

A close-up, underwater photograph of a coral reef. The corals are tall, yellowish-green structures with many finger-like projections. Sunlight filters down from the surface, creating bright highlights on the tops of the corals and casting deep shadows in the crevices. A few small, dark fish are visible in the background.

# Coral Reef Conservation

## Panama



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# Marine environment of Panama

## Caribbean Sea

Low nutrient levels

Tides up to 0.5 m

Temperatures  
26-28° C

Bocas del Toro

Gulf of Chiriquí

Without upwelling

Temperatures  
of 25-29° C

Wide continental shelf

Gulf of Panama

With upwellings  
Temperatures of  
15-29° C

Guna Yala

Narrow continental shelf

Tides up to 6.0 m

High nutrient levels

# Coral reefs of Panama

Caribbean Sea

~ 754 km<sup>2</sup>

Bocas del Toro

Guna Yala



Coverage until 75%

- 5-15% in coastal zones

Gulf of Chiriquí

Gulf of Panama

Pacific Ocean

~ 16 km<sup>2</sup>

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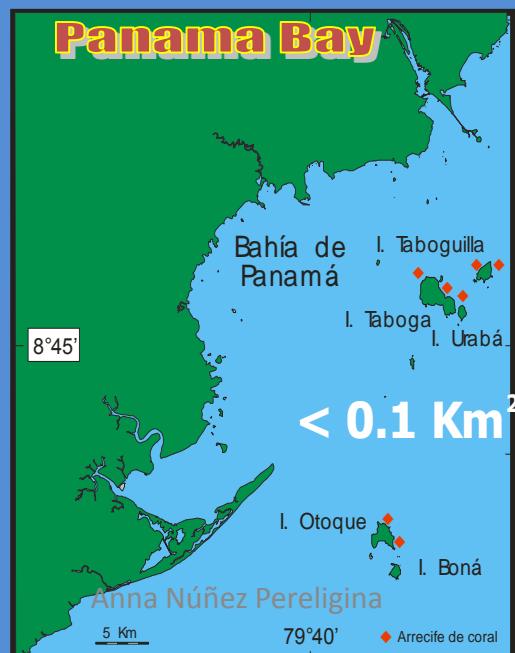


# Pacific coral reefs of Panamá

<15.7 km<sup>2</sup>

Coverage: 25-50%

26 spp



## Bocas del Toro Archipelago

87.4 Km<sup>2</sup>

Almirante Solano Bastimentos

Cristóbal

Cayos Zapatillas

Popa

Cayo Agua

Laguna de Chiriquí

Península Valiente

Escudo de Veraguas

8.2 Km<sup>2</sup>

Río Changumoa

0 10 20 Km

82°20'

♦ Arrecife de coral

## Caribbean coral reefs of Panamá

70 spp

≈753.6 km<sup>2</sup>

Coverage: 25-30% (5-15% on coasts)

## Colón

48 Km<sup>2</sup>

Bahía Las Minas

Bahía Limón

Colón

Caral de Panamá

Río Chagres

Río Colovéhora

9.25

0 5 Km

8.50

## Kuna Yala

Mar Caribe

Cayos Holandeses



9.60°

N

610 Km<sup>2</sup>

Punta San Blas

1 Km

4 Anexo Núñez Prelimina

0 4 8 12 16 20

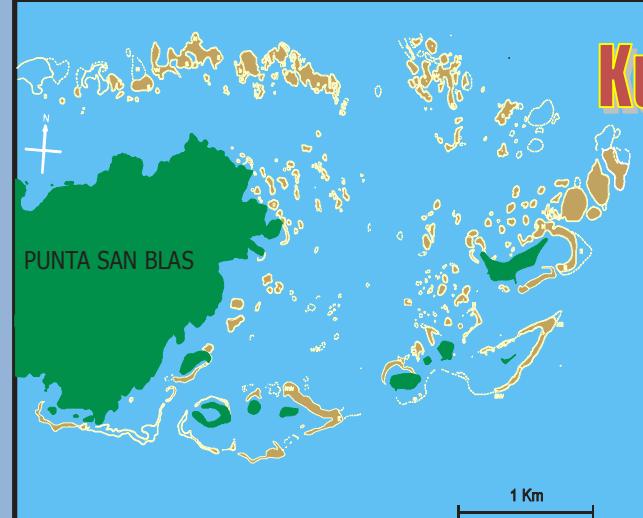
Cayos Limones

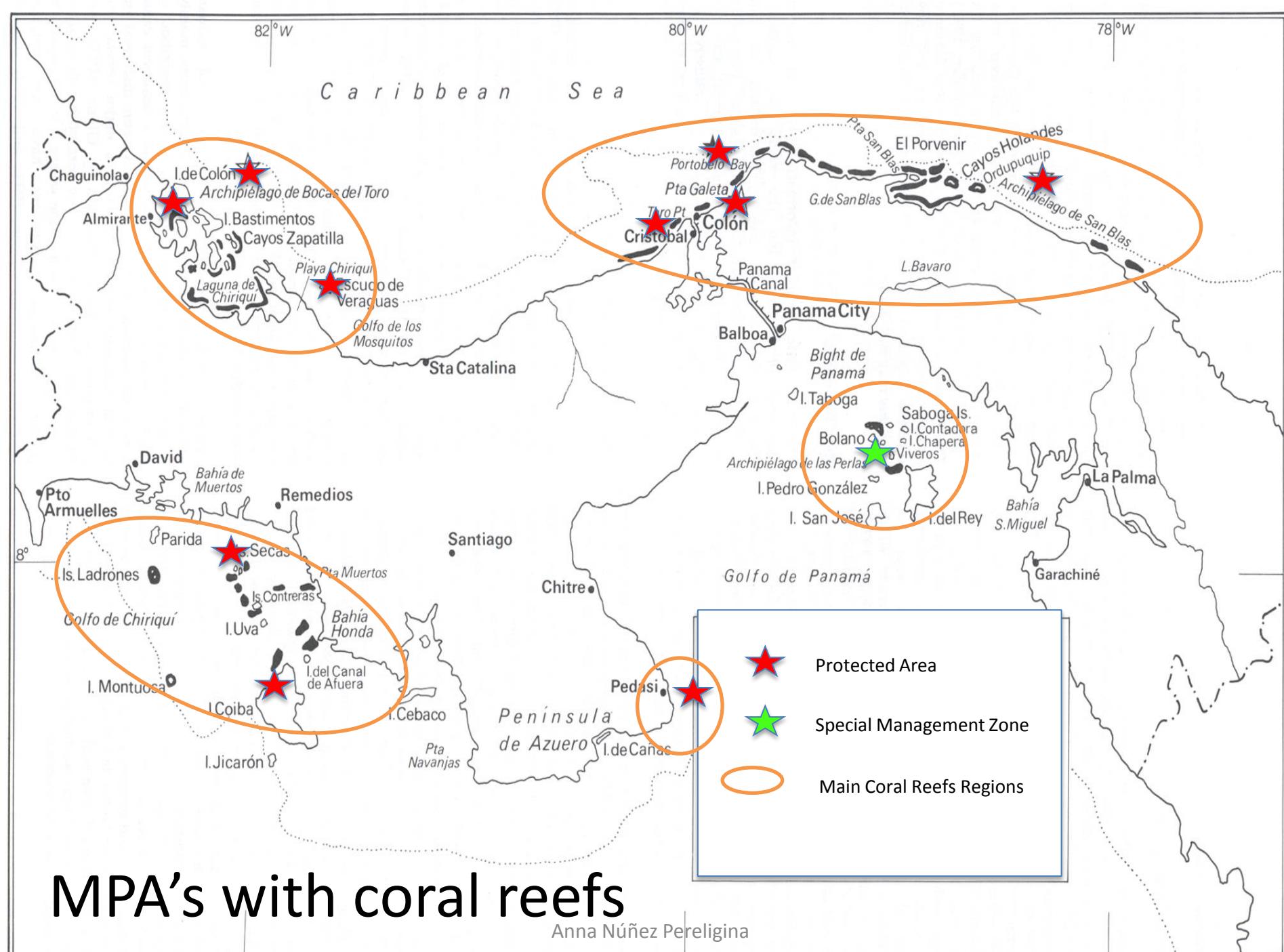
Salar

9.50°

9.40°

♦ Arrecife de coral





Tourism

Extraction for landfill and construction

Curio trade

Dredging

Coral and Fish extraction

Anchoring,  
stranding

Exotic species

Sedimentation

Overfishing

Coastal development

Sea warming and diseases  
(El Niño)

Coastal Refineries

Marine Debris

Eutrophication

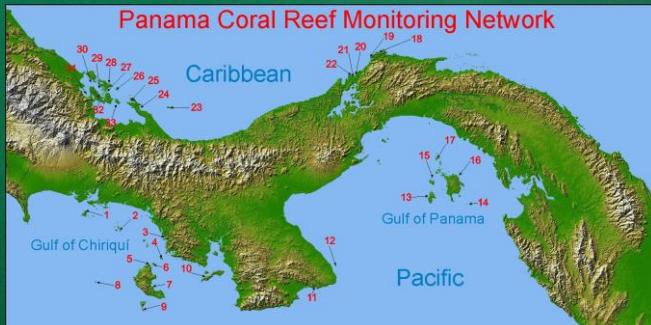
Deforestation

Chemical and organic  
contamination

12,923 m<sup>3</sup> during the colonial period

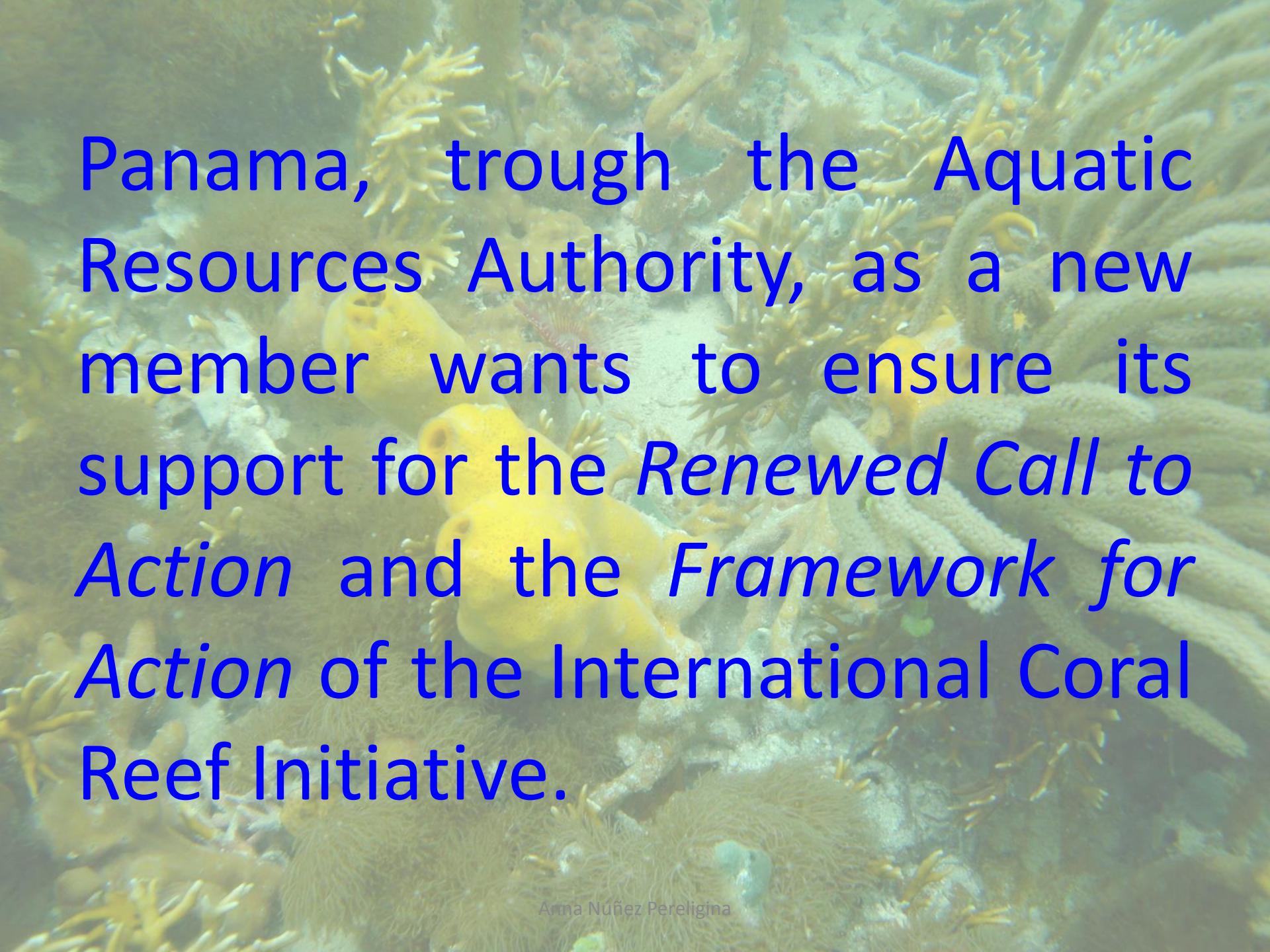
# CORAL REEF CONSERVATION

- Law № 2 (January 2006) that regulates the touristic concessions on islands prohibits the construction on coral formations, and any activity that can cause their death, bleaching or the destruction.
- Project: Extraction and recollection of marine debris (ghost nets) through the communitarian participation in Chiriquí and Darien.
- Panama Coral Reef Monitoring Network-H. Guzman & A. Croquer STRI(since 1985)- 33 reefs, 17 in the Pacific Ocean and 16 in the Caribbean Sea. Bahía Las Minas Oil Spill Monitoring-STRI
- MPA's Management plans (Coiba, Bocas del Toro and Las Perlas Archipelagos)
- Communitarian activities to promote the extraction and consumption of the Lion Fish in the Caribbean Coast of Panama.
- Lion Fish Studie on parasitism, predation, relationship with other species in Panama (A. Sellers).



# Why to join the ICRI?

- Panama has coral reefs on the Pacific and Caribbean coasts with different characteristics and very high diversity components.
- The major coral reef of the East Pacific is in Coiba National Park-UNESCO's World Heritage Site since 2005 and the Third Marine Protected Area in The Mesoamerican Marine Corridor.
- Panama as a member of the UN has the obligation of make all possible efforts to accomplish a better management and protection of its ecosystems, including coral reefs.
- Coral reefs provide important economical and ecological goods and services to island and costal communities of our country
- It is of the interest of the Panamanian government to improve the conservation and management of the coral reefs in and out MPA's.

A vibrant underwater photograph of a coral reef. Sunlight filters down from the surface, illuminating the sandy ocean floor and the intricate structures of various coral species. Small, colorful fish are scattered throughout the scene, swimming near the corals. The overall atmosphere is one of a healthy, diverse marine ecosystem.

Panama, through the Aquatic Resources Authority, as a new member wants to ensure its support for the *Renewed Call to Action* and the *Framework for Action* of the International Coral Reef Initiative.

A photograph of a coral reef underwater. In the foreground, there are various coral structures, including a prominent brain coral with a wavy pattern. In the background, several long, thin, vertical organisms, likely sea fans or gorgonians, extend upwards from the reef. The water is a clear, light blue-green.

Thank You!!

Anna Núñez Pereligina