take and when to take those actions. The actions can be presented in the form of formal action plans, maps, 3D models, or other ways that will help people make informed decisions.

**Solution Ideas**

Here are some ways for you to frame this solution:

· Review the scientific data and models about how climate could change in your community;

· Assess the potential impacts on your community, such as impact of higher water flow or higher temperatures to citizens;

· Engage community groups and other parties to ensure that they are represented in the decision making process for your community's future;

· Display community plans as detailed community plans and maps, interactive videos, community environmental impact calculators; and/or

· Consider creating websites that crowdsource community ideas about climate adaptation.

**Sample Resources**

* <http://www.ipcc.ch/publications_and_data/ar4/wg2/en/contents.html>
* <http://nca2009.globalchange.gov/>
* <http://www.epa.gov/climatechange/science/indicators/>
* [https://nex.nasa.gov/](https://nex.nasa.gov/OpenNEX/%5F) [**OpenNEX**](https://nex.nasa.gov/OpenNEX/%5F) [/‎](https://nex.nasa.gov/OpenNEX/%5F)
* <http://portal.nccs.nasa.gov/portal_home/published/NEX.html>
* [http://www.usgs.gov/climate\_landuse/clu\_rd/nex­dcp30.asp](http://www.usgs.gov/climate_landuse/clu_rd/nex%1fdcp30.asp)
* <http://www.usgs.gov/climate_landuse/clu_rd/projects/downscale.asp>
* <https://portal.nccs.nasa.gov/portal_home/published/NEX-DCP30_Tech_Note_v0.pdf>
* <https://nex.nasa.gov/nex/resources/264>
* <http://eospso.gsfc.nasa.gov/>
* <http://earthobservatory.nasa.gov/>
* <http://neo.sci.gsfc.nasa.gov/>
* <http://climate.nasa.gov/>
* <https://earthdata.nasa.gov/labs/worldview/>