

# Five Ways How Remote Sensing is Transforming Conservation in Practice

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*Photo: Launching an UAV in Thcimpounga  
Source: Jeff Kerby*



# 1. Common language



### Zashe Village Participatory Map



<b>TACARE</b>	<b>RELIGION</b>
Village Forest Reserve	Church
Vetiveria Agro Plot	Mosque
WES Contribution	Traditional
Mto - Stream	
Njia - Path	
Village Boundary Marker	
Village Forest Reserve	
Market	



Produced: Lilian Pintea. Data Collection: Silvanus S. Bagambi; Julius M. Ishabakaki; Aristides A. Kashula; Aman C. Kingu; Sania M. Lumelezi; Moshi Ali Sanze. Funded by EU-EDF.

# Common language

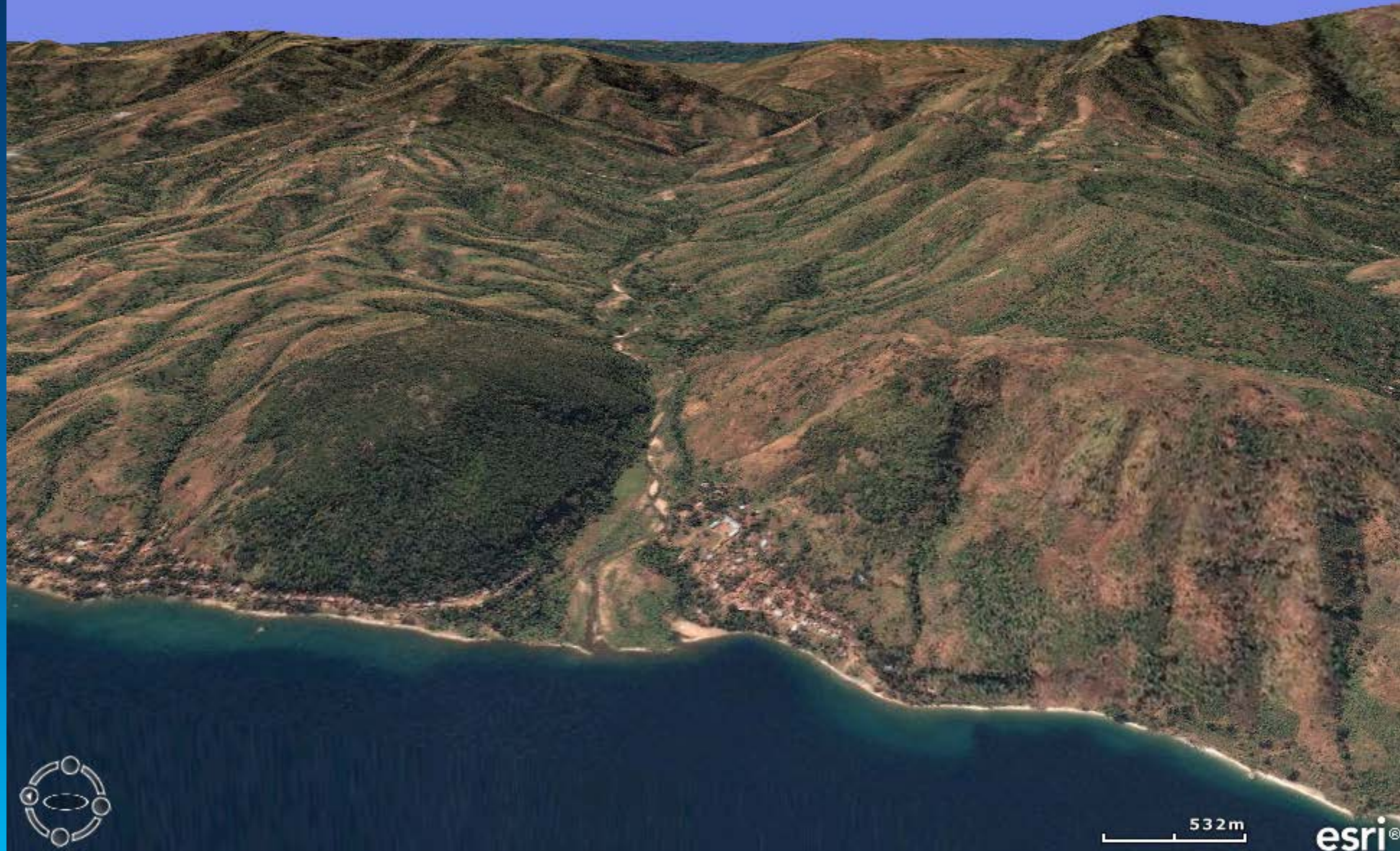


Position 4°32'10"S 29°38'47"E, Altitude 1.46 Kilometers

35.2m  
esri®  
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# Zashe Village



Position 4°32'10"S 29°38'47"E, Altitude 1.46 Kilometers

532m

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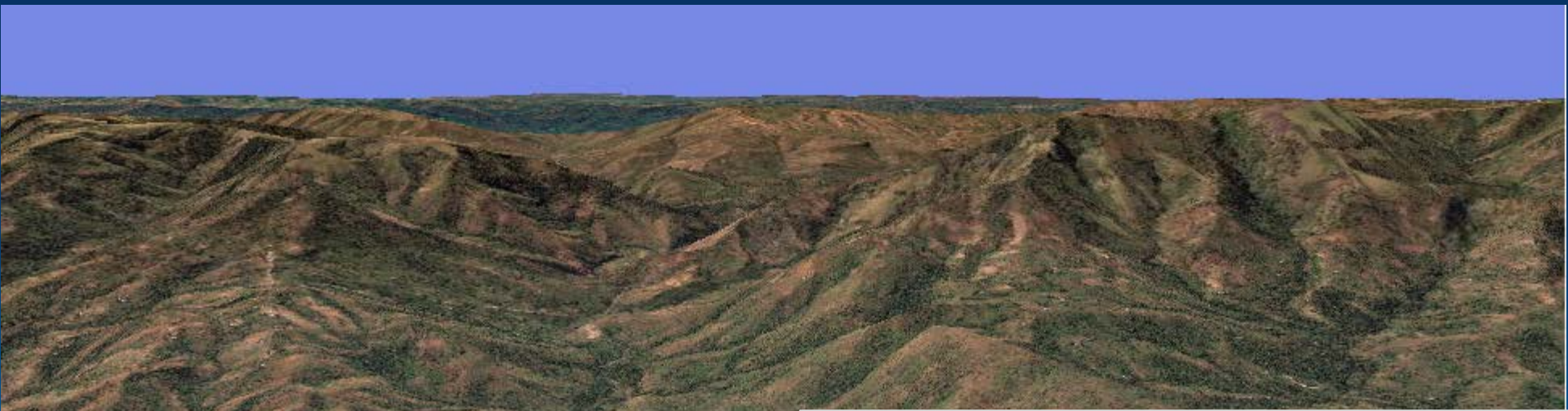
Position 4°32'03"S 29°38'42"E, Altitude 1.73 Kilometers



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Position 4°32'03"S 29°38'42"E, Altitude 1.73 Kilometers

373m

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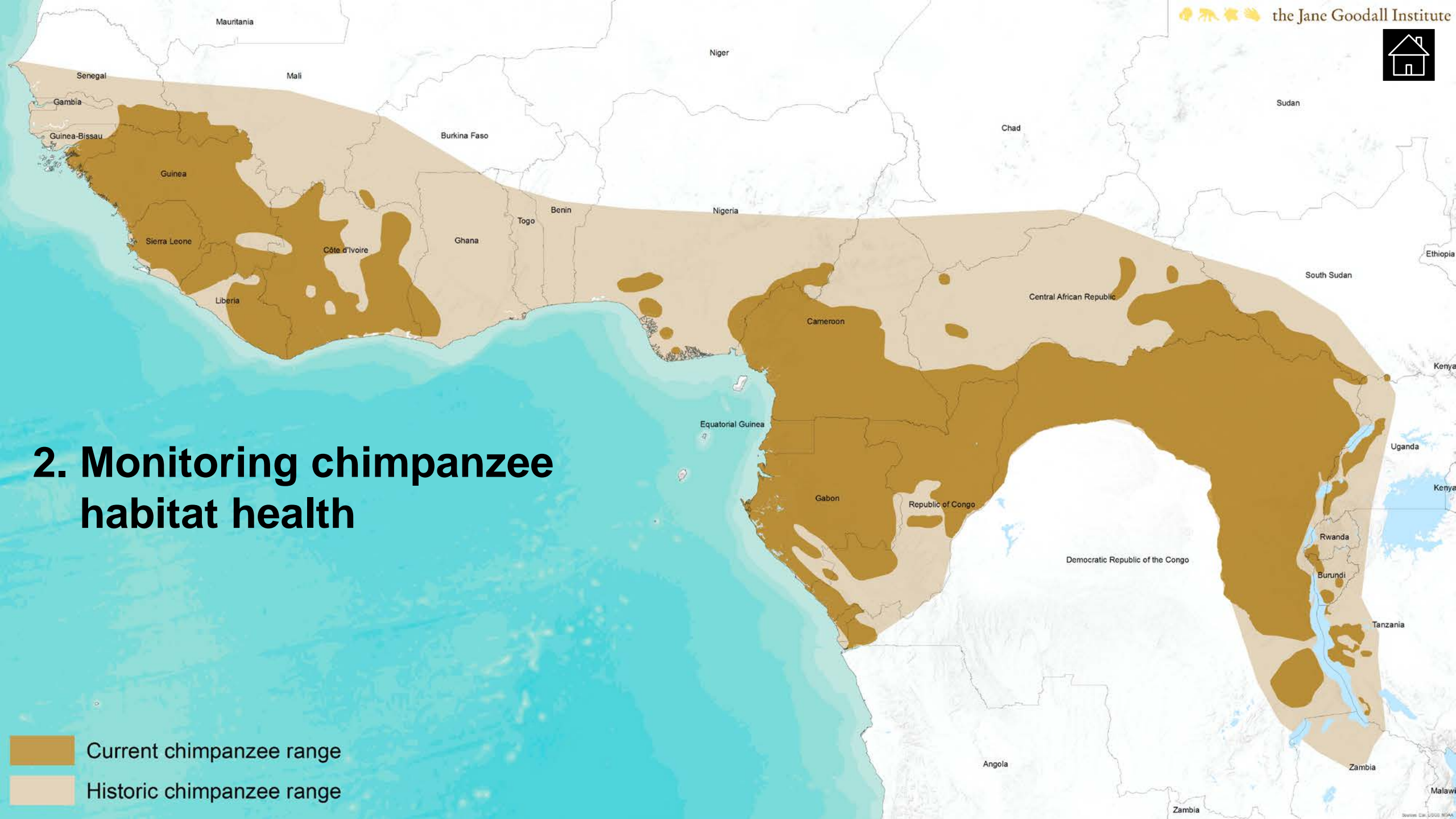
Position 4°32'03"S 29°38'42"E, Altitude 1.73 Kilometers




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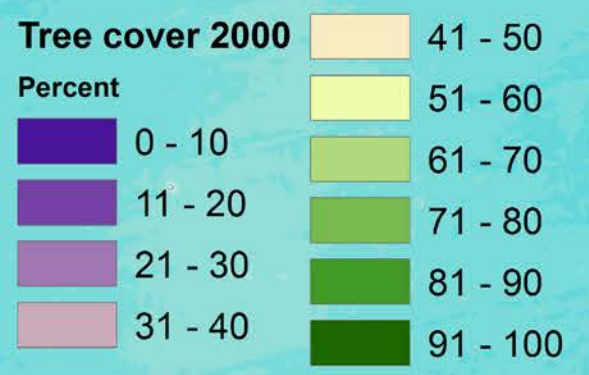
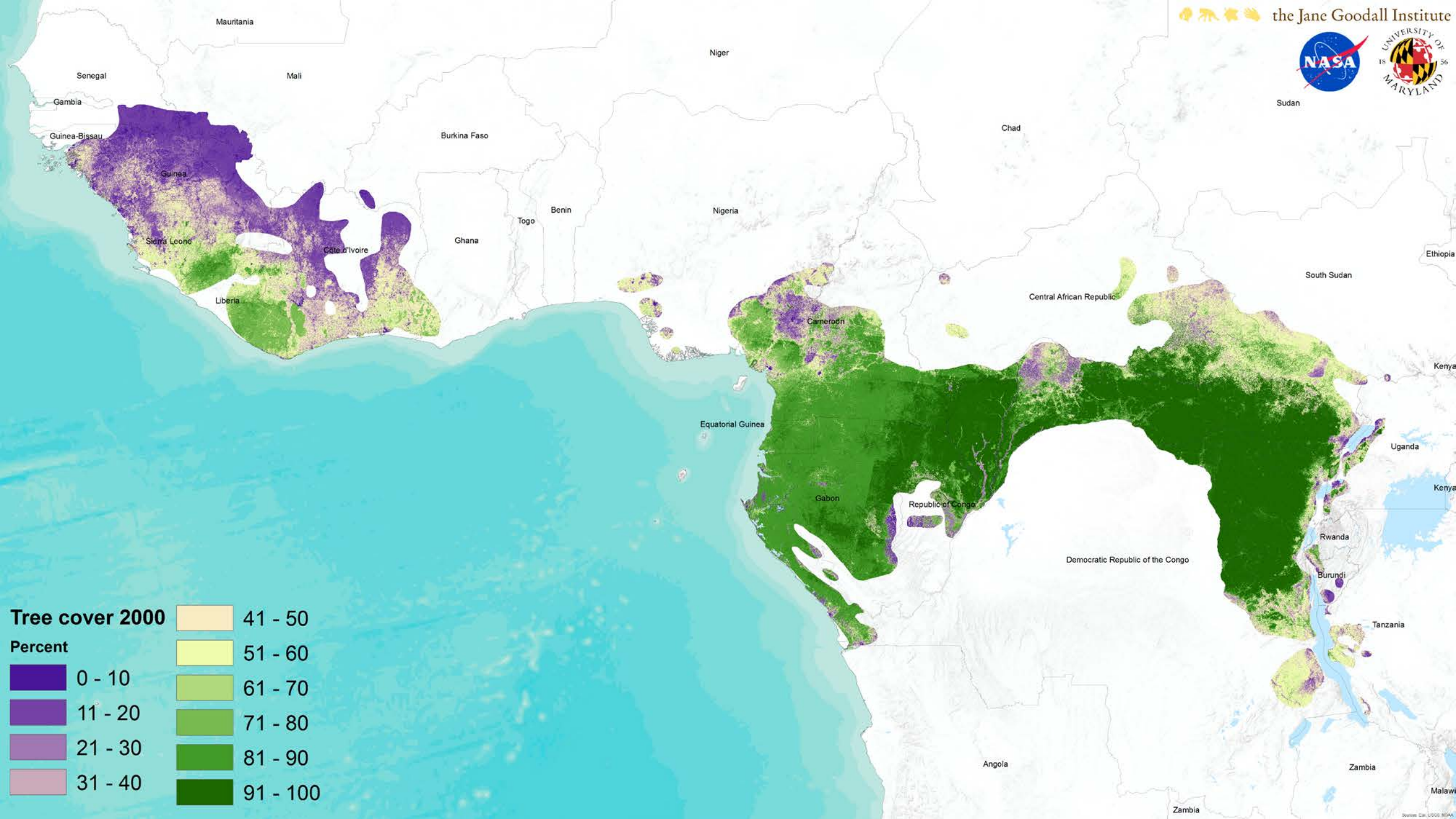




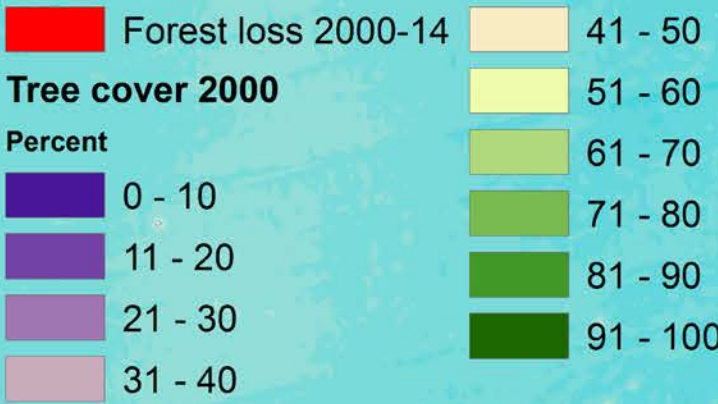
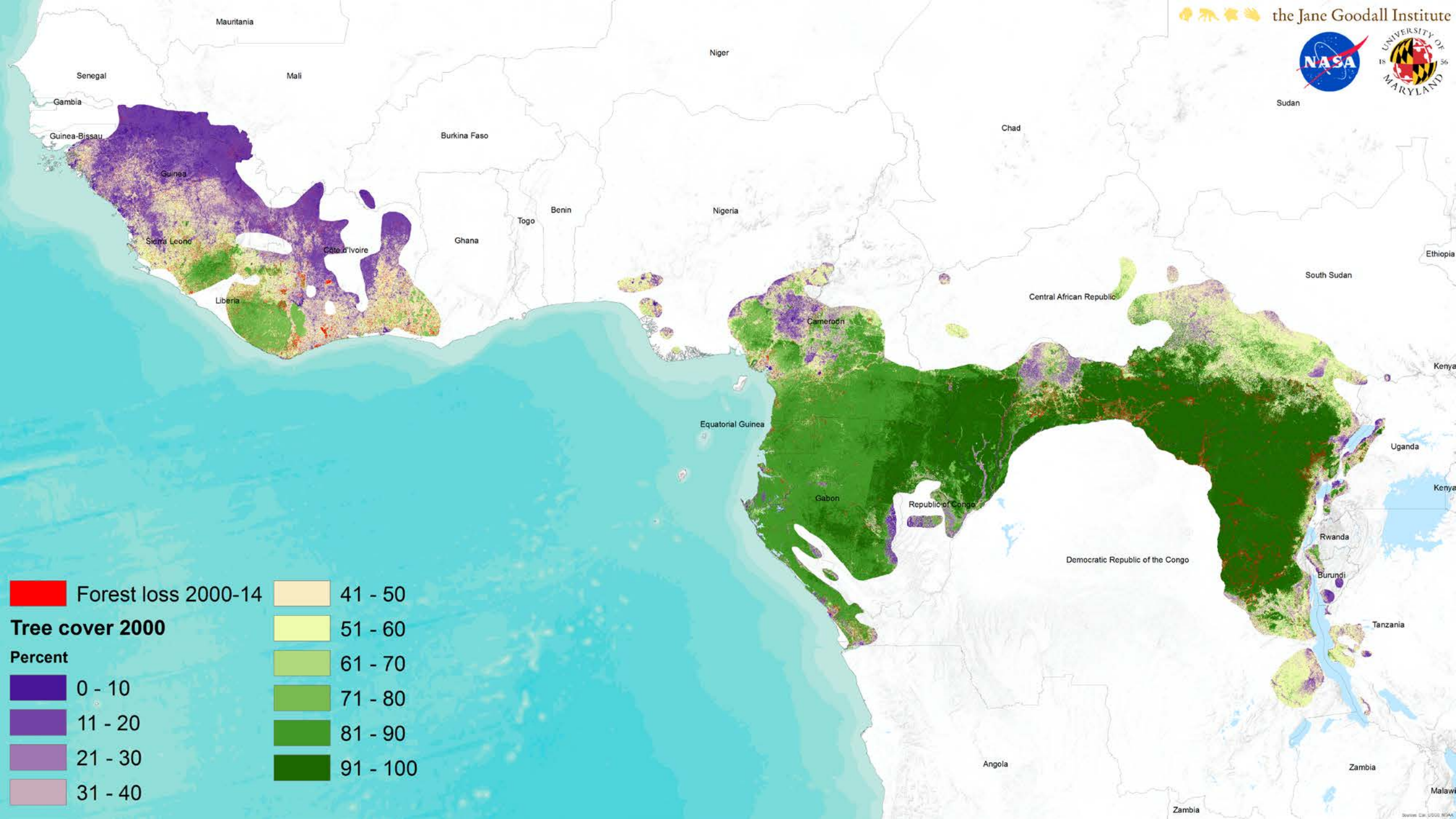
## 2. Monitoring chimpanzee habitat health

 Current chimpanzee range  
 Historic chimpanzee range



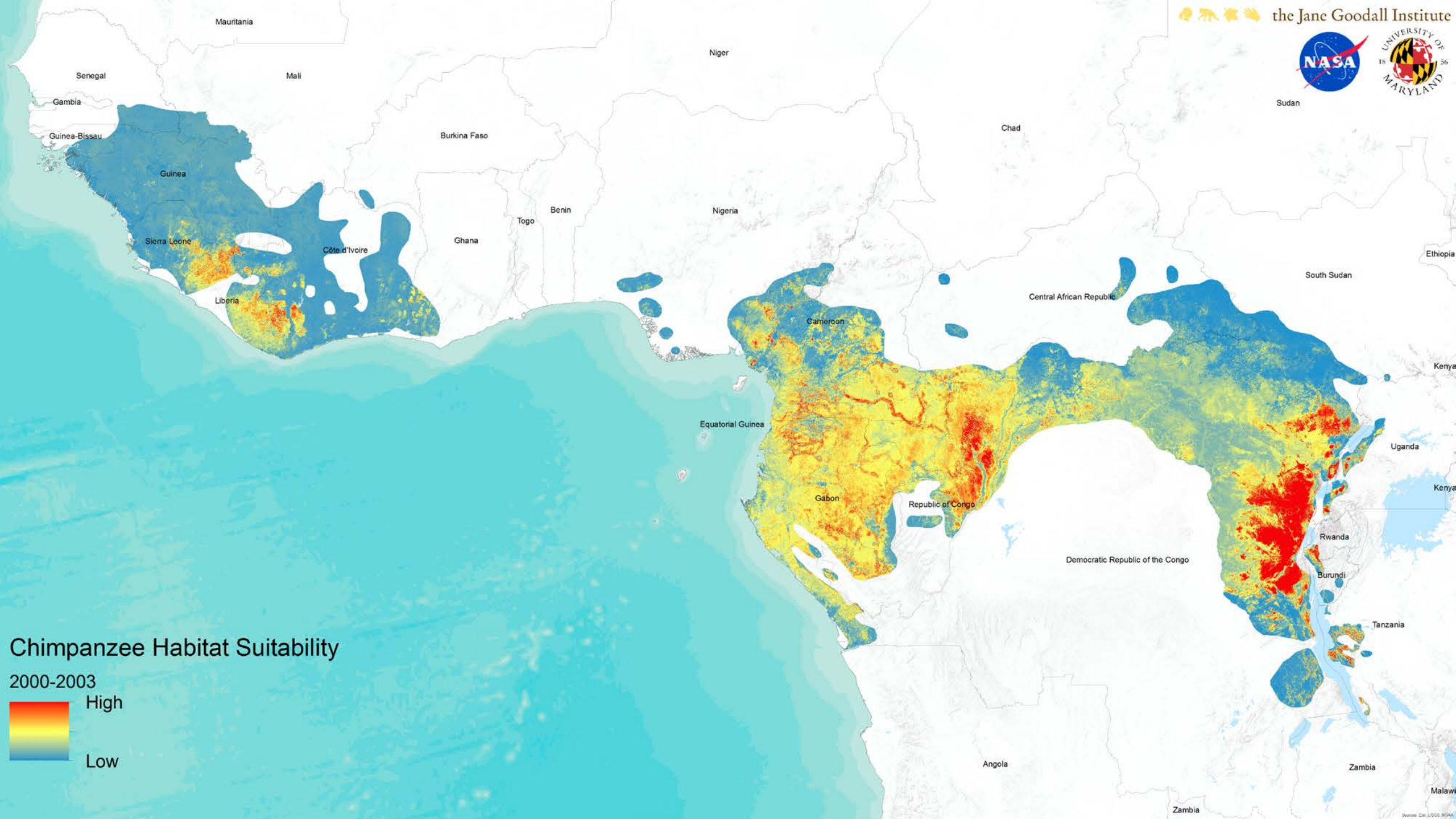




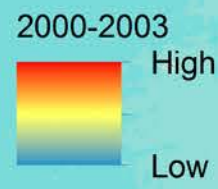


**Tree cover 2000**  
Percent

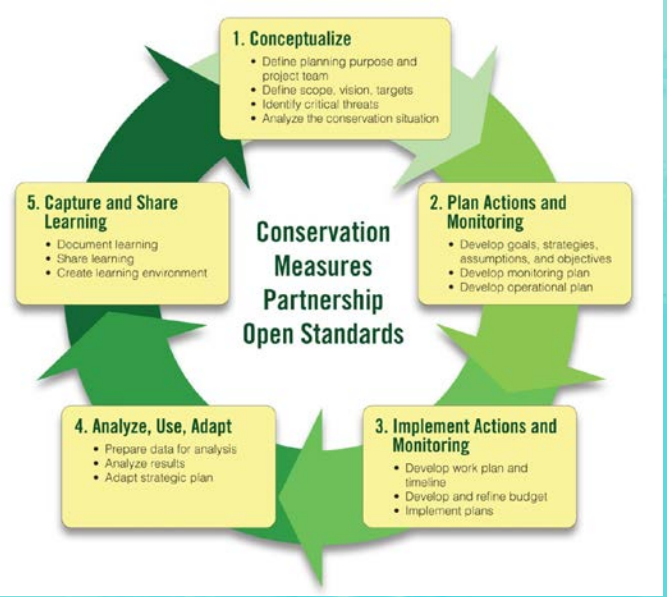
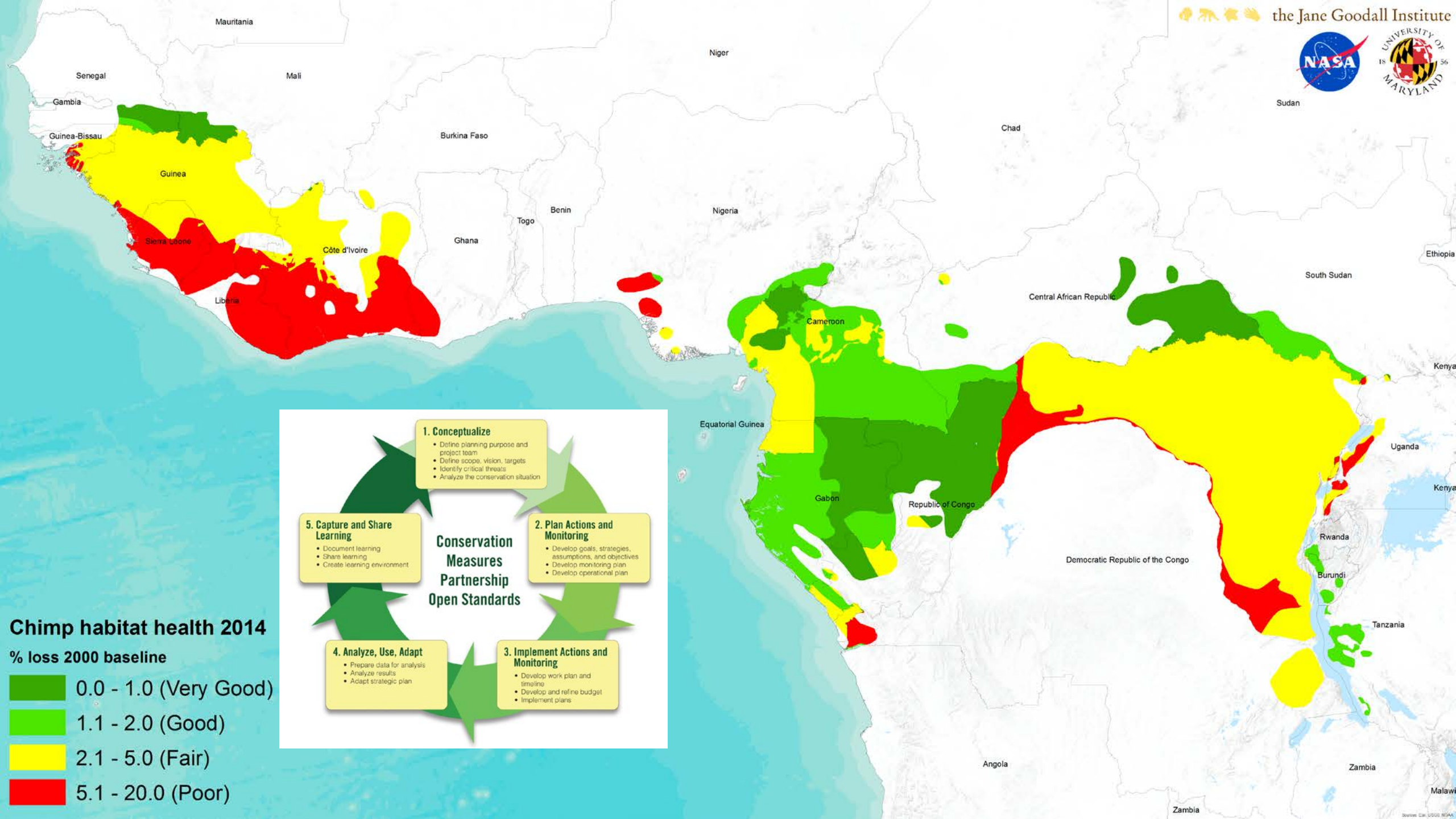




### Chimpanzee Habitat Suitability





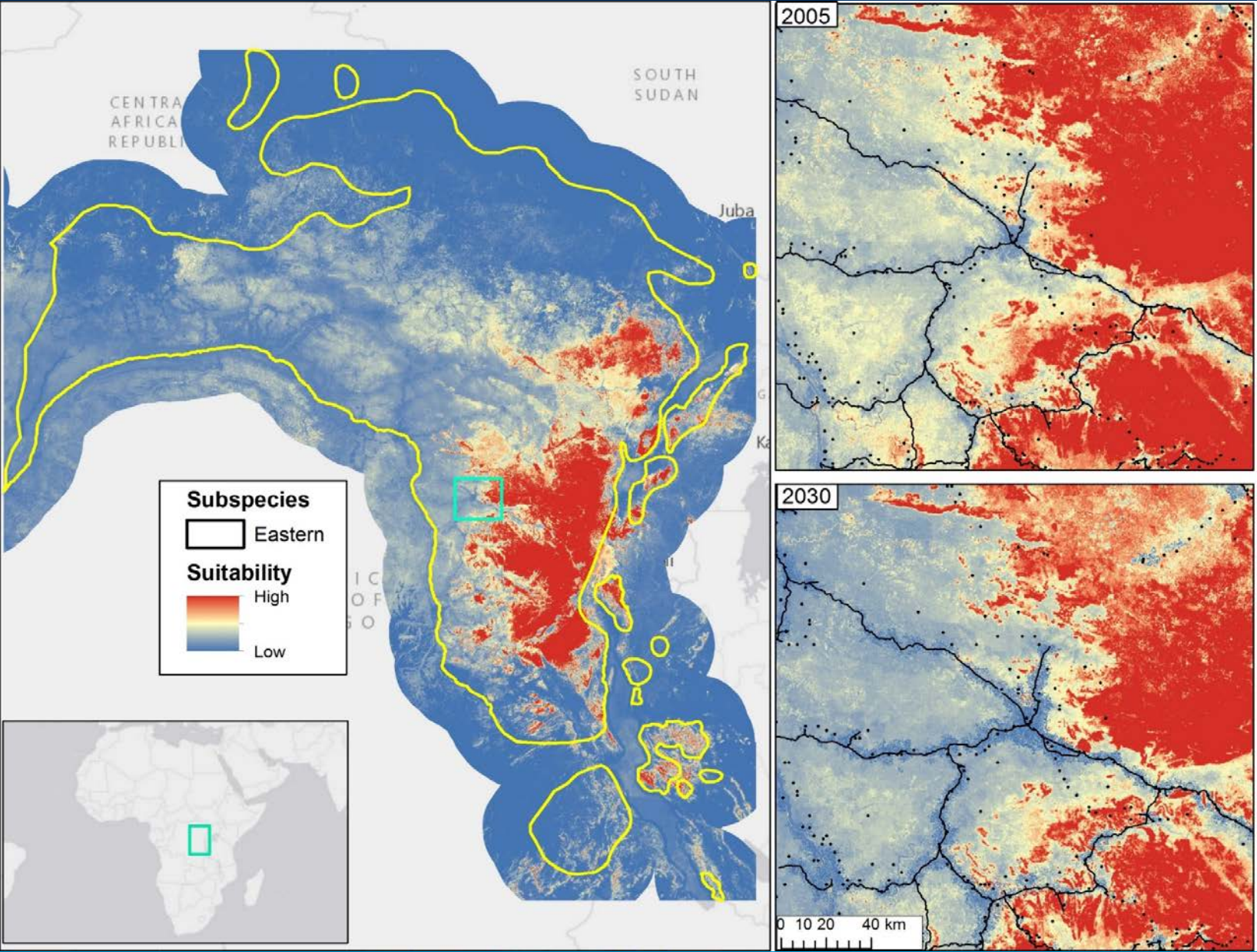


**Chimp habitat health 2014**  
 % loss 2000 baseline

- 0.0 - 1.0 (Very Good)
- 1.1 - 2.0 (Good)
- 2.1 - 5.0 (Fair)
- 5.1 - 20.0 (Poor)



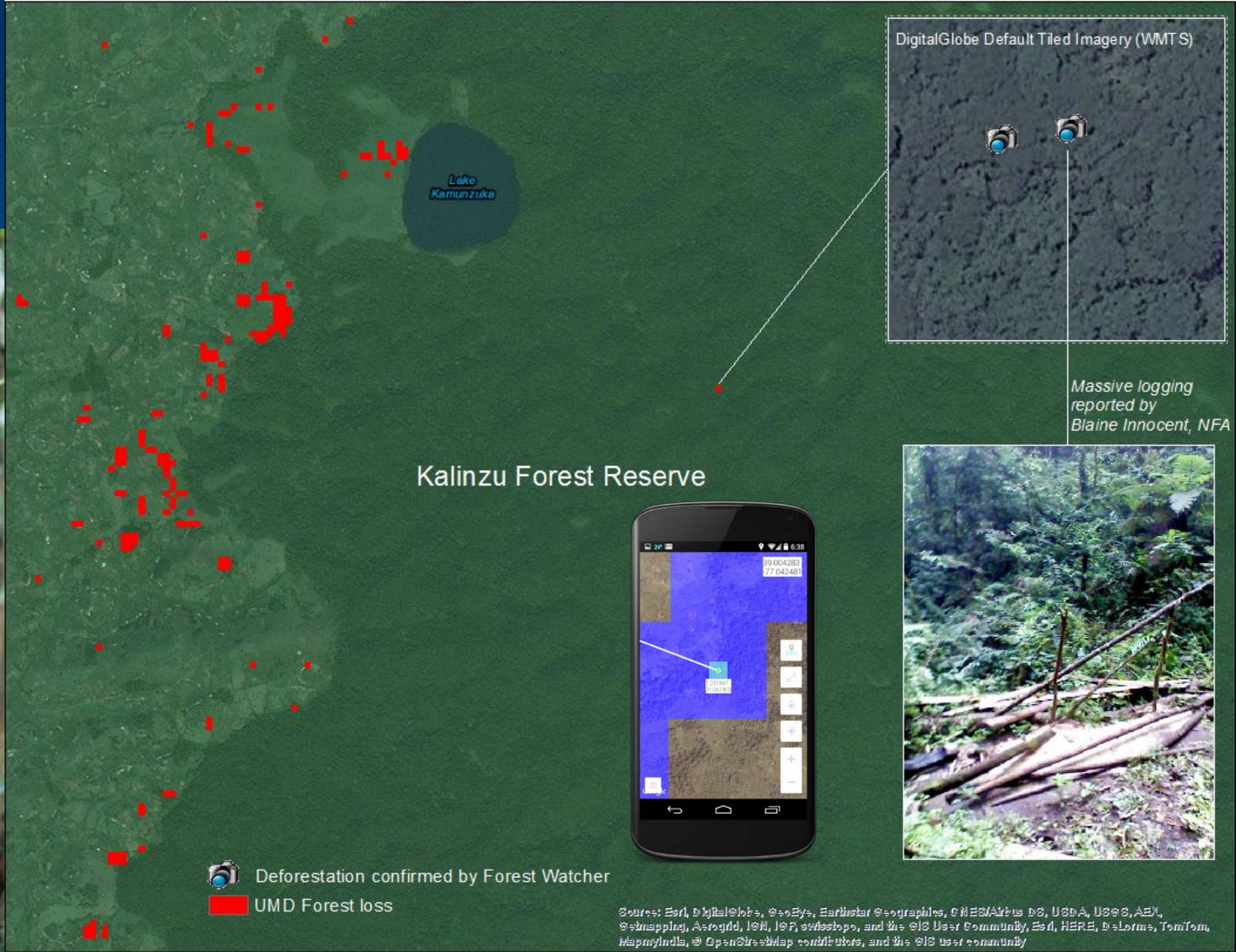
### 3. Monitoring threats to chimpanzee habitats



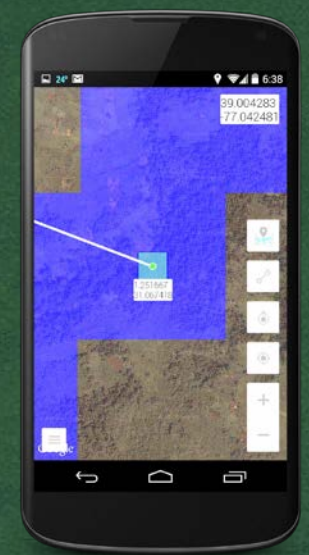
Eastern chimpanzee habitat suitability for 2005 and forecasted to 2030. Roads and human settlements are shown in the zoomed inset maps.



# 4. Law enforcement



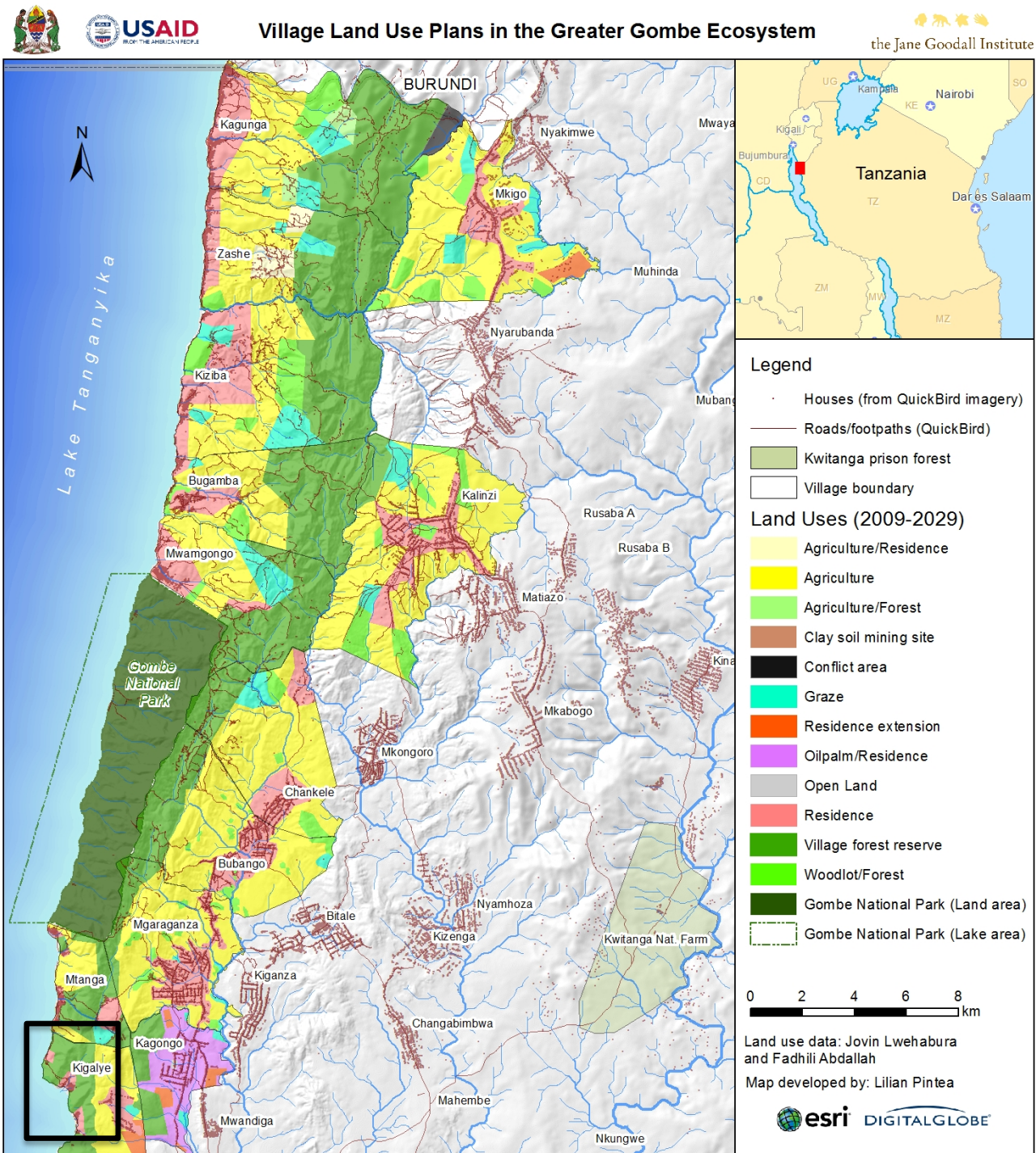
Massive logging reported by Blaine Innocent, NFA



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroX, Swmapping, AeroGRID, IGN, IFA, swisstopo, and the GIS User Community, Esri, HERE, DeLorme, TomTom, Mapbox, © OpenStreetMap contributors, and the GIS user community



# 5. Measuring conservation success





2005

# 5. Measuring conservation success

2005 - 2014 Digital Globe Imagery of Kigalye Village Forest Reserve



the Jane Goodall Institute





2014

# 1. Measuring conservation success

2005 - 2014 Digital Globe Imagery of Kigalye Village Forest Reserve



the Jane Goodall Institute





# 1. Measuring conservation success

EXPLORE

DESIGN

EVALUATE

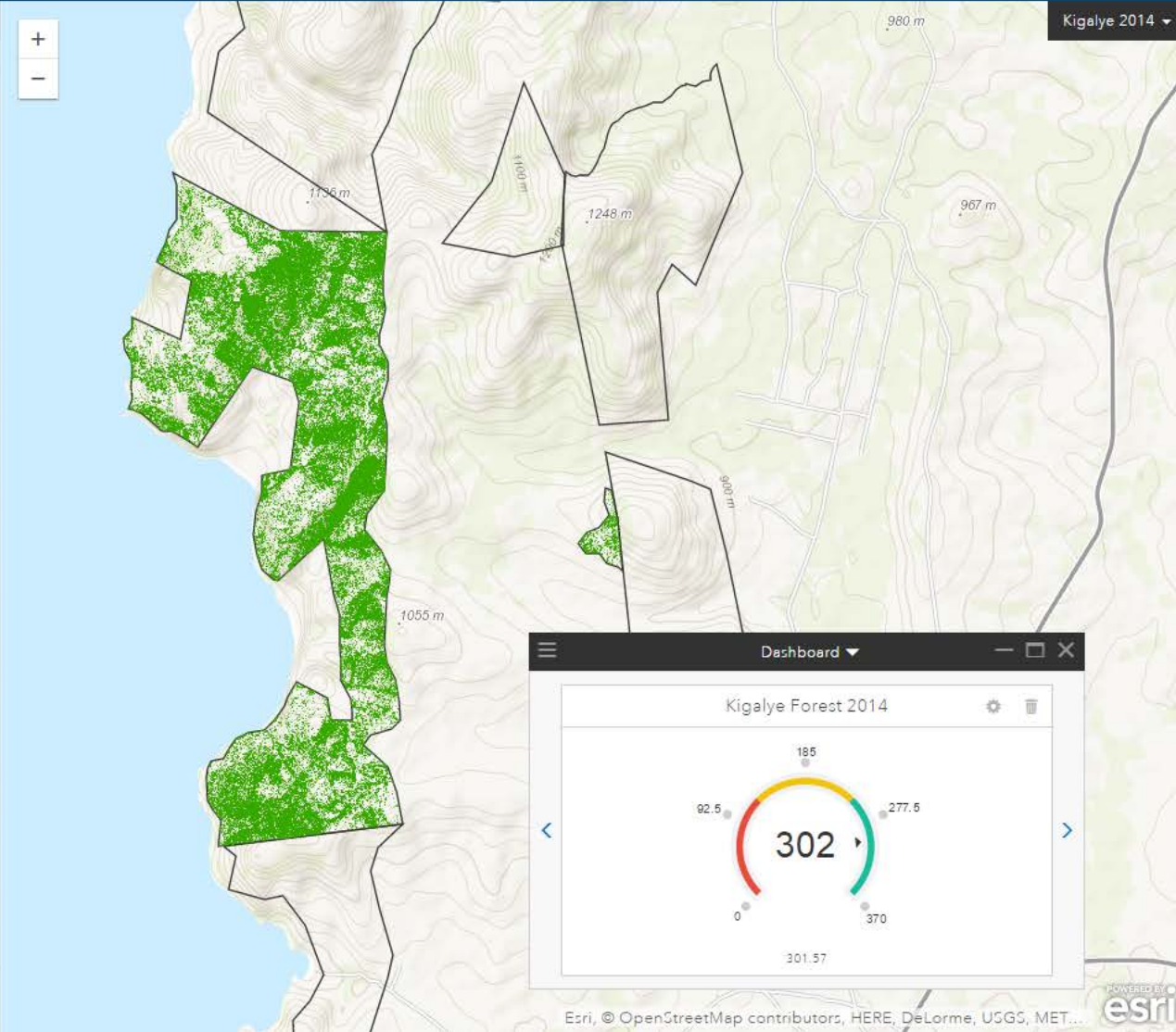
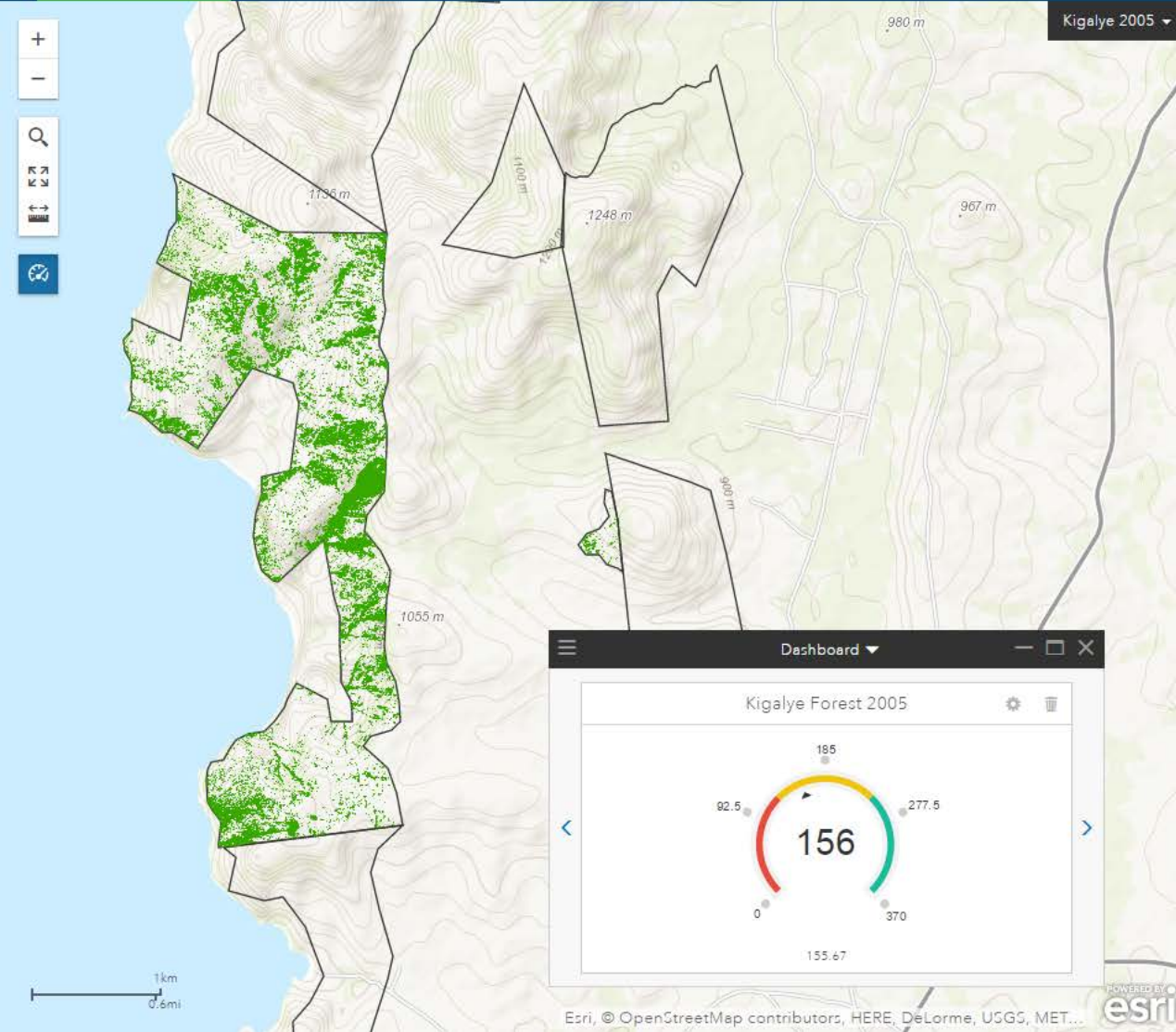
Side by Side

Swipe

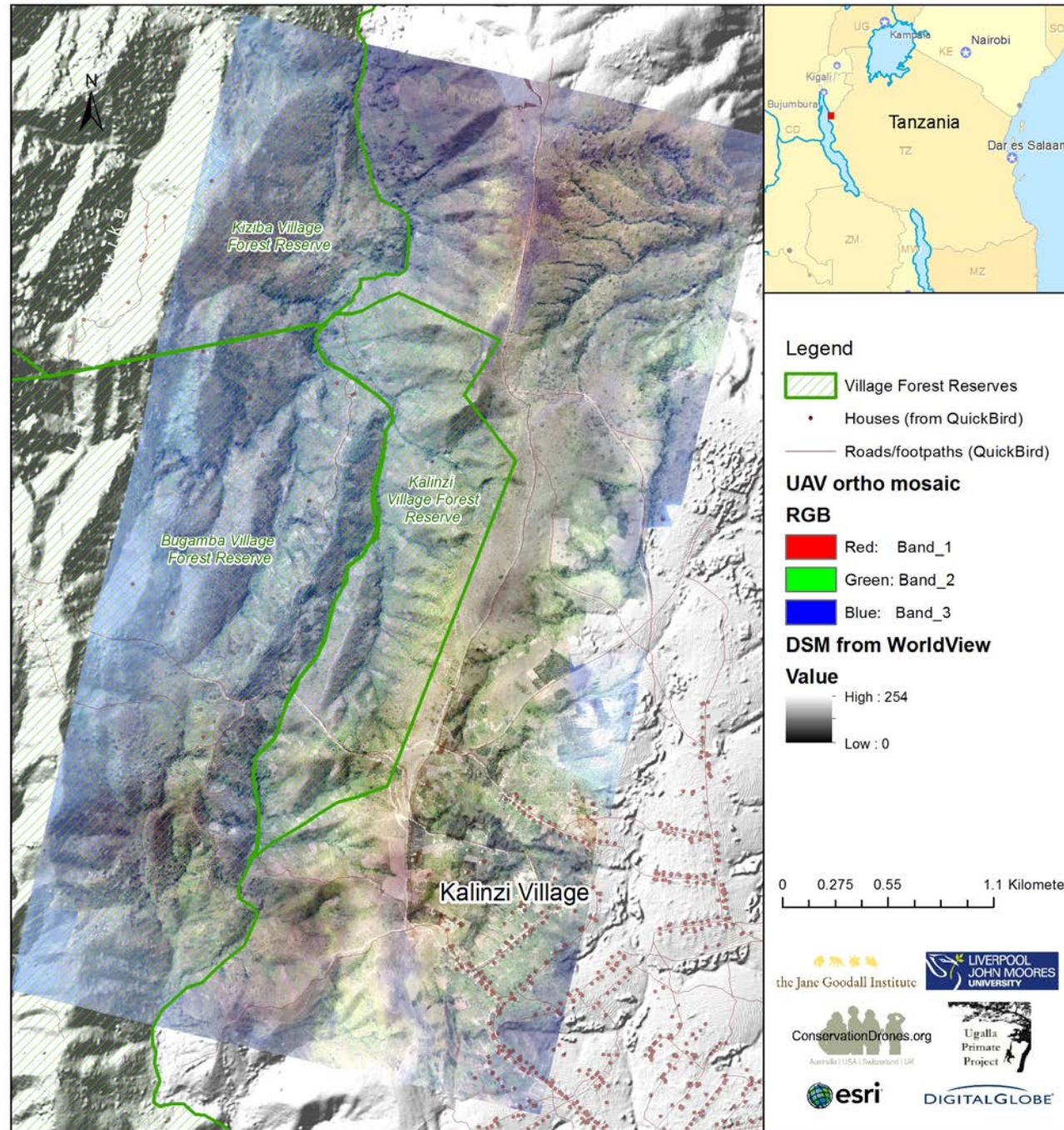
Consensus

KPI Report

Synchronize Map Extents





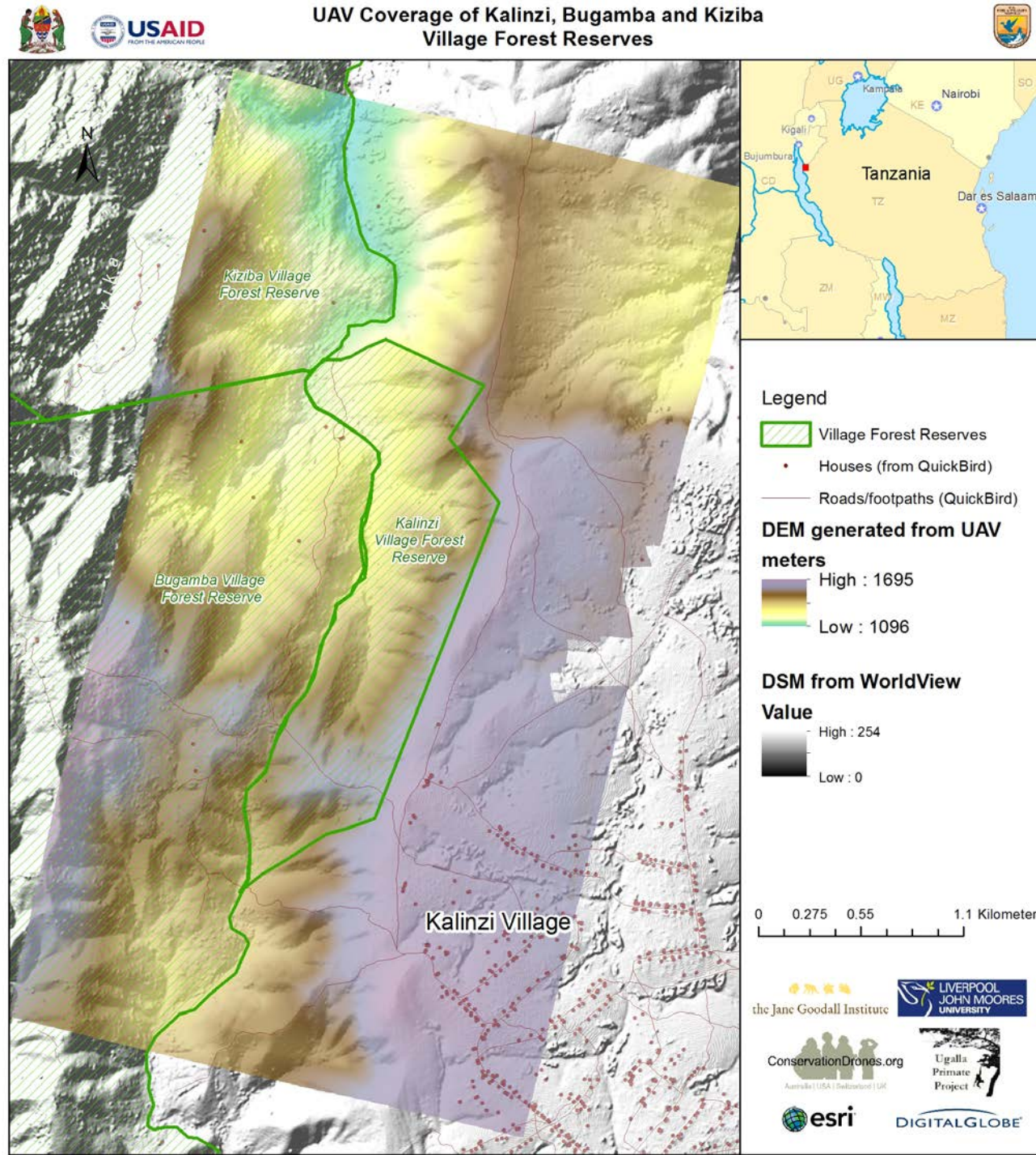


Source: Conservation Drones, Ugalla Primate Project the Jane Goodall Institute



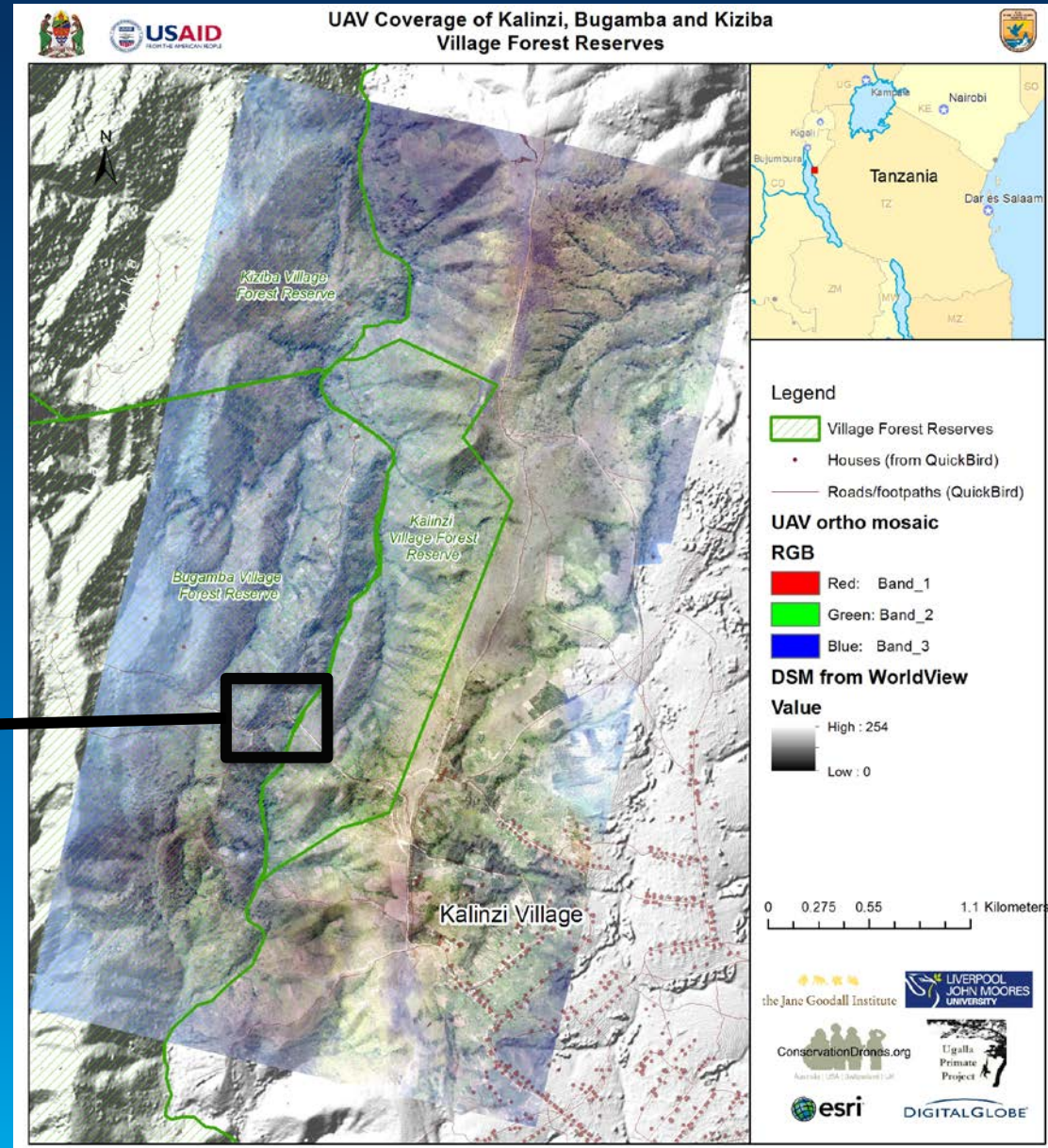


Source: Conservation Drones, Ugalla Primate Project the Jane Goodall Institute





**New illegal farms in Bugamba Village Forest Reserve near Kalinzi village as detected by 2015 and 2016 UAV/drone images**





Chimpanzee nests from UAV at Issa, Tanzania

Source: Conservation Drones, Ugalla Primate Project and the Jane Goodall Institute







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FOUNDATION



Local communities and  
Governments of Tanzania, DRC,  
Uganda and Republic of Congo

**THANK YOU!**

