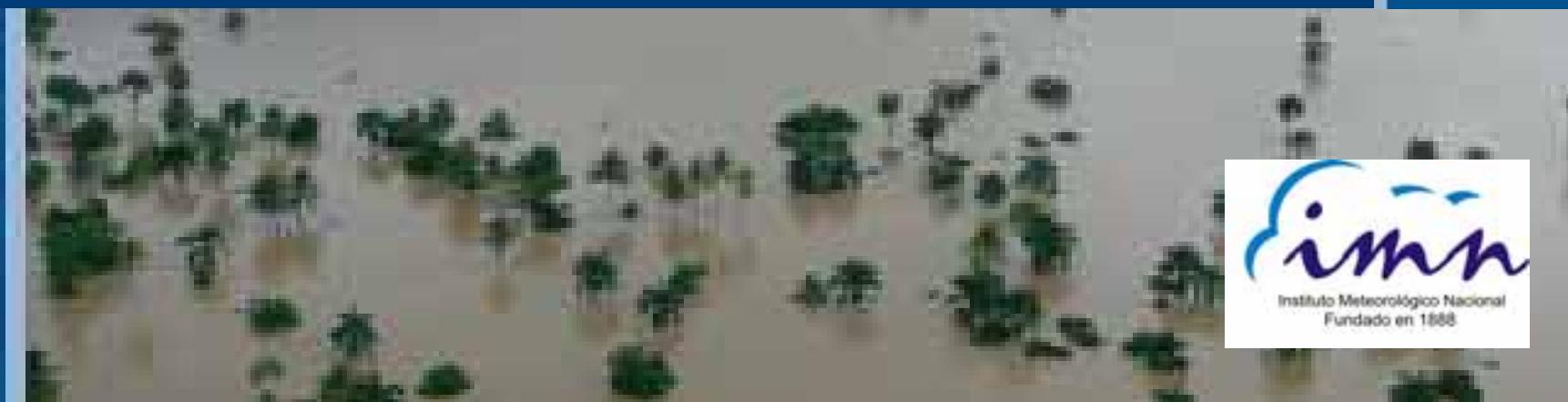


CAFFG

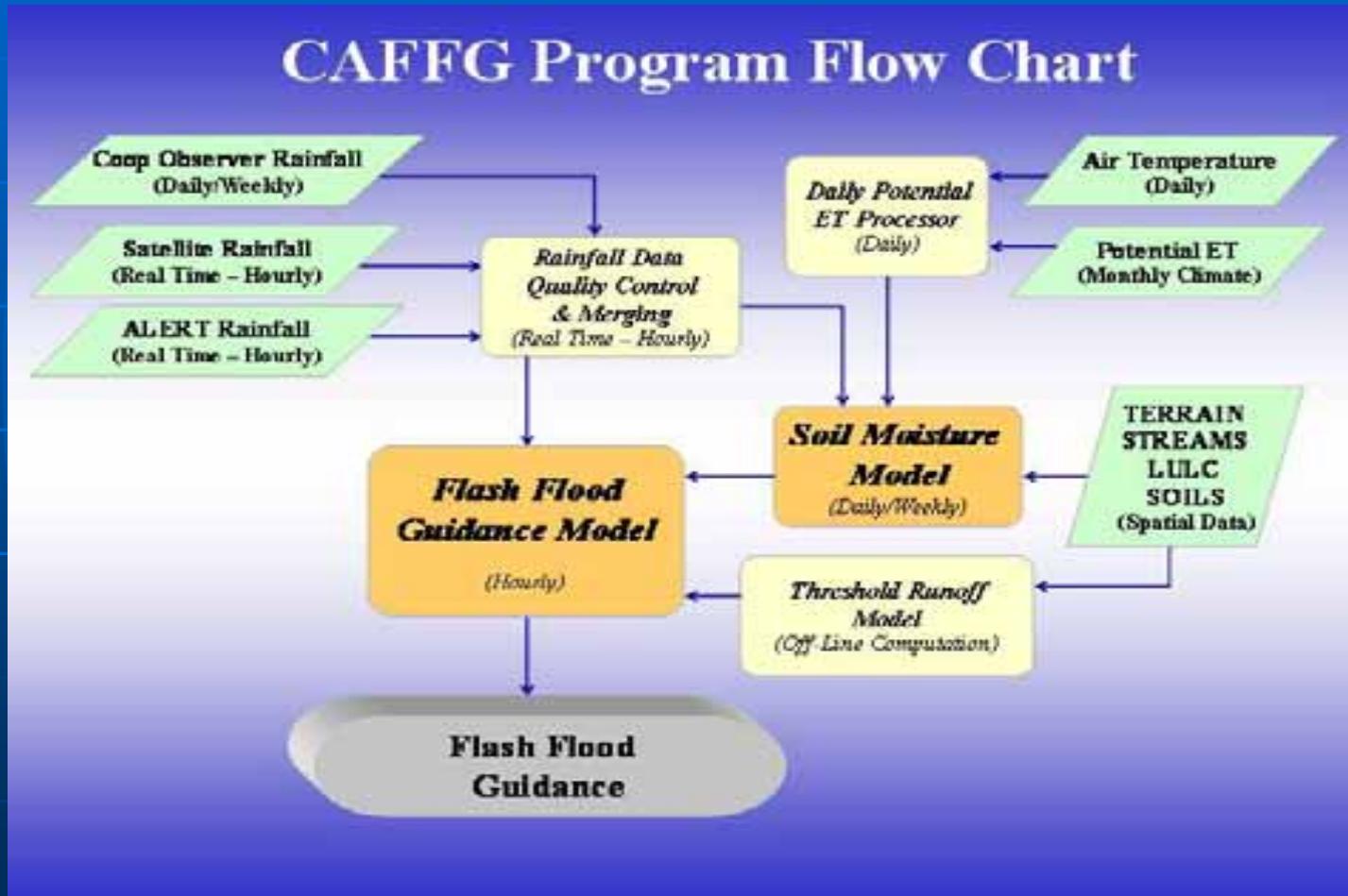
Central America Flash Flow Guidance
Rosario Alfaro. IMN



CAFFG

- Developed by the Hydrological Research Center in San Diego, California, USA
- Developed after Hurricane Mitch occurred in 1998 in Central America
- A satellite image reception system was provided to the region
- Improve the warnings and alerts in case of tropical systems that could be a threat

CAFFG components



FIR: Flooding Indicated and Reported
FINR: Flooding Indicated but Not Reported
NFIR: No Flooding Indicated but Reported

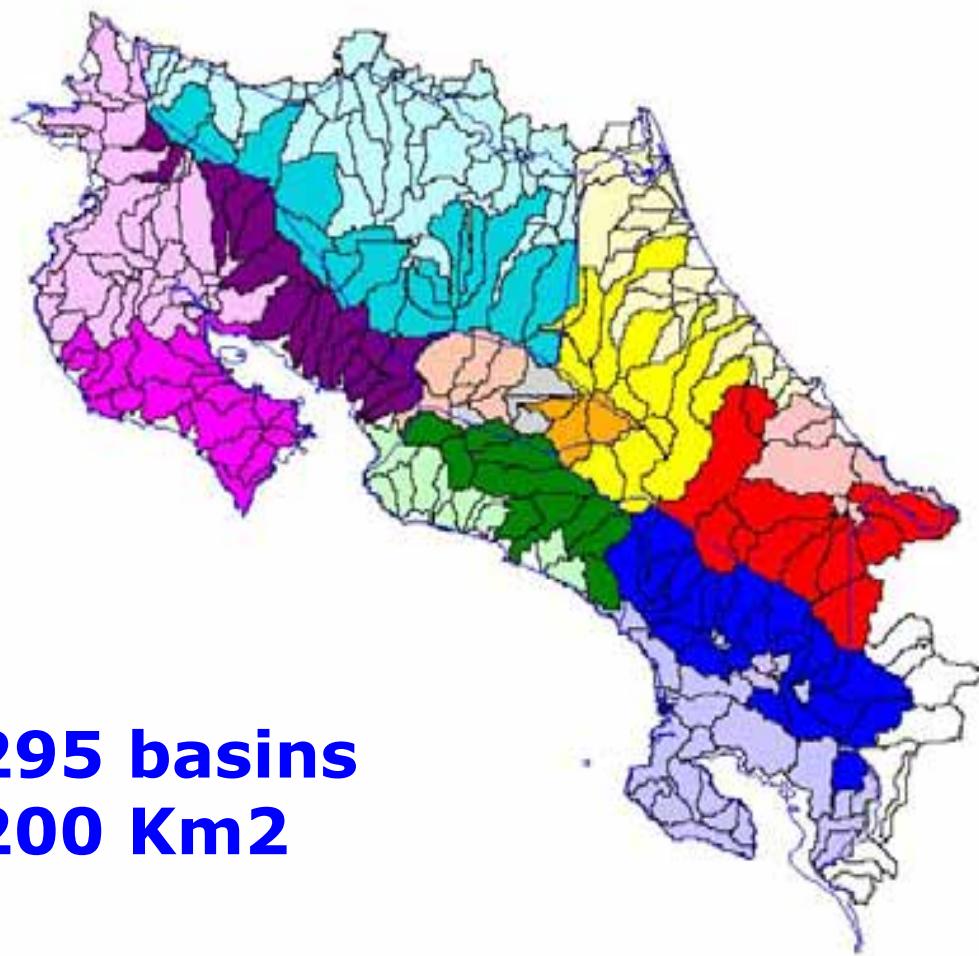
Initial Evaluation Table, 2004

Country	Cases	FIR	FINR	NFIR
GU	2	2		
CR	4	4		
ES	15	10	5	
PA	1	1		
HO	6	1	4	1
BE	0			
NI	0			
Tot	28	18	9	1
Tot%	100	64	32	4

Operational Use in Costa Rica

- In 2005 began the evaluation process based on flooding cases in Costa Rica.
- Since then, the system is used on a daily basis to issue warnings and alerts
- The weaknesses and strengths of the system are better known
- Use ArcView to display results

Clasificación de cuencas por región



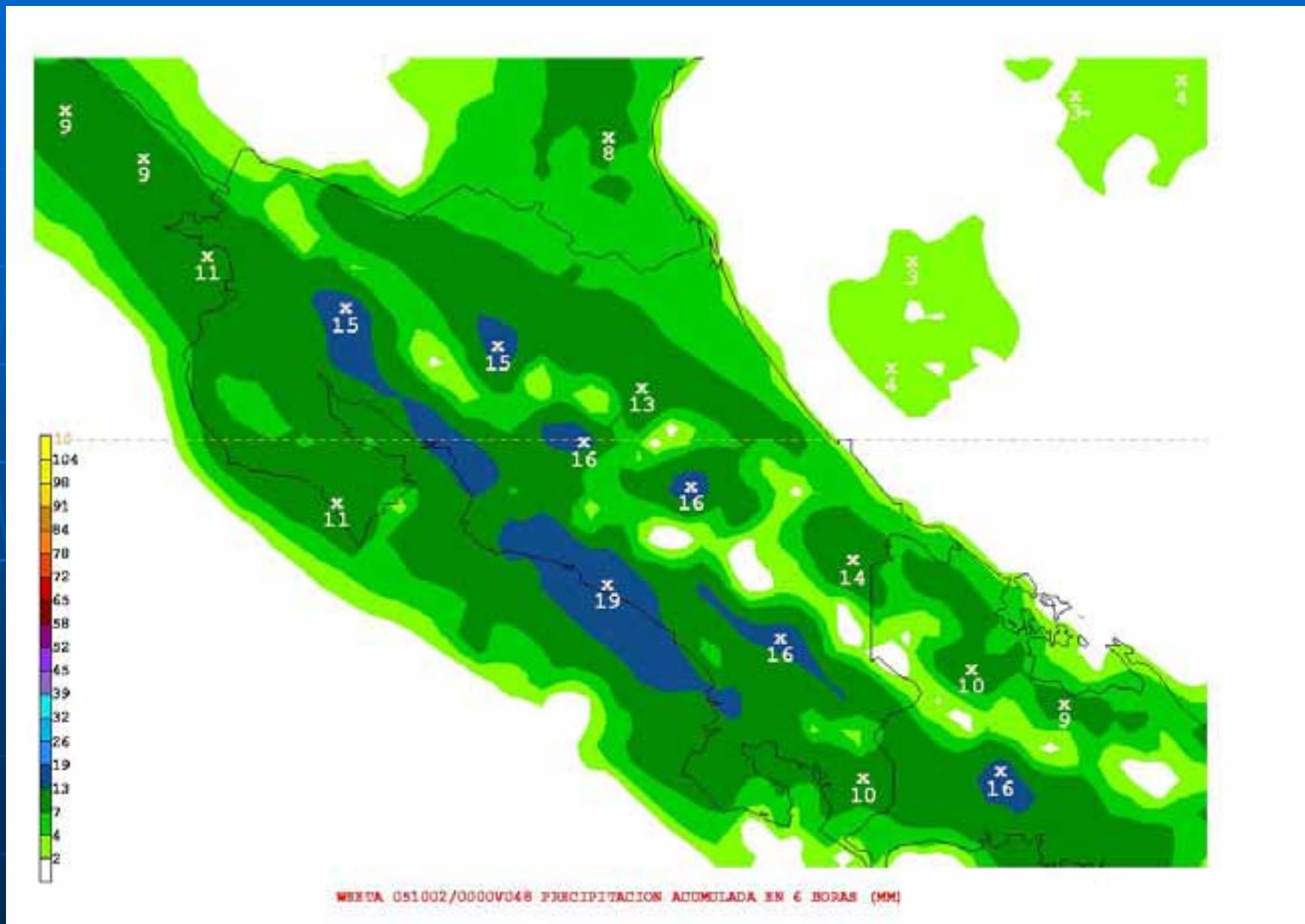
**295 basins
200 Km²**

90 0 90 180 Kilometers

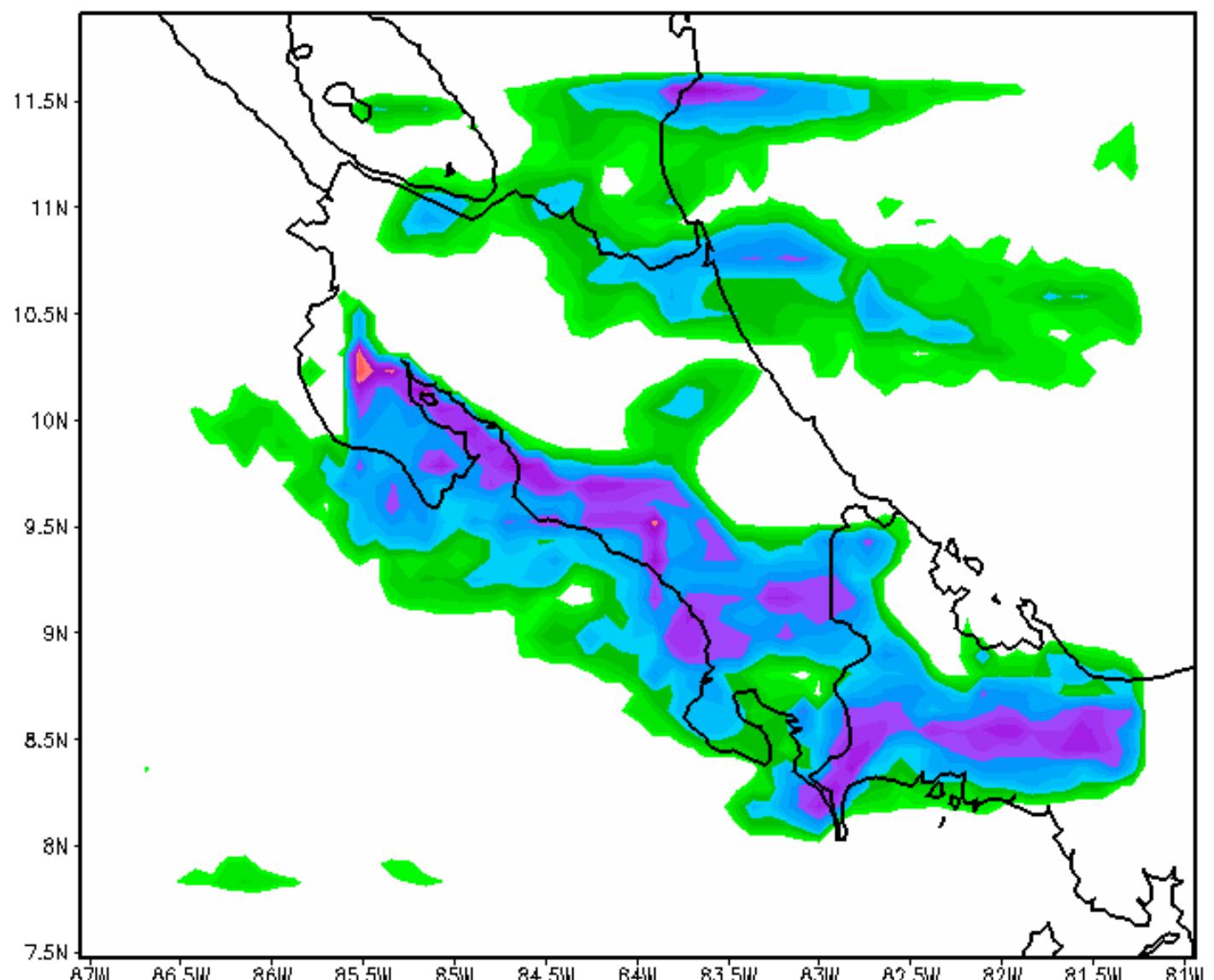
- Regiones climáticas
- Cuencas por región
- fueras de límites
- Pacífico Norte norte
- Pacífico Norte sur
- Pacífico Norte montañoso
- Pacífico Central plano
- Pacífico Central montañoso
- Pacífico Sur plano
- Pacífico Sur montañoso
- Caribe Sur plano
- Caribe Sur montañoso
- Caribe Norte plano
- Caribe Norte montañoso
- Zona Norte plano
- Zona Norte montañoso
- Valle Central
- Valle Central oeste
- Valle Central este



6h Precipitation Forecast by the Eta model for 100205 at 00Z



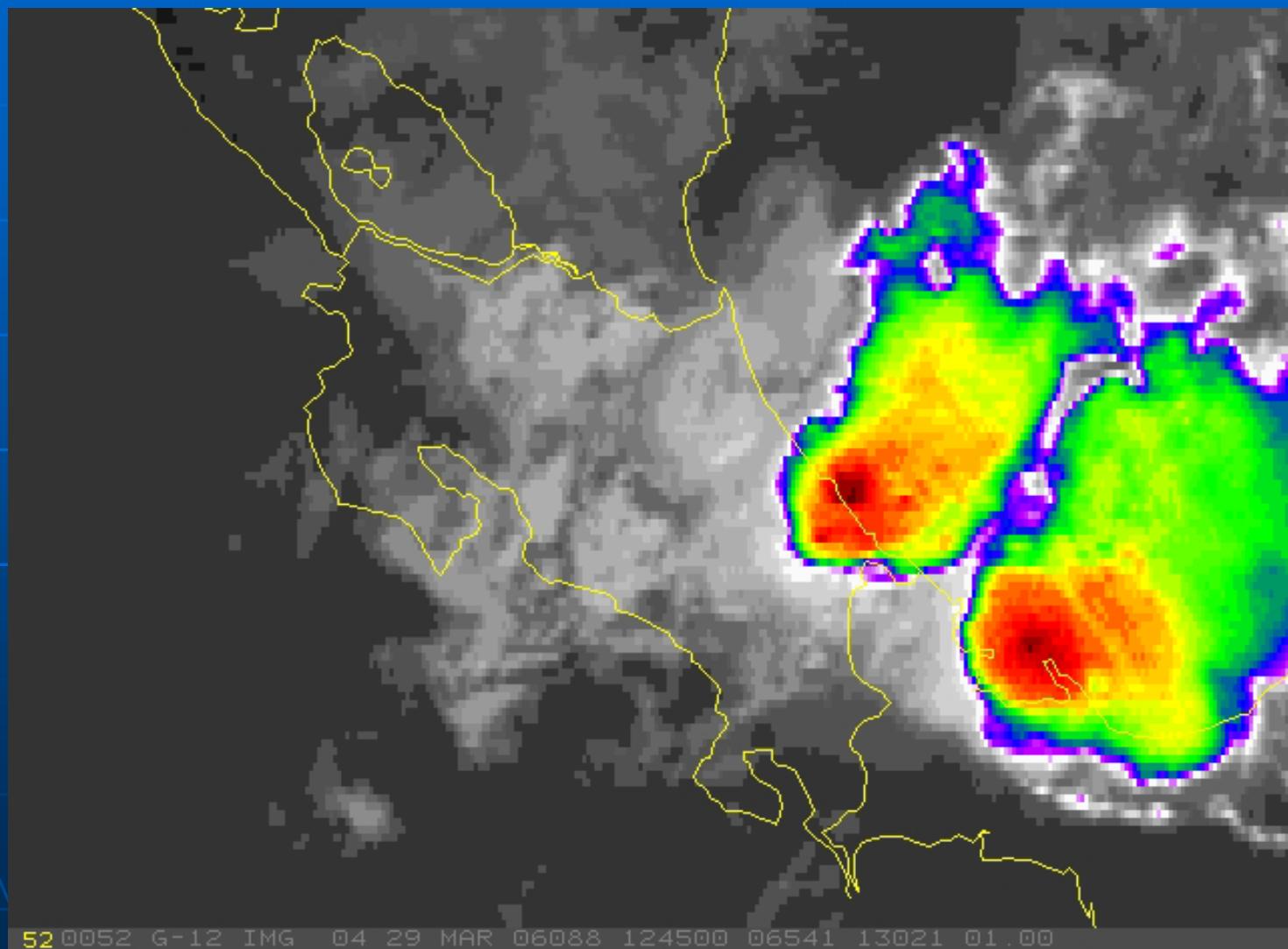
IMN/WRF Precipitacion Acumulada durante 6 horas (mm)
2008-08-06 00Z



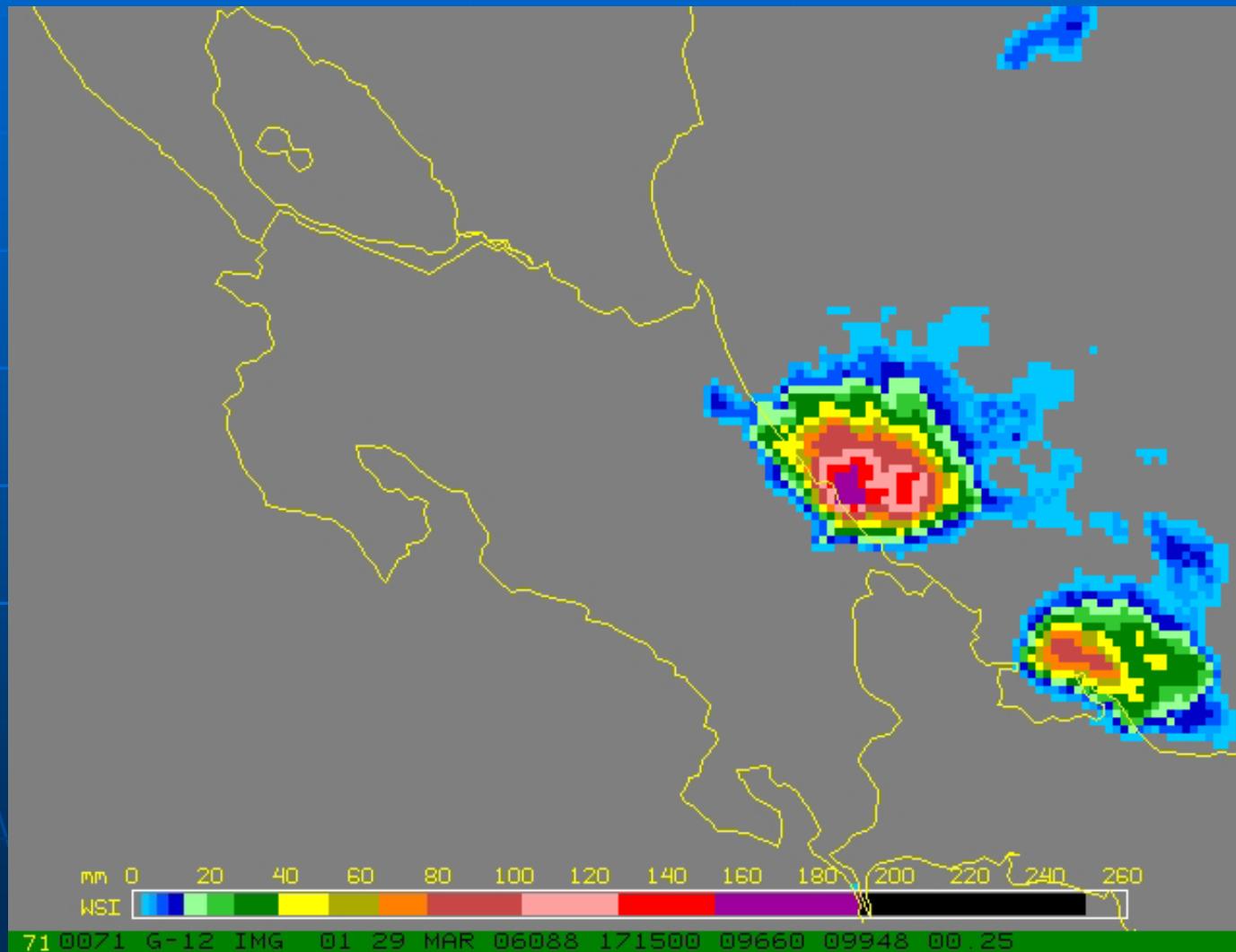
Instituto Meteorologico Nacional Costa Rica

GOES Channel 4 IR Image

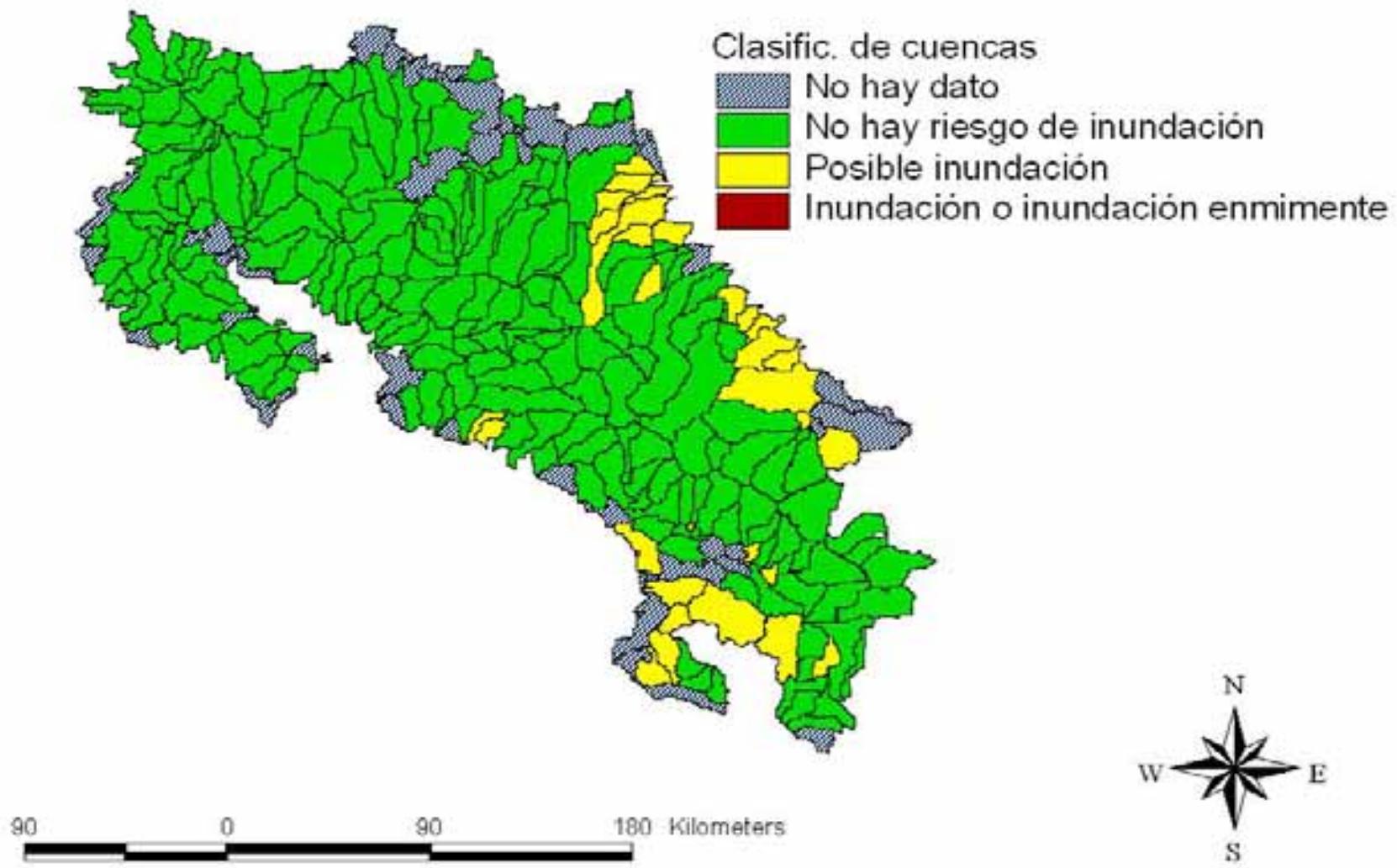
March 29, 2006, 12:45 Z,



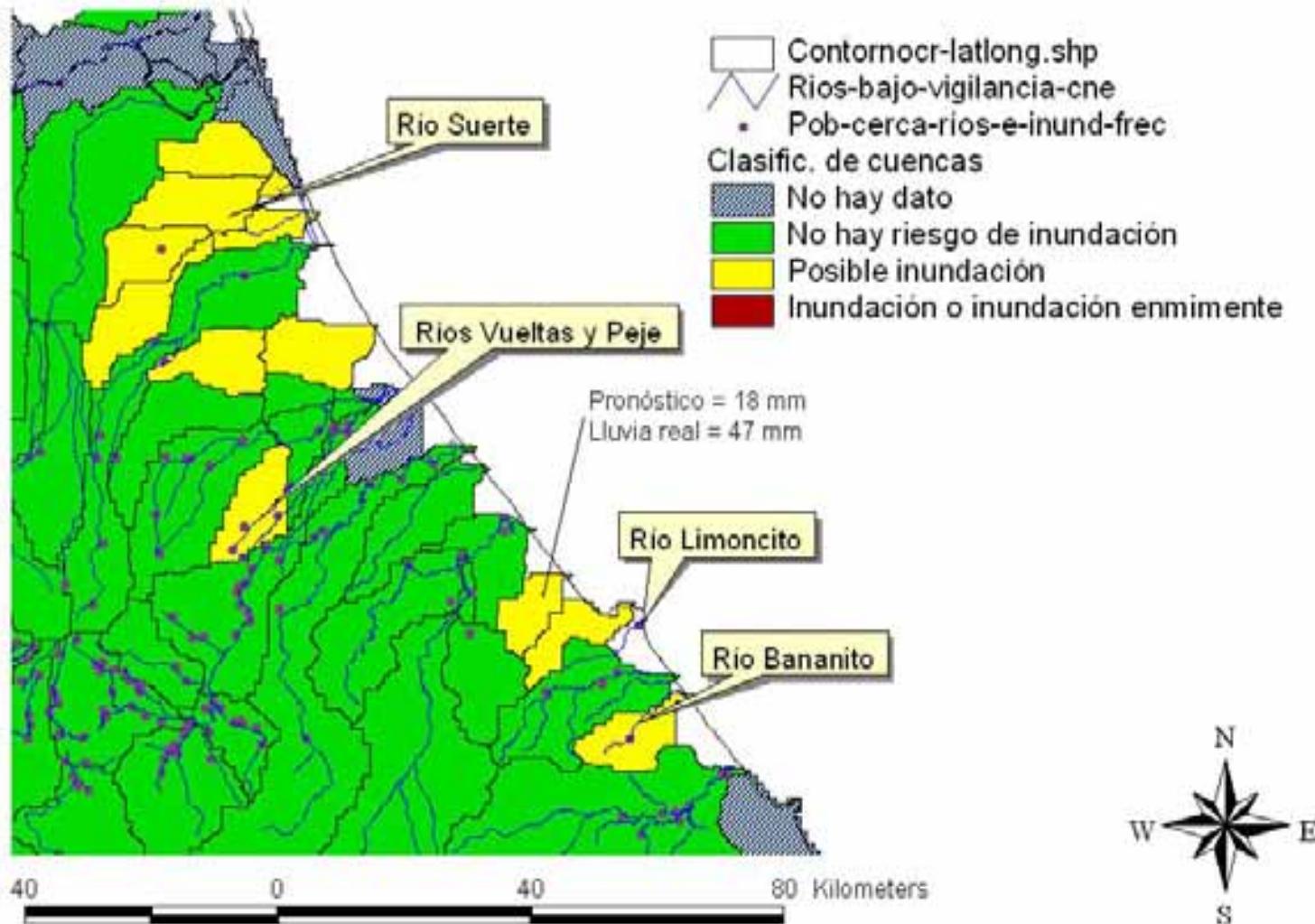
Hydroestimator precipitation estimates, March 29, 2006



Evaluación del riesgo de inundación para el 290306
a las 06 Z, usando los pronósticos cuantitativos del modelo WSETA

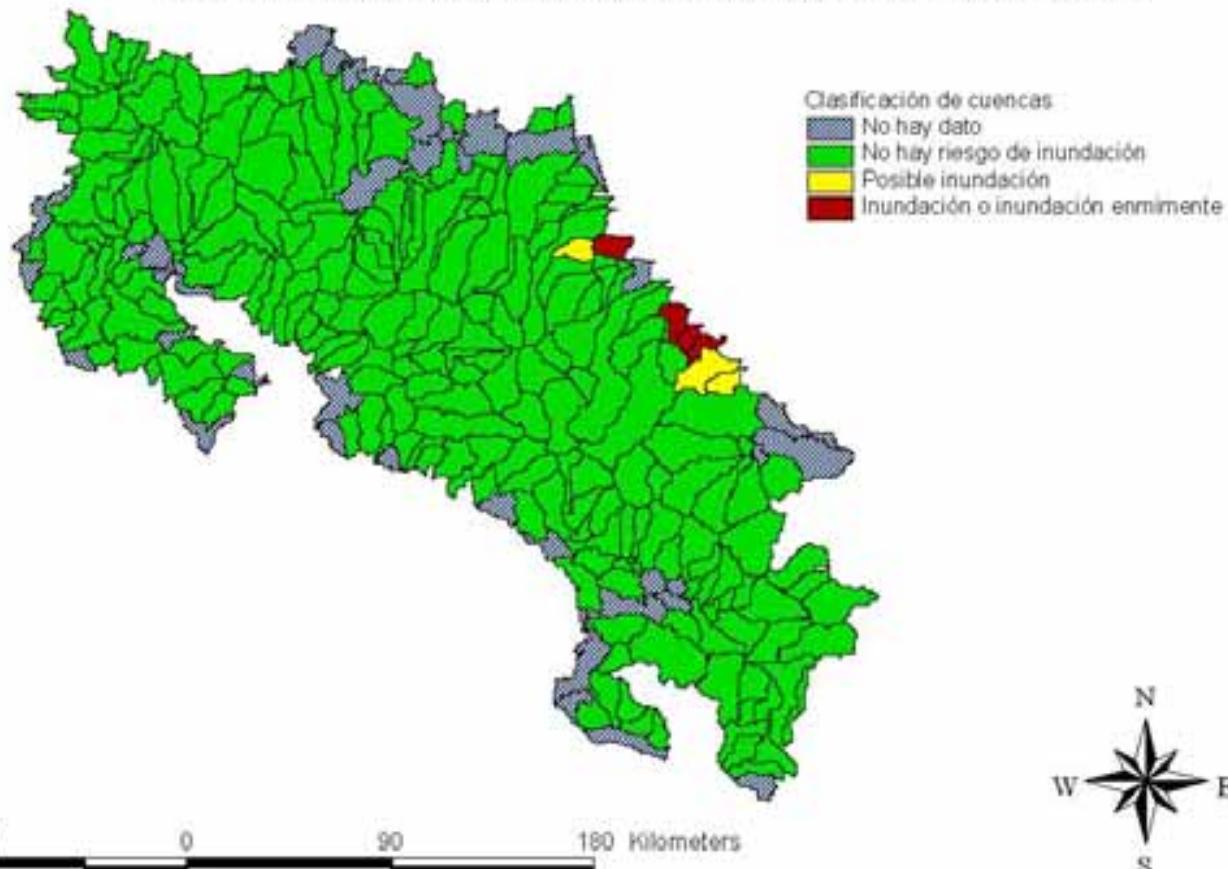


Evaluación del riesgo de inundación para el 290306 a las 12 Z, usando los pronósticos cuantitativos del modelo WSETA



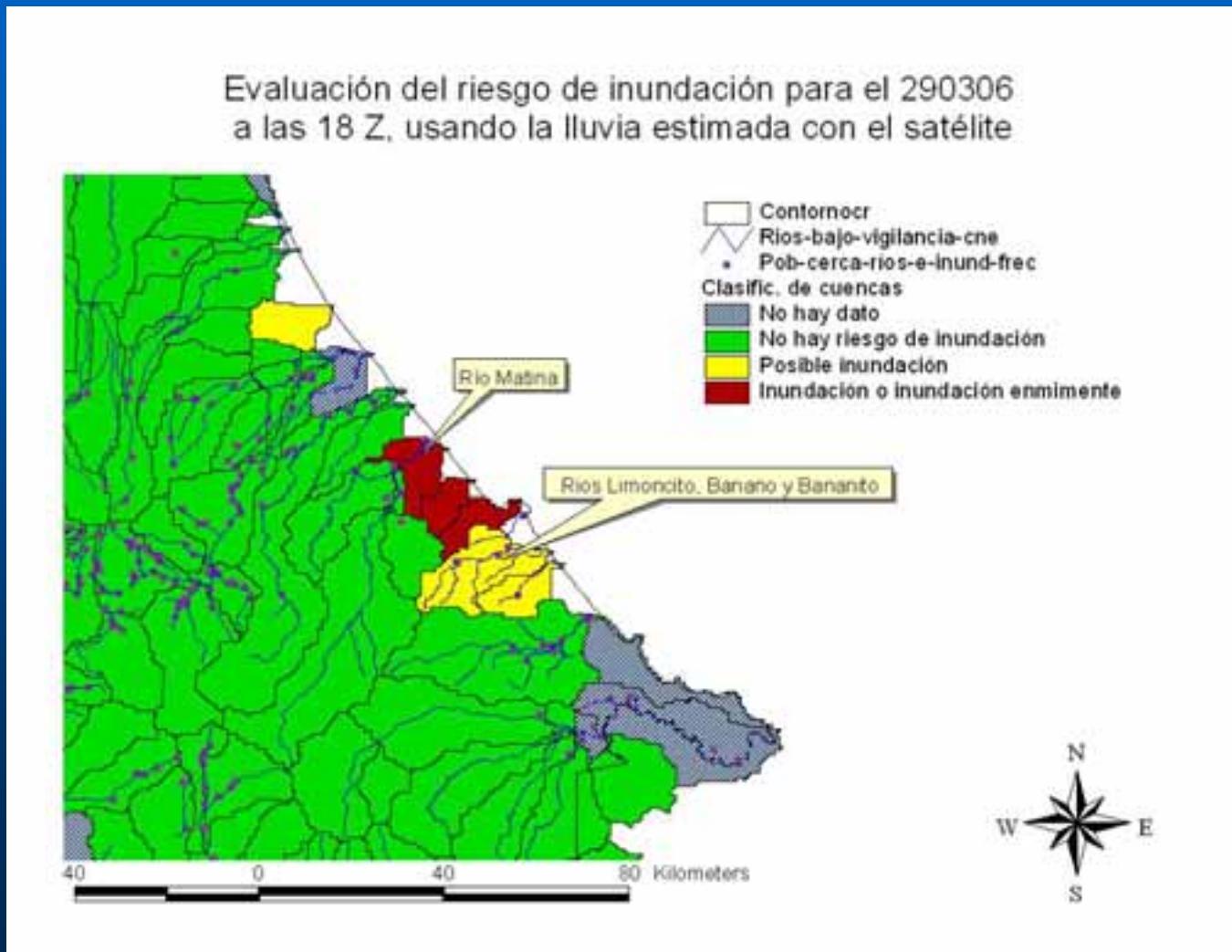
Evaluation at 18Z, March 29, 2006

Evaluación del riesgo de inundación para el 29 marzo del 2006.
Usando las lluvias estimadas con los datos del satélite



Inundación Región Caribe Marzo 2006

Las regiones señaladas presentaron ríos crecidos y desbordamientos.



For the future

- **Next training for Belize, Guatemala, Honduras, El Salvador, Nicaragua and Panamá will begin in Costa Rica on September 16th**
- **Using VisitView, monthly teleconferences for discussions with users and real time collaboration are being planned, in order to know and contribute to improve the system in the future.**

Thank you

Questions ???