

Economic Benefit Evaluation Framework: Maine Farmers Drought Relief Fund Grants

A. Baseline Economic Conditions

Purpose: Establish the farm's current economic position and degree of drought vulnerability.

Questions:

1. What percentage of your farm's income has been affected by past drought or water shortages?
2. What were your gross farm receipts and net farm income over the past three years?
3. How have input costs (e.g., water hauling, feed purchases, irrigation fuel) changed during recent droughts?
4. Have you lost crops, reduced acreage, or culled livestock due to lack of water?
5. Do you have off-farm income that currently supports the operation's viability?

Follow-up interpretation:

→ Quantify baseline vulnerability: farms showing repeated drought-induced losses or rising water costs may show higher economic benefit from grant assistance.

B. Scale and Scope of the Proposed Project

Purpose: Understand how the proposed water project will change the farm's operational capacity.

Questions:

1. How many acres, livestock, or enterprises will benefit directly from the improved water supply?
2. What specific water uses (irrigation, livestock, processing, cleaning, etc.) will be served by the project?
3. Will the project increase productive capacity (e.g., additional irrigated acres, higher stocking rate)?
4. How does this project align with your overall business or farm management plan?
5. How will this project reduce dependence on purchased water, hauled water, or emergency wells?

Follow-up interpretation:

→ Larger or more diversified benefits (e.g., securing irrigation for multiple crops) suggest higher economic leverage of grant funds.

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C. Risk Reduction and Cost Savings

Purpose: Assess avoided costs and improved stability.

Questions:

1. What are your average annual water-related costs now (e.g., pumping, hauling, well maintenance)?
2. How much do you expect those costs to decrease after implementation?
3. Have you experienced yield or livestock losses directly attributable to insufficient water? Quantify the value of those losses.
4. Will this project reduce risks of total crop failure, herd reduction, or loss of perennial crops/orchards?
5. How will the project improve your ability to plan for drought or variable rainfall?

Follow-up interpretation:

→ Annualized savings or avoided losses can be estimated. For example, a \$50,000 project that avoids \$10,000/year in losses pays for itself in 5 years.

D. Business Continuity and Resilience

Purpose: Evaluate how the project contributes to long-term operational sustainability.

Questions:

1. Without this project, would the farm have to reduce operations, relocate, or close?
2. Does this project help maintain employment (including family and hired labor)?
3. Will improved water reliability allow better crop rotation, soil recovery, or investment in higher-value crops?
4. Does this project strengthen your ability to access markets or meet contracts (e.g., CSA, wholesale, processor agreements)?
5. Will the project help stabilize year-to-year income variability?

Follow-up interpretation:

→ Projects that prevent loss of productive base, stabilize income, or sustain employment show strong economic benefit.

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E. Broader Economic and Community Benefits

Purpose: Consider spillover effects beyond the individual farm.

Questions:

1. How many people are directly or indirectly employed by your farm?
2. How much of your product is sold locally or regionally (farmers markets, CSAs, restaurants, distributors)?
3. Does your farm supply critical products for local food security (e.g., dairy, produce, feed)?
4. Will this project reduce reliance on municipal or shared water systems, freeing capacity for others?
5. Does the project support other local farms through shared infrastructure or partnerships?

Follow-up interpretation:

→ Broader economic and supply-chain benefits strengthen the public return on investment.

F. Financial Leverage and Sustainability

Purpose: Evaluate financial efficiency and long-term maintenance feasibility.

Questions:

1. What percentage of total project cost will be covered by the grant versus applicant match?
2. How will ongoing maintenance and operating costs be funded after the grant ends?
3. Have you secured other funding or technical assistance (NRCS, USDA, state cost-share)?
4. What is the expected lifespan of the infrastructure (well, pump, storage, irrigation system)?
5. Does the project create new income streams or improve profitability per acre?

Follow-up interpretation:

→ Higher matching funds, strong financial planning, and multi-decade infrastructure longevity indicate strong and sustainable economic benefit.
