



“Regional climate information systems for sectoral risk management to address loss and damage associated to slow onset events”

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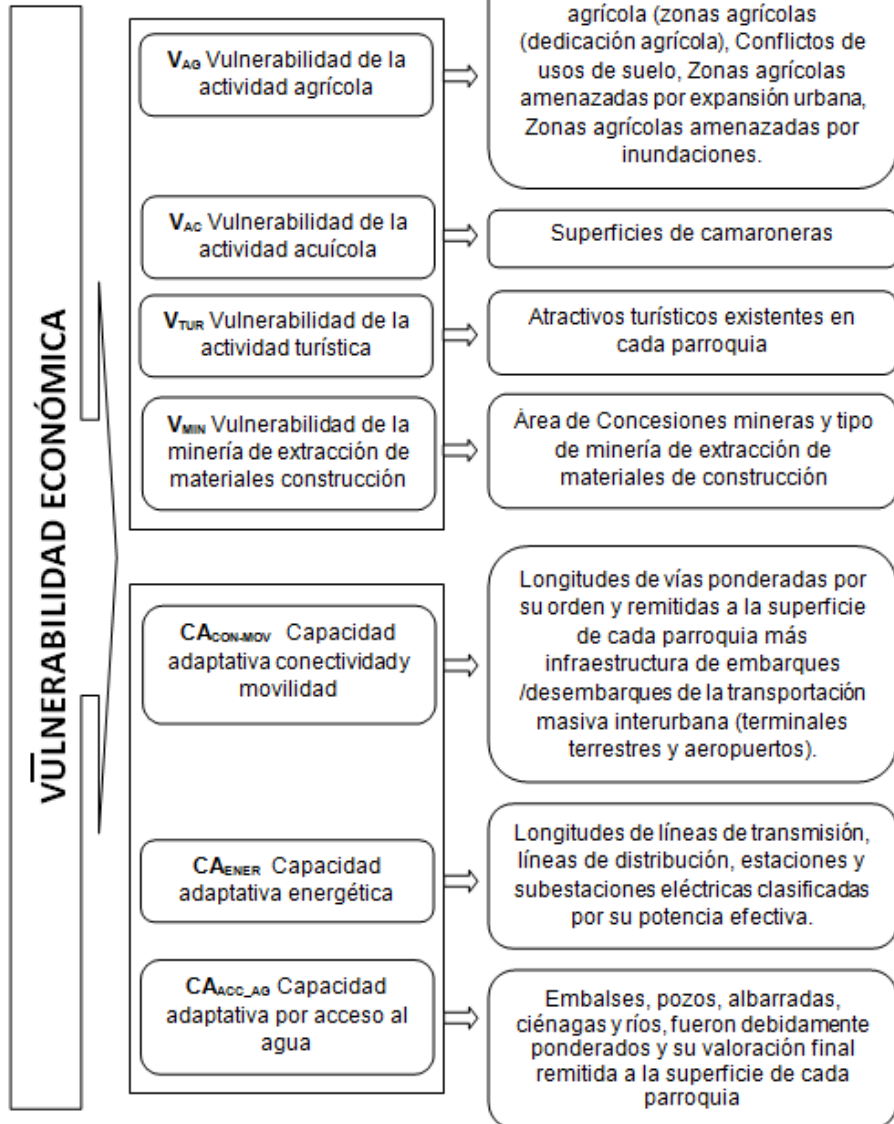


Acknowledgements:

- To **UNFCCC** for making possible the **CIIFEN** contribution to this workshop.
- To **Mexican Government** for their kind hospitality.

The objectives of this presentation:

- **To explain the conceptual principles to determine climate vulnerability and apply the local climate knowledge for adaptation processes.**
- **To present the communication in the interface user/producer where CIIFEN have its role.**
- **suggest some specific recommendations for the break-out group discussions.**



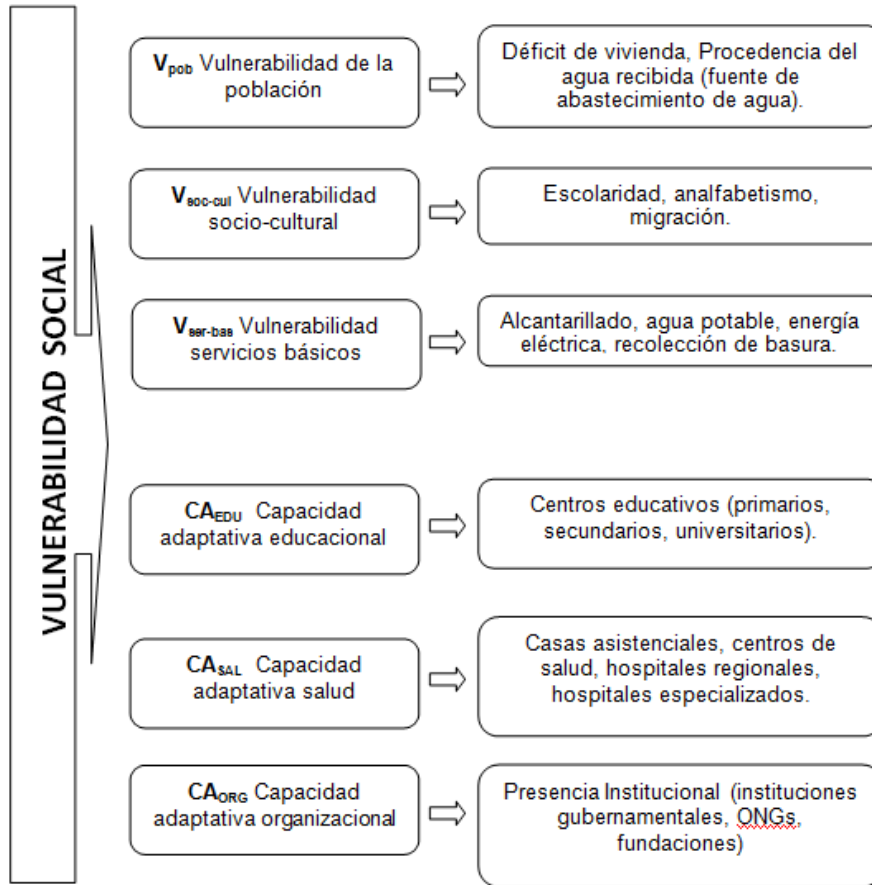
METHODOLOGY

$$V_E = (V_{AG} + V_{AC} + V_{TUR} + V_{MIN}) - (CA_{CON-MOV} + CA_{ENER} + CA_{ACC-AG})$$

- V_{AG}** = Vulnerabilidad de la actividad agrícola
- V_{AC}** = Vulnerabilidad de la actividad acuícola
- V_{TUR}** = Vulnerabilidad de la actividad turística
- V_{MIN}** = Vulnerabilidad de la minería de extracción de materiales de construcción
- CA_{CON-MOV}** = Capacidad adaptativa conectividad y movilidad
- CA_{ENER}** = Capacidad adaptativa energética
- CA_{ACC-AG}** = Capacidad adaptativa acceso al agua



METHODOLOGY

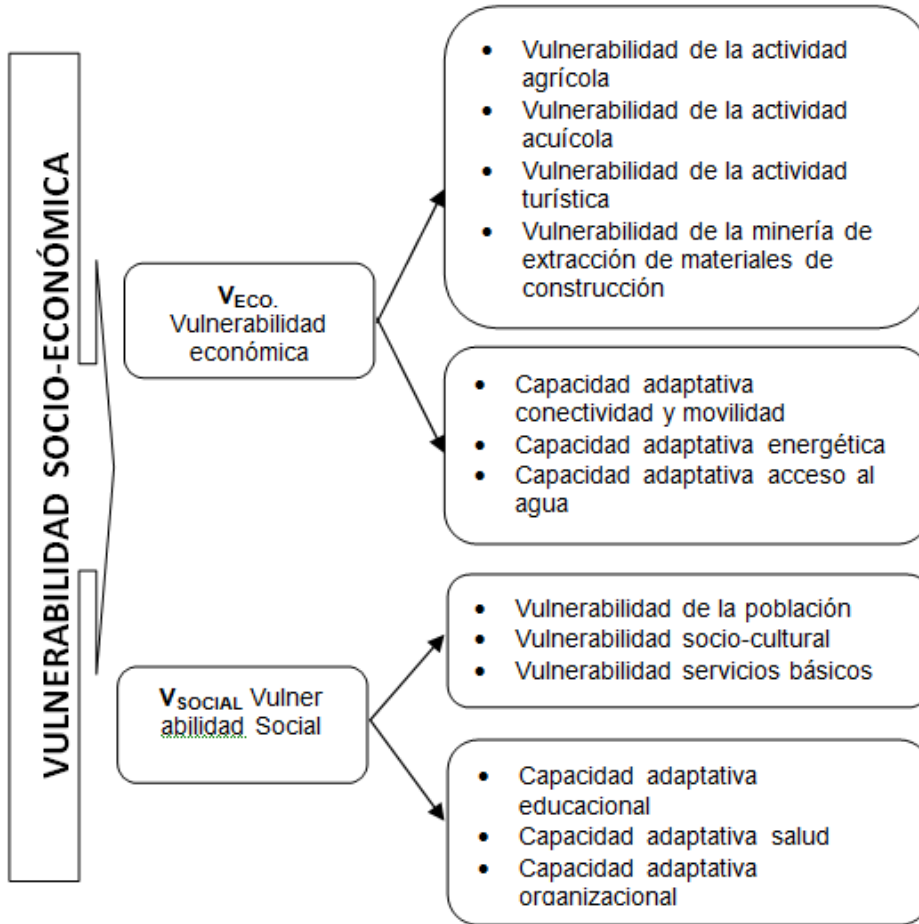


$$V_S = (V_{POB} + V_{SOC-CUL} + V_{SER-BAS}) - (CA_{EDU} + CA_{SAL} + CA_{ORG})$$

- V_{POB}** = Vulnerabilidad de la población
- V_{SOC-CUL}** = Vulnerabilidad socio-cultural
- V_{SER-BAS}** = Vulnerabilidad servicios básicos
- CA_{EDU}** = Capacidad adaptativa educacional
- CA_{SAL}** = Capacidad adaptativa salud
- CA_{ORG}** = Capacidad adaptativa organizacional



METHODOLOGY

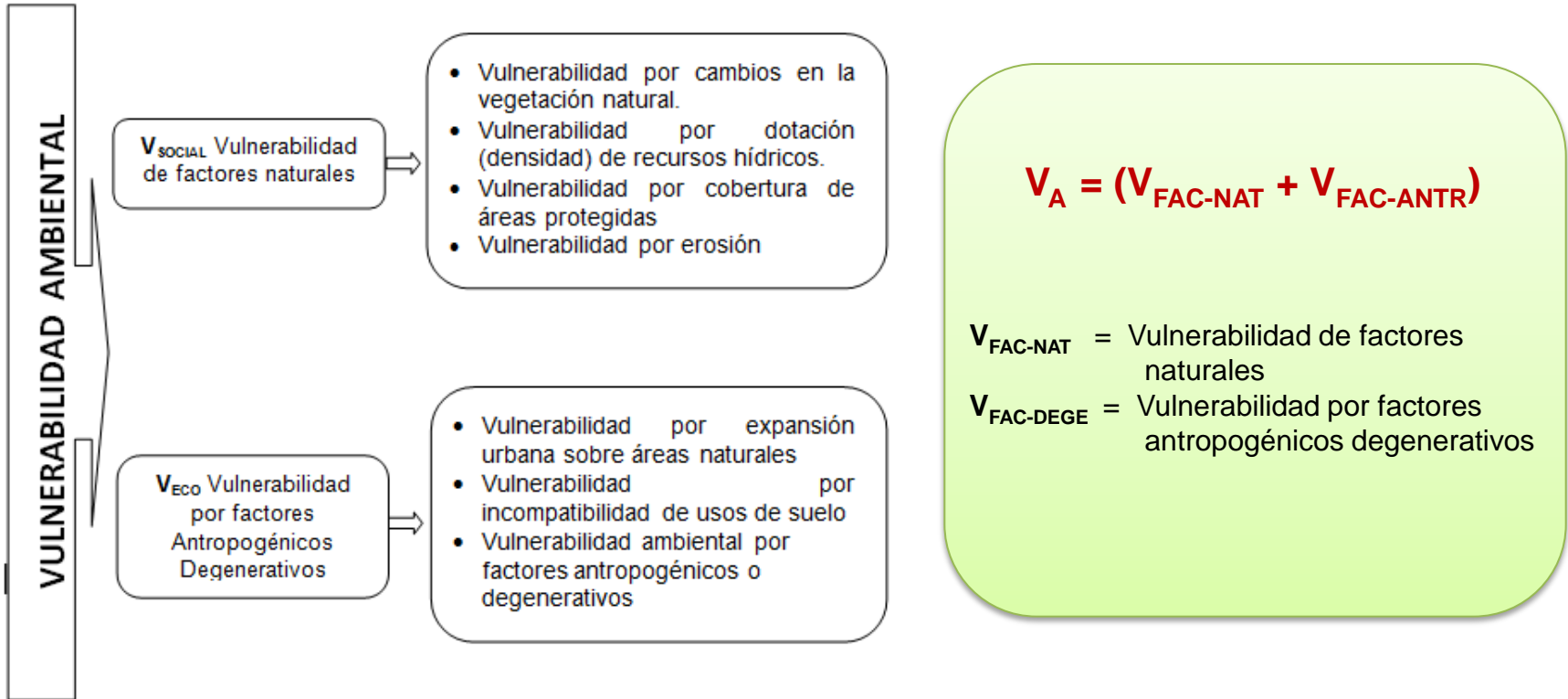


$$V_{SE} = V_E + V_S$$

V_{SE} = Vulnerabilidad socioeconómica
V_E = Vulnerabilidad económica
V_S = Vulnerabilidad social



METHODOLOGY



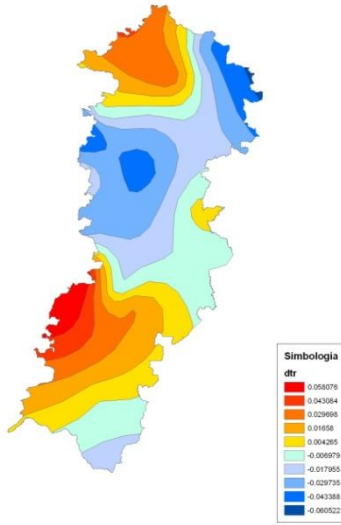


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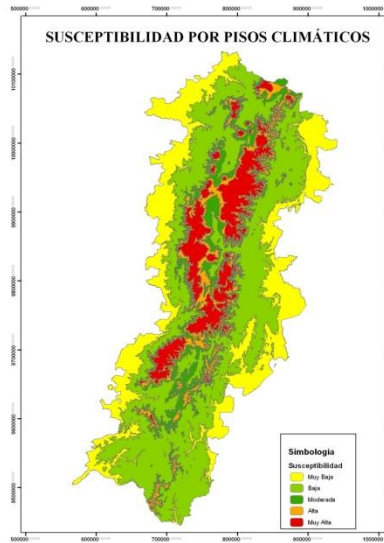


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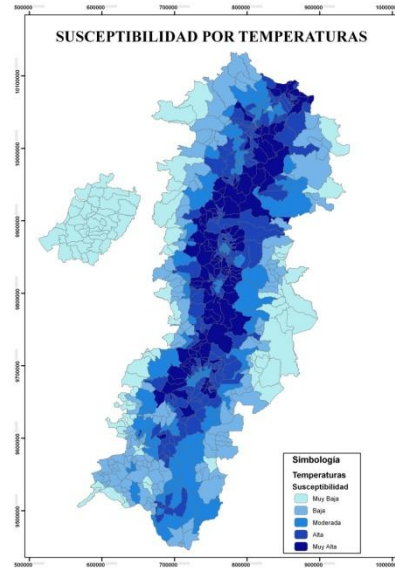
VARIACIÓN TÉRMICA DIARIA (dtr)



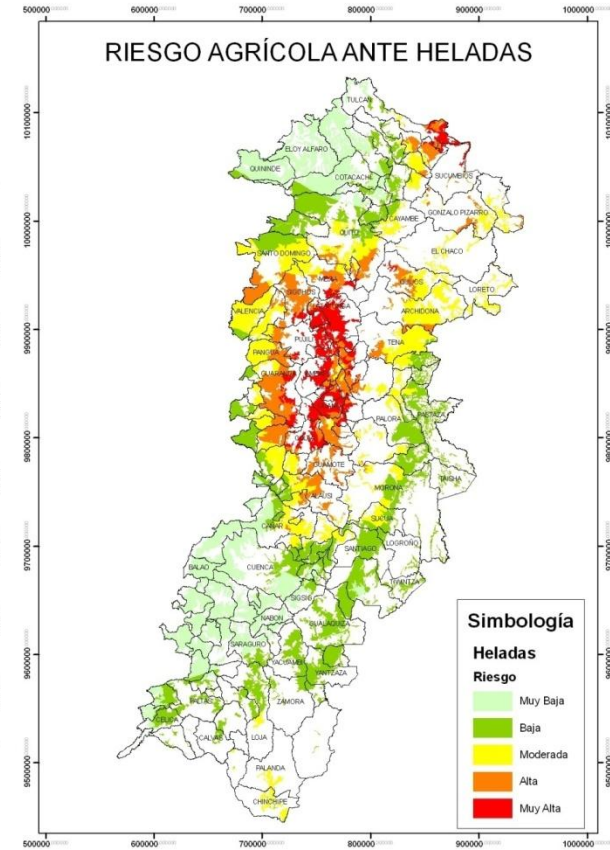
SUSCEPTIBILIDAD POR PISOS CLIMÁTICOS



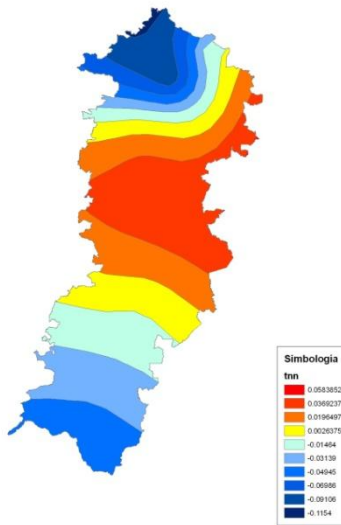
SUSCEPTIBILIDAD POR TEMPERATURAS



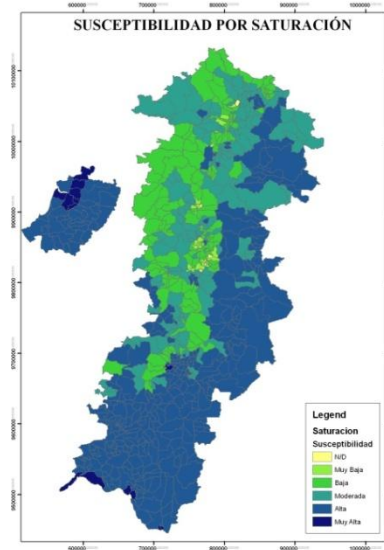
RIESGO AGRÍCOLA ANTE HELADAS



NOCHES FRÍAS (tnn)



SUSCEPTIBILIDAD POR SATURACIÓN





The communication with users includes continues **surveys about the relevance** of the information, aimed to answer questions like.

Is the information **relevant** for their porpoises?, Is the **format or language** used understood?, Are the forecast **accurate enough** for planning and decision making?, or, Is the spatial resolution and time frame enough?

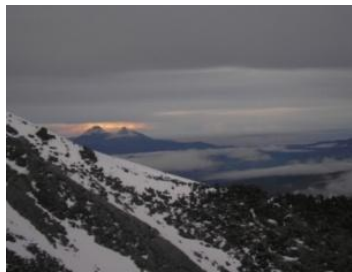
Learning from local actors to design adaptation plans





some key methodological principles:

1. To understand and estimate the: **“Near Climate Change (10-15 years)”** considering this timeframe is consistent with planning and the nearest to the political cycles and needs.
2. To privilege the analysis of **indexes derived from climate data** rather than scenarios generated by “downscaled models”.
3. **Present Climate Risk Management** : the first step to the feasible adaptation.
4. To understand and estimate the existent **vulnerability** and its **historical evolution pattern** at local scale.
5. The Adaptation to climate change is a **bottom up social construction** that should be implemented by the local actors.





Some lessons

- Each Development Sector requires a **specific approach to assess vulnerability** that must be validated case by case.
- The **participation of NMHSs is important** to estimate **climate indexes**, retrieve historical data and contribute as much as possible with the trend analysis.
- For **vulnerability analysis** is better to include meaningful but few variables instead many of them with uncertain relevance.



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After some years of working within the interface some key lessons learned are:

In Latin America, according to our surveys the sectors with higher demand of climate information are: 1) agriculture, 2) Risk management and 3) Water Resources.

Information needs to be downscaled at local level and translated to common language

Most of the decisions are not only based on climate information.

Climate products should be constantly updated in according to users feedback

Feedback from users is very important (questions about the relevance, timing, and accuracy of information must be kept in mind all the time)

Work still needs to be done to sustain climate users interfaces (producer / user - CIIFEN's role).



About Adaptation...

- In communities, before thinking on “adaptation”, the **local climate knowledge** and the **current risk** perception must be assimilated.
- To design an adaptation strategy is critical to start with the “**present climate**” risk management plan to address the local needs.
- The “adaptation process” must be **perceived** by beneficiaries as a real possibility of improving their living conditions through **prevention** and **increased resilience** to climate impacts, a kind of “Adaptative development”
- **Engaging communities, extending climate services at local communities and enhancing the relationship with the vulnerable population** will be some key elements to underpin a “new business model” for NMHSs in the future.
- GFCS must include the “**last mile**” **strategy** in the complex “**chain of communication**” for climate information. This part must be implemented by the **NMHSs and the local actors** together.



Some Recommendations

- NMHSs should generate their Local Climate indexes and extend the climatological analysis as much as possible as **main strategy for implementing climate services for adaptation**.
- NMHSs should systematize **the local climate knowledge** to complement the risk and vulnerability assessments.
- NMHSs should enhance the **liaison with local communities, communitarian networks and local media** for a efficient dissemination of tailored products applicable for climate change adaptation and risk management.
- NMHSs should consider to enhance the **liaison with environmental and risk management communities** in order to address their needs and ensure provision of high quality and opportune climate services.



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¡Muchas gracias!



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