



Cambio climático y fenómenos extremos

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Resumen EPA

Projected Change	Projected Impacts by Sector			
	Agriculture, forestry	Water resources	Human health / mortality	Industry / settlement / society
Warmer / fewer cold days / nights; warmer / more hot days / nights over most land areas.	Increased yields in colder environments; decreased yields in warmer environments;	Effects on water resources relying on snow melt	Reduced human mortality from decreased cold exposure	Reduced energy demand for heating; increased demand for cooling; declining air quality in cities; reduced effects of snow, ice etc.
Warm spells / heat waves: frequency increases over most land areas	Reduced yields in warmer regions due to heat stress at key devel. stages; fire danger increase	Increased water demand; water quality problems, e.g., algal blooms	Increased risk of heat-related mortality	Reduction in quality of life for people in warm areas without air conditioning; impacts on elderly and very young; reduced thermoelectric power production efficiency
Heavy precipitation events: frequency increases over most areas	Damage to crops; soil erosion, inability to cultivate land, water logging of soils	Adverse effects on quality of surface and groundwater; contamination of water supply	Deaths, injuries, infectious diseases, allergies and dermatitis from floods and landslides	Disruption of settlements, commerce, transport and societies due to flooding; pressures on urban and rural infrastructures

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Area affected by drought: increases	Land degradation, lower yields/crop damage and failure; livestock deaths; land degradation	More widespread water stress	Increased risk of food and water shortage and wild fires; increased risk of water- and food-borne diseases	Water shortages for settlements, industry and societies; reduced hydropower generation potentials; potentials for population migration
Number of intense tropical cyclones: increases	Damage to crops; windthrow of trees	Power outages cause disruption of public water supply	Increased risk of deaths, injuries, water- and food-borne diseases	Disruption by flood and high winds; withdrawal of risk coverage in vulnerable areas by private insurers
Incidence of extreme high sea level: increases	Salinization of irrigation and well water	Decreased freshwater availability due to saltwater intrusion	Increase in deaths by drowning in floods; increase in stress-related disease	Costs of coastal protection <i>versus</i> costs of land-use relocation; also see tropical cyclones above

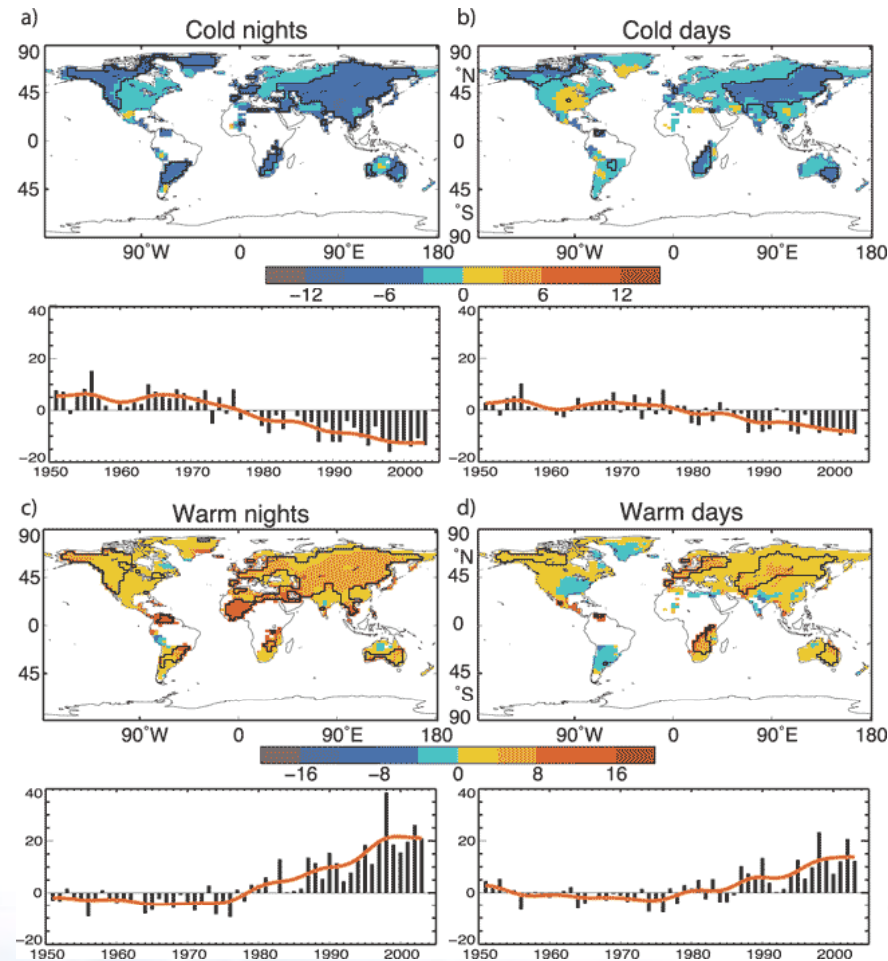


Abrupt Climate Change

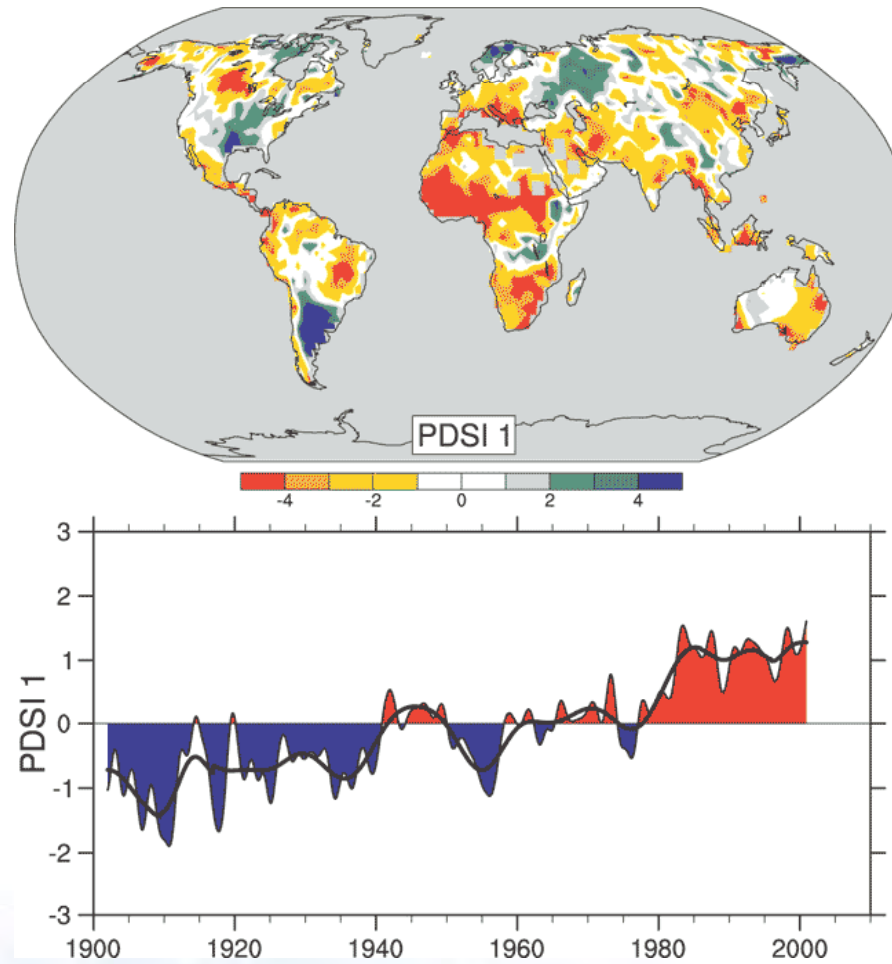
- changes in the Earth's orbit
- a brightening or dimming of the sun
- melting or surging ice sheets
- strengthening or weakening of ocean currents
- emissions of climate-altering gases and particles into the atmosphere



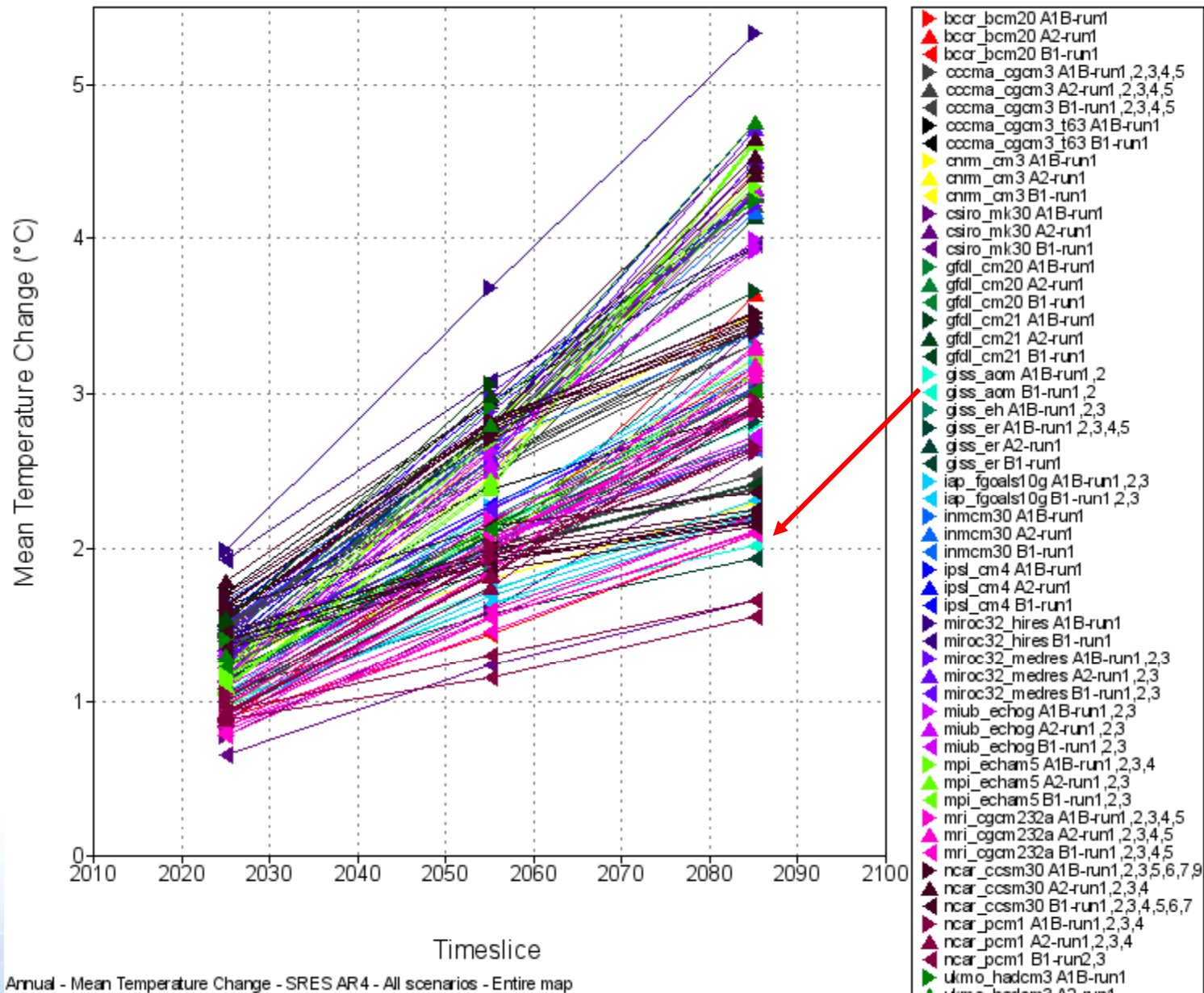
Adapted from Alexander et al. (2006).



IPCC

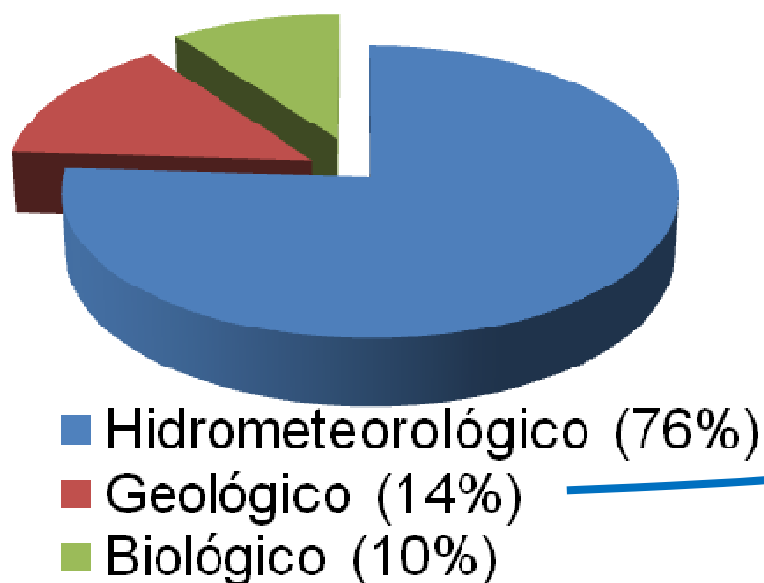


Escenarios Globales AR4



Desastres mas frecuentes

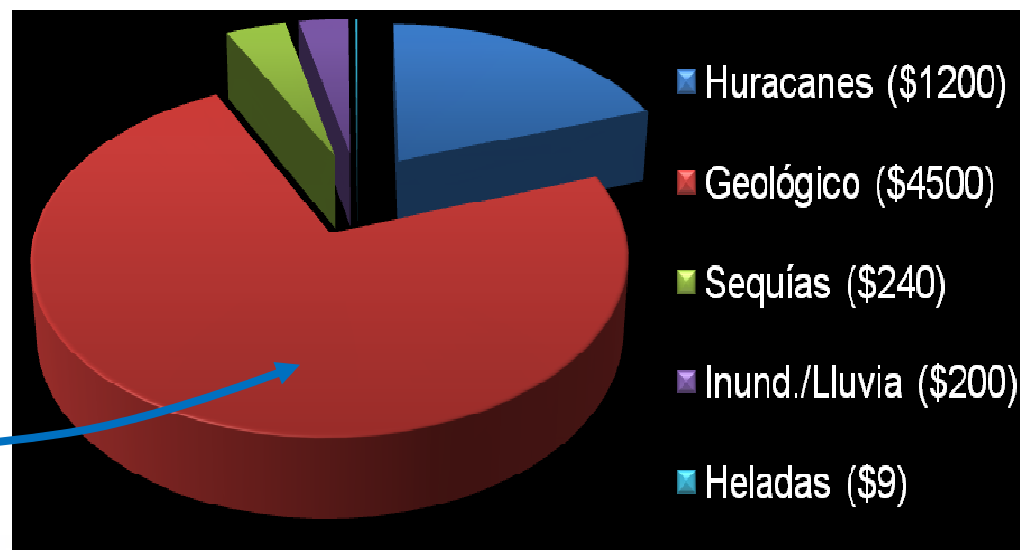
Escala global durante
1991-2005



(EM-DAT, 2006)

Origen hidrometeorológico

Mayores desastres en México
durante 1980-2003
(millones de dls.)



(Zuñiga-Bello, 2007)

REDESClim, 2011 

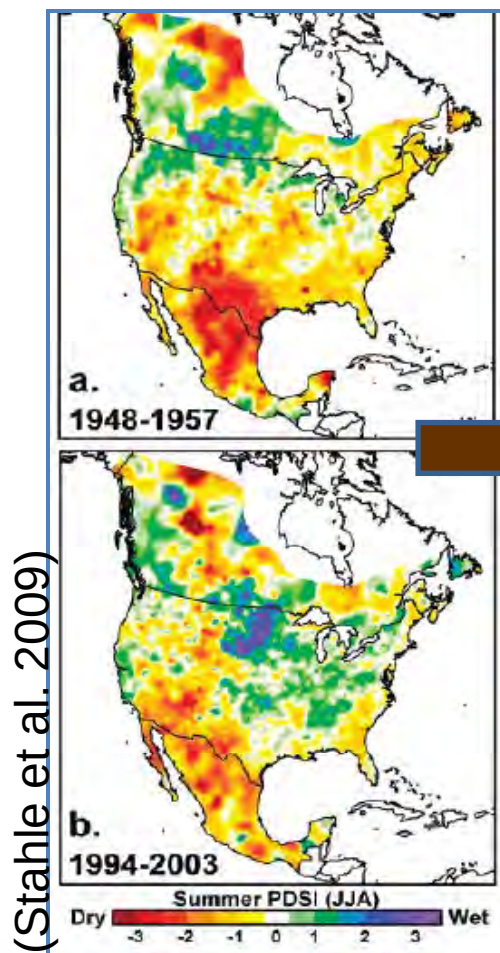
Origen Hidrometeorológico y Climático



Junio 2010: Paso del Huracán Alex por Monterrey



Inundaciones y heladas
2010

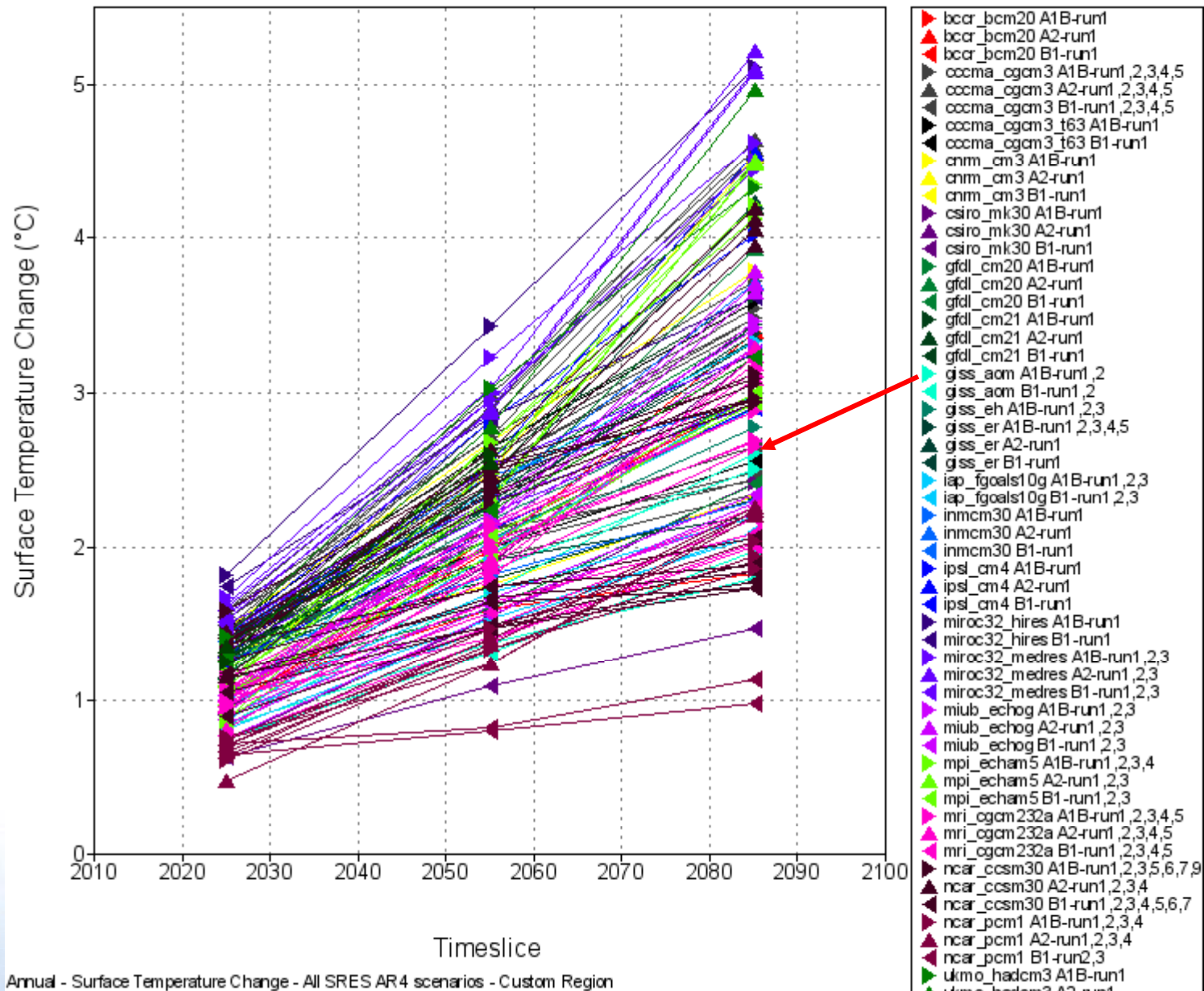


Todo México: Sequías e incendios

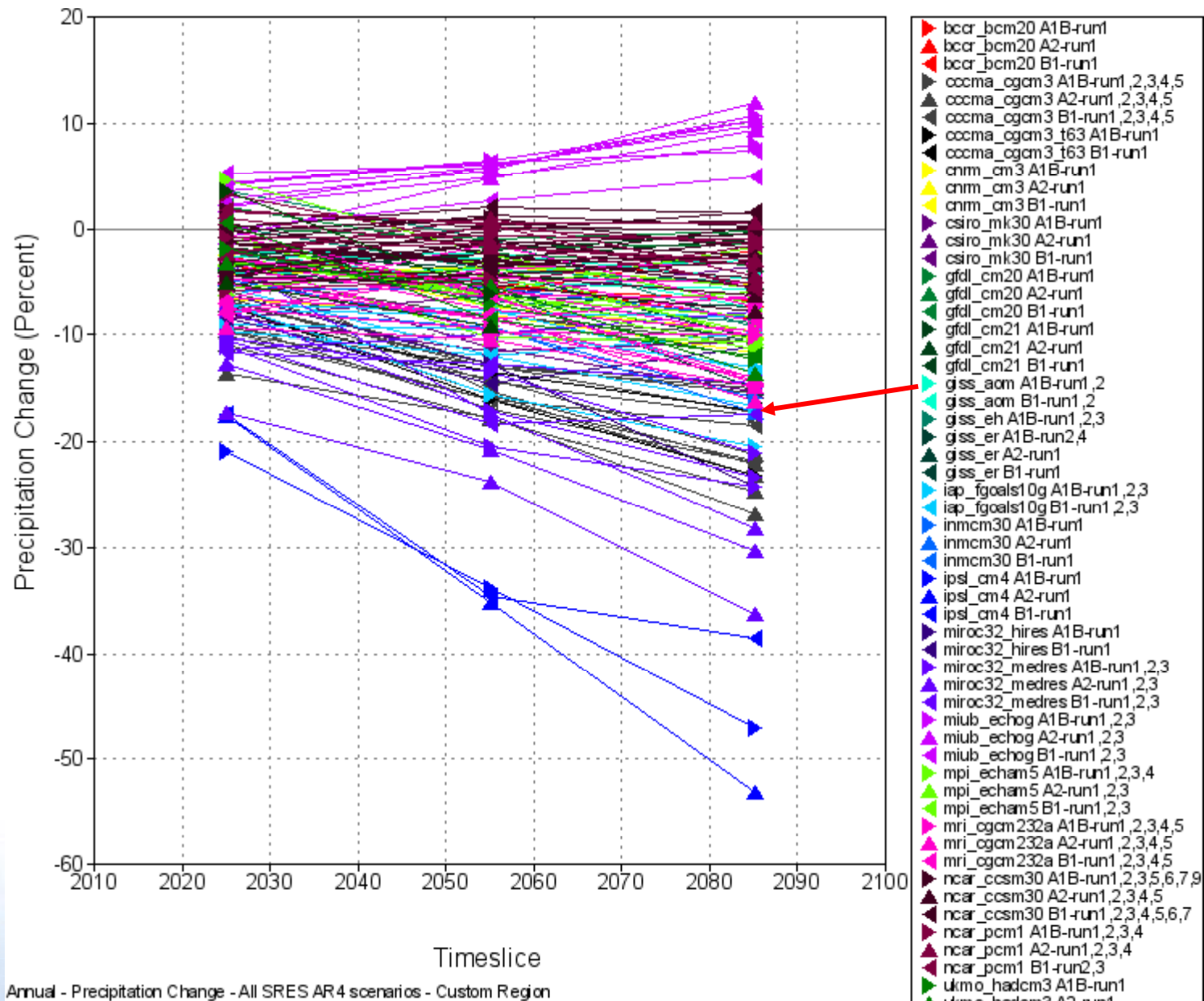
REDESClim, 2011



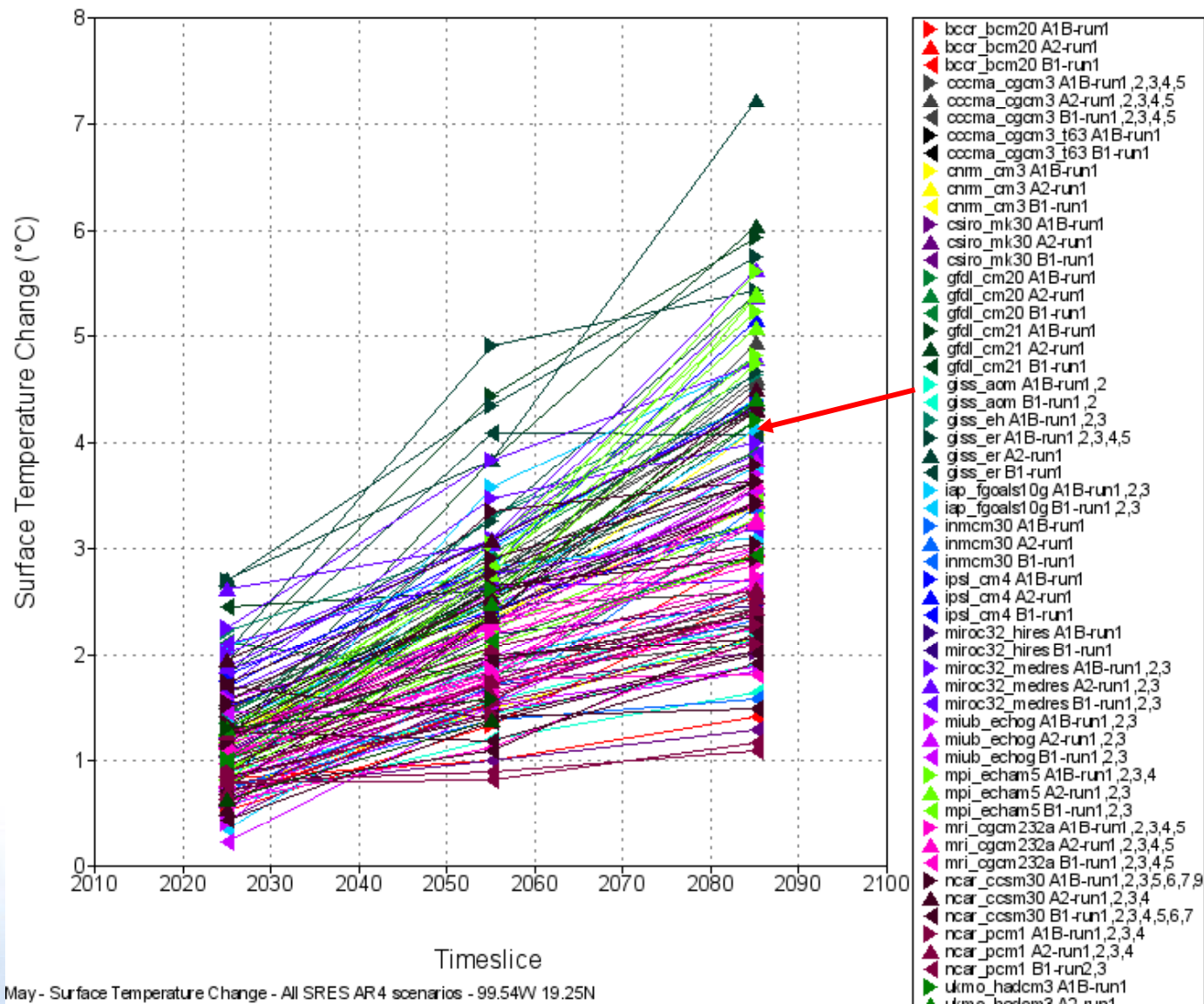
México (temperatura anual)



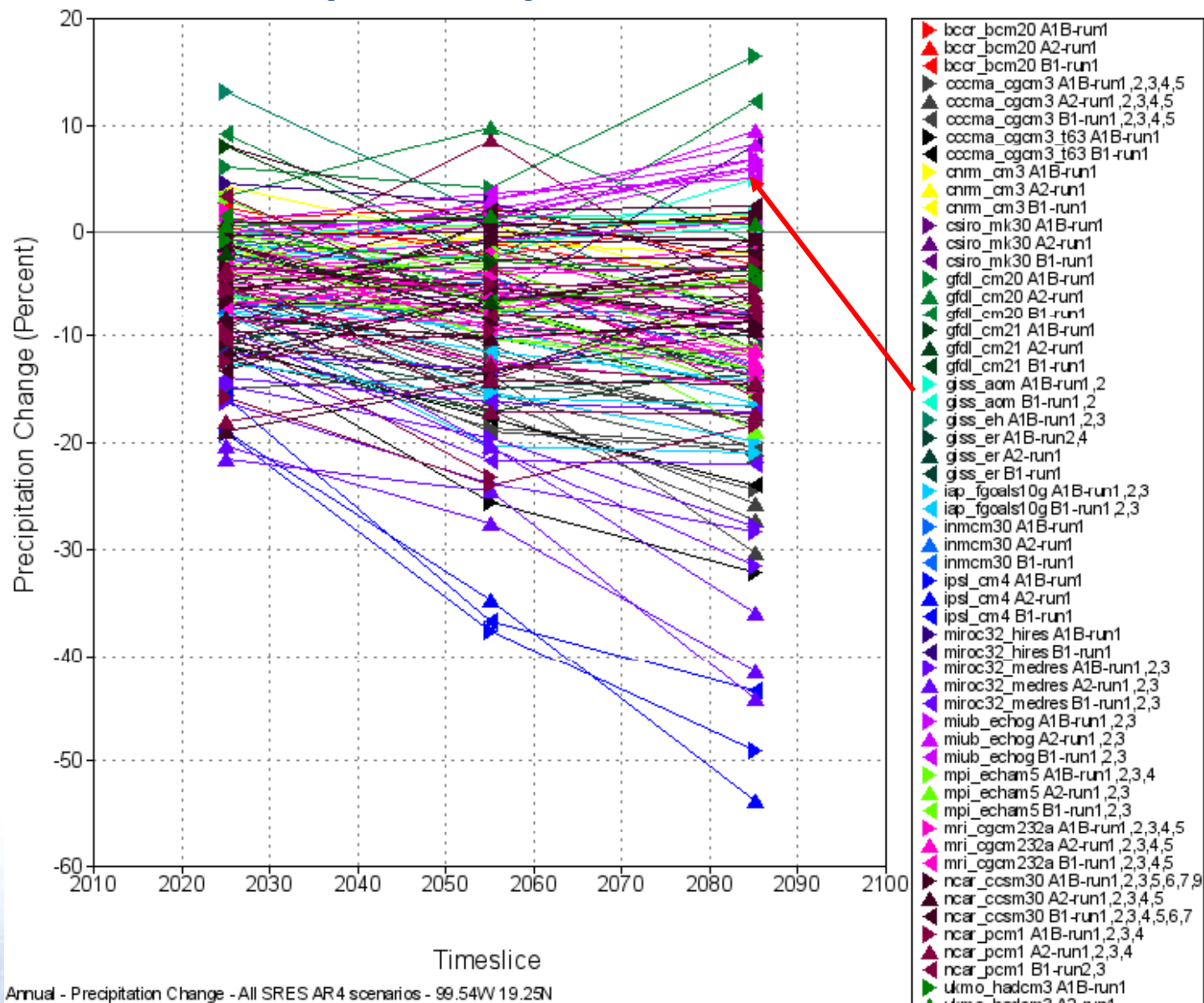
México (precipitación anual)



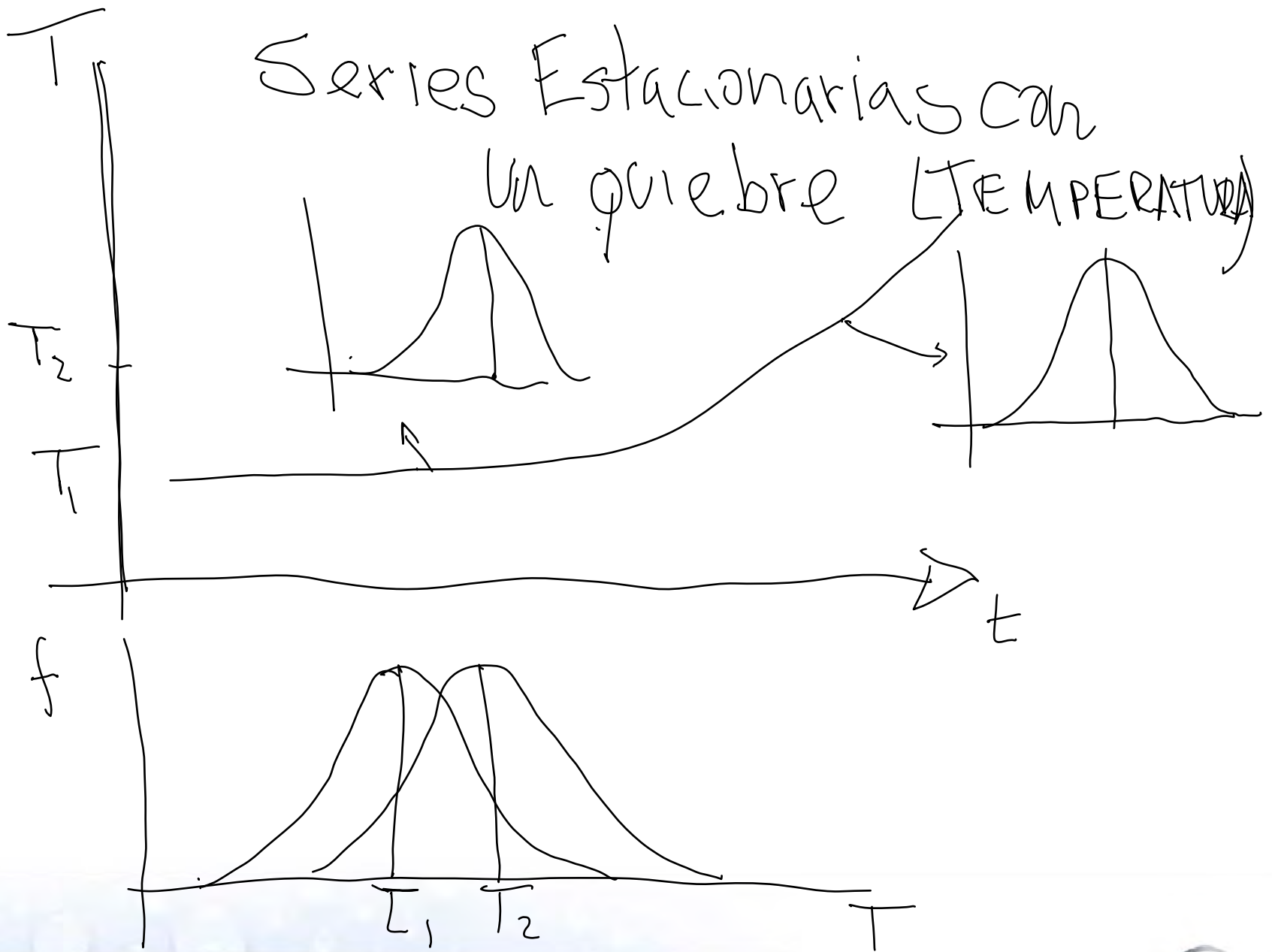
DF (temperatura mayo)



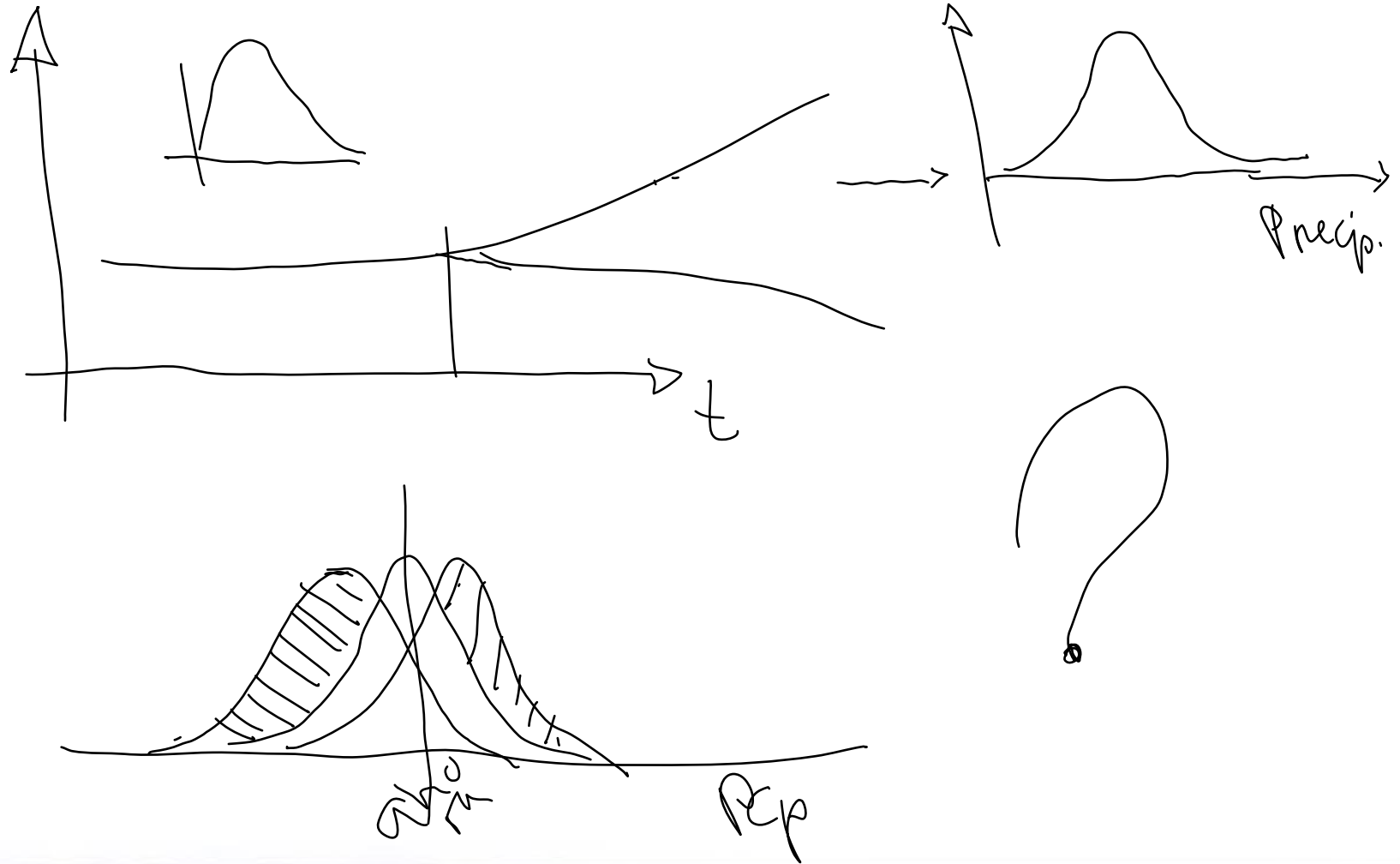
DF (precipitación anual)



Series Estacionarias con
un quiebre (TEMPERATURA)



PRECIPITATION





GRACIAS

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