

1. Environmental: Global Environmental Change

Fill in the missing words for each of the comments made by business owners.
Decide whether they own agricultural land or a fishery.

a) We are seeing the impacts of _____ getting worse every year. Not only is it affecting our current average output levels but it's also affecting productivity through lagged effects. It is affecting fish boldness, appetite, foraging patterns, and their level of dietary contamination.

b) Due to all of these negative environmental changes over the years, we are experiencing a high amount of _____ which has caused decreases in soil fertility that have negatively affected our crop yields. Soil is also entering freshwater ecosystems causing major damage by covering spawning gravels used by fish.

c) The last year of increased _____ has destroyed and washed away the crops. Other people in the industry have experienced poor seed development, pest and diseases infestation, soil nutrients erosion, rotting of crops and poor yields. We cannot recover the land without support.

d) _____ has led to low, warm water and less flow, which means less dissolved oxygen which are detrimental conditions for our native fish. Shallow riffles have disappeared, pools have become disconnected, and I have heard others say that entire reaches have dried up.

2. Environmental: Global Environmental Change

By 2100, tropical areas could lose up to 200 suitable plant growing days per year due to climate change and fishable biomass in the ocean could drop by up to 40% in some tropical areas.

How could the following global environmental changes (GEC) impact the agriculture and fishing businesses in rural communities?

1. Drought and declining rainfall
2. Flooding
3. Pollutants in water and air
4. Soil erosion

Extension: What solutions could there be for agricultural and fishing businesses after being impacted by these GECs?

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Agricultural index insurance is a tool for risk management that has shown significant promise for promoting sustainable development and resilience. Index insurance can help small-scale farmers and pastoralists to increase their resilience to weather shocks like drought or flood while encouraging investments in productivity that in good years create a pathway to prosperity.

However, effectively implementing agricultural index insurance has been complicated. Agricultural index insurance interventions require collaboration across multiple public- and private-sector partners. Markets have also struggled with expensive yet poor-quality contracts and inadequate consumer education, resulting in low levels of adoption by individual farmers.

How can the insurance industry help to support rural agricultural businesses in developing countries?