Climate Change Adaptation by the Private Sector

EXPERIENCES IN CENTRAL AMERICA

M.SC. MARÍA JOSÉ GUTIÉRREZ
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PROJECT
Climate Change Adaptation Business Strategies in Central America

General Objective
To improve the analysis and management capacity of the private sector in Central America for incorporating the business risks and opportunities arising from climate change into their corporate plans and strategies.

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80% of surveyed company representatives considered climate change as an important topic for their business.

Companies tended to view impacts of climate change over their business as future only

With respects to the effects of climate change over their business:
PROCESS UNDERTAKEN

1. METHODOLOGY BENCHMARKING
   - SURVEY
   - WORKSHOP

2. TOOLS

3. METHODOLOGY TO GUIDE ASSOCIATE COMPANIES IN CLIMATE CHANGE ADAPTATION

4. PARTICIPATING COMPANIES
   - Pilot companies from particular sectors where invited (energy, tourism, finance, etc.)
   - Key partners encouraged participation:
     - IntegraRSE: members interested in CR, trust projects suggested being for their own interest
     - INCAE Business School: Good for the business

RESULTS

Greatest risk lies outside of their offices and within their investments and clients’ investments

- Stronger rains: Strengthen gutters and drains to lessen impact.
- Increasing high temperatures: Incorporating according infrastructure.
Rafting and Eco-Tourism Company
COSTA RICA

- Eco-adventure company founded in 1985 by 2 Central Americans, Rafael Gallo and Fernando Esquivel
- Operates in both coasts, mountains and tropical forest
- Offers **adventure activities** (rafting, kayaking, canoeing, cycling, etc.), and has an **Eco-Lodge** located in the forest, previously accessed only by rafting.
- Company characterized by its environmental policy and quest for sustainability

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**PROJECT RESULTS**

Identification of risks was quick as similar present and future impacts affect the Eco-Lodge, the Operations Centre and the adventure tours, none were revealing for the manager

<table>
<thead>
<tr>
<th>Main climate change derived impacts over company operations identified:</th>
<th>Potential adaptation actions, to minimize suspension of activities:</th>
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</thead>
<tbody>
<tr>
<td>Increased <strong>landslides</strong> due to heavier rains</td>
<td>Create a guide of alternative routes and suppliers in case of landslides</td>
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<tr>
<td>Substantial <strong>increase in river flow</strong> where rafting is carried out making it insecure for participants</td>
<td>Generate a system to enter and exit the Eco-Lodge by foot</td>
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<tr>
<td><strong>Droughts</strong> that generate a low river flow making it difficult for rafting</td>
<td>Investment in equipment (new rafts) in case of drought</td>
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(> 2 years) AFTER THE PROJECT

Adaptation measures taken:

• Use of trails to access the Eco-Lodge

• Instead of investing in smaller rafts, they:
  1. put fewer people on each raft, and
  2. have moved the lunch to mid-journey
     → These increase costs and reduce cost efficiency (eg. Cooks are still hired for restaurant at the end of the journey)

• When river is inadequate, 1st choice is rafting in another river, 2nd choice is another product, otherwise they have to turn to cancellations and refund (image and cost impact)

• Innovation in other products that are not as river dependant, always with an environmental and adventure signature but with more options
  → Horseback riding tours
  → Forest restoration
  → Visit the local communities and knowing their rural sustainable development practices
  → Cycling and kayaking

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Diversification of services and products offered, always under adventure tourism activities
REFLECTIONS FROM THE CO-FOUNDER AND MANAGER

• Participation in the project generated a new perspective of addressing the issue of climate change.
• They have always had to deal with nature, but now with more drastic peaks and extremes the situation is different.
• Measures that require high initial investment are hardest to implement.
• Foresees possible measures such as increasing prices in the future, translating the increase in cost to the client.
• Although economic analysis have not been carried out, they are now ensuring to gather necessary information for a statistical and economic analysis if need be.

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Tabasco Chili Producing Company
NICARAGUA

• Family owned agroexporting company with 25 years of experience in producing and exporting Tabasco variety of chili to the U.S.
• Increasing network of producers country wide who are their suppliers of fresh chili.
• Company highly committed with the environment and corporate responsibility practices.
• Implementation of early adaptation actions.
Main climate change derived impacts/risks over company operations identified:

- Drought
- Strong winds
- Flooding
- Rivers grown
- Excess of rain
- Implications from impacts to suppliers

- Crops do not develop in rainy season due to lack of rain.
- Water sources and crop irrigation levels affected
- The tabasco chili fruit is commercialized by weight, and must be sufficiently hydrated to be juicy, reach the correct weight and achieve the exportation quality.
- The product is lost if producers cannot transport and deliver the fresh produce at the processing plant on the same day of cropping or at most the next day (access issues due to river growths, flooding or road destruction from heavy rains)

Chili plantation damaged due to overboard of river El Jobo, Matiguás, Matagalpa, 2nd week of May, 2010

Losses exceeded $40,000 USD
Priority potential adaptation actions, to minimize suspension of activities:

- More careful planning process and exhaustive analysis of producing farms before signing contracts with them, related to:
  - Climate behaviour in the micro zone
  - Impacts that the property has perceived in the past
  - Access roads (better accessibility and roads)
- Production under controlled agriculture through:
  - First time installation of shadow houses.
  - Encourage and request installation of drip irrigation systems preferably in all of the crops to reduce risk and be able to grow all year round.
  - Encourage the use of mulch or padded plastic to make a rational use of irrigation water and avoid evaporation

IMPLEMENTED ADAPTATION ACTIONS

- Incorporation of climate change into their Strategic Plan 2013-2015
- Analysis of the vulnerable zones to climate change impacts and with better road infrastructure to map their production zones.
- Share climate report with producers and keep a historical track of geographical zones of particular interest.
- Migration of production to a new zone, leaving the Pacific and moving towards the humid tropic
- Preparation of four-wheel drive trucks to aid suppliers if they cannot translate their product to the processing plant.
- Implementation of shadow house technology in three different zones of the country
- Installation of drip irrigation systems in all of their cultivation areas
- Increase use of mulch or padded plastic.
- Construction of water reservoirs for rational use of the resource and irrigation in shadow houses.

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REFLECTIONS FROM TOP MANAGEMENT

- The tool used was an excellent practice, the opportunity to make a halt, an x-ray of the company in face of climate change that otherwise would not have been possible
- There is a need to learn from experiences of other companies and institutions to reduce the learning curve and related costs.

“For the first time we sat down to value climate change impacts on each aspect of our company’s value chain.”

“The last two and a half years of drought have impacted the company sales and production, but if adaptation measures product of the analysis during the project with the adjusted BACLIAT tool had not been carried out, the damages would have been more severe”

— Lucía Hurtado, Vicepresident and Exports Manager
Comparative analysis of these and other cases

**Company size:**
- smaller companies (SMEs) proved to have an advantage of agility
- bigger companies have an advantage in terms of power and authority at a national level

**Counterpart’s position** (top management / operational): Both things are crucial: commitment from top management, and, knowledge and capacity on how to incorporate a climate change analysis and work plan at an operational level.

**Type and visibility of climate change impacts:** cases in which climate change impacts are substantially more visible and inherent, businesses have a clearer mandate for immediate action.

**Supply chain opportunity:** adaptation is a matter that needs to be analysed throughout the supply chain; a broad supply chain analysis is crucial to ensure correct identification and prioritization of adaptation actions.

Challenges and Lessons Learned

**Challenges**
- Initial interest and commitment harder to get (specially directives), but once they understand the importance of the topic it varies in most cases.
- Most companies have difficulties understanding the application of climate change adaptation and its implications
- Look for alliances between public and private sectors. These alliances will improve the engagement companies have related to Climate Change adaptation.
- Show companies real and actual cases related to their own economic sector.
- Objective and timely documentation of successful cases of Climate Change adaptation by visiting company’s facilities.
- There is a fear for strong economic investments, and competing priorities
Challenges and Lessons Learned

**Lessons Learned**

- Ensure companies know and understand the difference between “mitigation” and “adaptation”. This distinction helps companies identify current Climate Change adaptation actions.
- Many companies have implemented Climate Change adaptation actions, however, they have not identified them as such.
- Personnel with direct knowledge of operations, maintenance, etc. are key to finding out the reality of Climate Change adaptation within the company.
- Topic needs to be seen as a risk management / business sustainability issue.

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**1.5 years later**

- Climate change adaptation is increasingly understood and recognized as important.
- Use of developed tools has extended in the region through installed capacity in Integrarse organizations.
- Most companies have not followed up on their own on proposed activities.
- Initially proposed activities have been substituted for those with no initial cost, but possibly more expensive in the long run.
- Interest is rising in high levels, but does not get to implementation (need for building of capacities at all levels).
- Internal struggle between sustainability and risk management departments.
- Need for sector specific advisory and follow up – led to new project in tourism sector in Costa Rica.

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