

Wildfire Decision Tree

Problem: You live along the wildland/urban interface and face the risk of a wildfire destroying your home. You need to decide whether or not you should take some sort of action to reduce your risk.

You have two options: (A) take precautionary actions, or (B) do nothing. Follow steps 1-4 to fill in the blanks on the decision tree.

1. In the event of a wildfire, identify the possible outcomes for each of the two options. For example, one possible outcome would be "no damage".
2. Assign a weight value for each possible outcome, where 1 is the least negative outcome and 3 is the most negative outcome. For example, one outcome might be "no damage," which could be given a weight of 1, because 1 is the least negative outcome.
3. Estimate probabilities for each outcome (for example, if you take precautionary actions, the probability that you will suffer no damages from a wildfire could be .50). The sum of the probabilities must equal 1.0 for each of the two options.
4. Identify the best solution by multiplying the weight of the outcome by its probability and then adding the products for each option. The option with the lowest value is your best option.

| Possible Options | Possible Outcomes of Each Option | Weight | Probability | Product (weight x probability) |
|-------------------------------|--|--------|-------------|--------------------------------|
| A. Take precautionary actions | _____ → | _____ | _____ | _____ |
| | _____ → | _____ | _____ | _____ |
| | _____ → | _____ | _____ | _____ |
| | _____ → | _____ | _____ | _____ |
| | Option A Value (Sum of products in Option A) | | _____ | |
| B. Do nothing | _____ → | _____ | _____ | _____ |
| | _____ → | _____ | _____ | _____ |
| | _____ → | _____ | _____ | _____ |
| | _____ → | _____ | _____ | _____ |
| | Option B Value (Sum of products in Option B) | | _____ | |