

Manola Brunet, WMO/CCI OPACE 2 co-chair
With input from Rodney (CIIFEN), although
worth to look at his presentation, as well



Regional data issues –

South America (SA)

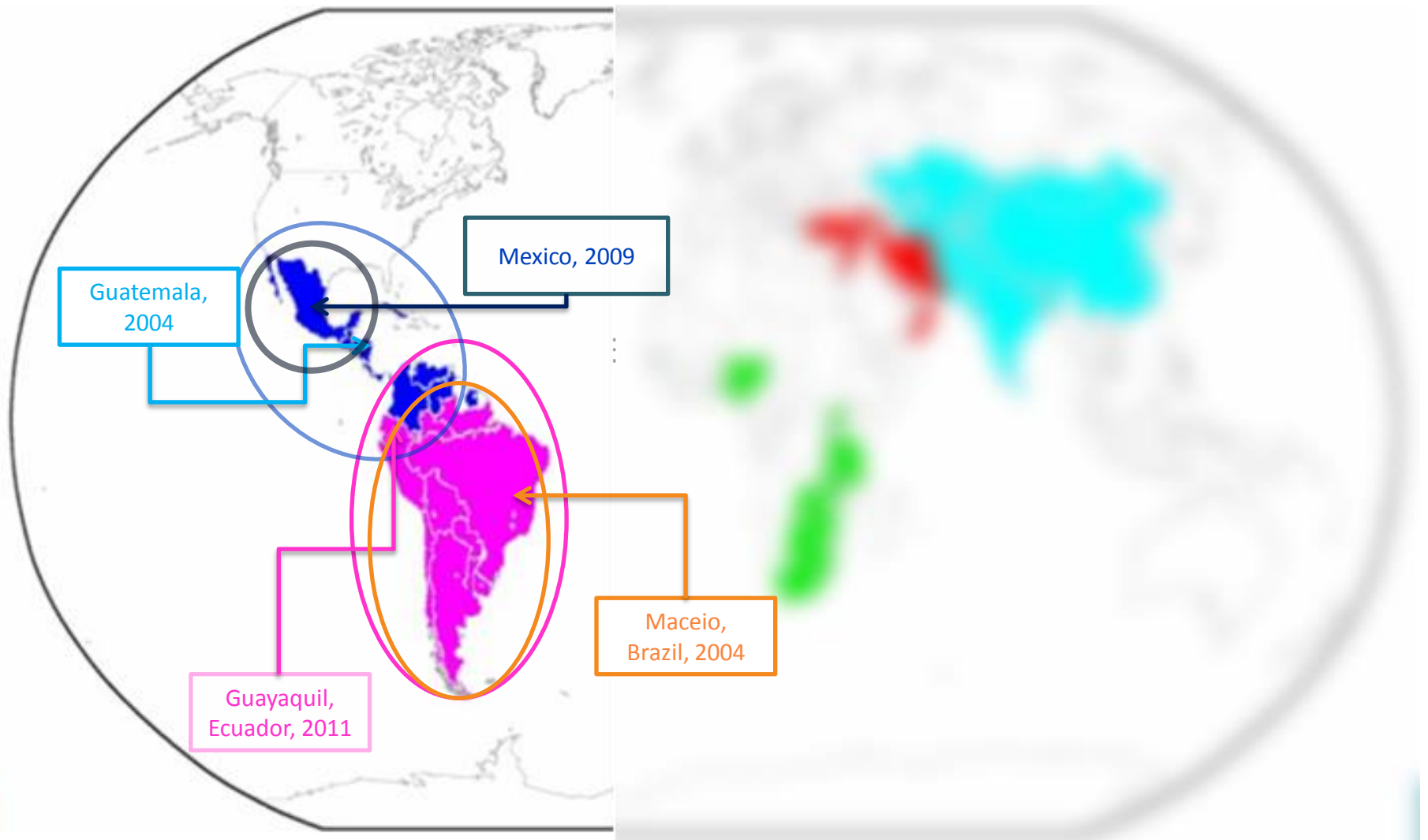


Outline



Workshop on Data Requirements to address the WCRP Grand Challenge on Weather and Climate Extremes,
Sydney, Australia, 25-27 February 2015



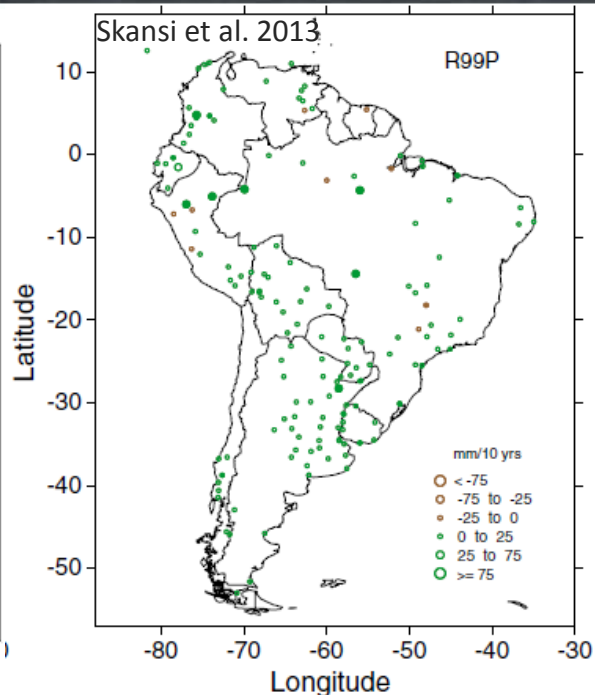


An overview to ETCCDI regional workshops: a pronged approach that has stimulated cooperation and enhanced knowledge & data sharing within SA

Previous data activities over South America: the ETCCDI regional workshops and their results

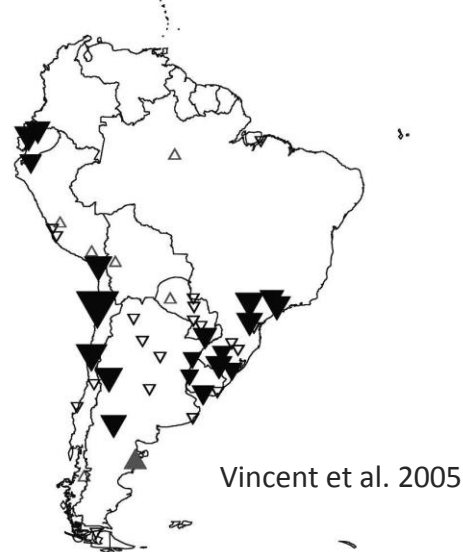


c) Cold nights



Workshop on Enhancing South American Climate Change Monitoring and Indices: The Maceio (Brazil) regional WS (2004):

- SMNs SA, except NSA
- 69 (54) Tx/Tn (RR) daily series assessed
- 2 papers published (Vincent et al. 2005, Haylock 2006) on time for AR4
- Limited data accessibility, only indices released



CIIFEN-ETCCDI-WMO Training Workshop on Statistical Analysis of Climate Extremes: The Guayaquil regional WS (2011):

- All SMNs in SA, but Guyana & French Guyana
- 188 (252) Tx/Tn (RR) daily series analysed
- 1 paper published (Skansi et al. 2013) on time for AR5
- Partial data accessibility through LACA&D



- ❖ LACA&D or WCSA regional database: 314 stations with Tx, Tn, RR, RH & cloudiness at the daily scale, but dubious completeness, quality and limited length
- ❖ CLIMANDES: Undefined no. of Peruvian stations, variables and time-steps
- ❖ PRASDES: Related to LACA&D data accessibility
- ❖ CRC-SAS: Limited on-line data accessibility, but accessible under request to Argentina, Brazil and Paraguay SMNs

LACA&D: SMNs Bolivia, Chile, Colombia, Ecuador, Peru, Venezuela, KNMI & CIIFEN

CLIMANDES: SENAMHI, MINAM, COSUDE, METEODAT, MeteoSwiss, UBERN, APSI, WMO

PRASDES: SMNs Bolivia, Colombia, Ecuador, Peru, CIIFEN, FMI, SYKE, IRD, Finish Foreign Affairs Ministry

CRC-SAS: several organisations in Argentina, Brazil, Paraguay, USA



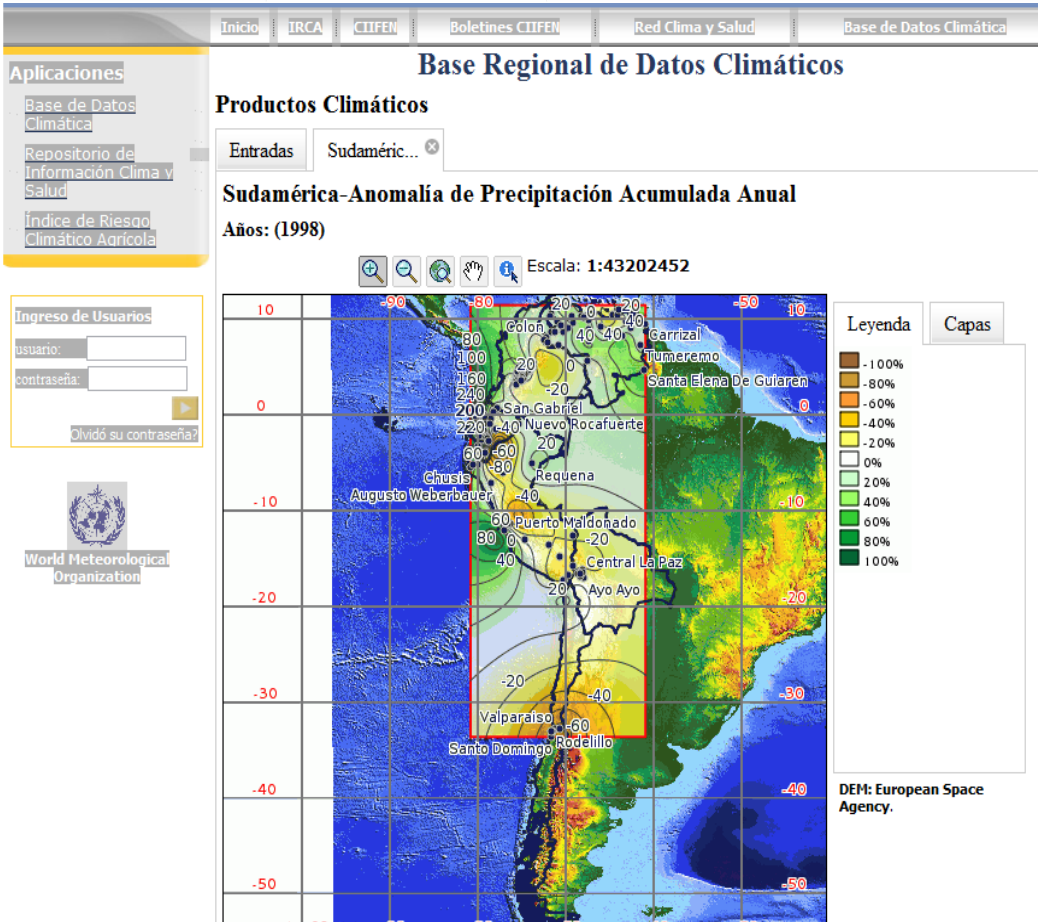
Post-ETCCDI activities: A number of projects with the focus on capacity development to support climate services, including climate data services, in SA



Centro Internacional para la Investigación del Fenómeno de El Niño



WCSA Regional Climate Data Base



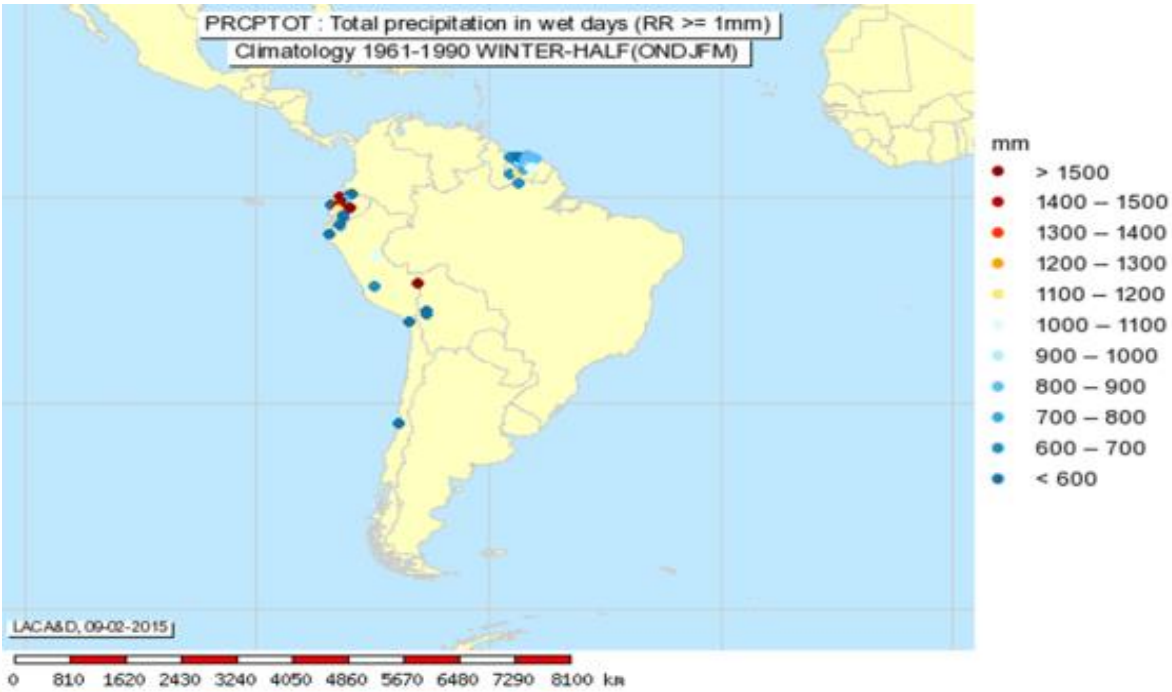
- **First Data integration** between NMHS from Bolivia, Chile, Colombia, Ecuador, Peru and Venezuela .
- **Online data display.**
- **4'153.000 records .**
- **171 meteorological stations** with data from **1960 to 2009.**
- **Formal Protocol** signed by the 6 NMHS and CIIFEN

First regional effort , limitations on QC and coordinated homogenization and analysis (2007-2009)

Indices calculation with LACA&D or WCSA dataset & lessons learnt (Rodney's views)



The workshop is only an intermediate stage of the regional process (RAP).
The RAP requires international cooperation and a strong effort on regional coordination: designing regional institution is crucial
Pre- & post-WS phases are critical to ensure reliable outcomes and sustainability of the RAP
Data exchange is essential during all the process.



Stations Network in CRC-SAS



No hints of unrestricted accessibility to the data through its website:

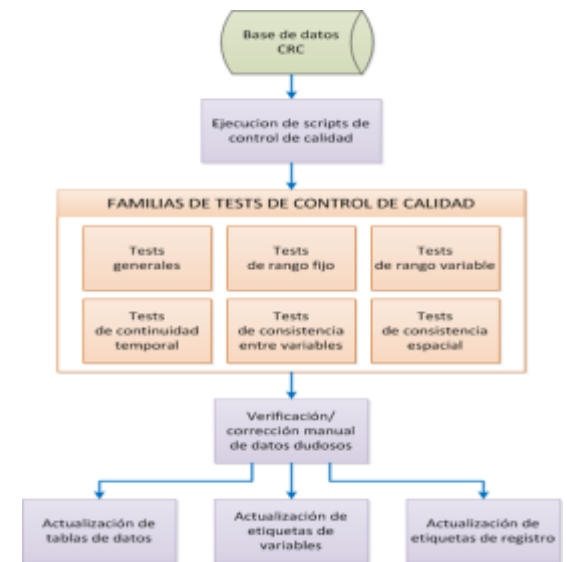
<http://serviciosclimaticos.blogspot.com.es/>

338 stations with at least 10 years of data:

Argentina	124 SMN + 40 INTA
Brazil	83
Paraguay	23
Uruguay	15
Bolivia	35
Chile	18

From 1961 onwards at the daily scale for Tx, Tn, Tav, RR, TDP, RH, sunshine, WS and WD (daily mean and maximum gust), SLP & station pressure. Subjected to QC)

2 workshops held: QC, homogenisation & drought index calculation (12/2013) & another for training on applying QC (04/2014)





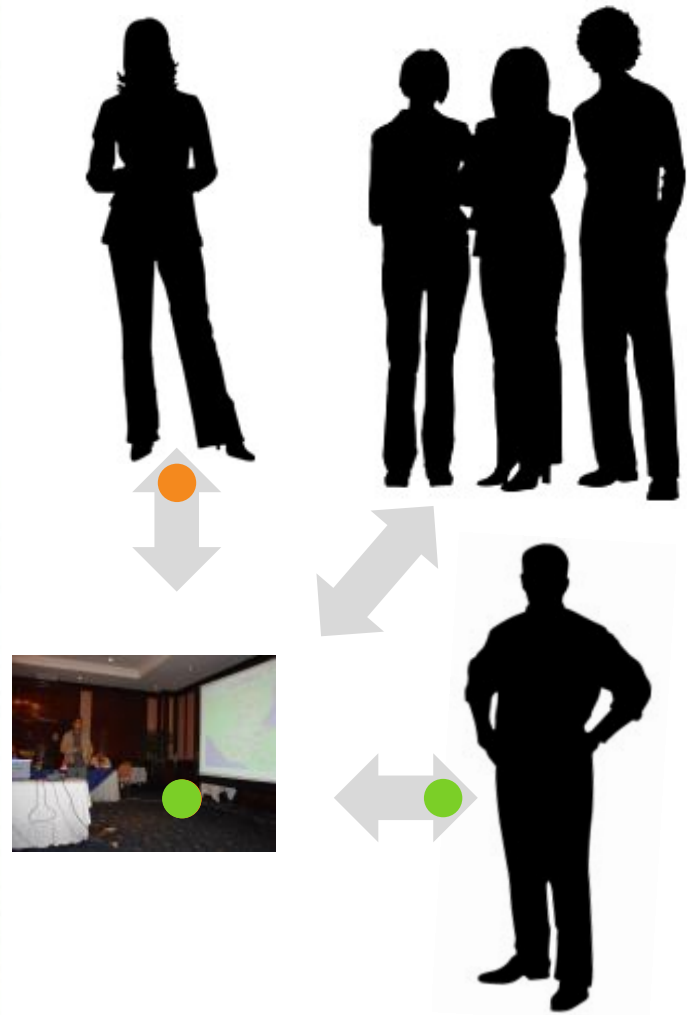
Data issues over SA



Data issues over SA: Strengths & weakness

The ETCCDI role: promoting an enhanced knowledge on SA extremes, capacity building on data development techniques (QC & homo) and new culture for knowledge and data sharing. As result, a bettered:

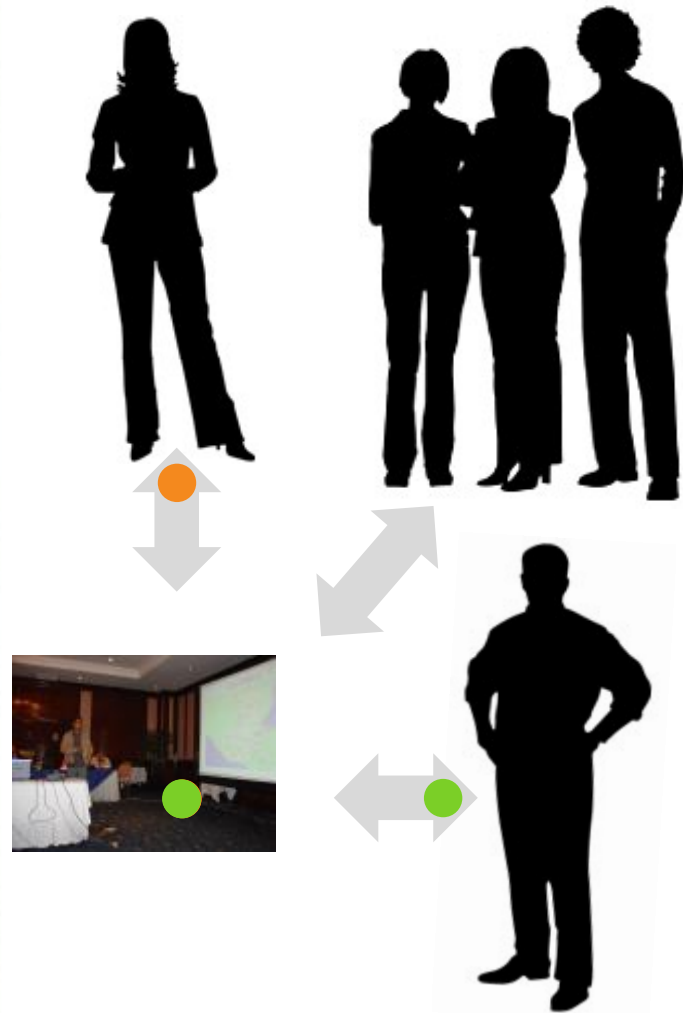
- knowledge on changes in extremes
- Data availability and accessibility (to less extent)
- National capacities to develop high-quality data
- National awareness on the need for better data to support climate analysis, products and services
- Stronger national networking at sub-regional scales (WSA, SSA)
- Larger number of relevant to data internal projects, externally funded



Data issues over SA: Strengths & weakness

Despite of the last decade international and national efforts to improve climate data over SA, still a limited data availability and accessibility remains to be addressed:

- ❖ Available data are far away of being good: short length, incompleteness and discontinuity of records, spatially sparse records: Need to promote DARE activities
- ❖ Dubious quality and homogeneity
- ❖ Updates not ensured
- ❖ Limited national capacities to generate climate series of quality enough: Need for training
- ❖ Restricted data accessibility, limited to the data projects in SA, but not of a free and unrestricted access
- ❖ Incoordination among related sub-regional activities,
- ❖ NMHS reluctance to data sharing, partially overcome within the sub-regional projects: training helps to raise awareness





Facing data challenges





Fountain Geyser

- ❖ Sub-regional networks also provide a forum for coordination and consensus building on regional or subregional issues and reduce asymmetries between countries, optimizing existing regional capacities
- ❖ Need for diversification of financial sources & technical support
- ❖ Specific, applicable & feasible objectives will help to gain coordination & integration
- ❖ Incoordination between sub-regional & national activities must be addressed, externally & internally

- ❖ Still limited national and sub-regional awareness on the need for sustainable DARE & data development activities
- ❖ Capacity development activities increase the awareness & commitment of the trainees, but this doesn't ensure same message arrives to their heads & PRs
- ❖ Sub-regional initiatives play an important role above, but it has required a major effort of coordination and monitoring (international support is required)



**THANKS,
QUESTIONS &
THOUGHTS**

