

# Transboundary Water Cooperation in Belize

Isani Williams

Belize National Hydrological Service

# SDG 6.5.2

- Proportion of transboundary basin area with an operational arrangement for water cooperation

# Geography of Belize

- Belize is located in Central America bordering the Caribbean Sea, between Guatemala and Mexico.
- It is 274 km long north to south and 10km wide east to west. The country is divided into six administrative districts: Corozal, Orange Walk, Belize, Cayo, Stann Creek and Toledo.
- Its total area is 22 970 km<sup>2</sup>, that includes 1 540 km<sup>2</sup> of lagoons and 690 km<sup>2</sup> of approximately 450 small islands

# National Hydrological Service of Belize

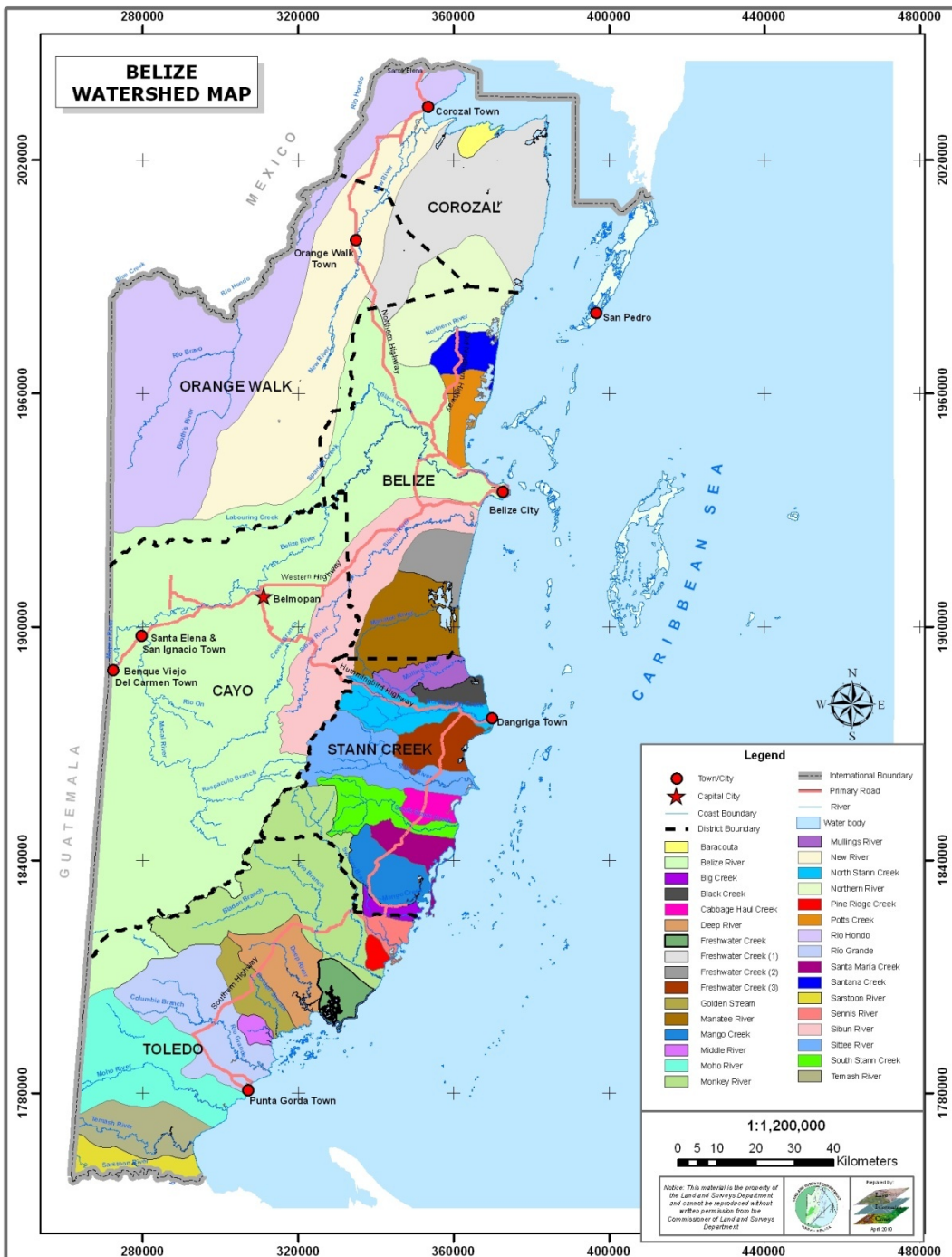
- The National Hydrological Service of Belize is tasked with:
  - Assessing a country's water resources (quantity, quality, distribution in time and space), the potential for water-related development and the ability of the supply to meet actual or foreseeable demand;
  - Assessing the environmental, economic and social impacts of existing and proposed water resources management practices and planning sound management strategies;
  - Providing assistance for people and property against water-related hazards, particularly floods and droughts;
  - Allocating water among competing uses, both within the country and cross borders

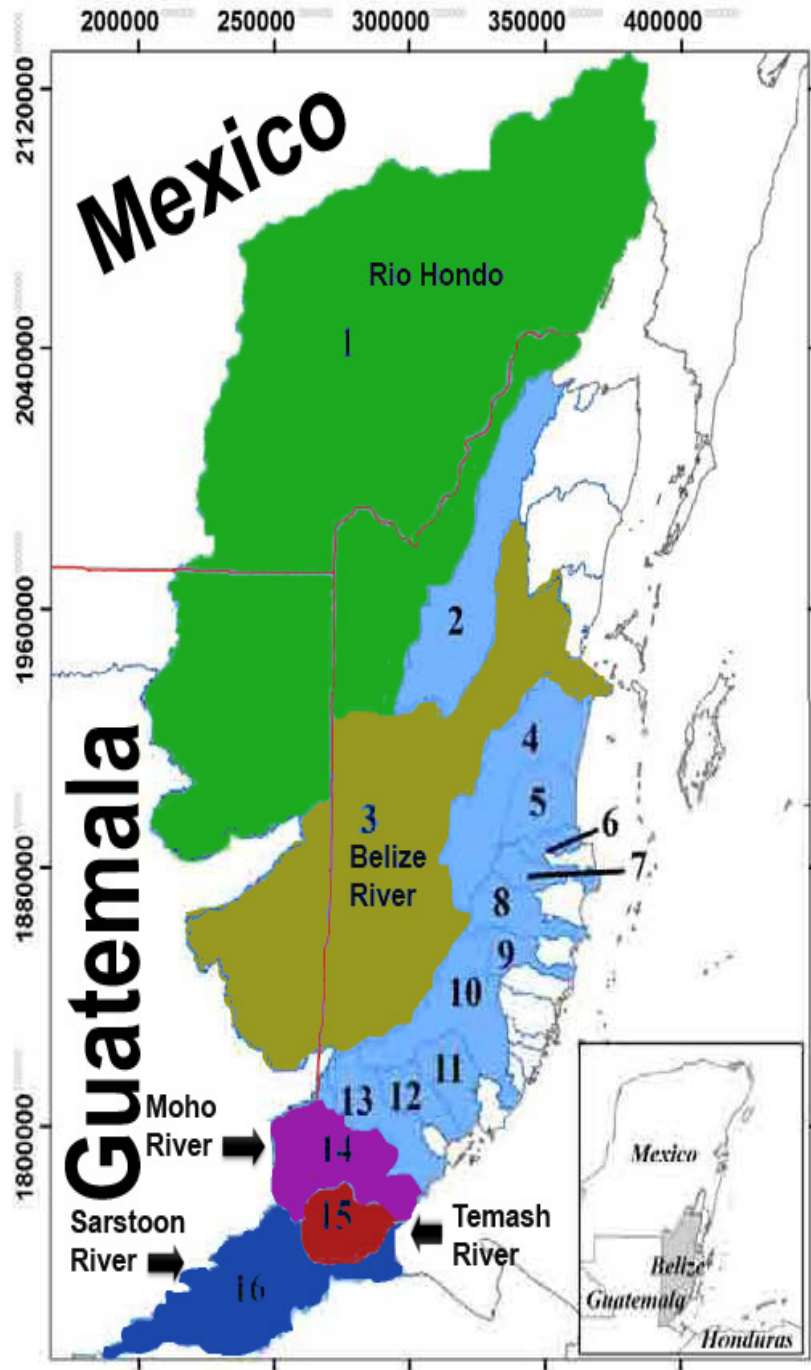
This Unit is staffed with six (6) personnel :One(1) Principal Hydrologist, One(1) Data Analyst, Three(3) Technician and One(1) Clerk.

# Belize's Watersheds

- There are 18 major river basins with another 6 sub basins which discharge into the Caribbean Sea.
- The river basins are grouped into six main regions: Northern, Northeastern, Central, Southeastern and Southern Watershed Region.

Source:  
Land Information Center  
Ministry of Natural Resources, Belize

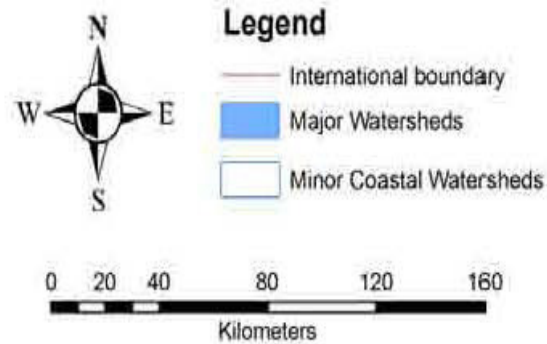




Sixteen Major Watersheds of Belize

1	Rio Hondo	15,075.5 km <sup>2</sup>
2	New River	1,864.0 km <sup>2</sup>
3	Belize River	9,434.2 km <sup>2</sup>
4	Sibun River	967.8 km <sup>2</sup>
5	Manatee River	484.9 km <sup>2</sup>
6	Mullins River	156.9 km <sup>2</sup>
7	North Stann Creek	281.4 km <sup>2</sup>
8	Sittee River	451.2 km <sup>2</sup>
9	South Stann Creek	258.0 km <sup>2</sup>
10	Monkey River	1,275.4 km <sup>2</sup>
11	Deep River	347.9 km <sup>2</sup>
12	Golden Stream	204.1 km <sup>2</sup>
13	Rio Grande	718.5 km <sup>2</sup>
14	Moho River	1,188.5 km <sup>2</sup>
15	Temash River	474.6 km <sup>2</sup>
16	Sarstoon River	2,217.5 km <sup>2</sup>

(from Lee et al. 1995; Esselman and Boles)



# Transboundary Watersheds

- Belize shares five (5) watershed between Mexico and Guatemala. These watersheds are
- Rio Hondo,
- Belize River,
- Moho,
- Temash and
- Sarstoon.

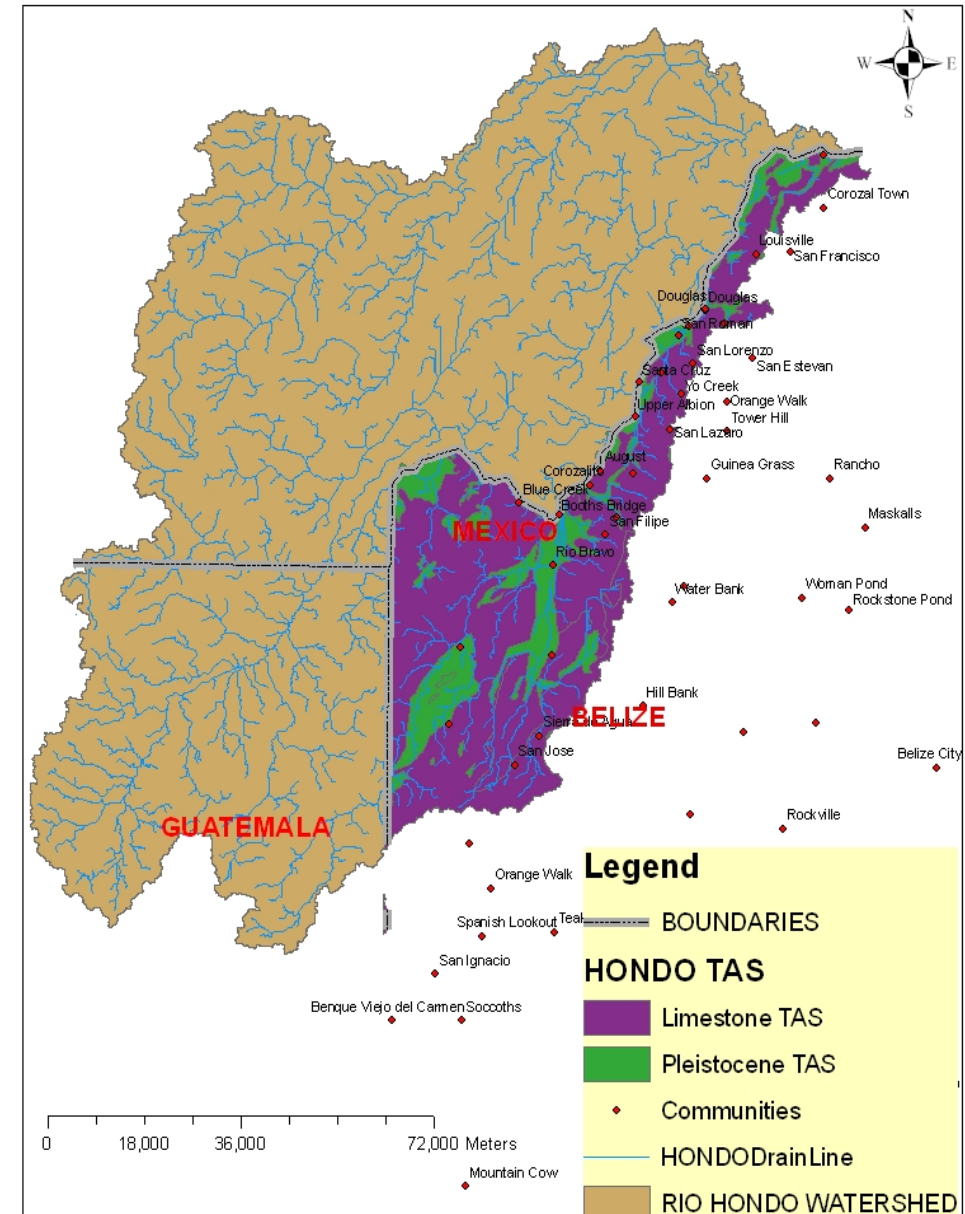
# Rio Hondo River

- The Rio Hondo River originates in Guatemala, then enters Mexico and then becomes the northern boundary of Belize with Mexico.

## SIZE

- 50.5% lies in south-eastern Mexico
- 31% lies in Guatemala
- 18.5% lies in Belize

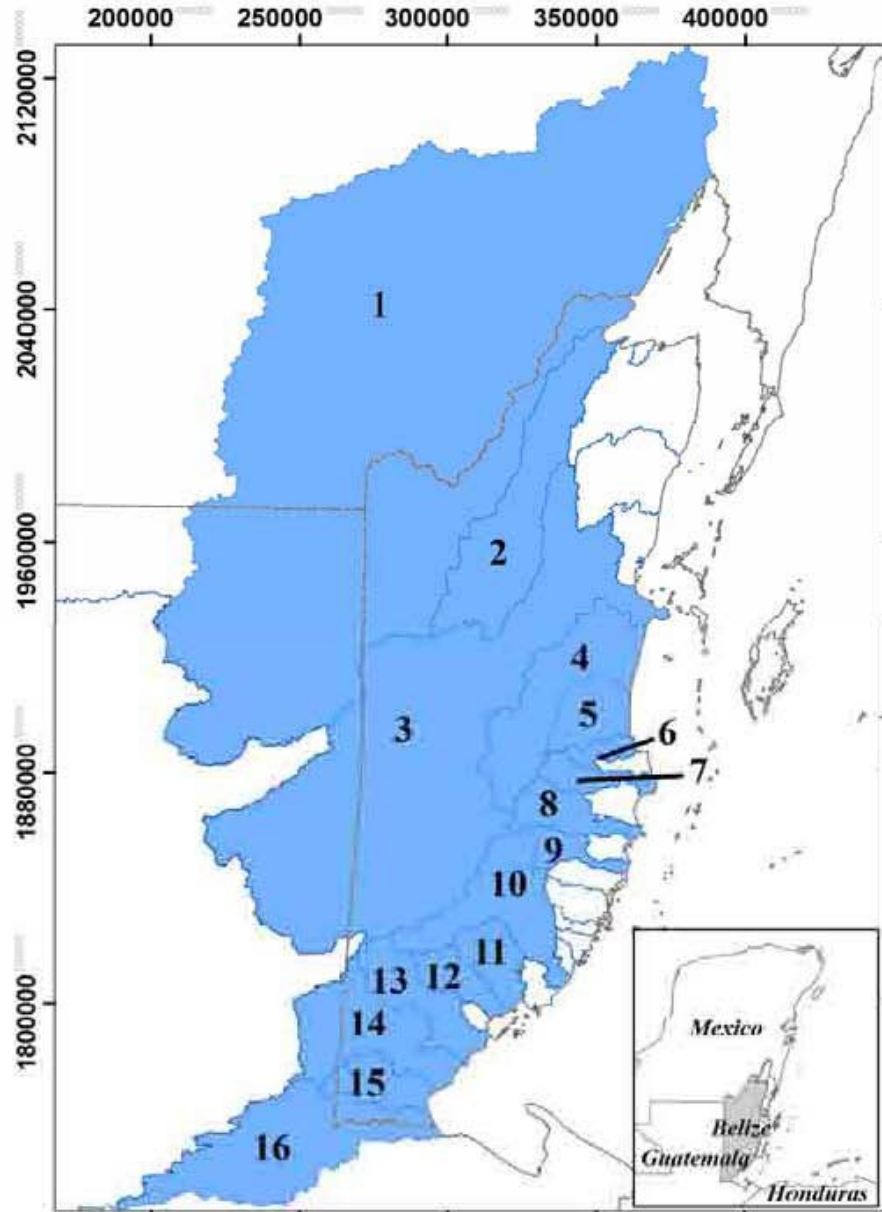
## 8C-CANDELARIA HONDO TRANSBOUNDARY AQUIFER SYSTEM



# Belize River

## SIZE

- Originates in Guatemala.
- Drains over ¼ of nation's total land area
- Most heavily populated
- Centrally located in Belize and north-eastern Guatemala.





# Moho River

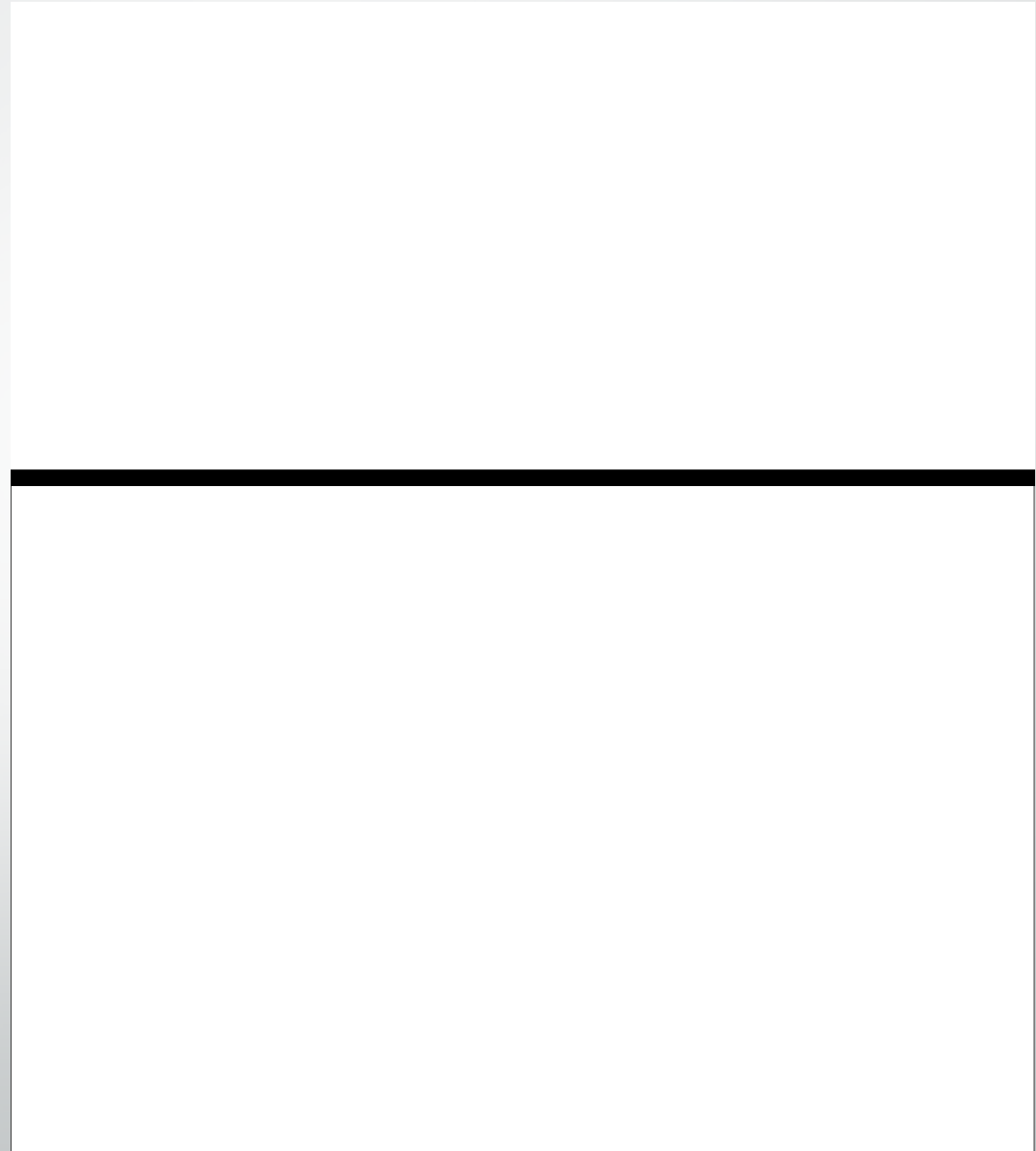
- Size
  - Approx.  
10,500 km<sup>2</sup>
  - Belize: 7,200 km<sup>2</sup>
  - Guatemala: 3,300 km<sup>2</sup>

# Temash River

- The Temash watershed is located in southern Belize and eastern Guatemala
- Majority of the watershed population (95%) lies in Belize

# Sarstoon River

- In the south, the Sarstoon River originates in Guatemala and then becomes the boundary with Guatemala.



# Transboundary agreement

- In 1998, Belize and Mexico signed a bilateral agreement for the hydro meteorological monitoring of the Hondo transboundary river basin.
- This agreement was for the establishment of hydro-climatological monitoring sites of both sides of the boundary.
- In 2003, Belize and Mexico signed an agreement through the International Commission of Boundaries and Water between Mexico and Belize for the diagnostic study for the sustainable management of the Mexico- Belize Hondo transboundary river basin.



Thank you