



## Foresight Workshop How-to Guide

### Purpose & Scope

This guide assists organizations in preparing for and conducting a two-hour foresight workshop utilizing scenario planning techniques. This type of a workshop can involve a small team or a larger group of decision makers or stakeholders depending on your organization's interest in foresight and strategic planning.

Image: FEMA Urban Search and Rescue teams, along with DHS partners, conduct searches in neighborhoods impacted by Hurricane Ike. Source: FEMA Photo Library

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## What is scenario planning?

Scenario-based strategic planning is a technique by which organizations evaluate their readiness for the future by developing and considering a range of possible alternative futures, known as scenarios. Scenarios are detailed, systematically developed descriptions of operating environments that an organization may face over the next 20 years or longer. By envisioning how current strategy and operating models would fare under multiple potential scenarios, organizations can achieve insights informing and strengthening their strategic planning. Scenario planning is a technique for managing uncertainty, risk, and opportunity, and offers a useful strategic framework for understanding future needs and prioritizing near-term action.

## What is in this guide?

This How-to Guide walks step-by-step through each part of the process to organize a foresight workshop. The Guide contains:

- **Exercise Planning Worksheet (Pg. 3):** This worksheet intends to help the planner/planning team think through why the workshop is being executed, the goals and objectives of the workshop and what first steps need to be taken.
- **Ten Quick Steps for Workshop Planning & Execution (Pg. 4):** This list shows ten quick overview steps for workshop planning and a short description of each step.
- **How to Design a Scenario (Pg. 5):** This section includes basic steps for scenario building; three sample scenarios; and several research resources by topic area.
  - **Sample Scenarios (Pg. 6)**
  - **Additional Resources for Scenario Building (Pg. 7-8)**
- **Sample Workshop Agenda (Pg. 9):** This sample agenda can help you structure your workshop session.
- **Sample Facilitation Questions (Pg. 9):** These sample questions can guide your facilitation approach.
- **Now What? (Pg. 10):** This section includes an anecdote from FEMA about how the findings of a foresight workshop can be incorporated into an organization's planning processes.
- **Frequently Asked Questions (Pg. 11):** This section includes a variety of frequently asked questions that you may find useful throughout the workshop development and execution process.

## I need help!

For more information on FEMA's Strategic Foresight Initiative, its philosophy and products, please visit [our website](#). For any comments or questions, please contact the SFI team at [FEMA-OPPA-SFI@fema.gov](mailto:FEMA-OPPA-SFI@fema.gov).

# Planning Worksheet



The purpose of this worksheet is to help guide you through the initial planning steps of creating and executing your own foresight workshop. This worksheet should be used by the team that will create and execute the workshop, not the participants. However, it may be helpful to frame and discuss some of these questions with the participants at the beginning of the workshop, for example your objectives in undertaking the exercise.

## PURPOSE

- Why are we doing this exercise?
- How does this exercise link to other activities in our organization? (e.g., a strategic planning process the exercise outputs could inform)

*Brainstorm your ideas here*

## OBJECTIVES

- What goals do we have in completing this exercise? What do we hope to achieve?

## SCOPE

- What parameters will we use to bound our scenarios (e.g., time, geography, mission)
- What assumptions will we make?

## KEY PLAYERS

- Who will be involved?
- Will preparing the scenarios require engaging internal or external subject matter experts?
- Do we need an outside facilitator?

## PROJECT MANAGEMENT & NEXT STEPS

- What type of planning meetings will we need to prepare for the exercise?
- What type of timeline will we follow?
- What are the initial steps to start this process?

# 10 Quick Workshops Steps



Here are the ten basic steps you'll need to complete for planning and executing your workshop.

## **1: Complete the Planning Worksheet**

Gather a planning team to brainstorm and complete the planning worksheet. This is the team that will be in charge of planning, executing the workshop and conducting follow up activities. Chose the size of your team depending on how many people will participate in the workshop, e.g., five planning team members for a workshop of 50 people.

## **2: Design scenarios**

Keeping in mind the purpose, objectives, and scope you identified in the Planning Worksheet, design your scenarios using the approach outlined on page 5 "How to Design a Scenario." We recommend you cover two to three scenarios in one workshop to enable participants to consider multiple alternative future environments. First review the two SFI reports: [Crisis Response and Disaster Resilience 2030](#) and [Toward More Resilient Futures](#). You may also choose to review additional resources, such as those suggested on page 7 "Additional Resources for Scenario Building".

## **3: Determine most relevant drivers of change to include in the scenarios**

After reviewing the SFI reports and research, choose sets of drivers to include in each scenario. You may choose to include the same driver in more than one scenario. The drivers are the major elements you will focus on in the scenario (e.g. climate change, technology, demographics).

## **4: Write scenarios and validate with subject matter experts across the organization**

Use the "How to Design a Scenario" tips on the next page to write your scenarios. Validate the scenarios with key subject matter experts across your organization to ensure they are holistic and far-reaching yet still logical.

## **5: Write facilitation questions and create an agenda**

Write questions you would like to discuss after each scenario. Suggested questions are included on page 9 "Sample Facilitation Questions". A carefully-crafted agenda is critical to keep the workshop discussions focused on the desired objectives. A sample agenda is included on page 9 "Sample Facilitation Agenda".

## **6: Identify a facilitator**

Select a workshop facilitator. It can be helpful to use someone that is familiar with your organization but doesn't engage in its everyday business. This can help the individual keep discussions focused yet not weighed down by details.

## **7: Develop and distribute read-ahead material**

Build a read-ahead packet containing a brief overview of scenario planning, the agenda, and scenarios to send to participants a week ahead of the workshop. Instruct participants to read the scenarios at least once and ideally twice.

## **8: Conduct workshop & record and share key takeaways**

Use your agenda, scenarios, and facilitation questions to conduct the workshop. Record key takeaways.

## **9: Conduct after-action meeting to determine how to integrate takeaways into key organizational planning efforts and documents**

After the workshop, gather your planning team to review the key takeaways. Discuss how you might integrate these findings into organizational operations and long term, strategic guidance documents and decision processes like strategic planning or budgeting.

## **10: Evaluate every few years or as you experience or anticipate changes in drivers.**

As you begin to integrate your workshop findings into your organization's every day practices and guidance documents, remember to evaluate your findings every few years or as major events and changes occur. For example, new developments in technology may lead you to reconsider how you provide services to your stakeholders.

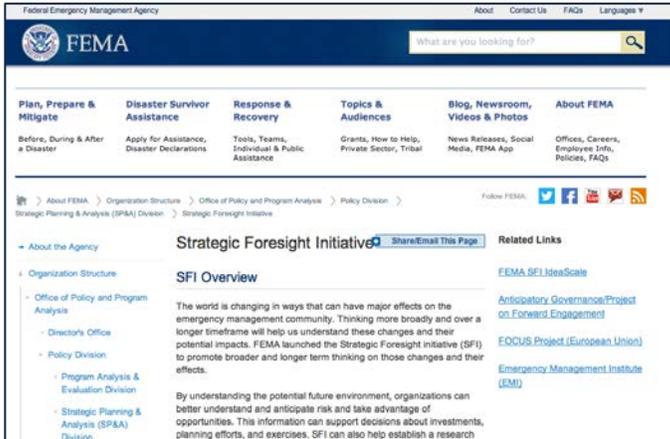
# How to Design a Scenario



A scenario is a description of a possible future environment, exploring how two or more drivers of change might alter the status quo. Such a scenario is used to help strategic thinkers 'step out of' their current context and consider the implications of possible alternative futures. The recommended steps below highlight existing SFI materials that can inform the design of scenarios for your scenario planning workshop.

## 1: Review Feature 1 of the SFI Report Toward More Resilient Futures

Read Feature 1 on pages 1 – 9 of the [Toward More Resilient Futures](#) report and pick one aspect or "side" of each emerging theme to include in your scenario. You may choose the aspect you see as the one your organization will most likely face or perhaps you will choose the one you do not think your organization will encounter to spur out-of-the-box thinking.

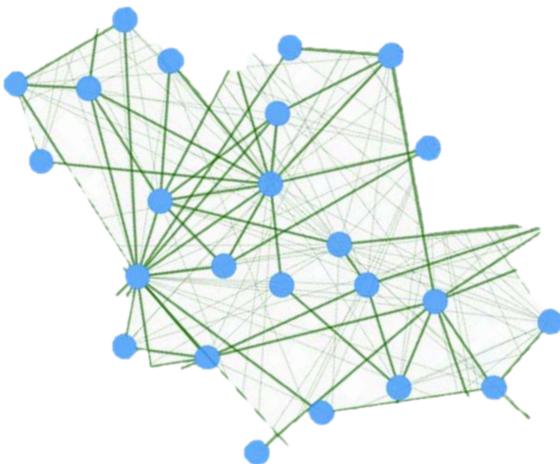


## 2: Review the SFI Driver Research Papers and Driver Research

Review the SFI Driver Research papers and driver research on the [SFI website](#). Pick two to three drivers you would like to include in the scenario then choose two to three critical pieces of information or trends from that driver.

## OPTIONAL: Conduct Additional Research

You may choose to do additional research on key trends and drivers that may impact the future environment. Page 7-8 of this toolkit includes some resources you may consider. You may also consider reading the SFI [Crisis Response and Disaster Resilience 2030](#) report.



## 3: Write the Scenarios

After gathering all relevant information you desire for each scenario, put it all together. A scenario should be written like a story and it should:

- Describe a range of possibilities for the future – not predictions
- Stretch thinking but be plausible and logical
- Build on what is known but also incorporate uncertainty
- Relate trends and events together into logical frameworks

The below blurbs are examples of how a scenario is typically written. These are short paragraph samples, however you may want to make your scenarios more detailed and about one page in length. You may also include photos, data tables, or graphs to help the participants fully immerse themselves in the scenario.

## EXAMPLE 1: Treading Water

The U.S. is very much a changed country as it deals with long-term stagnation bordering on depression. Unemployment is chronically high, and meaningful recovery does not appear imminent. It is a time of self-reliance and community focus. The nation has grown notably more insulated and pragmatic in global affairs, yet relations with Mexico and Canada have never been more important. A series of deadly pandemics has swept the globe and reinforced rising protectionist and isolationist sentiments. Military spending in the United States has been scaled back. U.S. homeland security roles have been increasingly redefined around disease management, border security and emergency response. Environmental regulations have been mostly shelved, in this austere national setting.



Thousands of residents work tirelessly sandbagging along the Souris River in Minot, North Dakota. Source: FEMA Photo Library

## EXAMPLE 2: Dude, where's my sovereignty?

The U.S. is a gloomy place. An endless series of incompetent and uncompromising governments failed to arrive at anything comprehensive to fund the Baby Boom retirements and maintain fiscal sanity. Our global influence has waned, and because the federal government is seen as ineffectual and underfunded, states do many things that used to be strictly federal responsibility. All are worse off than they were a few decades ago. Globally, international business elites and a few countries exert influence to avoid seemingly inevitable resource-extraction anarchy in the global commons.



A FEMA employee and a disaster survivor utilize an assistive communication device provided for applicants who are deaf or hard of hearing at a Disaster Recovery Center in Illinois. Source: FEMA Photo Library

## EXAMPLE 3: Quantum Leap

The U.S. is enjoying a renaissance. A technological revolution fostered by aggressive public-private investment has given the U.S. bleeding-edge advantages in computing, nanotechnology, smart materials, and robotics. But it's not all upside. The world struggles with the increasingly destructive effects of global climate change. Oil-producing economies will soon be on the brink of collapse, a globally networked "elite" appears to enjoy superior political and economic advantages, and cybercrime and intellectual property theft are rampant. No one knows where this brave new cyber world will lead, but for now Americans are enjoying the best economy since the 1990s.



Below are some resources you may find useful in developing scenarios.

- **Assessment of Global Risks:** The World Economic Forum's Global Risks 2012 report identifies 50 risks that will likely have the most impact and highest likelihood of taking place over the next ten years. At the top, it recognizes that economic imbalances and social inequality risk reversing the gains of globalization. These are the findings of a survey of 469 experts and industry leaders, indicating a shift of concern from environmental risks to socioeconomic risks compared to a year ago. Respondents worry that further economic shocks and social upheaval could roll back the progress globalization has brought, and feel that the world's institutions are ill-equipped to cope with today's interconnected, rapidly evolving risks. See: <http://www.weforum.org/issues/global-risks>
- **Business and Disaster Assistance:** Corporations have always participated in emergency response, though not in any uniform way; the following article chronicles one example. See: <http://bit.ly/Rdqdir>
- **Demographics:** Population growth is a significant factor in energy markets, and will also influence and be affected by climate trends. The National Assessment Synthesis Team, US Global Change Research Program has assembled historical and forecast data. See: <http://bit.ly/ODDQwa>
- **Disappearing Middle Class:** The Middle Class has been a subject of keen analysis and debate for at least two decades. But a number of researchers and observers believe the phenomenon is accelerating in the wake of the U.S. financial crisis and the continuing effects of technology and outsourcing on job creation. "The Hollowing Out" by Thomas Edsall (*New York Times* Op Editorial July 8, 2012) surveys current thinking on the topic, including that of Spence & Autor and Brynjolfsson & McAfee. Edsall also examines contrary points of view, such as that of James Hamilton, an economist at the University of California, San Diego, who believes that technological progress leads to rising real wages – more wealth and less poverty for society as a whole.
- **Drought:** Drought conditions experienced in 2012 are already the worst since the 1950s; due to rising temperatures and decreased average rainfall in some areas associated climate change, most experts project drought and extreme weather conditions to worsen over the coming decades. See: <http://wapo.st/Ot8X00>
- **Economic Mobility:** Recent studies published by the Pew Research Center analyze the impacts of economic mobility across generations; challenges associated with access to and financing of education, geographic mobility of individuals and families are major issues that affect the Nation's economic mobility. See: <http://bit.ly/Jit6p5>
- **Federal Funding:** Federal grants to State and local governments are made for various specific purposes; a very useful summary of available data can be found in Table 18-2 on page 304 of the document at the following site. See: <http://1.usa.gov/wNVlqL>. Also, the Center for Economic and Budget Priorities covers the breakdown and impacts of Federal block grants. See: <http://bit.ly/QiZMjl>
- **Income Inequality:** The U.S. Census has been tracking household income trends by level of income and demographic characteristics for many years; the trends have shown a steady increase in the share of total income earned by the top 20 percent of earners. See: <http://1.usa.gov/aw3XXJ>
- **National Economy:** The BEA (Bureau of Economic Analysis) is the primary provider of economic statistics for the United States; among their many products they provide interactive tables to view GDP or other economic data in various formats and segmented in various ways. See: <http://1.usa.gov/qKxITN>; GDP forecasts are available from numerous organizations.

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- **New Normal:** Some economists believe the Nation has entered of persistent slow growth. The difference between 2 percent and 3 percent average annual GDP growth may not sound like a big difference – but it really is, when talking about job growth, unemployment, household income, government spending capacity, and social well-being in general. For example, in a 2 percent world, according to one estimate, unemployment would rise to nearly 12 percent over the course of a decade. In a 3 percent world, unemployment would fall to around 5.5 percent. See “What the New Normal Means for Americans” by John Ydste, National Public Radio, July 12, 2011, <http://n.pr/nguQsp>
- **Poverty & Disaster Planning:** Several academic studies demonstrate that the immediate survival needs of poor individuals and households take precedence over any personal expenditure for disaster planning; they simply cannot afford to plan for future uncertainties. The poor may be more likely to live in or near locations of higher risk such as flood plains, coastal areas, landfills, industrial facilities and toxic waste dumps. See Fran H. Norris, Susan P. Stevens, Betty Pfefferbaum, Karen A. Wyche, and Rose L. Pfefferbaum, “Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness,” *American Journal of Community Psychology*, 41:127-150, 2008, p. 164. See: <http://bit.ly/aMP7Ku>; Also Susan Cutter, “The Geography of Social Vulnerability: Race, Class, and Catastrophe,” Social Science Research Council (SSRC), June 11, 2006. Available at: <http://understandingkatrina.ssrc.org/Cutter/>
- **Smart Systems:** The Institute for the Future published a report on the future of cities, information, and inclusion. One of the risks moving into the 2020 decade is if one company can corner the government market in “smart systems” and exercise monopolistic influence, thus countering potential public benefits of more open data infrastructures. See: <http://bit.ly/gudZ4B>
- **States & Safety Nets:** For sobering insights into the extent of fiscal problems at the State level, see the results of the State Budget Crisis Task Force as reported in the July 17, 2012 *New York Times* by Mary Williams Walsh and Michael Cooper (“Gloomy Forecast for States, Even if Economy Rebounds”). The report States that even a 10 percent cutback in Federal grants to State represents a loss of \$60 billion in annual State spending. Also reference the State Budget Crisis Task Force, co-chaired by former Federal Reserve Chairman Paul Volker, See: <http://bit.ly/LWgGEY>. The Associated Press has reported on the social impacts of State funding challenges. See: <http://yhoo.it/Ot9MpF>
- **Technology:** Leading technologists envision a future broadly reshaped by virtual and 3D technologies. The cross-industry, public foresight project known as the Metaverse Roadmap (MVR), explores various scenarios driven by technological innovation that may have wide-ranging impacts on society. See: <http://bit.ly/8NV9Ib>. Wired magazine recently published a feature article on the future of drones, which highlights several pioneering applications—some that may filter down to the emergency management community. See [http://www.wired.com/dangerroom/2012/06/ff\\_drones/](http://www.wired.com/dangerroom/2012/06/ff_drones/).
- **Technological Advances:** The pace of adoption of new technologies is accelerating as reported by MIT’s Technology Review. See: <http://bit.ly/MCjdBV>. Sensors are becoming an ever more important part of new capabilities as reported by the IEEE (The Institute of Electrical and Electronic Engineers). See: <http://bit.ly/T4MLtB>. The cost of data fusion, however, may be increasing. See: <http://bit.ly/RdhTbP>

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# Sample Agenda



Below is a sample agenda illustrating how scenarios and facilitation questions can shape a productive discussion. You may consider making a more detailed agenda or facilitation guide.

<b>Objectives:</b> List your key objectives		<b>Desired Outcomes:</b> List what you hope to achieve
<b>Time</b>	<b>Topic</b>	<b>Presenter</b>
5 minutes	Introduction to workshop including objectives and desired outcomes. Explain format and how the outputs will be utilized.	Lead staff in organization and/or member of planning team
5 minutes	Give participants time to review scenario 1	Facilitator
30 minutes	Facilitation questions for scenario 1	Facilitator
5 minutes	Give participants time to review scenario 2	Facilitator
30 minutes	Facilitation questions for scenario 2	Facilitator
15 minutes	Discuss similarities between scenarios. What can the organization do in the short-, medium-, or longer-term to address envisioned challenges?	Facilitator
5 minutes	Thanks and next steps	Lead staff in organization and/or member of planning team

## Sample Facilitation Questions

Below are some sample facilitation questions you might ask participants after they review each scenario. Remember to tailor your discussion questions based on what is relevant for your organization's mission space and strategic challenges. You could ask with respect to each scenario:

- How might your organization's roles and mission delivery change?
- What (if any) commensurate changes to authorities or organizational capabilities might your organization need?
- What factors within your organization would influence its ability to adapt to this scenario or other possible changes in the operating environment?
- What would the implications be for your emergency management partners? Would they become more or less vital to execution of your mission?
- How might broader developments, both within individual communities and throughout society, affect your organization?

After conducting your foresight workshop there are many ways your organization can make use of all of the information and insights collected. Integrating these outputs into strategic plans, operational plans, management of programs, and resource planning can provide a more holistic and forward-looking lens for decision making. Below is an example of how FEMA has utilized foresight workshops to incorporate long-term strategic thinking into the work of the Agency.

## Foresight in the FEMA Strategic Plan



Early in the process to develop content for the new FEMA Strategic Plan, FEMA senior leaders and strategic planners participated in a foresight workshop to consider how current and future forces of change might affect the strategic landscape in which FEMA must function. They considered multiple scenarios of change across key drivers shaping FEMA's mission space to brainstorm areas for strategic focus. This was a critical step to the Plan's development because it enabled FEMA leaders and staff to think long term and take a holistic approach to shaping the Agency's strategic direction.

During the Strategic Plan's development, FEMA leadership also assembled staff from across the Agency to brainstorm fresh ideas for how to make FEMA a more effective agency in the future. Staff were assigned to "challenge teams" responsible for particular focus areas such as technology and the workforce. After teams brainstormed initial ideas for how the Agency could operate in the future, "what-if frameworks" were used to stress-test the ideas for practicality and 'robustness' in face of potential future change.

The "what-if frameworks" brought together relevant elements from the Strategic Foresight Initiative (drivers, scenarios, research) to test the teams' ideas. This exercise and associated analysis helped validate key elements of the future state ideas and put a spotlight on problems, inconsistencies, and gaps. It also illuminated different methods for execution of the ideas. The result was a more robust set of final recommendations that factored in a wider range of change drivers and implications. The recommendations from this effort informed the objectives and strategies finalized within the 2014-2018 FEMA Strategic Plan.

**Informed by these workshops, the 2014-2018 FEMA Strategic Plan addresses many of the strategic needs highlighted by the Strategic Foresight Initiative. For example:**

**Address demographic shifts, share knowledge, and empower individuals:**

Objective 1.3: Increase disaster awareness and action by improving communication

**Flexible frameworks optimizing interoperability:**

Objective 3.2: Operationalize resource-sharing opportunities for catastrophic disasters

**Alternative surge models:**

Objective 3.3: Lead the emergency management community in recognizing and supporting the immediate independent actions of survivors, bystanders, and grassroots organizations in catastrophic events



Below are some questions and answers that may be helpful to review as you begin developing your foresight workshop.

## **What is scenario planning?**

Scenario-based strategic planning is a technique by which organizations evaluate their readiness for the future by developing and considering a range of possible alternative futures, known as scenarios. Scenarios are detailed, systematically-developed descriptions of operating environments that an organization may face over the next 20 years or longer. By envisioning how current strategy and operating models would fare under multiple potential scenarios, organizations can achieve insights informing and strengthening their strategic planning. Scenario planning is a technique for managing uncertainty, risk, and opportunity, and offers a useful strategic framework for understanding future needs and prioritizing near-term action.

## **Why should I do this? How can I use this information after the exercise?**

This type of strategic thinking and planning is far different from familiar planning techniques. With the scenario approach the planning horizon tends to be further out in time, when uncertainty is greater. The intent is not to predict what the future will be and then build a master plan, but rather to ask what the future might hold and identify the actions that can be taken today that are most likely to be valuable regardless of how the future turns out. As a result, the technique relies more on expert judgment and less on quantitative forecasting of future trends and conditions.

## **What data sources can I use to develop good scenarios?**

Developing scenarios with relevant and up-to-date data is important. One simple way to design your own scenarios would be to leverage existing SFI research and information. For example, you could focus on a few of the trends from the SFI reports and SFI driver research. Additional resources that could inform development of scenarios are highlighted on pages 7 and 8 of this guide.

## **What should I have the exercise participants read before-hand?**

Provide workshop participants beforehand with an overview of scenario planning, the foresight workshop agenda, and the scenarios. Ask them to read them before the workshop so they are familiar and comfortable with the content and ready to share their ideas about strategic implications.

## **Where/how can I get further guidance in developing my exercise?**

If you need advice beyond this guide, please email the FEMA SFI team at [FEMA-OPPA-SFI@fema.gov](mailto:FEMA-OPPA-SFI@fema.gov).