

## SEMARNAT

SECRETARÍA DE MEDIO AMBIENTE Y RECURSOS NATURALES

#### Summer School 2015

'Transparency and Implementation –Future Proof Rules for International Climate Policy'
MRV of adaptation and support

## Monitoring and evaluation of adaptation - an approach from Mexico

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# SOME CONSIDERATIONS ABOUT MEXICO VULNERABILITY TO CLIMATE CHANGE

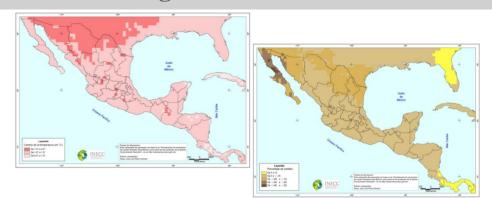
•Its localisation between two oceans, its latitude and reliefs, make of this country a place particularly exposed to hydrometeorological phenomena

#### Increase of the temperature in Mexico in the last fifty years

- Since the 60's, Mexico has become warmer.
- Mean temperature in a national level has raised 0.85°C, which is coincidence with the global increase reported by the IPCC.
- Precipitation has decreased in the South East of the country for half a century.

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#### Climate change scenarios for Mexico



For the period 2015-2039 is projected an increase in temperature from 1°C to 1.5°C in most of the country, while in the North could raise until 2°C.

The trend of decreasing precipitation varies in a range between 10 and 20%.



## PROJECTED IMPACTS OF CLIMATE CHANGE IN PRIORITY SECTORS



### **DECREASE**

- Corn productivity
- Coniferous trees fields and marine populations

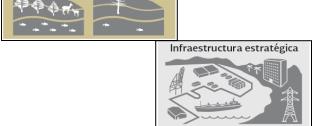


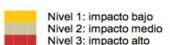
#### **INCREASE**

- Drought
- Precipitation could be more severe and frequent increasing the risk of floods
- Sea level
- Oceans temperature





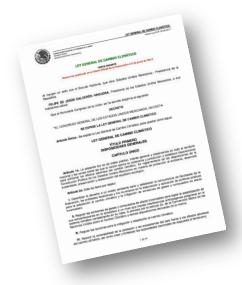




The infrastructure may be affected by the raise in number and intensty of tropical cyclones and more intense storm surges



## THE ADAPTATION IN THE INSTRUMENTS OF PUBLIC POLICY ON CLIMATE CHANGE



**Objectives of the General Law on Climate Change:** 

- 1.- Reducing the vulnerability of the population, ecosystems and infrastructure
- 2. Minimize risk and damage considering the current and future scenarios
- 3. Identify the vulnerability and capacity
- 4. Establish mechanisms for immediate attention,
- 5.- Facilitate and promote food security.

#### PECC 2014-2018

Diagnosis of current and future vulnerability of Mexico, Two objectives, 77 lines of action on adaptation

THE NATIONAL CLIMATE CHANGE STRATEGY 10-20-40 VISION

Α1

Reduce vulnerability and increase resilience of the social sector to the effects of climate change

#### **OBJECTIVE 1**

Reduce vulnerability of population and productive sectors and increase its resilience and the resistance of estrategic infrastructure.

3 Strategic axes, and 41 lines of action

Α2

Reduce vulnerability and increase resilience of strategic infrastructure and production systems to the effects of climate change

A3 Conserve and use ecosystems sustainably, and maintain the environmental services they provide **OBJECTIVE 2** 

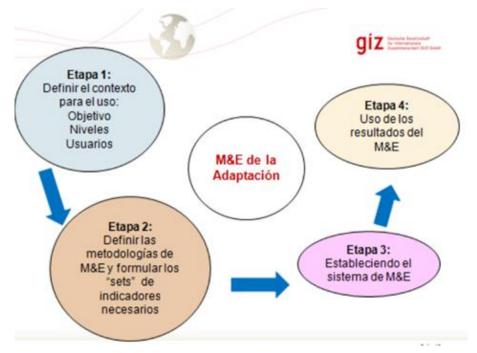
Conserve, restore and manage sustainably the ecoystem to guarantee their environmental services to promote climate change mitigation and adaptation.



# ¿WHAT DO WE MEAN FROM MONITORING AND EVALUATION?

• It is a continous recolection process and analysis of the information for measuring progress (of a program, project, strategy, plan) for improving the decision making related to the subsequent stages.

Leves of application: National, Regional, Project, portfolio of measures.



Stages for the development of a System M&E (GIZ-b 2013)



# GENERAL CHALLENGES FOR M&E IN ADAPTATION

- Lack of a universal indicator for measuring succes
- Uncertainty related to climate changes (and other global change processes)
- Complexity of influence factors
- Long-term horizon
- **Difficulty for defining a parameter of comparison** (scenario of an unchangeable situation) (GIZ, 2013)
- The multisectoral nature of adaptation involves differents actors with several requirements about indicators
- Different ways of monitoring and evaluating objectives
- There are **gaps** in different sectors where people still have problems understanding the concepts of adaptation, vulnerability and risk
- Nevertheless, there are indicators which are already being used by institutions in order to measure sectoral objectives and that can be related to adaptation (Horrocks *et al*, 2005)





## CHALLENGES AND STRENGTHS FOR M&E OF ADAPTATION. MEXICO'S SITUATION.

#### **CHALLENGES**

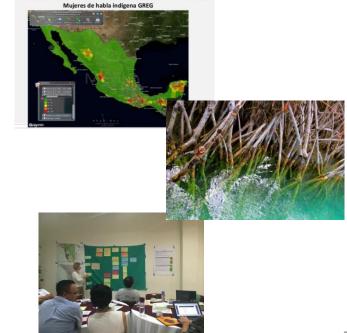
- The topics linked not only to the vulnerability conditions but also to the construction of adaptative capacities (ecosystems, social system, economical system)
- Adaptation has a local expression, in a country like Mexico with a huge diversity of ecosystems, cultures and social conditions, adaptation has very specific situations and that is why, the planning, design and execution of actions have to do with the knowledge of different contexts.
- The actual knowledge of how adaptative capacities are increased has to do with knowing, acting, and evaluating changes in a local context.

#### **STRENGTHS**

Mexico has the capacity of getting periodical information, with a solid and appropriate metodology.

On a federal level a common vision has been achieved regarding adaptation, general objectives and main challenges; however, we keep working on identifying adaptation indicators.

LGCC establishes that "national policy on climate change adaptation will be sustained in diagnosis, planning, measuring, monitoring, reporting, verification and evaluation instruments.





## BENEFITS FROM MONITORING AND EVALUATION

- Increases the knowledge on climate change impacts and vulnerability conditions as a basis for planning and decision making
- Provides a better distribution of resources in an effective way, that has impact on the most vulnerable groups, sectors and regions.
- Monitors the adaptations plans and actions
- Improves the adaptation reports and communication with national and internationals actors, as well as shows that the money was used effectivately.
- Contributes to adaptation on knowledge and learning based on evidence.



## EXAMPLES OF M&E PROCESSES IN MEXICO

Along with the adaptation team of the Mexican-German Cimate Change Alliance-GIZ, an indicator system has been built which allows to identify key topics on adaptation and to monitore it.

<u>System objective:</u> Identify and present in a structured way key information that allows to analyse periodically progress for reducing vulnerability, increasing resilience and strengthening adaptative capacities of Mexico.

<u>Scale:</u> national; for this, it is important to have indicators which provide information at a statal level.

¿Ya ha enfrentado este reto en su contexto de trabajo? Describa su reto o su preocupación	¿Y qué ha hecho para enfrentar este reto?		
Mitigación → hay metas específicas / claras	Ver compromiso y acotarlo por tiempos		
Adaptación: no sabemos si los cambios políticos lleven a otros intereses	Compromisos a largo plazo (ej. atlas de vulnerabilidad con escenarios climáticos)		
Hay circunstancias cambiantes / no son situaciones estáticas	Debe hacerse un sistema que sea adaptativo		
No se conoce la vulnerabilidad con cambio climático	Se requeriría una línea base de la vulnerabilidad		
No hay un conocimiento (a nivel general) de los impactos a LP	Capacitaciones, programas de concientización		
Faltan datos para perspectiva futura	Red nacional de datos / sumar instituciones, estandarización de la información		

¿Por qué se necesita un sistema de M&E en ACC?	Para asegurar el cumplimiento de las líneas de acción de la ENCC	Vinculación entre programas sectoriales con el presupuesto	Para evaluar los resultados y modificar lo necesario	Como retroalimentación
¿Cuál es el principal objetivo de un sistema de M&E en México?	Evaluar las políticas públicas y sus resultados	El seguimiento a las actividades	Promover un uso eficiente de los recursos \$\$\$	
¿Qué aspectos se deberían incluir en un sistema M&E?	¿Cuáles?	Capacidad Adaptativa	Exposición / Sensibilidad	Eficacia de las acciones implementadas - resultados
¿Qué?	Capital social, natural, humano y económico	Eventos climáticos extremos	Nivel socio- económico de educación y acceso a la información	
¿Por qué?	Para disminuir la vulnerabilidad			
¿Quiénes serán los usuarios de la información?	Sector público, privado, académicos y sociedad en general	Los tres niveles de gobierno	Implementación de programas de difusión a la población	



## EXAMPLES OF M&E PROCESSES IN MEXICO

- **SIAT-PECC:** System under construction, database that has information of the progress on the action lines on mitigation and adaptation to climate change from the PECC 2014-2018.
- Design of climate change adaptation indicators: The Mexican government is working along with different institutions on the design and construction of indicators.
- **CONANP:** adaptation indicator system in protected natural areas.



Thank you for your attention

**¡GRACIAS!** 

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