

Lecture given at the

WCS Workshop on Land Change Modeling for REDD

October 25– 29, 2010

Wildlife Conservation Society - Bronx Zoo
Bronx, New York, USA

Hosted by

Clark Labs and the Wildlife Conservation Society



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Taiga



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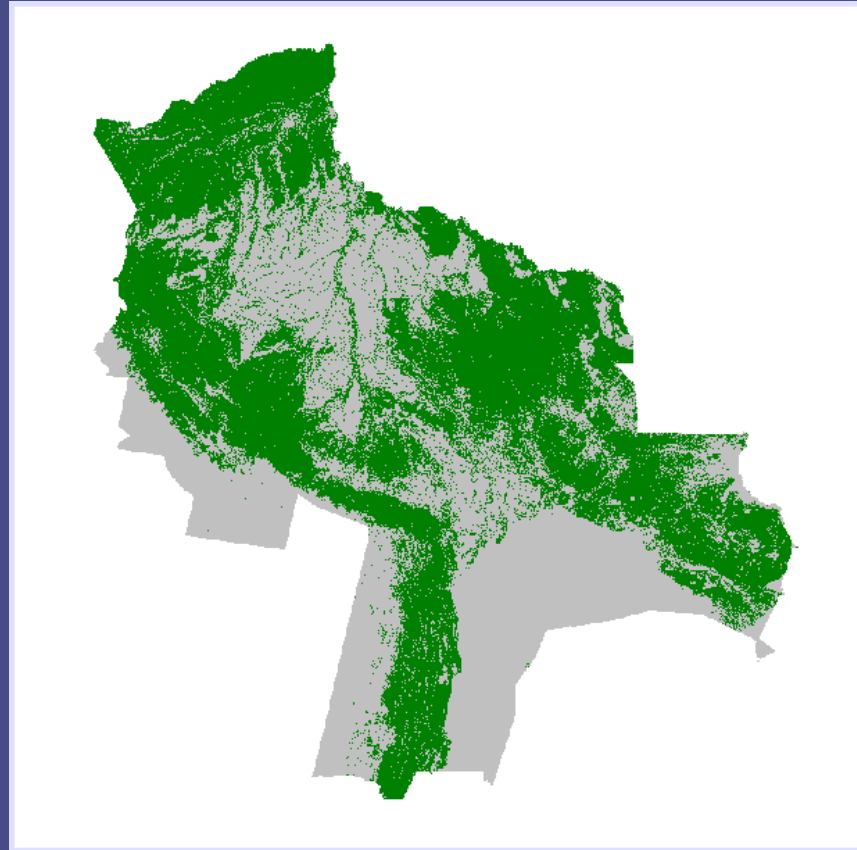
REDD – Connecting Deforestation and Carbon Mass Estimates

Content:

- Current Forest and Non-forest
- Transition Potential for Disturbance
- Business-as-usual
- Perfect Protection
- Protection with 100% Area Leakage
- Uniform Carbon Density Map
- Non-uniform Carbon Density Map
- Carbon Mass Comparison

REDD — Connecting Deforestation and Carbon Mass Estimates

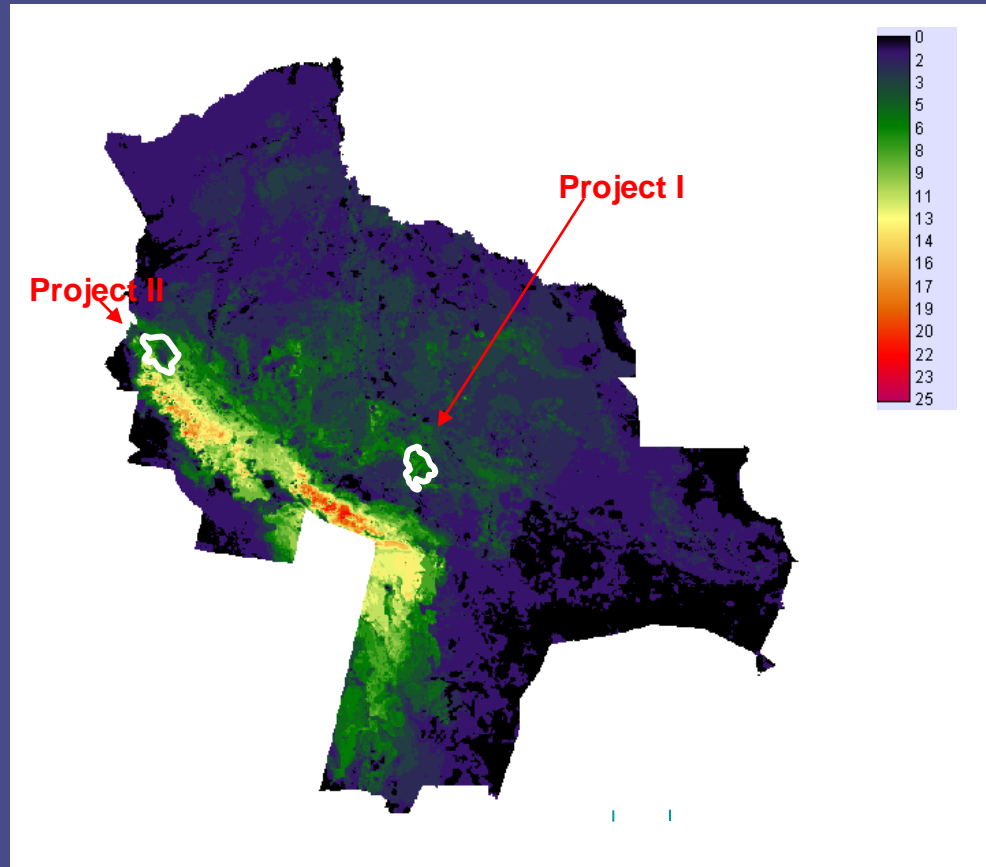
Forest and Non-forest (2004)



- Out of Study Area
- Non Cleared Forest
- Cleared Forest

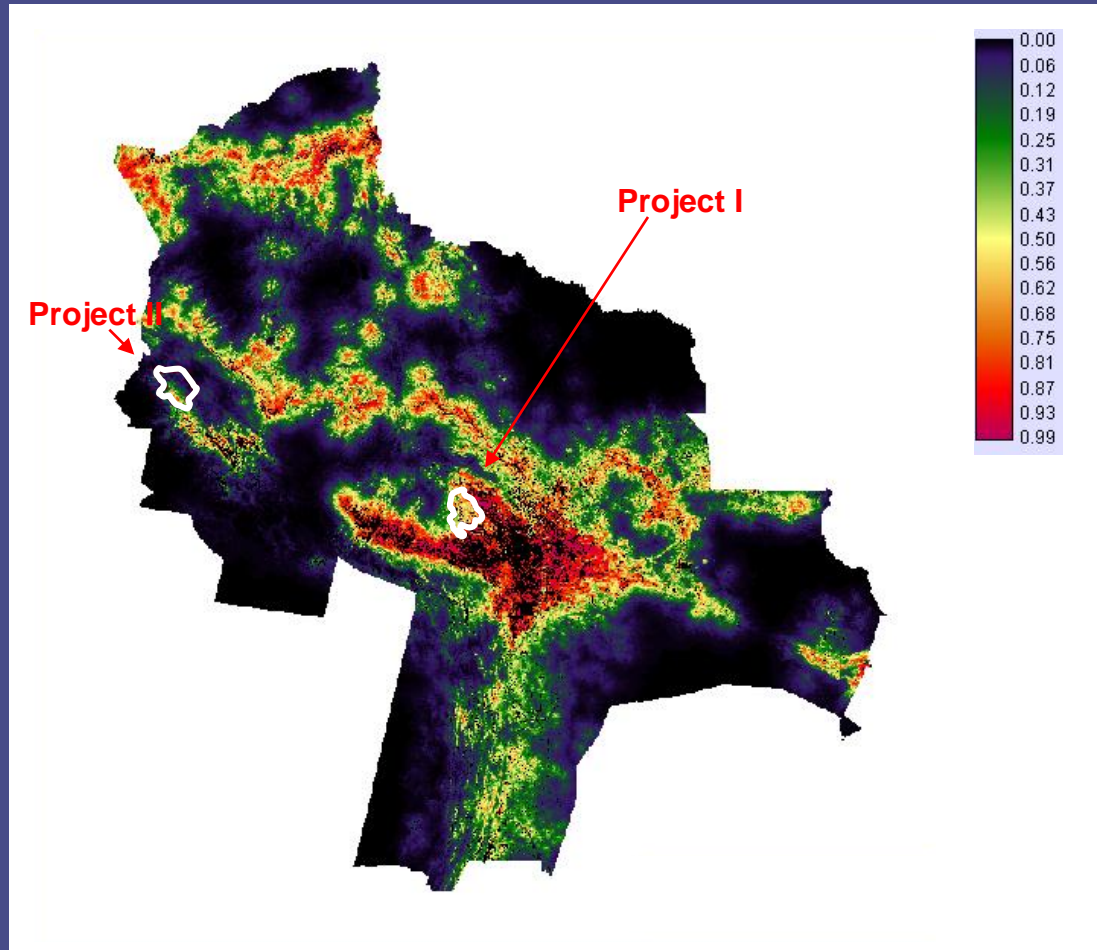
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Alpha Biodiversity Index



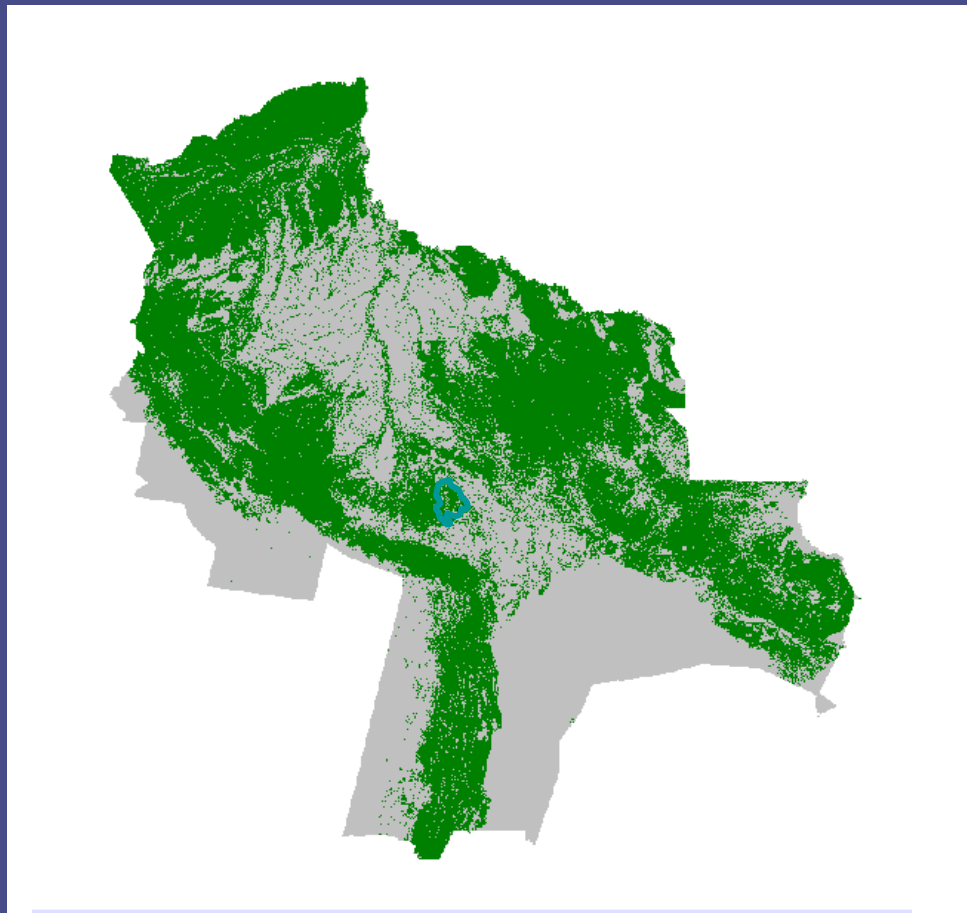
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Transition Potential for Disturbance



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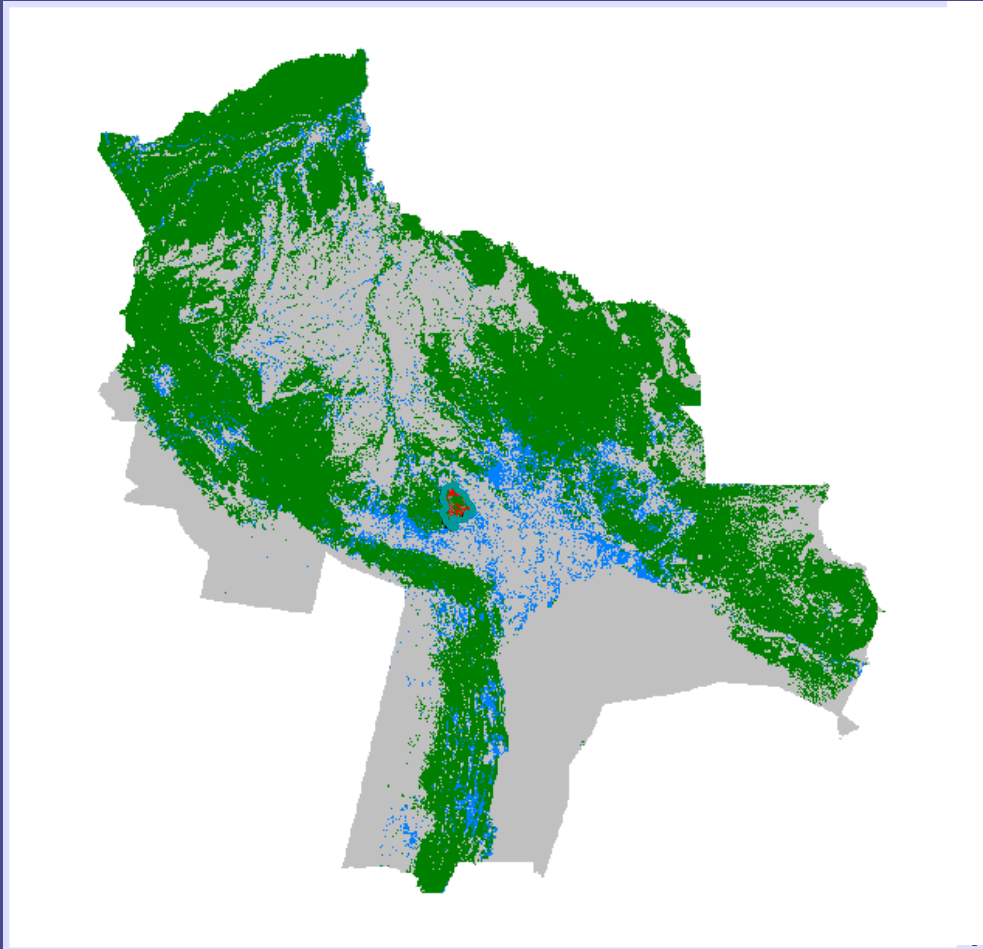
Forest and Non-Forest (2004)



- Out of Study Area
- Non Cleared Forest
- Cleared Forest
- Project I

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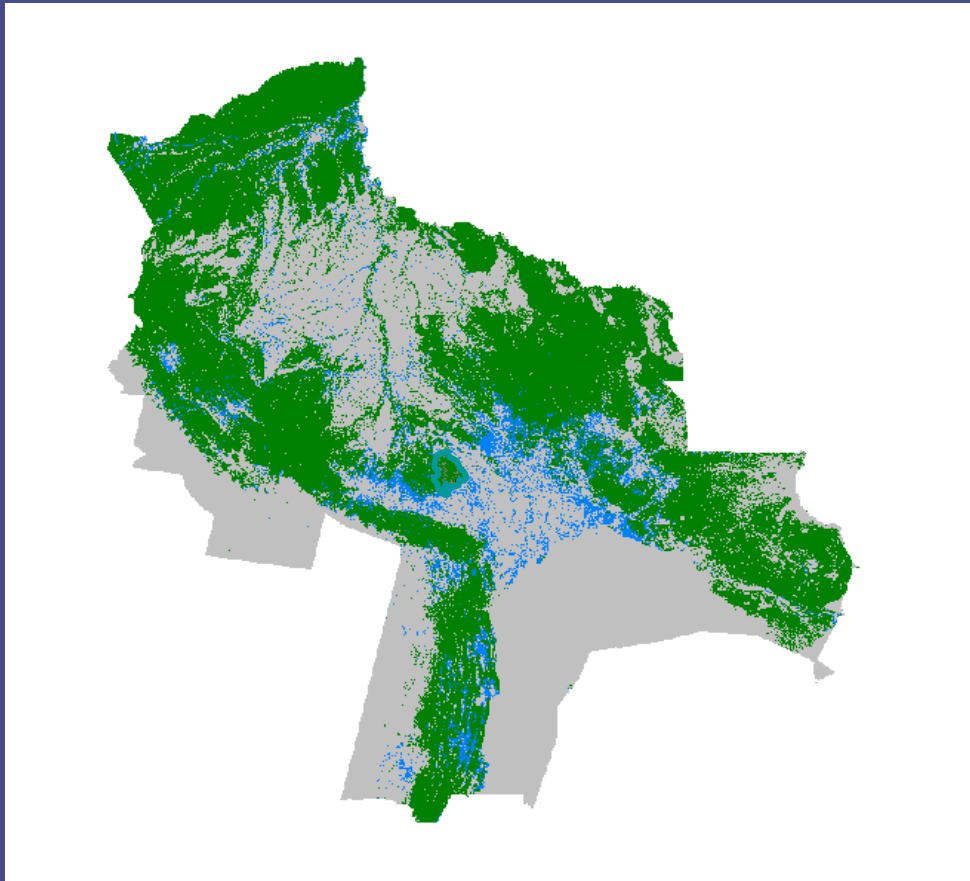
Business-as -Usual (2015)



- Out of Study Area
- Non Cleared Area
- Newly Cleared Outside Protected Area
- Newly Cleared Inside Protected Area
- Previously Cleared Outside Protected Area
- Previously Cleared Inside Protected Area
- Project I

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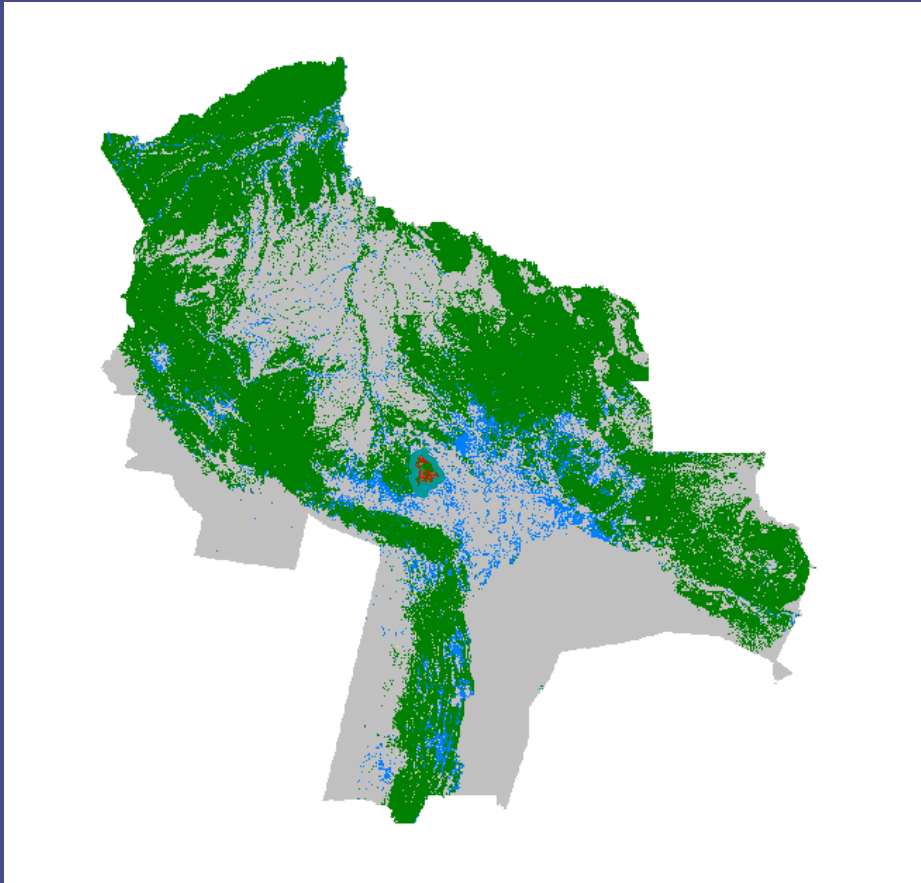
Perfect Protection (2015)



- Out of Study Area
- Non Cleared Area
- Newly Cleared Outside Protected Area
- Previously Cleared Outside Protected Area
- Previously Cleared Inside Protected Area
- Project I

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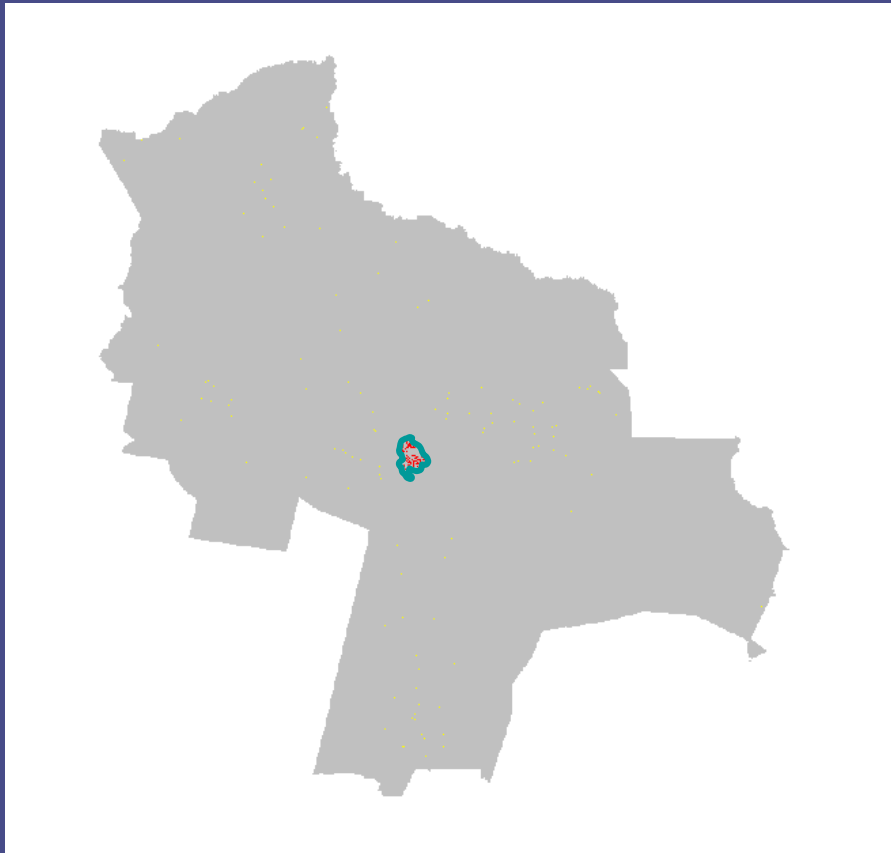
Displacement of Protection 1



- Out of Study Area
- Non Cleared Area
- Newly Cleared Outside Protected Area
- Newly Cleared Inside Protected Area
- Leakage Outside Protected Area
- Previously Cleared Outside Protected Area
- Previously Cleared Inside Protected Area
- Project 1

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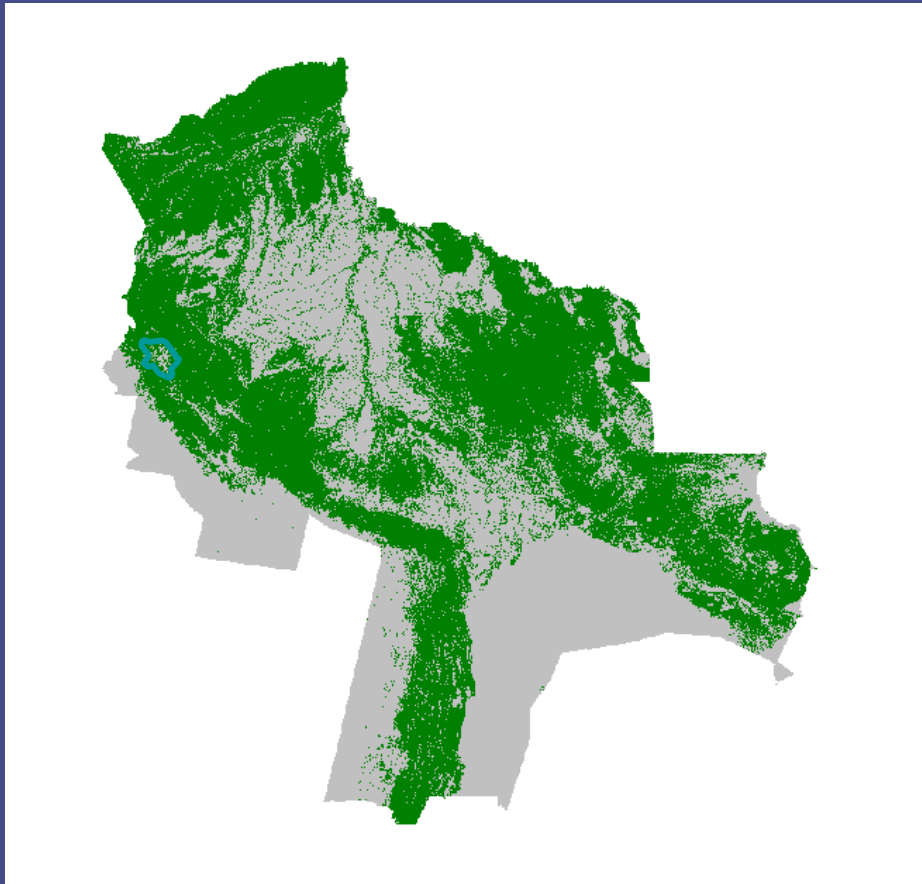
Displacement of Protection 1



- Out of Study Area
- Newly Cleared Inside Protected Area
- Leakage Outside Protected Area
- Etc
- Project I

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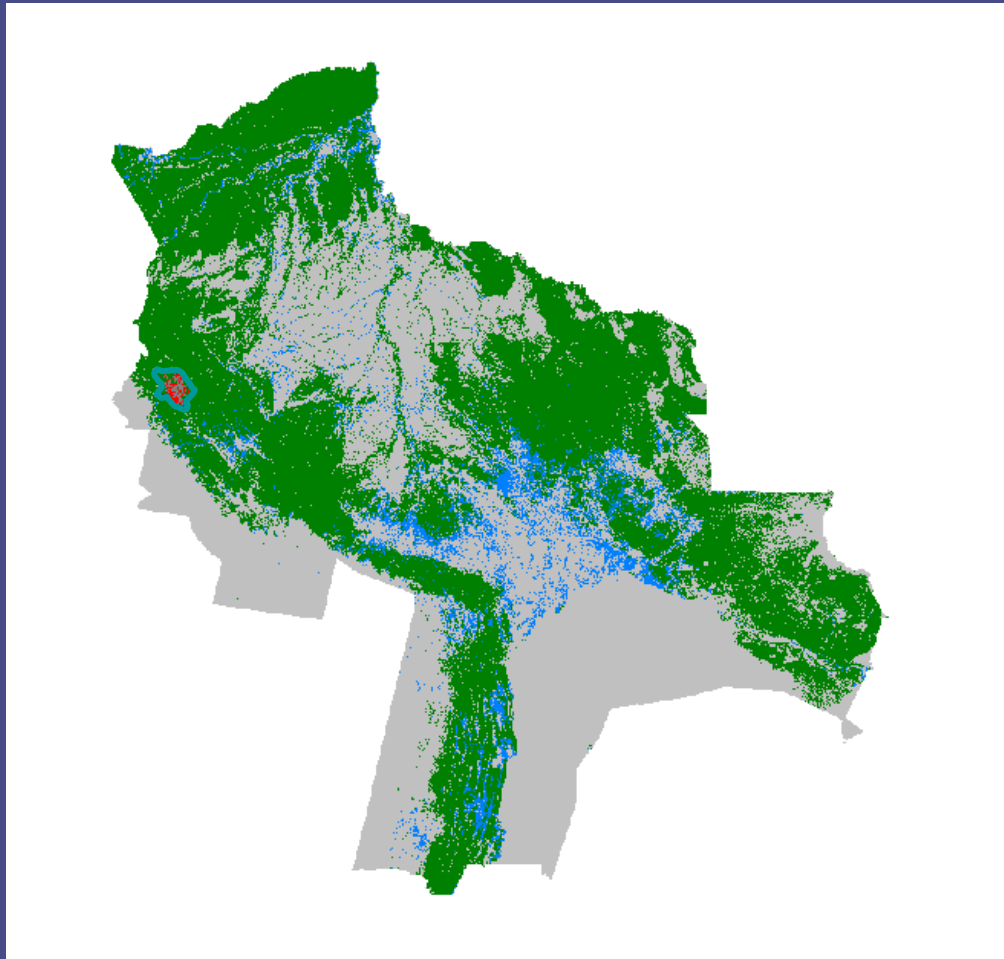
Forest and Non-Forest (2004)



- Out of Study Area
- Non Cleared Forest
- Cleared Forest
- Project II

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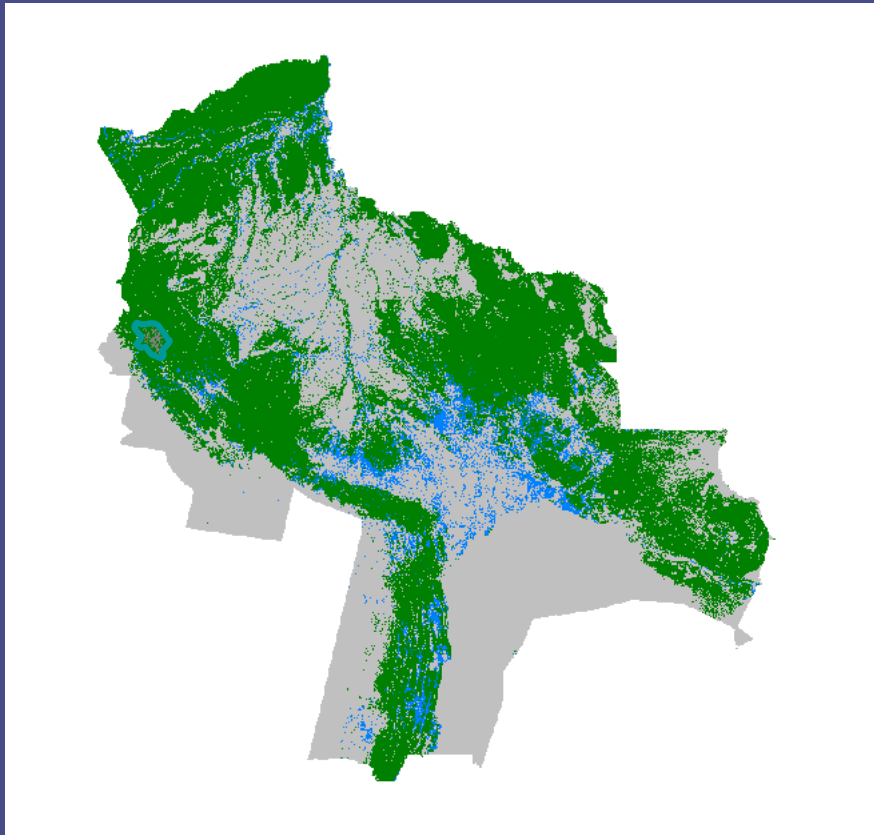
Business-as-Usual (2015)



- Out of Study Area
- Non Cleared Area
- Newly Cleared Outside Protected Area
- Newly Cleared Inside Protected Area
- Previously Cleared Outside Protected Area
- Previously Cleared Inside Protected Area
- Project II

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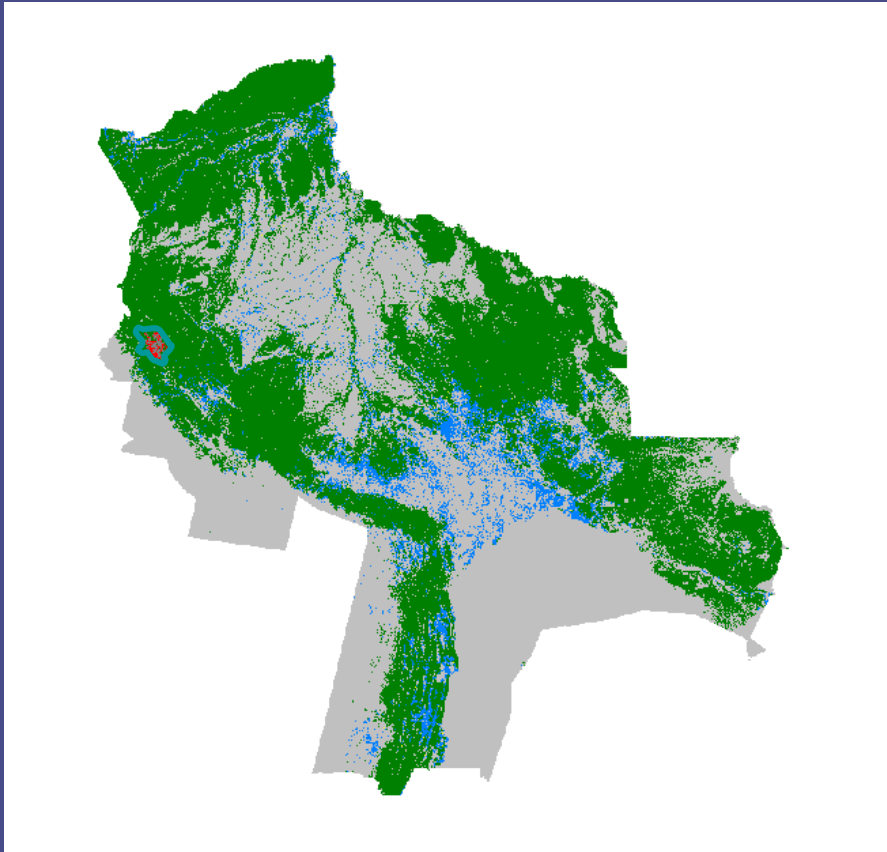
Perfect Protection (2015)



- Out of Study Area
- Non Cleared Area
- Newly Cleared Outside Protected Area
- Previously Cleared Outside Protected Area
- Previously Cleared Inside Protected Area
- Project II

REDD – Connecting Deforestation and Carbon Mass Estimates

Displacement of Protection II



- Out of Study Area
- Non Cleared Area
- Newly Cleared Outside Protected Area
- Newly Cleared Inside Protected Area
- Leakage Outside Protected Area
- Previously Cleared Outside Protected Area
- Previously Cleared Inside Protected Area
- Project II

REDD – Connecting Deforestation and Carbon Mass Estimates

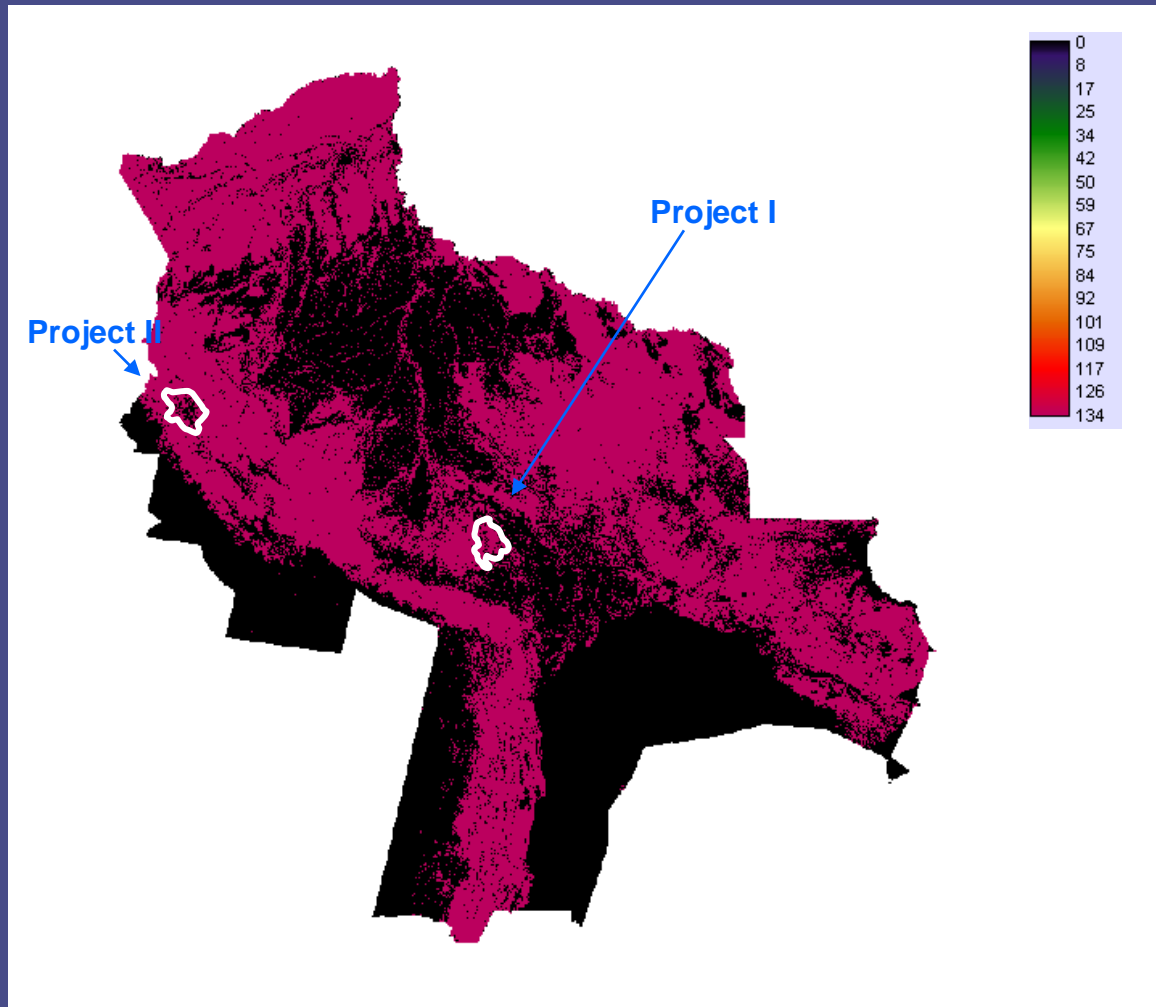
Displacement of Protection II



- Out of Study Area
- Newly Cleared Inside Protected Area
- Leakage Outside Protected Area
- Etc
- Project II

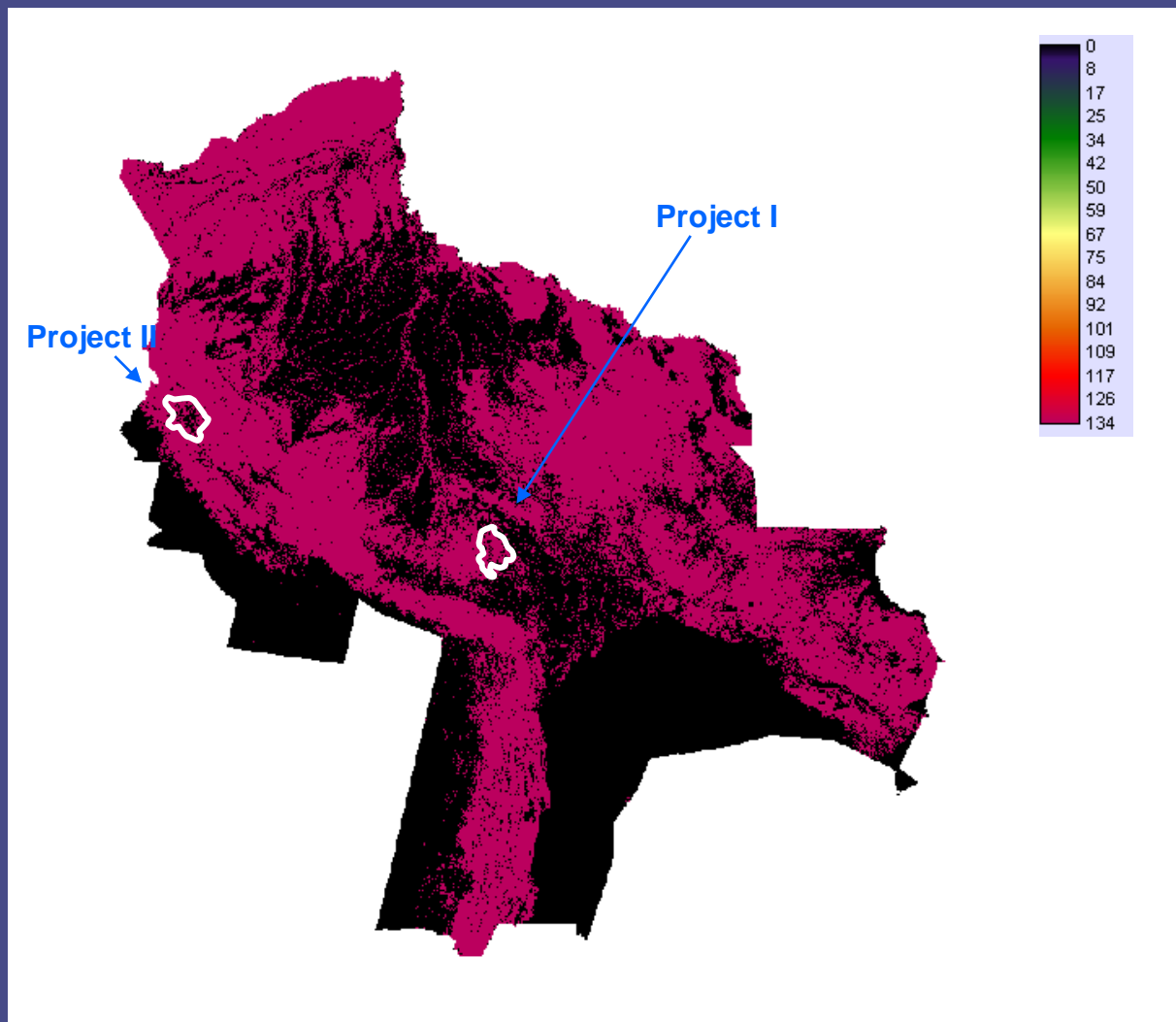
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Uniform Carbon Density

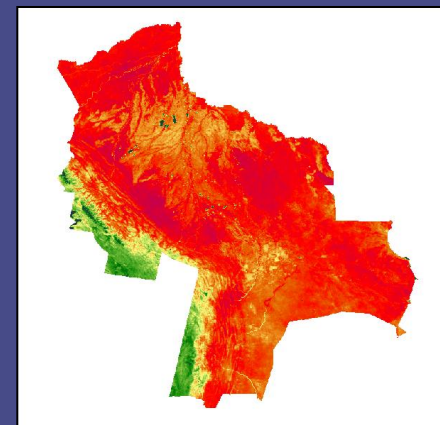


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Spatial Carbon Distribution

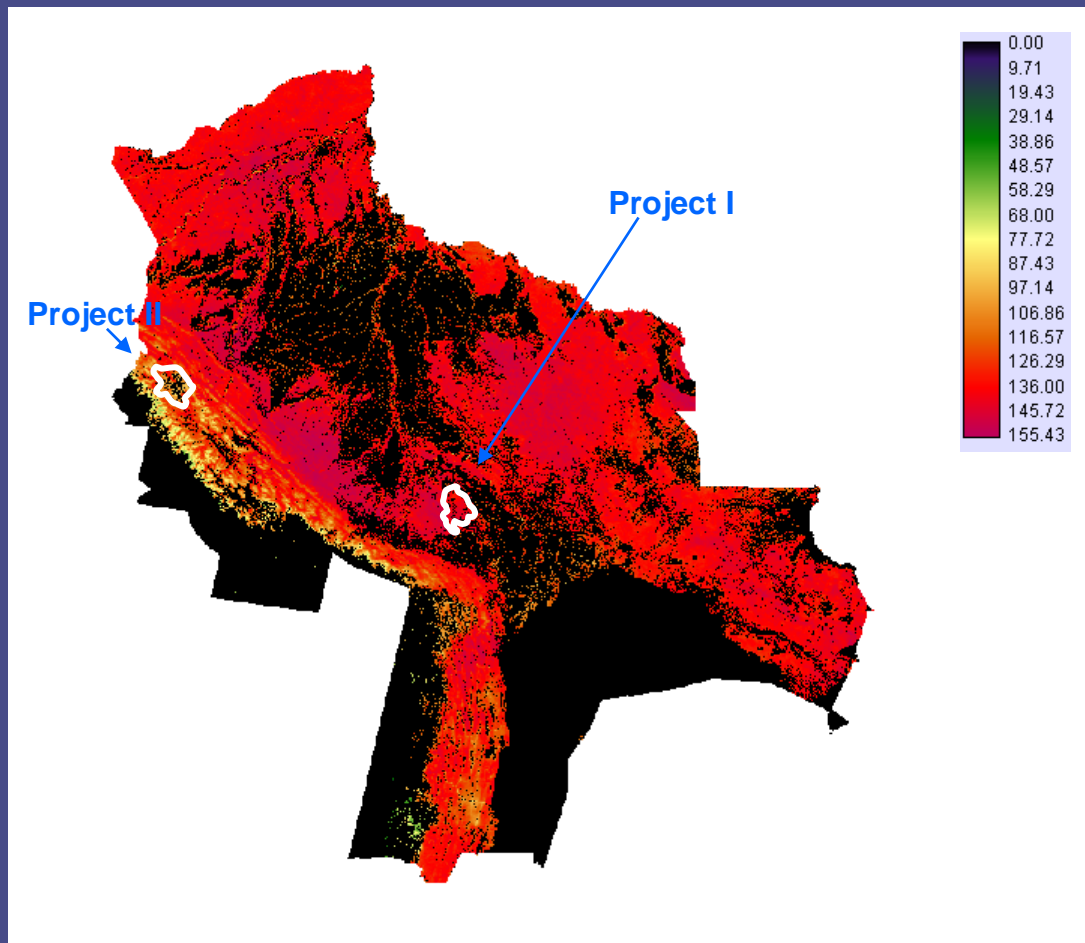


Mean Annual NDVI 1999

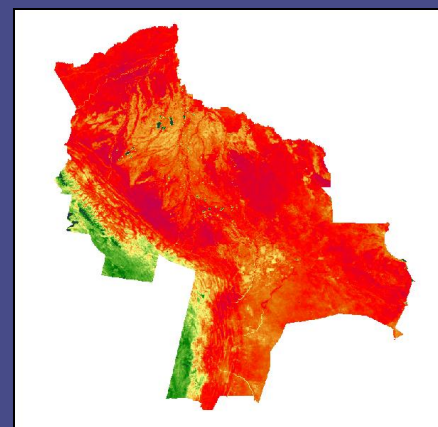


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Non-Uniform Carbon Density

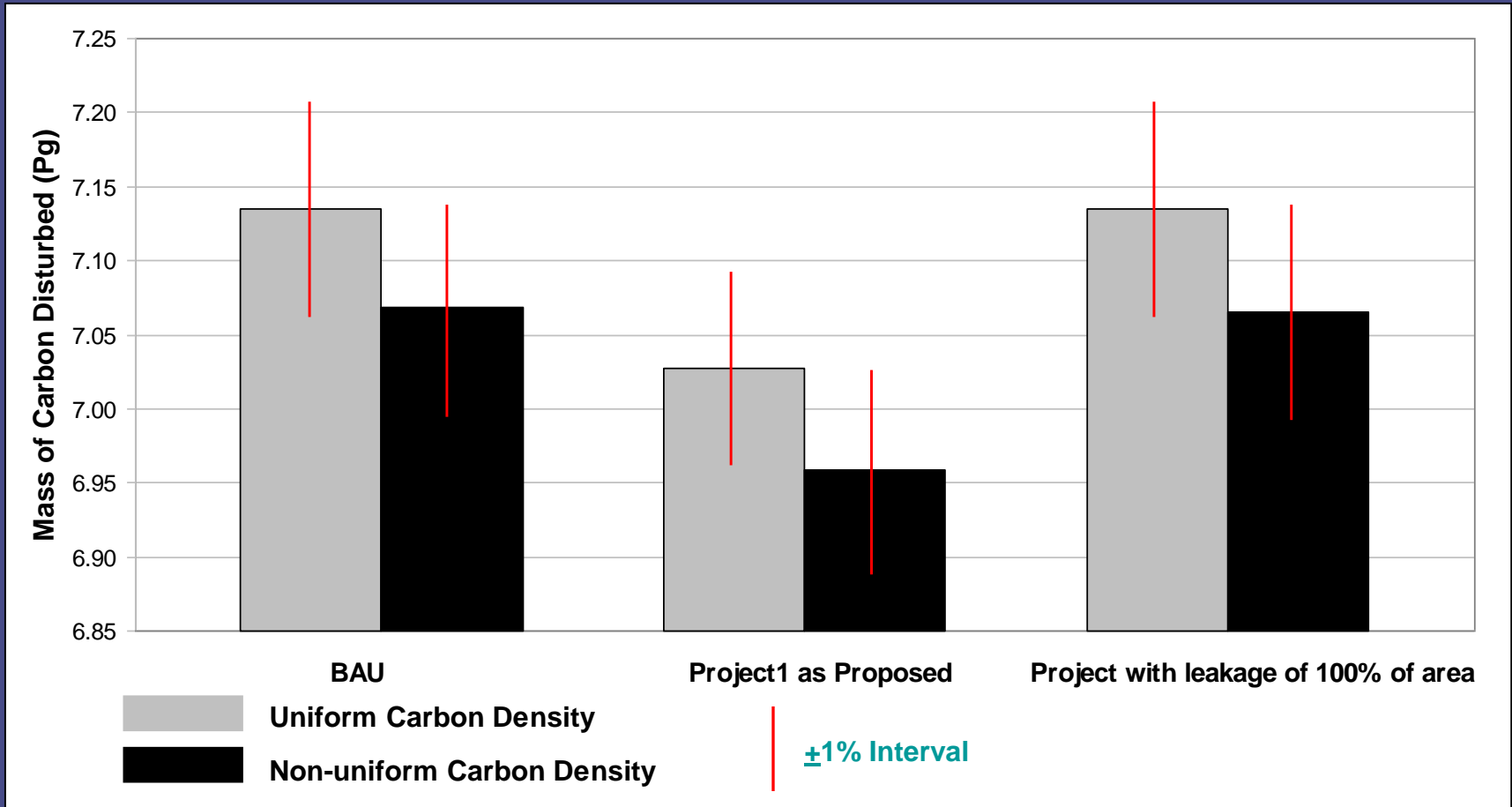


Mean Annual NDVI 1999



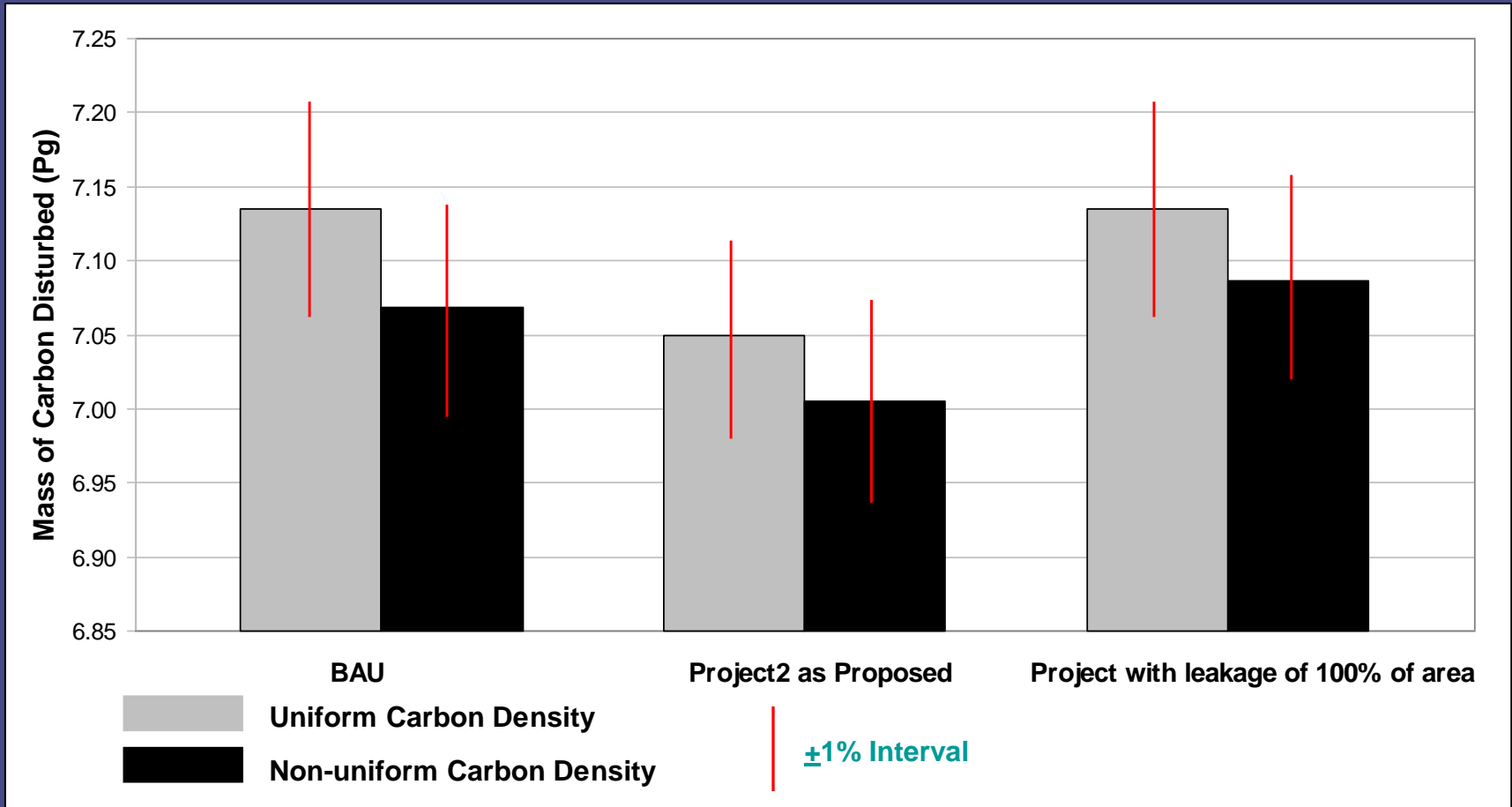
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Carbon Mass Protection I



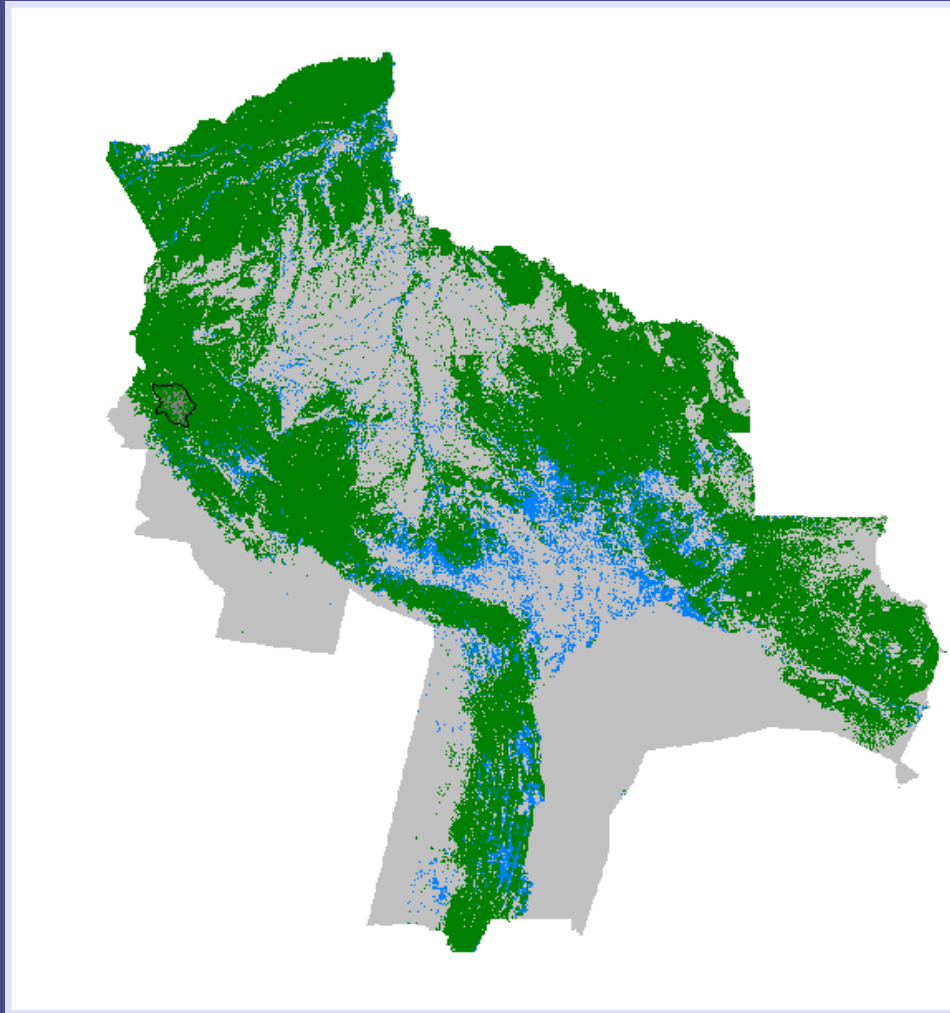
REDD – Connecting Deforestation and Carbon Mass Estimates

Carbon Mass Protection II



REDD — Connecting Deforestation and Carbon Mass Estimates

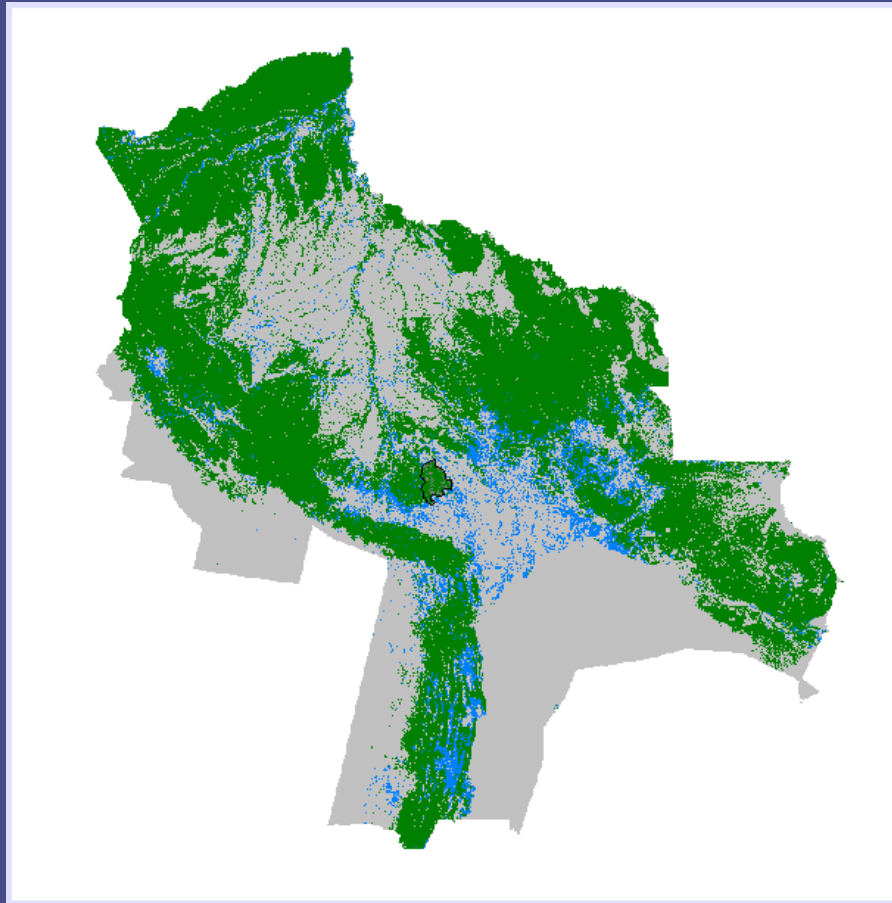
100% Leakage (2015)



- Out of Study Area
- Non Cleared Area
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- Previously Cleared Outside Protected Area
- Previously Cleared Inside Protected Area
- Project II

REDD — Connecting Deforestation and Carbon Mass Estimates

100% Leakage (2015)



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