

STEP 3: IDENTIFY EFFECTIVE CLIMATE RESILIENCE STRATEGIES



In order to address the weather-related threats or opportunities associated with changing climate conditions, it may be necessary to adjust existing practices, try out completely new practices, or even transition your operation to a completely different production system. This step invites you to learn more about how diversified farmers and ranchers in your region and beyond are using whole-farm planning and regenerative farming practices to successfully manage climate risk in their operations.

To complete Step 3, first read the section titled *Understanding Climate Resilience and Managing Resources for Climate Resilience* in the SARE bulletin titled [Cultivating Resilience on Farms and Ranches](#) (see the Step 3 resources on the [companion website](#)) to review the benefits of managing to promote adaptive capacity and review the wide range of regenerative farming practices you can use to reduce climate risk on your farm. Pay special attention to the resilience benefits of choosing a mix of complementary strategies that draw on a diverse group of farm assets (natural, human, social, financial, and physical/technological) and cultivate all three kinds of adaptive capacity (response, recovery, and transformation). Then, review *Table 1: Your Climate Resilience Toolbox* (see next page) for a summary of climate resilience strategies. Notice that these strategies have been organized by adaptive capacity and farm asset type to help you get started with thinking about a mix of complementary climate resilience strategies for your farm.

After reviewing these resources, print out and complete *Worksheet 4: Selected Climate Resilience Strategies* by listing three to five weather-related threats (from Worksheet 3) that you want to focus on in your climate resilience plan. Complete Worksheet 4 by noting the most important farm assets at risk from each threat and noting some climate resilience strategies from Table 1 that you want to learn more about for each asset that you included in the worksheet.

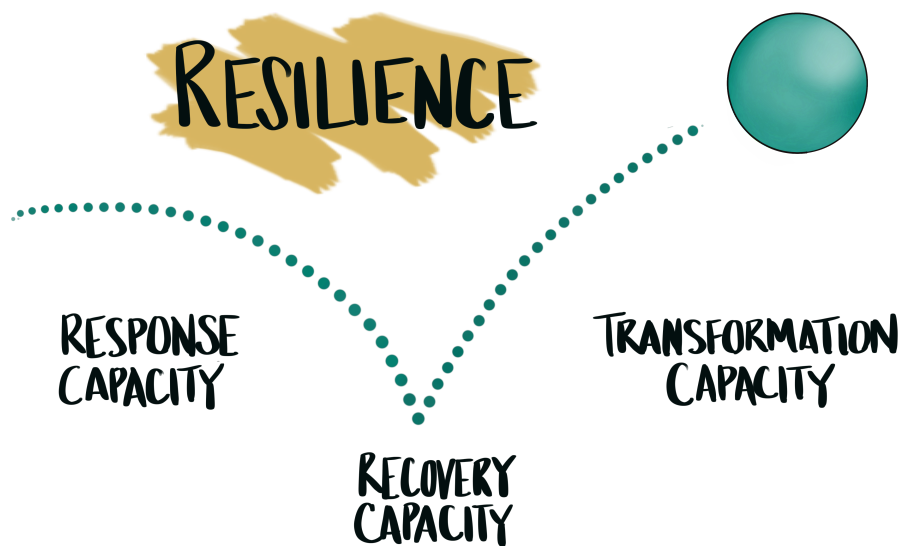


Table 1: Your Climate Resilience Toolbox

This table describes climate resilience strategies that have been used successfully by farmers and ranchers to reduce the risk and capture new opportunities associated with changing seasonal weather patterns and more frequent and intense weather extremes. These strategies are arranged by **management intention** (cultivate response, recovery, or transformation capacity) and include practices that draw on a **diversity of farm assets** (natural, human, social, financial, and physical/technological). You can find links to these publications in the Step 3 resources on the [companion website](#).

Climate Resilience Strategy	Natural	Human	Social	Financial	Physical/ Technical
Make changes that enhance the response capacity of your production system with adjustments that target specific threats .	Use soil and water conservation best practices to reduce the risks of specific threats. Switch to improved crop cultivars and livestock breeds that can tolerate specific threats to farm operations.	Train management team in best risk management practices for specific threats. Protect employees working in dangerous conditions associated with specific threats to farm operations.	Use public and private technical assistance to select best management practices for specific threats to farm operations.	Participate in agricultural incentive, insurance, and disaster programs for specific threats to farm operations.	Add or upgrade existing farm infrastructure, equipment, and chemical input strategies to reduce the risks of specific threats to farm operations.
Transform your existing production system by making major changes to your mix of crops, livestock, and practices to prepare for expected changes in weather variables and extremes.	Integrate crop and livestock production. Develop crops and livestock that are well adapted to local conditions. Retreat from high-stress seasons. Design and manage the whole farm landscape to sustain ecosystem services that will benefit the farm in new and expected climate conditions.	Develop climate-literate management team with skills to innovate effective, place-based climate change mitigation and adaptation practices to achieve the goals of an adaptive whole-farm management plan over the long term.	Participate in the development of collaborative, community-based regional food networks that regenerate the ecological, social, economic, and spiritual health and well-being of land, people, and communities.	Participate in the development of regional, community-based financial networks that regenerate the ecological, social, economic, and spiritual health and well-being of land, people, and communities.	Take into consideration expected changes in weather patterns and weather extremes when designing new infrastructure, purchasing new equipment, or planting any perennial crop with a useful life of 15 years or more.

Climate Resilience Strategy	Natural	Human	Social	Financial	Physical/ Technical
<p>Make changes that enhance the response capacity of your production system with adjustments that promote general resilience.</p>	<p>Diversify cropping systems. Design and manage production areas to produce agroecosystem services that will benefit the farm, such as healthy energy flow, water and nutrient cycles, healthy soils, pest suppression, and pollination. Diversify sourcing of critical production inputs (energy, nutrients, water, and seeds). Retreat from floodplains.</p>	<p>Develop a climate-literate management team with skills in whole-farm adaptive management as well as climate risk and resilience planning. Offer employees fair wages, professional development, and benefits. Cultivate a local seasonal labor pool.</p>	<p>Source inputs from and sell products to regionally owned business networks. Participate in farmer-led advisory and marketing networks, cooperative R&E programs, food policy councils, and community-based disaster response and resilience programs.</p>	<p>Use holistic financial planning and best risk management practices. Accumulate financial reserves. Participate in agricultural incentive, insurance, and disaster programs. Participate in carbon markets and other ecosystem service incentive programs.</p>	<p>Add or upgrade infrastructure, equipment, fertility, and crop protection strategies to increase the flexibility of field operations. Add surface water management structures and on-farm energy production. Add shelf-stable products to your product mix. Monitor farm behavior to inform adaptive enterprise and whole-farm management.</p>
<p>Invest in reserves of critical resources to support swift and low-cost recovery after a damaging disturbance or shock.</p>	<p>Maintain adequate on-farm reserves of healthy soil, water, energy, and other critical production inputs.</p>	<p>Train management team in best practices to manage stress, cope with loss and change, and emergency response and recovery planning.</p>	<p>Participate in community-based disaster planning, response, support and recovery networks.</p>	<p>Accumulate financial reserves and access to diverse sources of capital. Participate in agricultural insurance and disaster programs.</p>	<p>Add infrastructure and equipment to repair weather-related damage, produce backup energy, and store products on-farm.</p>

Worksheet 4: Selected Climate Resilience Strategies

Complete this worksheet by listing the farm assets most at risk from each weather-related threat you included on Worksheet 3. Then, review *Table 1: Your Climate Resilience Toolbox* (previous page), select some climate resilience strategies that might be good options for your farm, and note these strategies below. Remember to select a diverse mix of options that cultivates all three kinds of adaptive capacity (response, recovery, and transformation) and draws on all five asset classes (natural, human, social, financial, and physical/technical).

Weather-Related Threat:

Farm Asset at Risk	Targeted Response	General Response	Recovery	Transformation

Find a completed version of this worksheet on *pages 30 & 31*.