Ministry of Economy and Finance
The Republic of Mozambique

THE PROJECT FOR

NACALA CORRIDOR

ECONOMIC DEVELOPMENT STRATEGIES
IN THE REPUBLIC OF MOZAMBIQUE

PEDEC-NACALA

Final Study Report

GIS Atlas

April 2015

Japan International Cooperation Agency (JICA)

Oriental Consultants Global Co., Ltd.
RECS International Inc.
International Development Center of Japan
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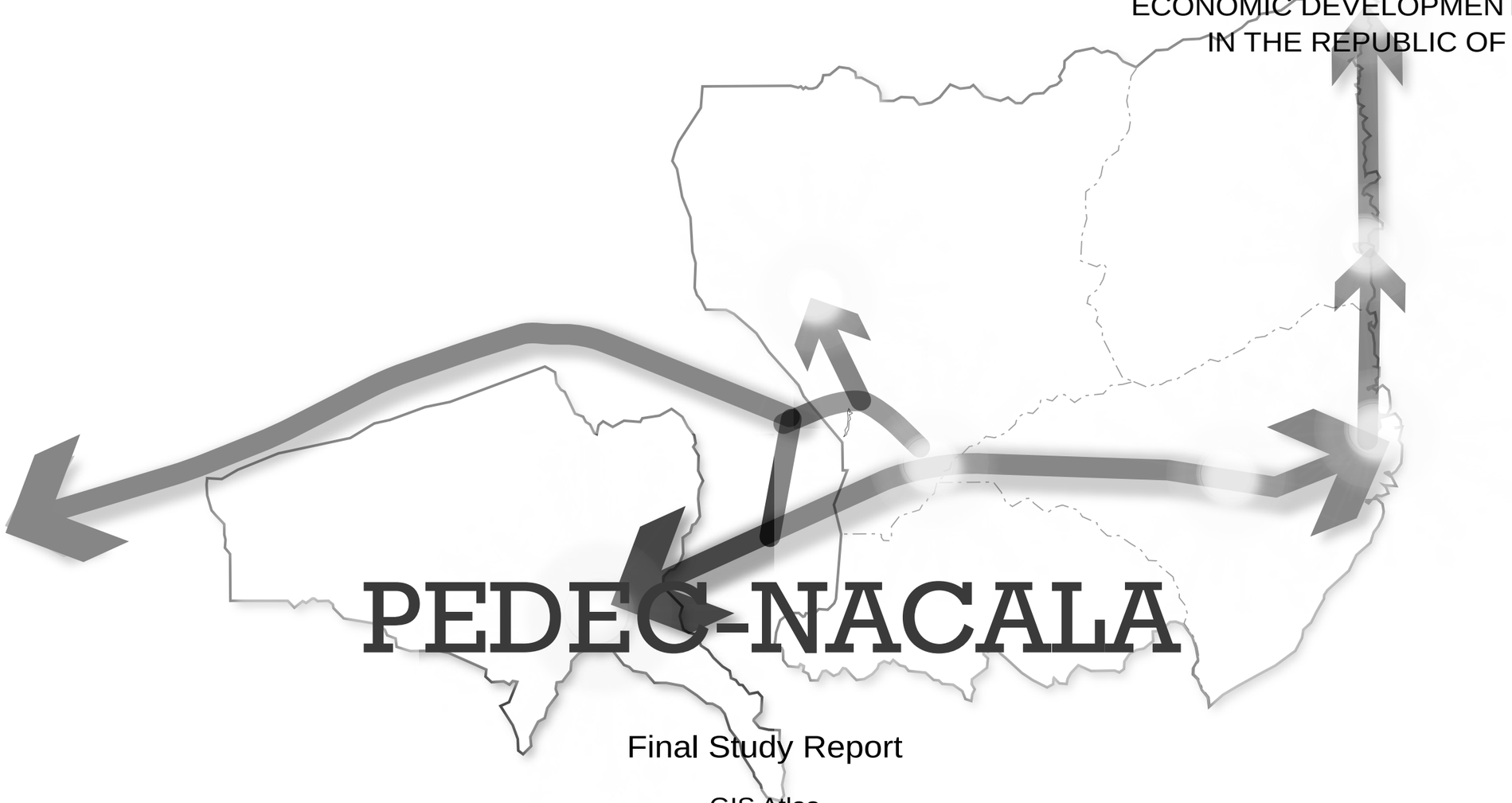

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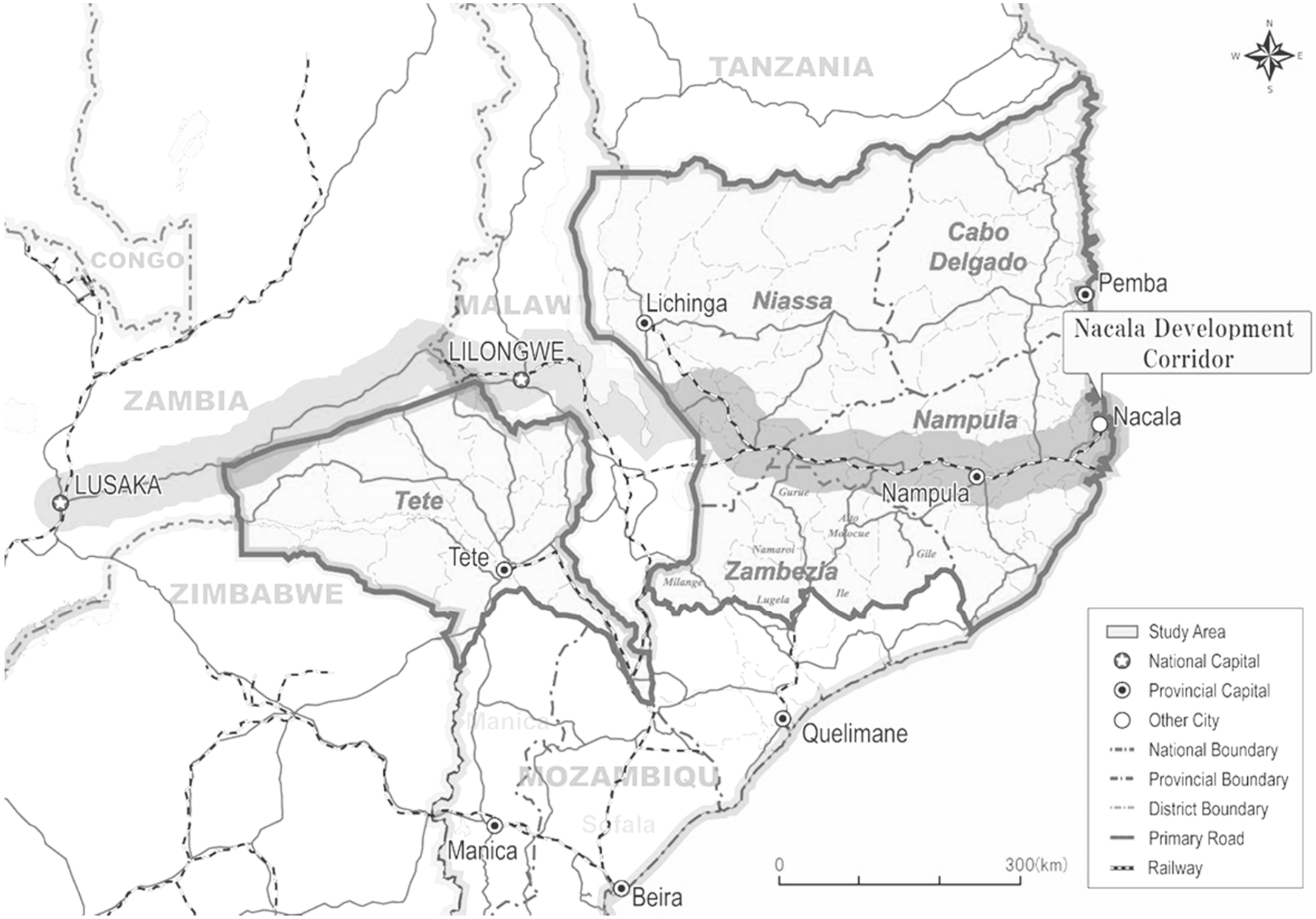
Introduction

This is an atlas of GIS maps, which is part of the Final Study Report for the Project for Nacala Corridor Economic Development Strategies (PEDEC-Nacala) in the Republic of Mozambique.

Firstly, various GIS data were collected and compiled so as to prepare a GIS database in the PEDEC-Nacala. Secondly, GIS maps were prepared for the purpose of spatial analysis and of formulating integrated regional development strategies for the Nacala Corridor Region.

The GIS Atlas is composed of three parts. Part A shows general maps of GIS. Part B shows GIS maps of existing conditions. Part C shows Analysis Maps of GIS.

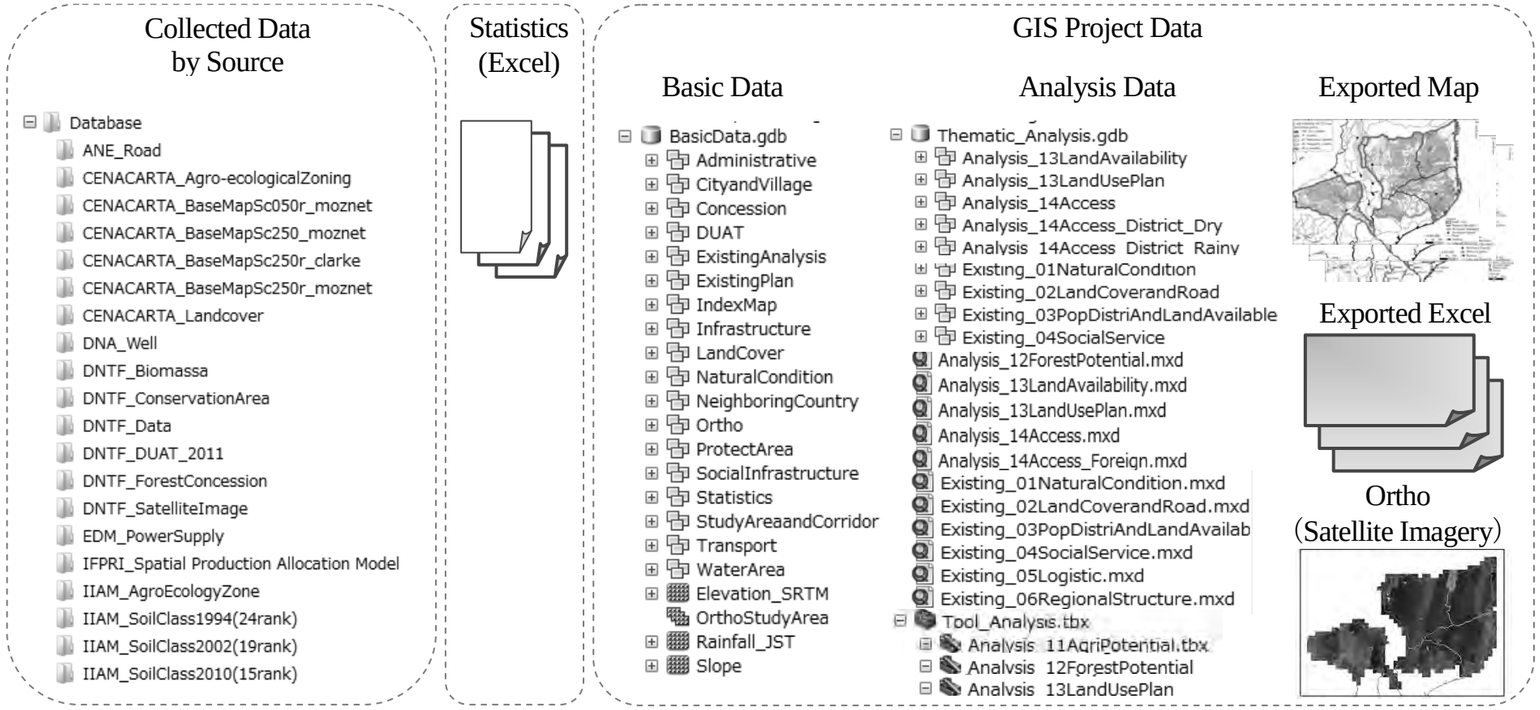
The data of these GIS maps, as well as the GIS database, were compiled in the form of CD-ROM.



PEDEC-Nacala GIS Database Structure

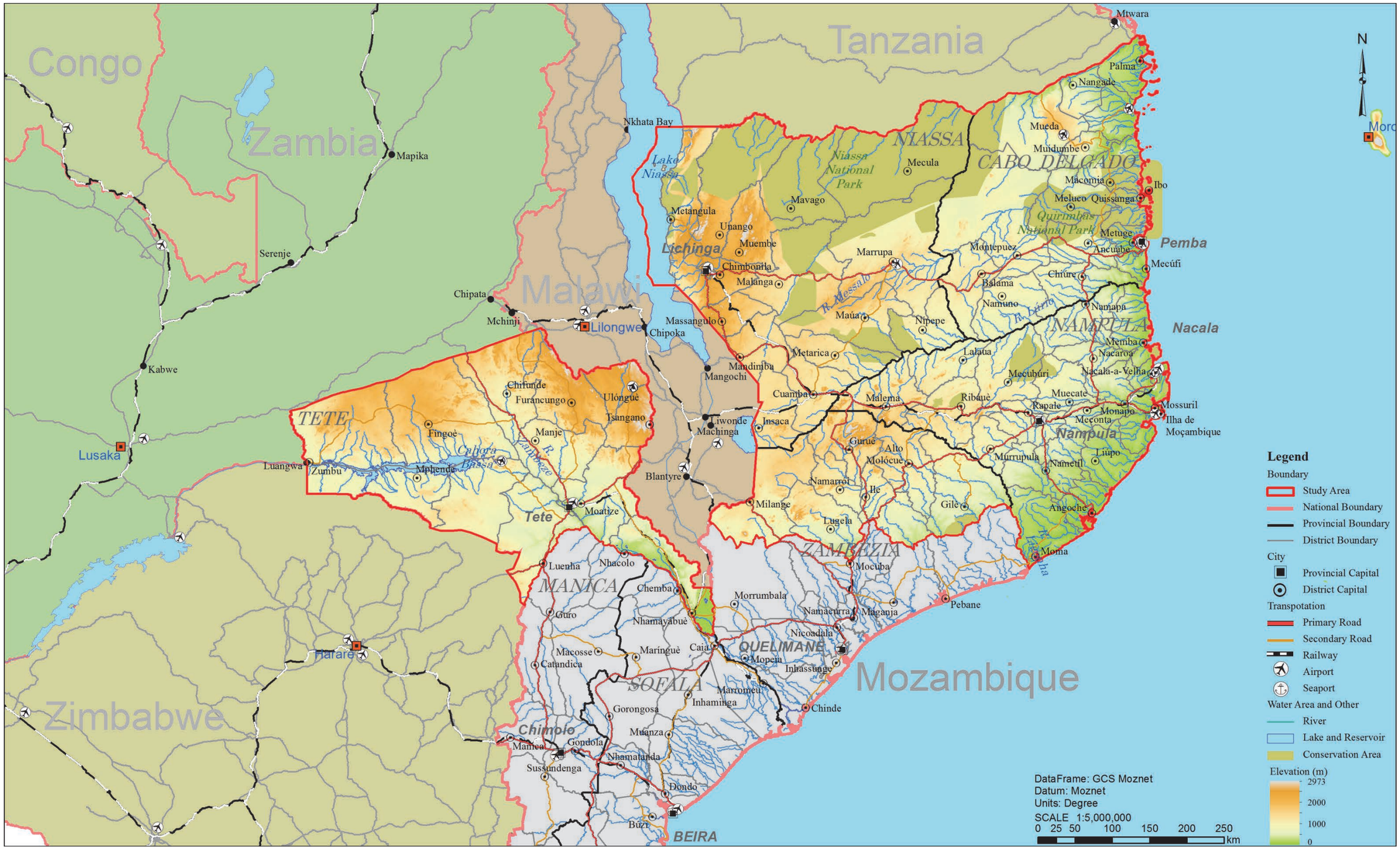
The integrated database comprises three groups of datasets: collected data, statistics, and GIS data for thematic maps as shown in the figure on the right. The GIS project data consists of basic data set, analysis data set, exported files of maps and tables, and satellite imageries.

- Basic Data: Collected data were transformed into the format of filegeodatabase with the same coordinate system as the World Geographic System 1984 (WGS84). Necessary attribute data were stored in each filegeodatabase. Filegeodatabases were also categorized into groups, such as transportation facilities, social infrastructures and villages.
- Analysis Data: The basic data were combined into analysis data for spatial analysis necessary for formulating regional strategies. The analysis data includes agricultural potential, forest potential, land use plan and hospital accessibility.
- Exported Maps: Analysis data are exported into maps using a format such as png.
- Exported Excel Files: The attribute information of analysis data was exported into Excel files to analyse the data not only spatially but also statistically.
- Ortho (Satellite Imagery): Orthophoto is a satellite imagery which is geometrically corrected into a uniform scale. This orthophoto covers the whole area of the Nacala Corridor Region.

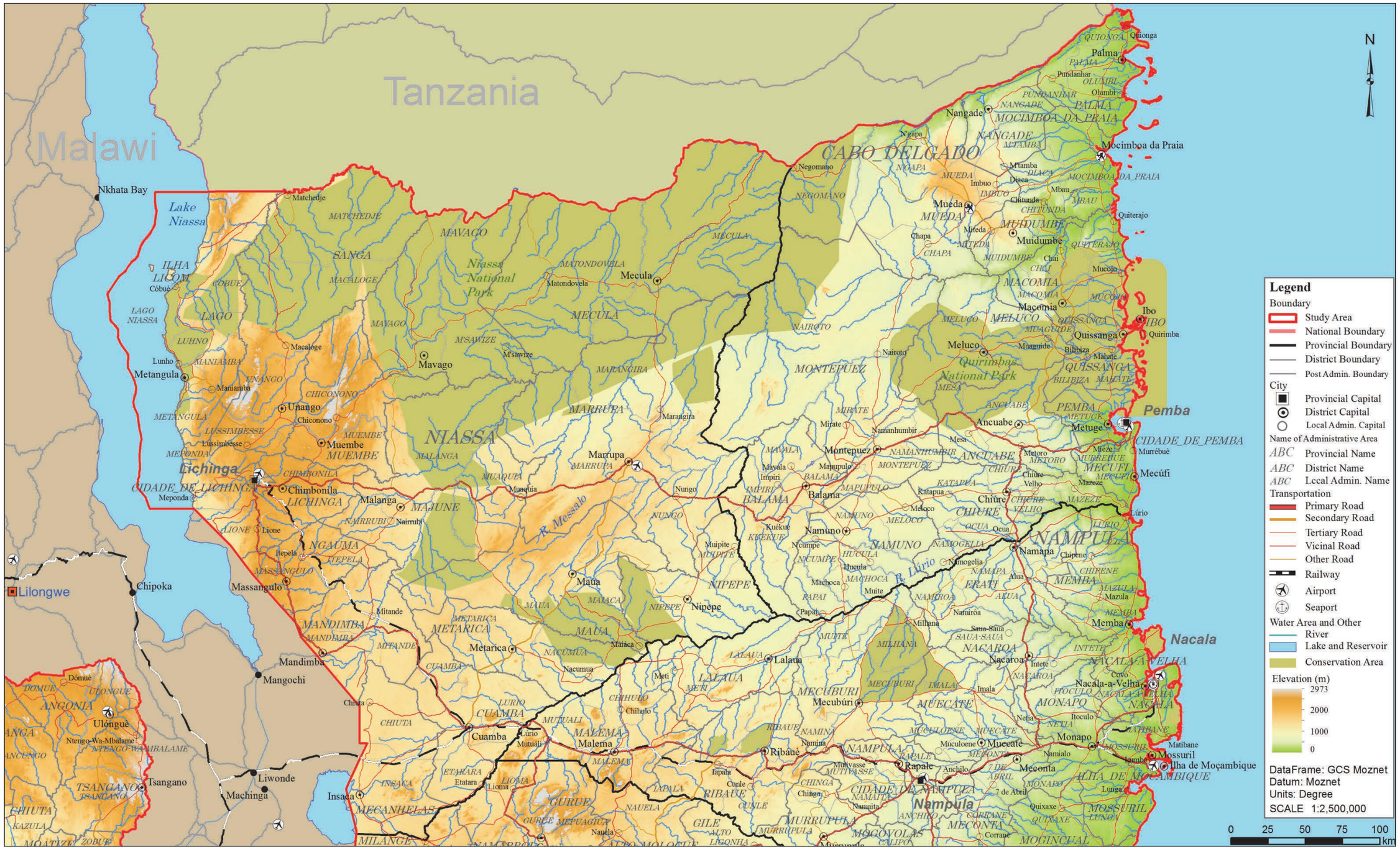


[A-01] Nacala Corridor Region (1: 4,000,000)

[A-02] Nacala Corridor Region with Neighbouring Countries (1: 5,000,000)

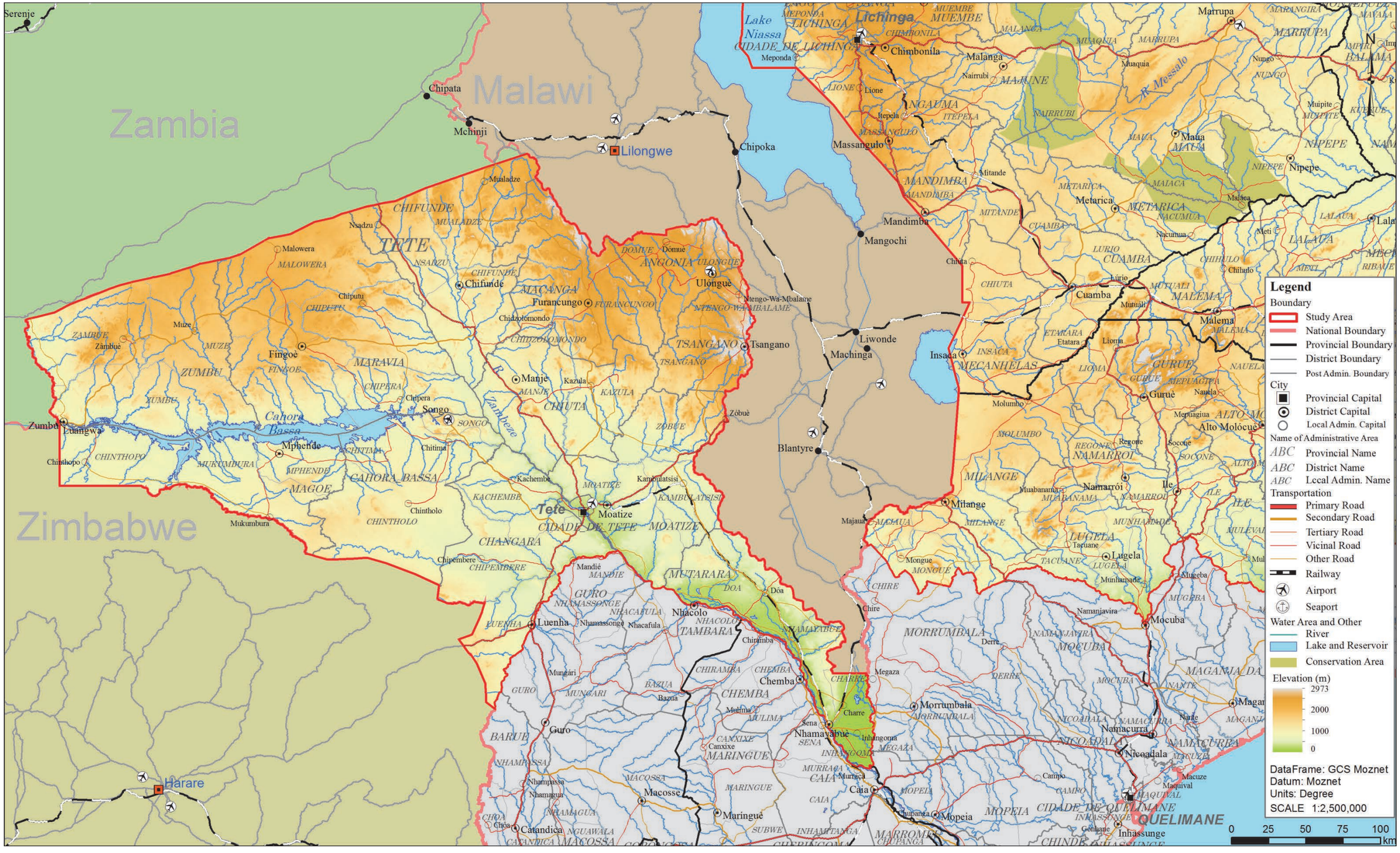


[A-03] Cabo Delgado/ Niassa Province (1: 2,500,000)

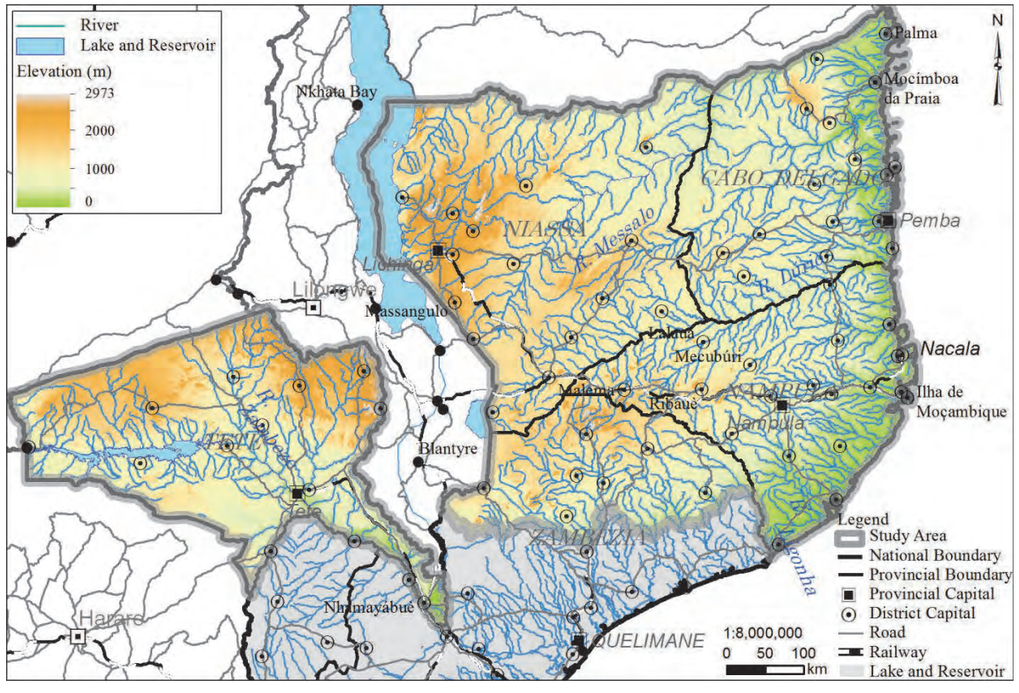


[A-04] Nampula/ Zambezia Province (1: 2,500,000)

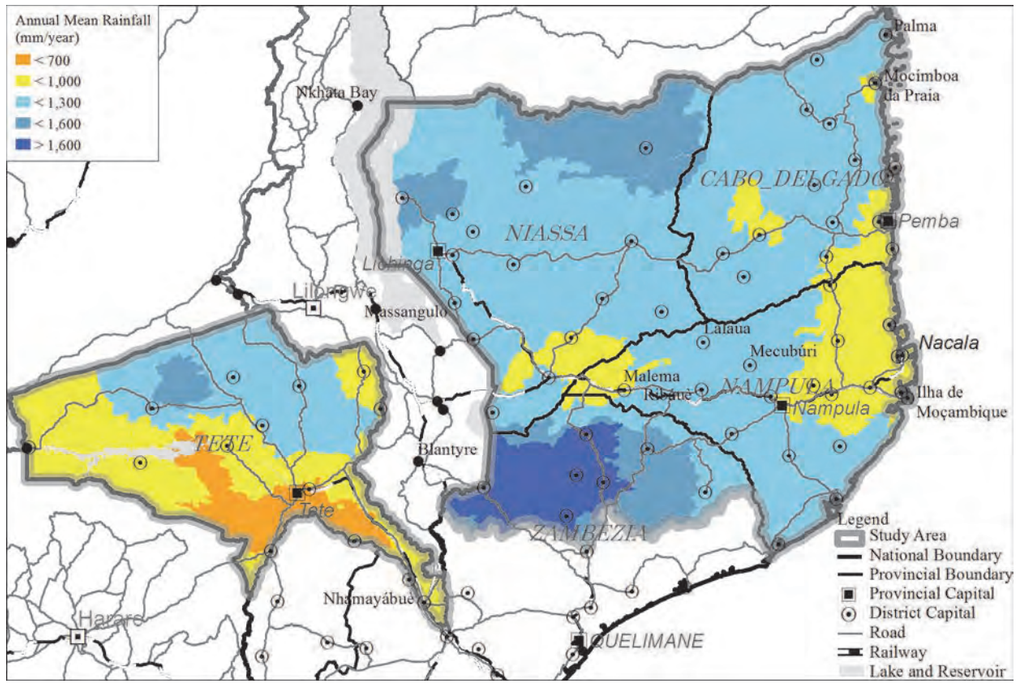
[A-05] Tete Province (1: 2,500,000)



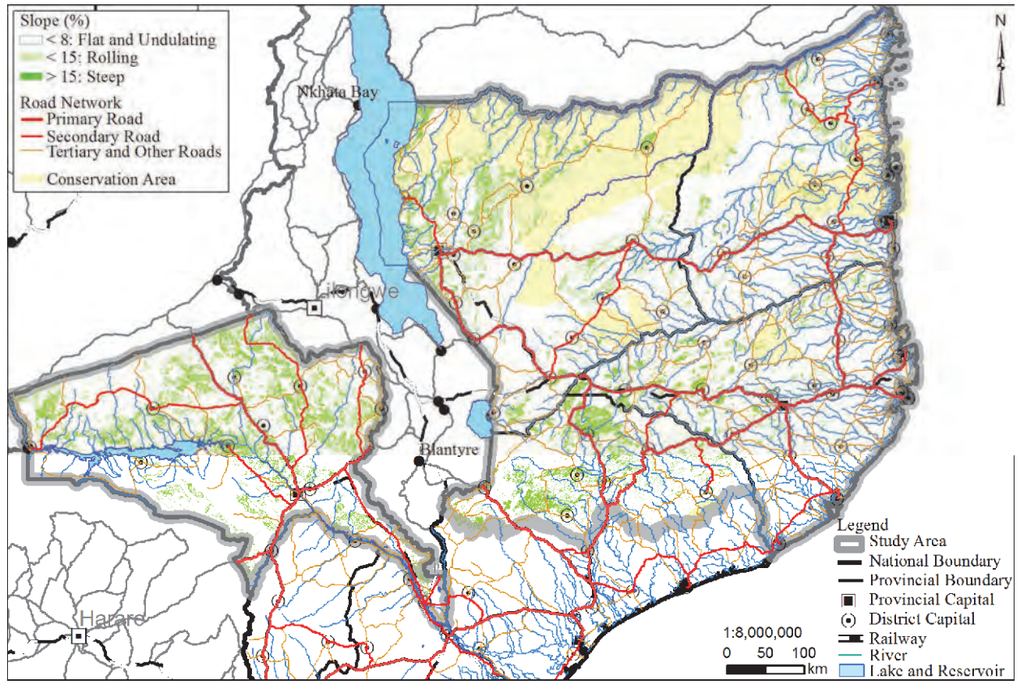
[B-1-1] Elevation



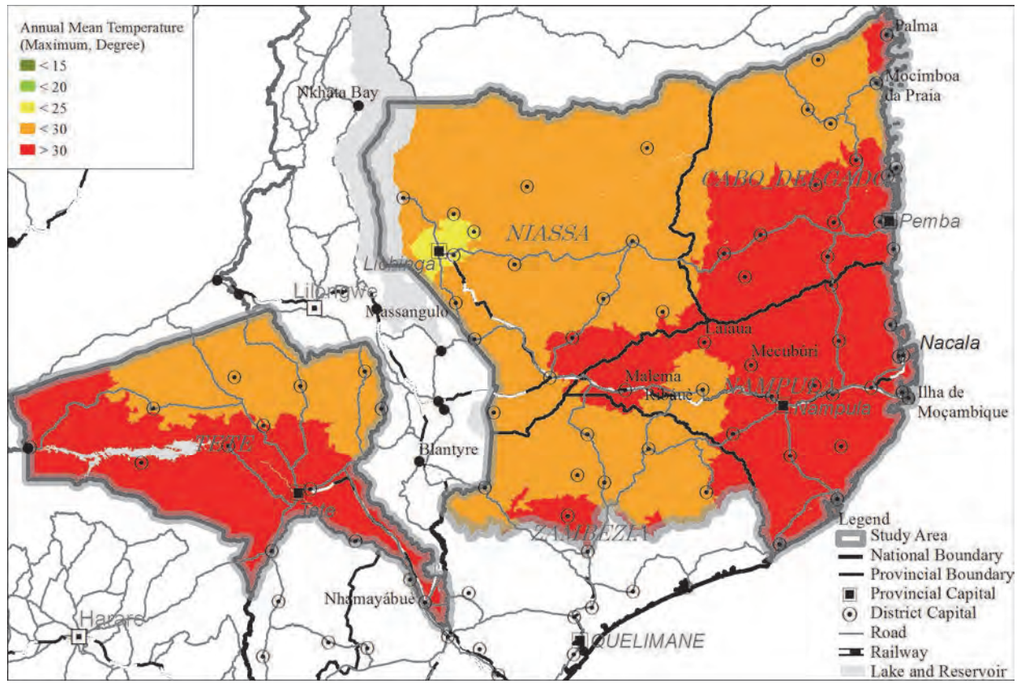
[B-1-2] Annual Rainfall (mm/year)



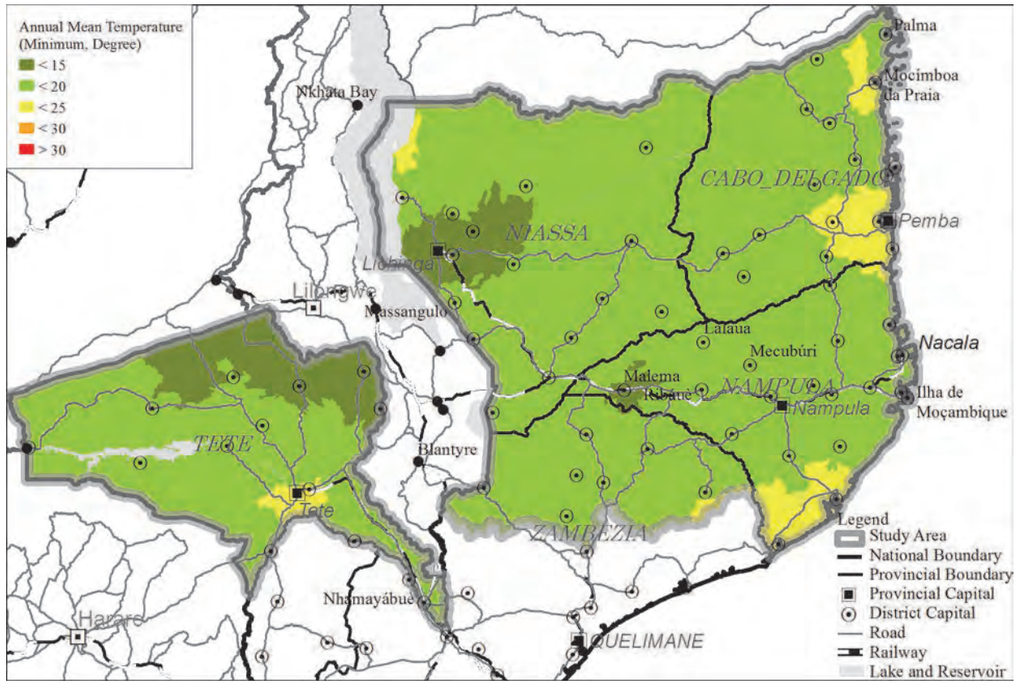
[B-1-3] Slope Condition (%)



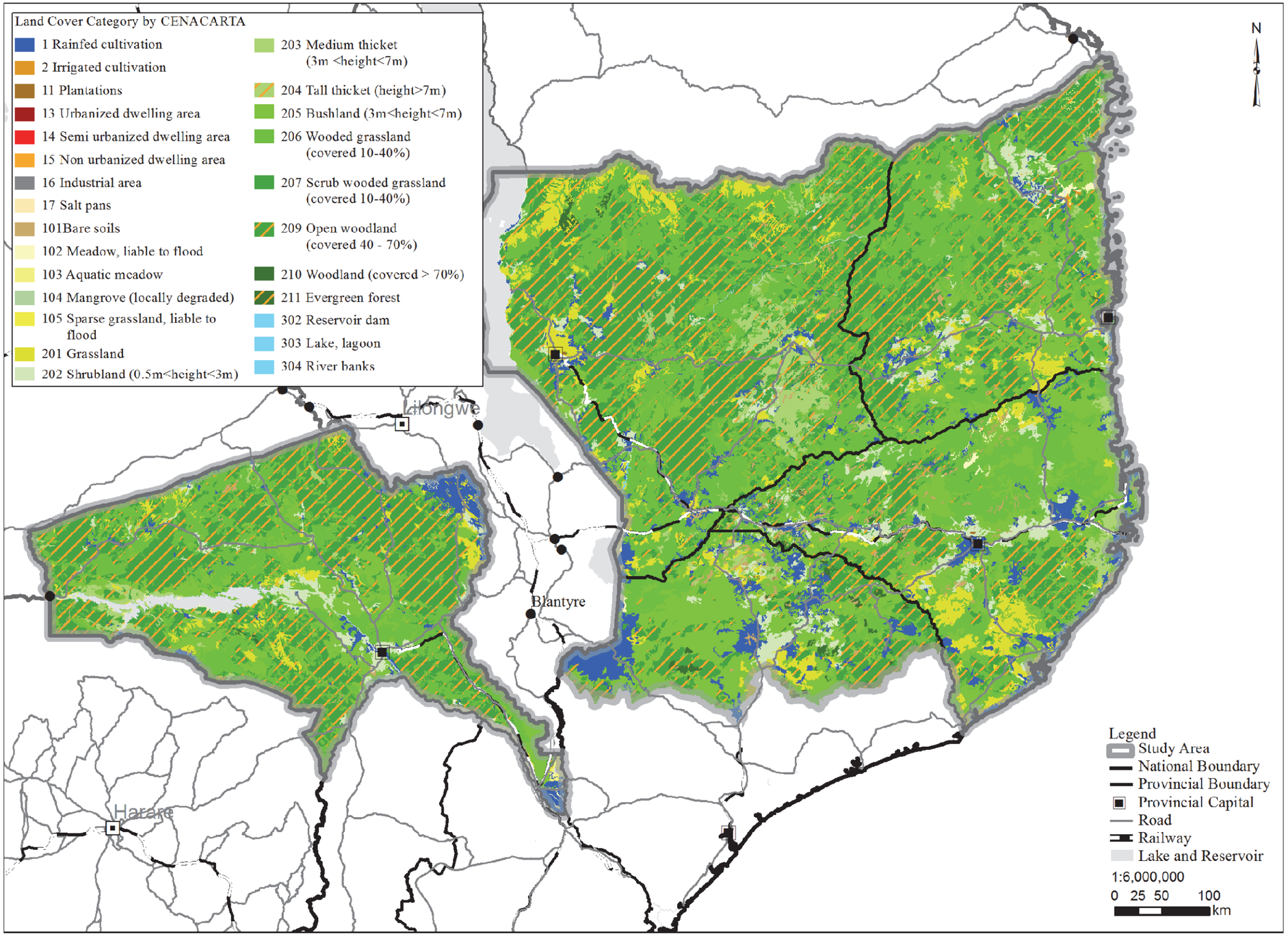
[B-1-4] Annual Averaged Temperature (Maximum)



[B-1-5] Annual Averaged Temperature (Minimum)

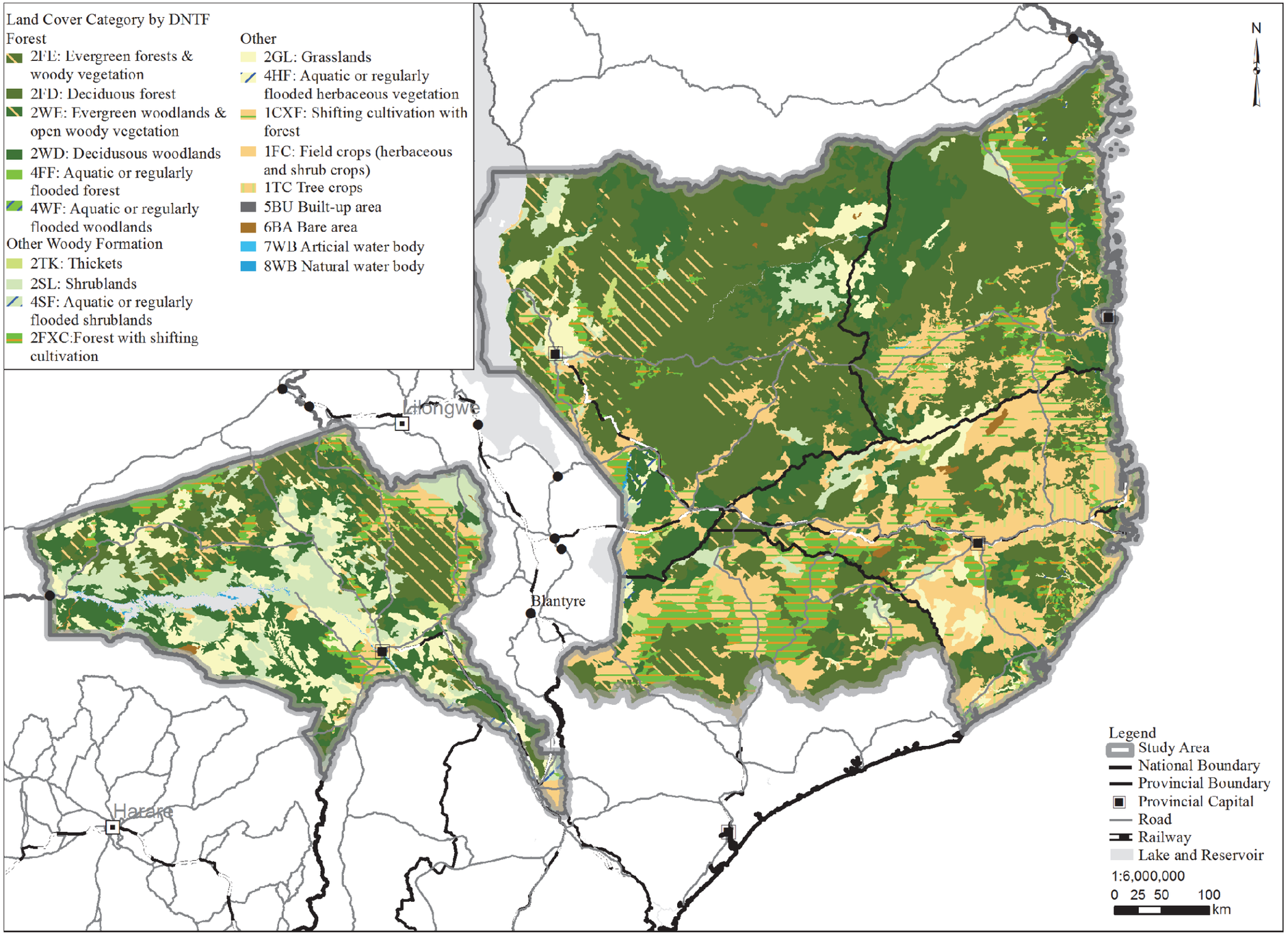


[B-2-1] Land Cover defined by CENACARTA (1994)



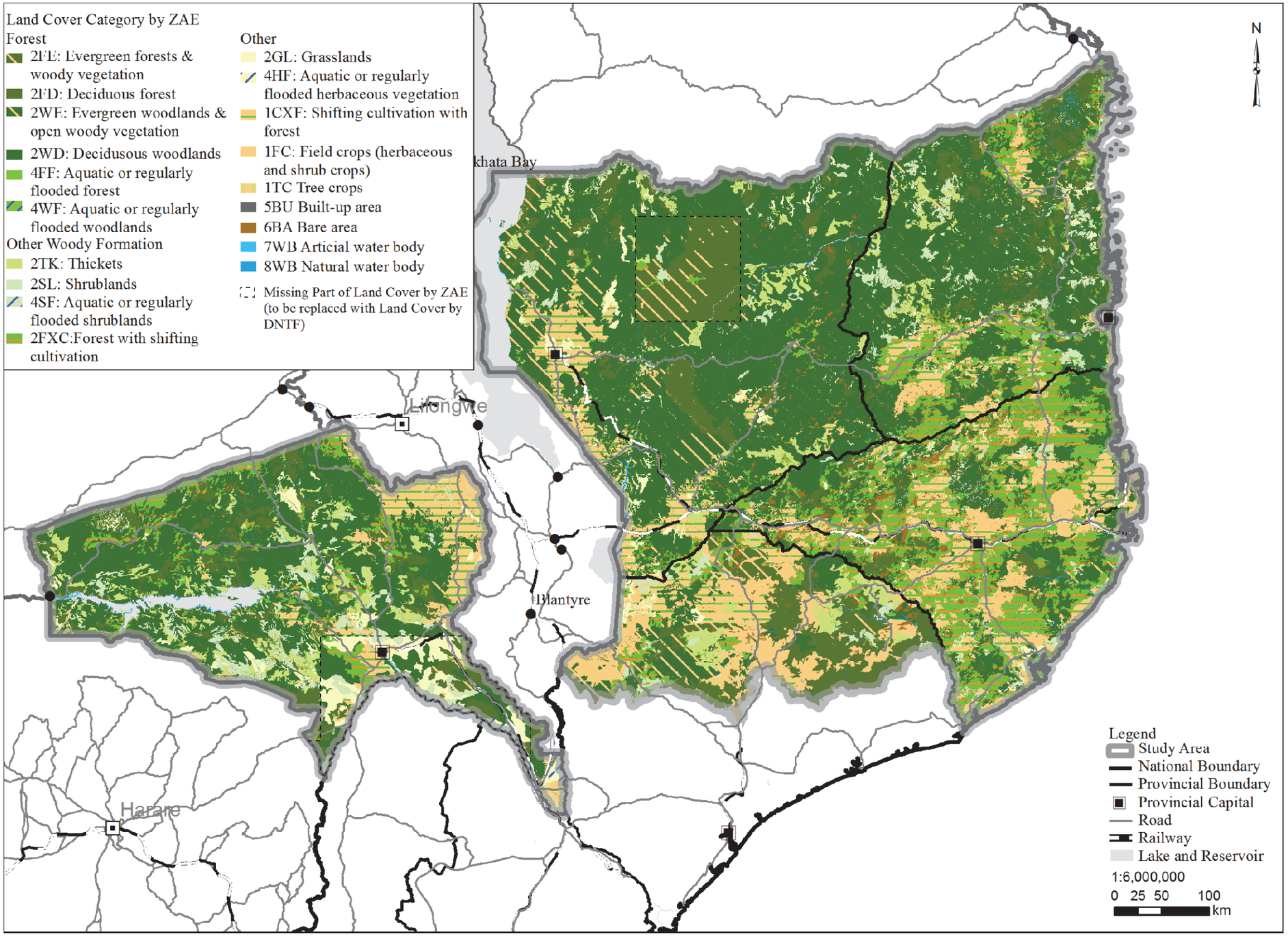
This diagram is enlarged by 135% of the original size.

[B-2-2] Land Cover defined by DNTF, MINAG (2004/05)



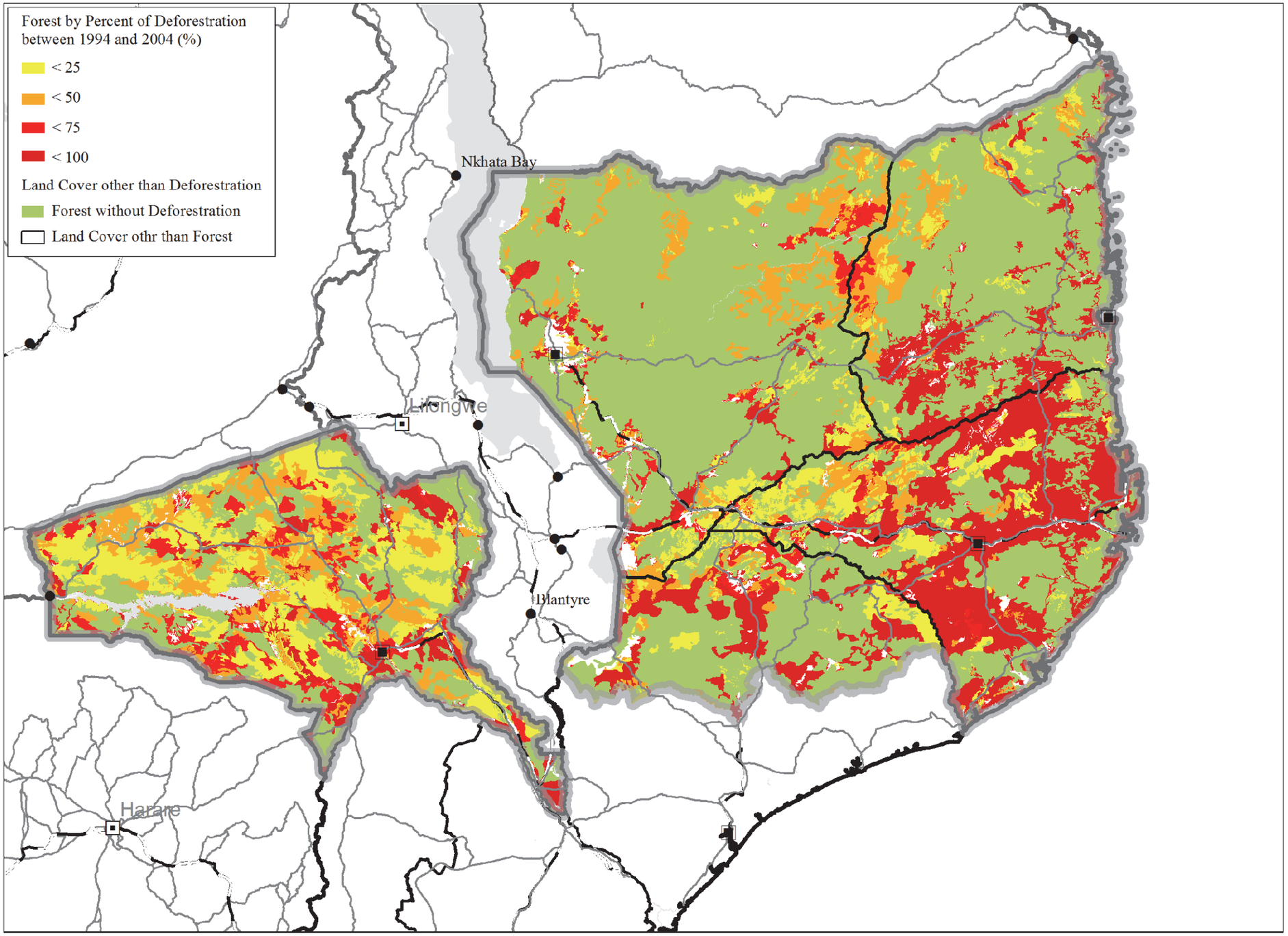
GIS data prepared by AIFM, 2007 based on LANDSAT 2004/05. This diagram is enlarged by 135% of the original size.

[B-2-3] Land Cover defined by ZAE (Zoneamento Agro-Ecologica Nacional) [Reference, DRAFT version, 2009]



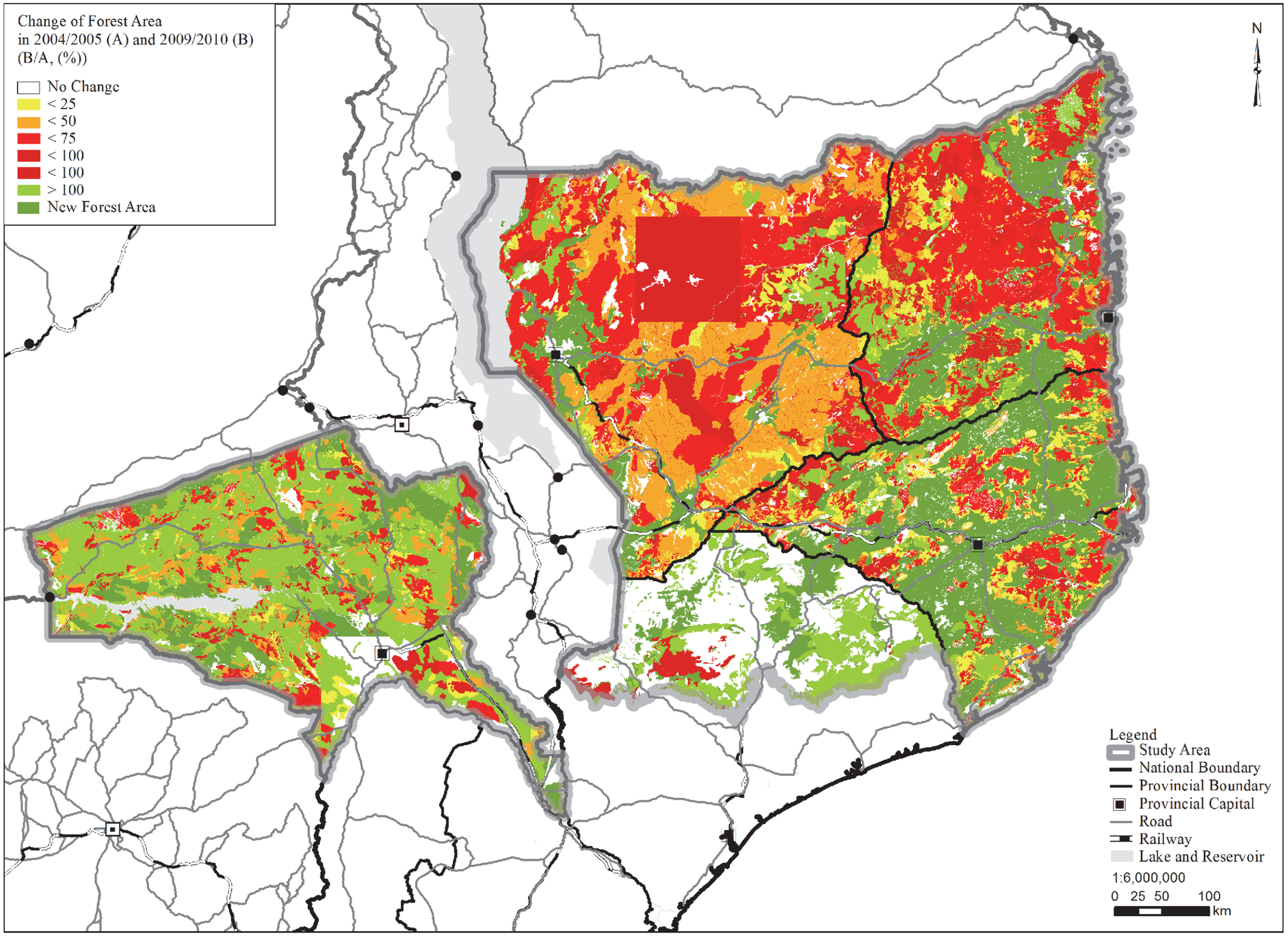
This data is based on the draft ZAE data as of March 2013 based on the AIFM project and adjusted by satellite image captured in 2009 and field inspections. This diagram is enlarged by 135% of the original size.

[B-2-4] Deforestation Area between 1994/95 to 2004/05



This data is prepared by the land cover data from AIFM (2004/05) and CENACARTA (1994/05). This diagram is enlarged by 135% of the original size.

[B-2-5] Deforestation Area between 2004/05 to 2009 [Reference]



This data is prepared by the land cover data from AIFM (2004/05) and draft ZAE (adjusted by satellite image of 2009). There is the part where missing data exist in Niassa province .This diagram is enlarged by 135% of the original size