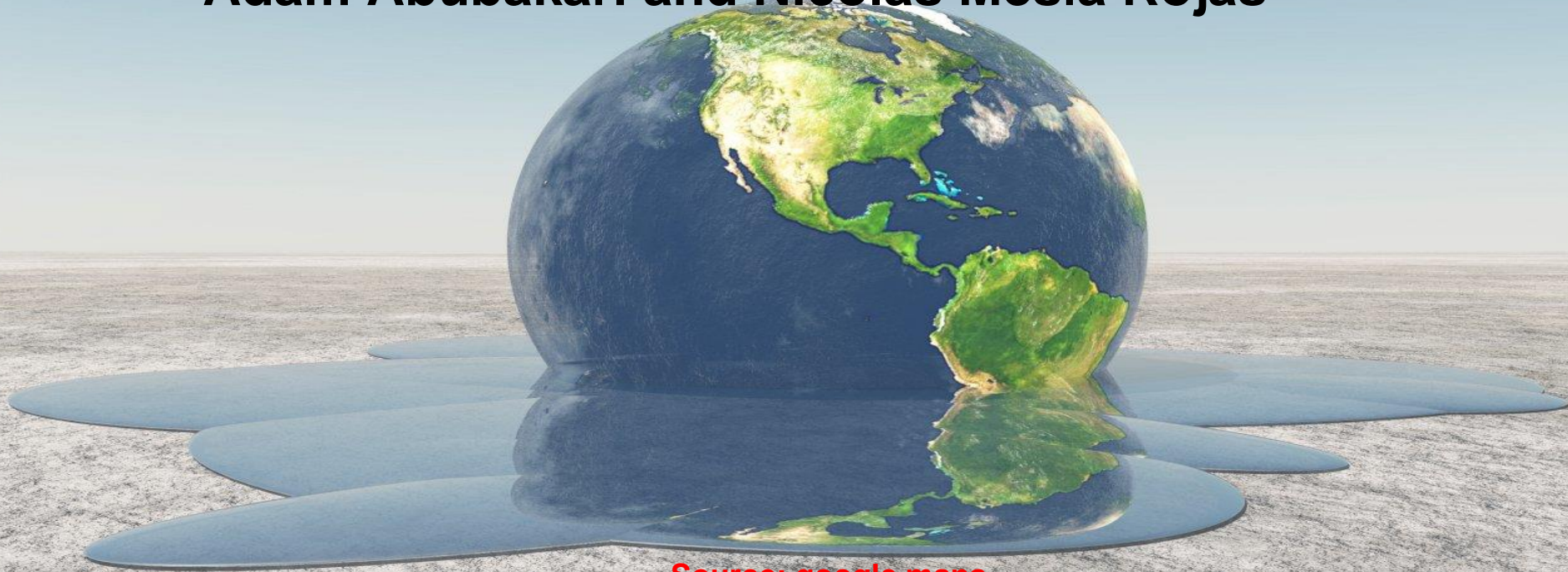


# **Challenges for the management of tropical forest in the context of climate change: “*The case of Amazonian Forest in Peru and Congo Basin in Democratic Republic of Congo*”**

**Adam Abubakari and Nicolás Mesía Rojas**



Source: google maps

# Background

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- ❖ The current accelerated climate change is caused by anthropogenic activities.
- ❖ Tropical rainforest as carbon sinks (IPCC, 2007)
- ❖ Amazon and the Congo Basin rainforests regulate global climate



# Background: Amazon

- ❖ Largest tropical rain forest.
- ❖ More than six million km<sup>2</sup> .
- ❖ Area extends into nine countries.



PNUMA& OTCA, 2009;Bustamante, 2010

Source: WWF (2015).

[http://d2ouvy59p0dg6k.cloudfront.net/img/map\\_biome\\_low\\_4\\_370164.jpg](http://d2ouvy59p0dg6k.cloudfront.net/img/map_biome_low_4_370164.jpg).

# Background: Congo Basin

- ❖ Second largest tropical rain forest.
- ❖ 178 million ha
- ❖ Area extends into six countries.



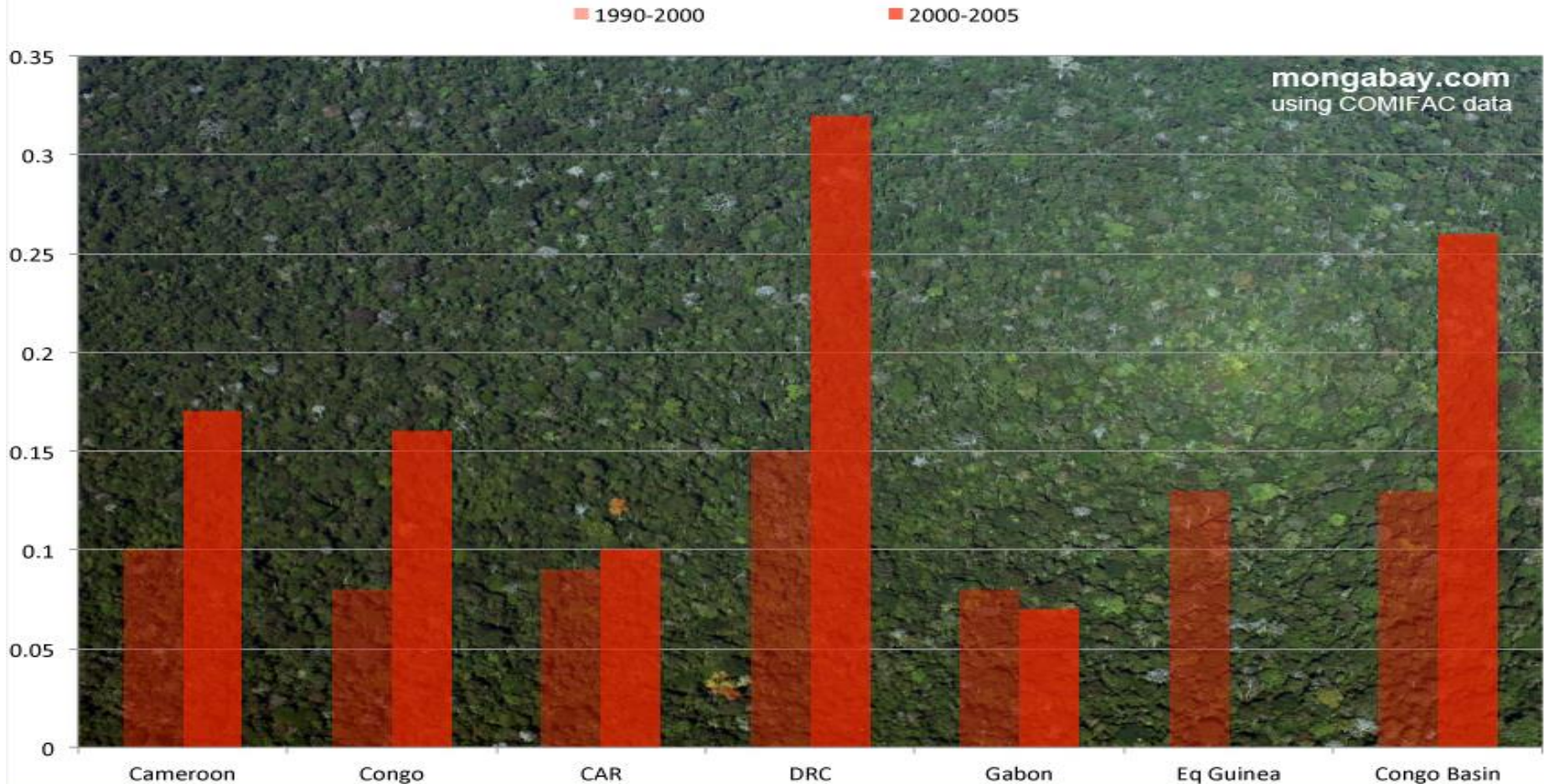
# Questions

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- ❖ What is the role of tropical rainforest in climate change regulation?
- ❖ What are the projected impacts of climate change in the Peruvian Amazon and Congo Basin in DRC?
- ❖ What are the mitigation and adaptation interventions in these regions?
- ❖ What are the forest management challenges?

# Drivers of Climate Change(DRC)

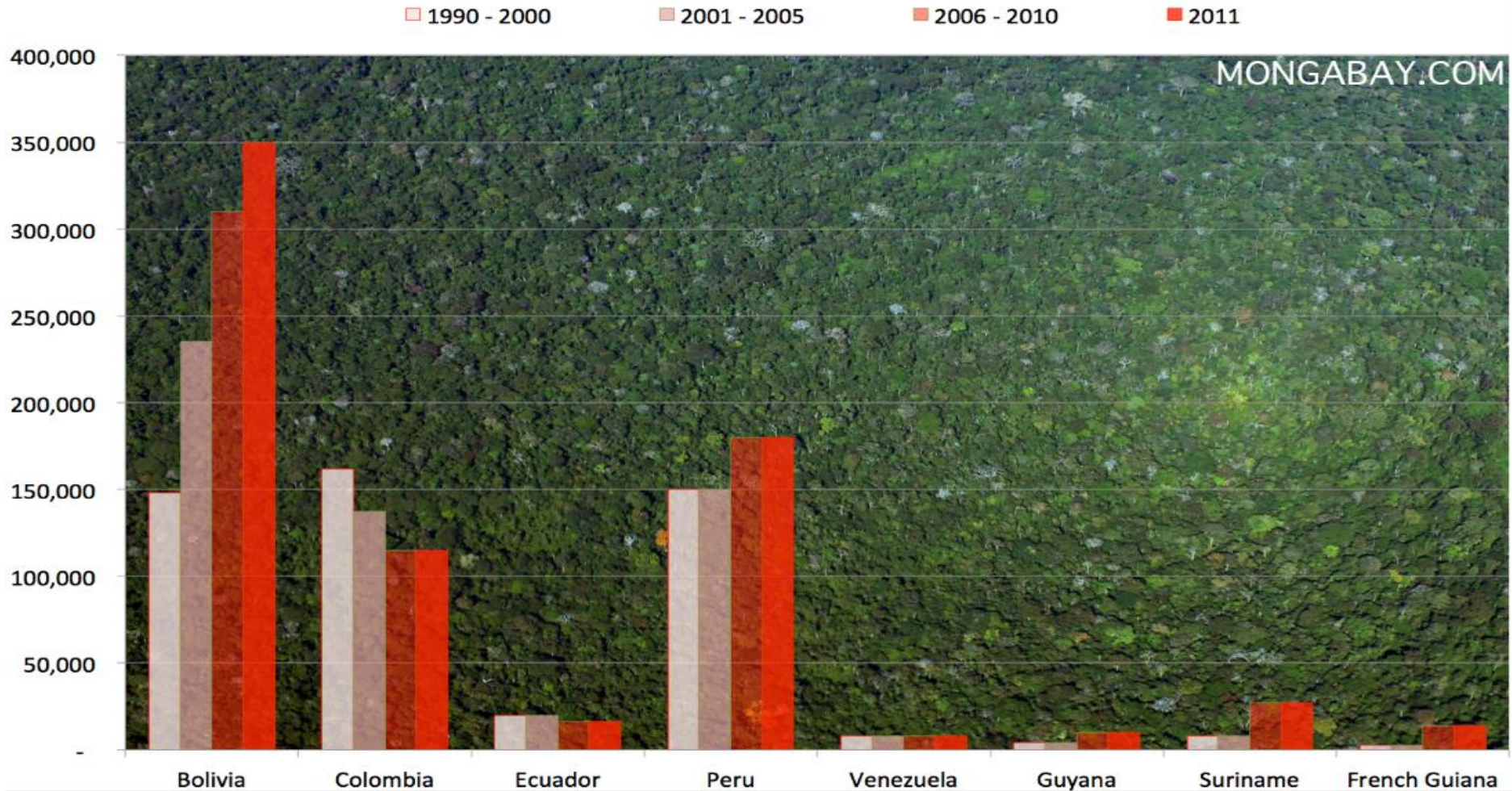
**Congo Basin: Gross annual deforestation (%); 1990-2000 and 2005-2010**



Source: [mongabay.com](http://mongabay.com)

# Drivers of Climate Change(Peru)

## Deforestation in the Non-Brazilian Amazon(ha), 1990-2011



Source: mongabay.com

# Impacts of Climate Change

## DR Congo

### Projection

- ❖ High variations in **precipitation** and expected increment in **temperature** in different regions
- ❖ Increment in proportion of arid and semi arid areas
- ❖ Increased vulnerabilities: **floods, landslides, soil erosion, diseases**
- ❖ Food security

## Peru

### Projection for next 30 years

- ❖ High variations in **precipitation** and expected increment in **temperature** in different regions
- ❖ Higher frequency of **heat waves** and **extreme storm events**
- ❖ Increased vulnerabilities: **forest pest and diseases, forest fires, floods**
- ❖ Impacts on agriculture and hydroenergy



# Climate Change Mitigation and Adaptation

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- ❖ Currently, the two main strategies for addressing climate change

According to the IPCC;

- ❖ Mitigation is an intervention to reduce the emissions sources or enhance the sinks of greenhouse gases
  
- ❖ Adaptation is an 'adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects

# Differences between mitigation and adaptation

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## Mitigation

- Causes of climate change
- Global Scale
- Longer Term effect
- Crucial for transport, industry and energy sectors

## Adaptation

- Effects of climate change
- Local scale
- Short-term effects
- Crucial for water and health sectors.

# Mitigation interventions in DRC and Peru

## DR Congo

- REDD+ payment for mitigation efforts
- Institutional and technical capacities (REDD+ Readiness)
- Bilateral and Multilateral initiatives such as Congo Basin Forest Fund and Forest Carbon Partnership Facility

## Peru

- National Program for the Forest Conservation for Climate Change Mitigation: 54 million ha
- REDD+ payment for mitigation efforts: 7 million ha
- Bilateral and Multilateral initiatives such as Forest Carbon Partnership Facility and Forest Investment Program

# Adaptation interventions in DRC and Peru

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## DR Congo

- National Adaptation Programme of Action (NAPA) by the UNFCCC.
- Identified five key climate change vulnerabilities:
  - a) Food security
  - b) Constant water supply
  - c) Health
  - d) Coastal areas and
  - e) Land and ecosystem degradation

## Peru

- Incorporation of adaptation measures in strategic planning
- Identified key climate change vulnerabilities (MINAM, 2010):
  - a) Low coast zones
  - b) Arid and semiarid areas
  - c) Exposed areas to flood
  - d) Drought and desertification
  - e) Fragile mountain ecosystems

# Forest management challenges

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The impact of climate change poses an additional challenge to forest management:

- ❖ Difficult in achieving mitigation goals and satisfying the needs of forest dependent communities
- ❖ Lack of data
- ❖ Uncertainties in climate adaptation
- ❖ Increasing pressure from agricultural and energy sectors
- ❖ Lack of effective forest monitoring systems.

# Conclusion and recommendations

- Climate change is inevitable and already its impact are being felt in many parts of the world and Peru and DR Congo are not exceptions.
- Information and communication as main elements that have to be at the heart of any national response to climate change.
- Expectation of similar impacts of climate change in Peruvian Amazon and DRC Congo Basin; hence, the different levels of mitigation and adaptation approaches, based on identified vulnerabilities.
- Interventions should consider both mitigation and adaptation, due to its complementary actions.

A close-up photograph of a person's hand holding a small, realistic globe of the Earth. The globe shows the continents of North and South America in shades of green and yellow, with blue oceans. The hand is positioned in the foreground, with fingers gently cradling the globe. In the background, there are bright, intense flames in shades of orange and yellow, suggesting a fire. The overall scene is set against a dark background, creating a dramatic and symbolic image. The text "THANK YOU" is overlaid in a bright blue, sans-serif font across the lower portion of the image.

THANK YOU

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