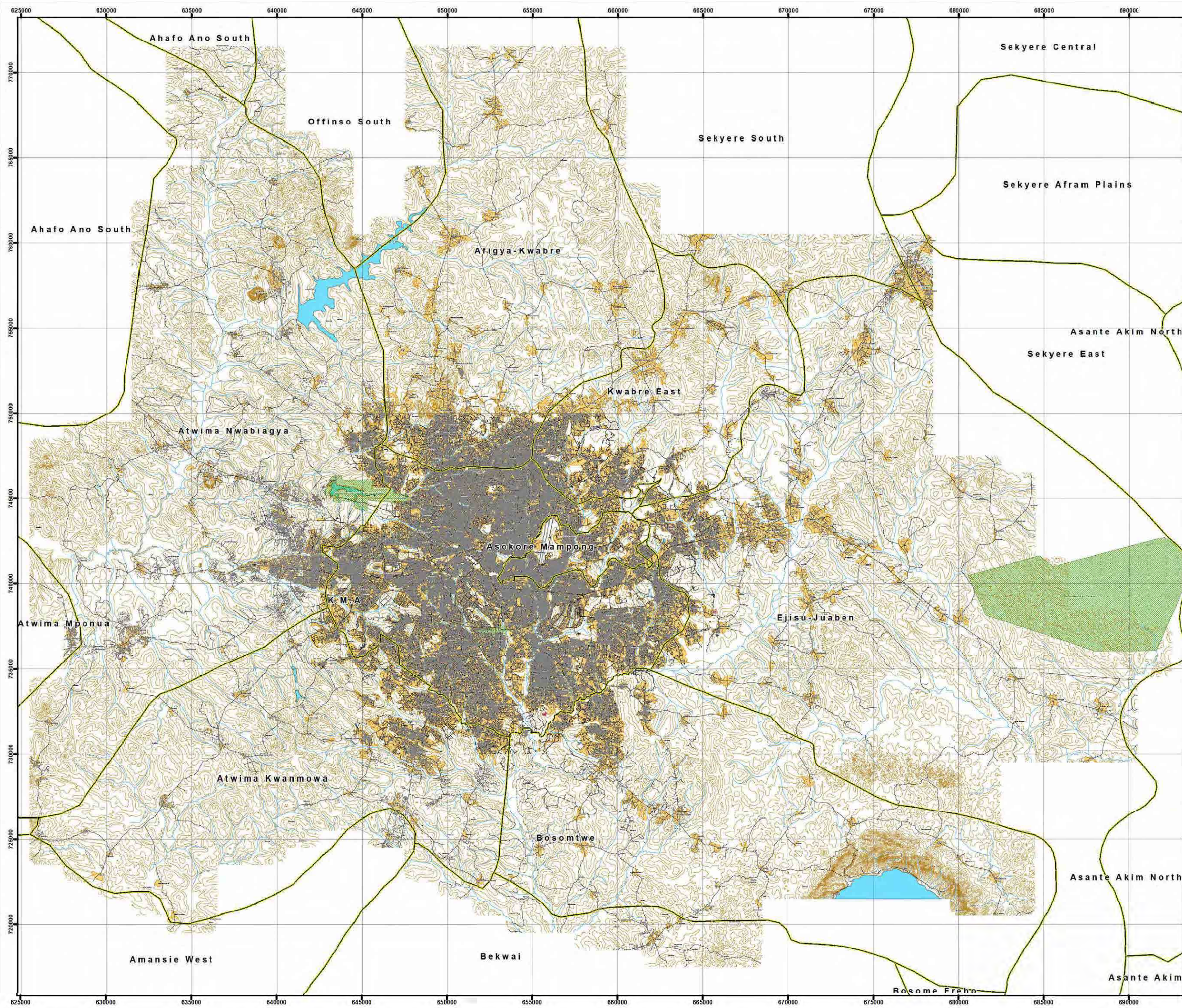


PART III

Topographic Maps and Present Land Use Maps





TOPOGRAPHIC MAP
SCALE 1:50,000
MAPPING AREA

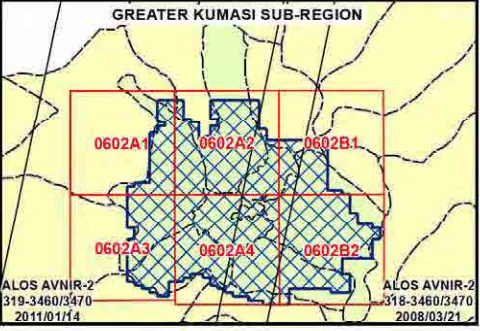
LEGEND

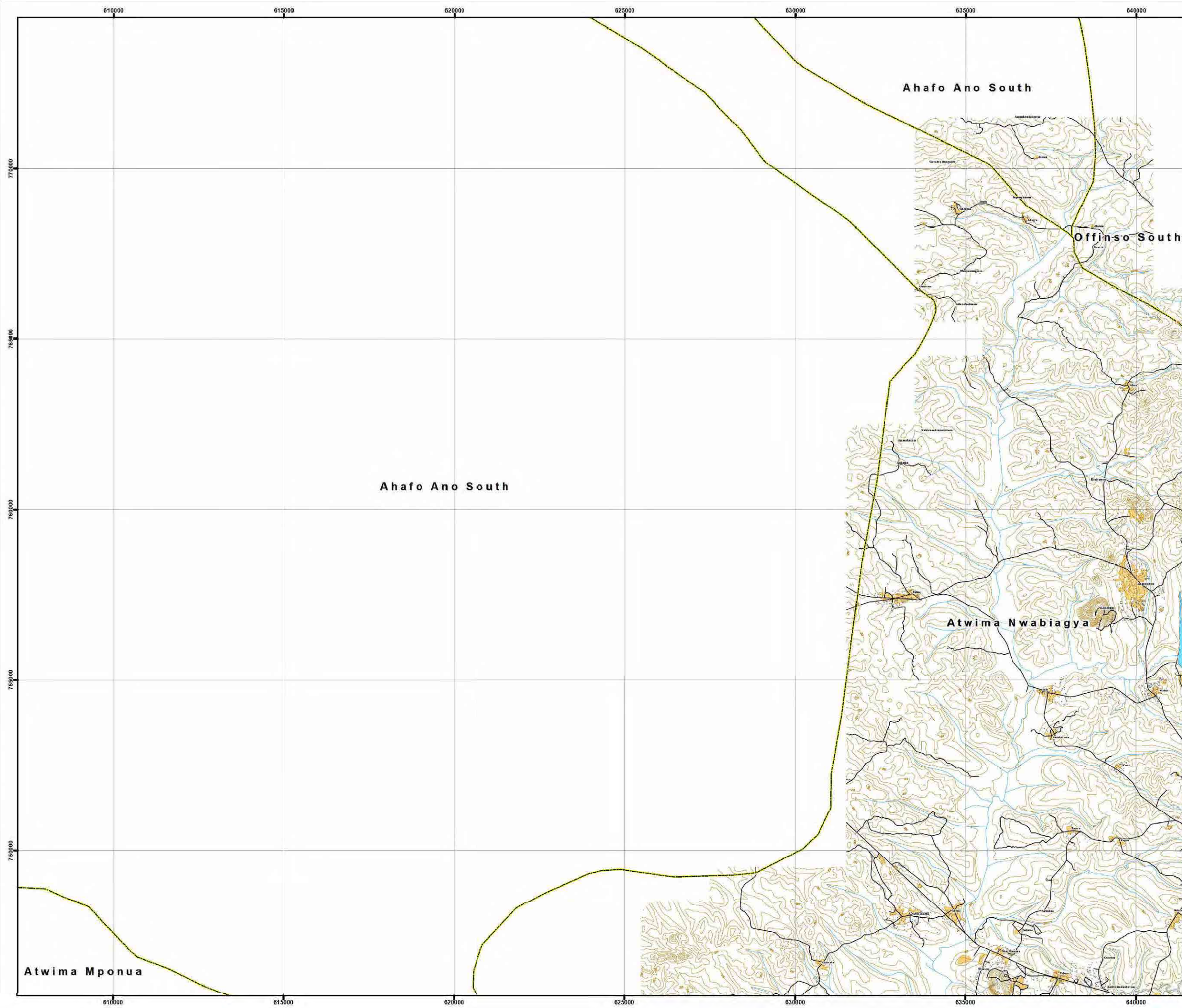
- Administrative Boundary**
 - District Boundary
- Building**
 - 3005 House
- Transportation**
 - 2110 Runway (Airport)
 - 2300 Railway
 - 2100 Road
- Hydrology**
 - 5101 Wide River
 - 5105 Lake/Pond
 - 5106 Marsh, Swamp
 - 5201 (Single Line) River
- Contour**
 - 7101 Index Contour, 50m Interval
 - 7102 Intermediate Contour, 10m Interval
- Conservation**
 - Forest Reserve
- Settlement**
 - 3000 Settlement

1:200,000
0 0.5 1 2 3 4 5 Kilometers

Map Projection:
- Projected Coordinate System; WGS 1984 UTM Zone 30N
- Projection: Transverse Mercator

Source:
1) ALOS AVNIR-2, JAXA, 2009/2011
2) Topographic Map, 1:50,000, SDG, 1972
3) ASTER GDEM Version 2, METI and NASA

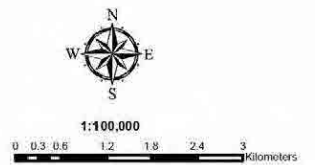




12-1

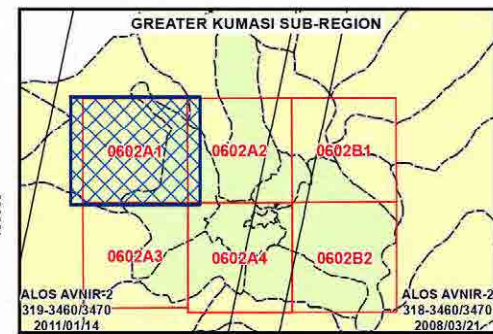
TOPOGRAPHIC MAP
SCALE 1:50,000
0602A1

- LEGEND**
- Administrative Boundary**
 - District Boundary
 - Building**
 - 3005 House
 - Transportation**
 - 2110 Runway (Airport)
 - 2300 Railway
 - 2100 Road
 - Hydrology**
 - 5101 Wide River
 - 5105 Lake/Pond
 - 5106 Marsh, Swamp
 - 5201 (Single Line) River
 - Contour**
 - 7101 Index Contour, 50m Interval
 - 7102 Intermediate Contour, 10m Interval
 - Conservation**
 - Forest Reserve
 - Settlement**
 - 3000 Settlement



Map Projection:
- Projected Coordinate System: WGS 1984 UTM Zone 30N
- Projection: Transverse Mercator

Source:
1) ALOS AVNIR-2, JAXA, 2008/2011
2) Topographic Map, 1:50,000, SDG, 1972
3) ASTER GDEM Version 2, METI and NASA



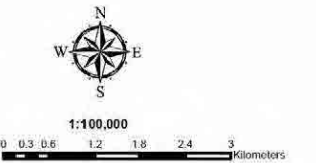
MINISTRY OF ENVIRONMENT, SCIENCE, TECHNOLOGY
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12-2

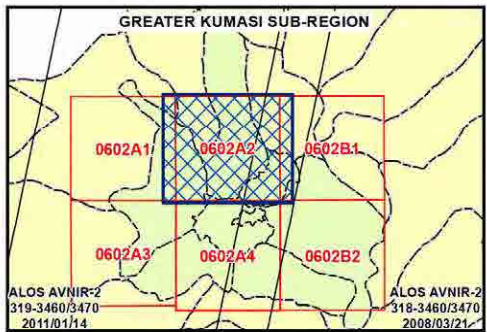
TOPOGRAPHIC MAP
SCALE 1:50,000
0602A2

- LEGEND**
- Administrative Boundary**
 - District Boundary
 - Building**
 - 3005 House
 - Transportation**
 - 2110 Runway (Airport)
 - 2300 Railway
 - 2100 Road
 - Hydrology**
 - 5101 Wide River
 - 5105 Lake/Pond
 - 5106 Marsh, Swamp
 - 5201 (Single Line) River
 - Contour**
 - 7101 Index Contour, 50m Interval
 - 7102 Intermediate Contour, 10m Interval
 - Conservation**
 - Forest Reserve
 - Settlement**
 - 3000 Settlement



Map Projection:
- Projected Coordinate System: WGS 1984 UTM Zone 30N
- Projection: Transverse Mercator

Source:
1) ALOS AVNIR-2, JAXA, 2008/2011
2) Topographic Map, 1:50,000, SDG, 1972
3) ASTER GDEM Version 2, METI and NASA



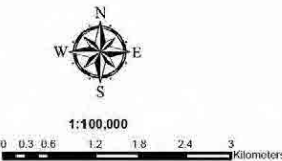
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12-3

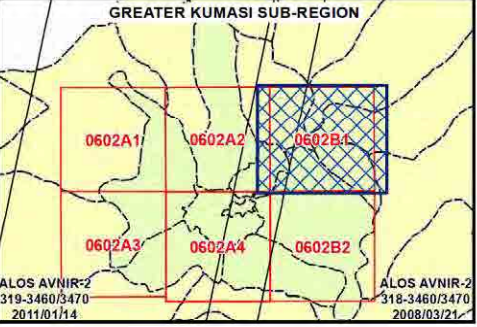
TOPOGRAPHIC MAP
SCALE 1:50,000
0602B1

- LEGEND**
- Administrative Boundary**
 - District Boundary
 - Building**
 - 3005 House
 - Transportation**
 - 2110 Runway (Airport)
 - 2300 Railway
 - 2100 Road
 - Hydrology**
 - 5101 Wide River
 - 5105 Lake/Pond
 - 5106 Marsh, Swamp
 - 5201 (Single Line) River
 - Contour**
 - 7101 Index Contour, 50m Interval
 - 7102 Intermediate Contour, 10m Interval
 - Conservation**
 - Forest Reserve
 - Settlement**
 - 3000 Settlement



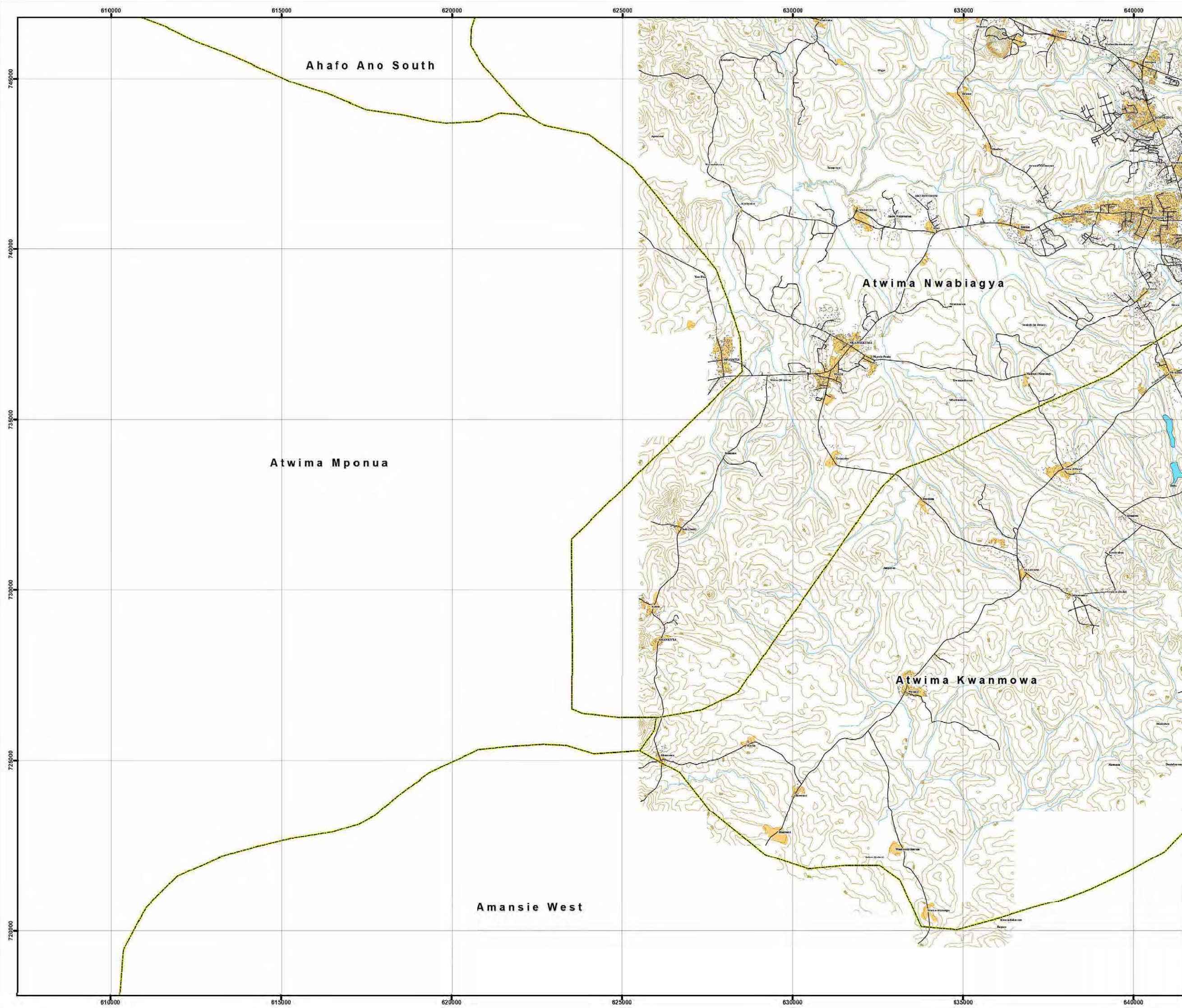
Map Projection:
- Projected Coordinate System: WGS 1984 UTM Zone 30N
- Projection: Transverse Mercator

Source:
1) ALOS AVNIR-2, JAXA, 2008/2011
2) Topographic Map, 1:50,000, SDG, 1972
3) ASTER GDEM Version 2, METI and NASA



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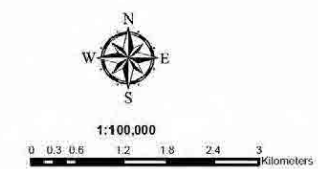
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12-4

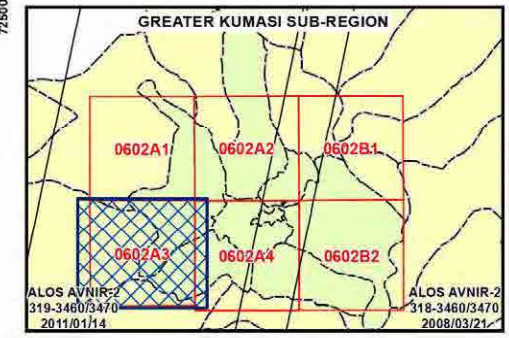
TOPOGRAPHIC MAP
SCALE 1:50,000
0602A3

- LEGEND**
- Administrative Boundary**
 - District Boundary
 - Building**
 - 3005 House
 - Transportation**
 - 2110 Runway (Airport)
 - 2300 Railway
 - 2100 Road
 - Hydrology**
 - 5101 Wide River
 - 5105 Lake/Pond
 - 5106 Marsh, Swamp
 - 5201 (Single Line) River
 - Contour**
 - 7101 Index Contour, 50m Interval
 - 7102 Intermediate Contour, 10m Interval
 - Conservation**
 - Forest Reserve
 - Settlement**
 - 3000 Settlement



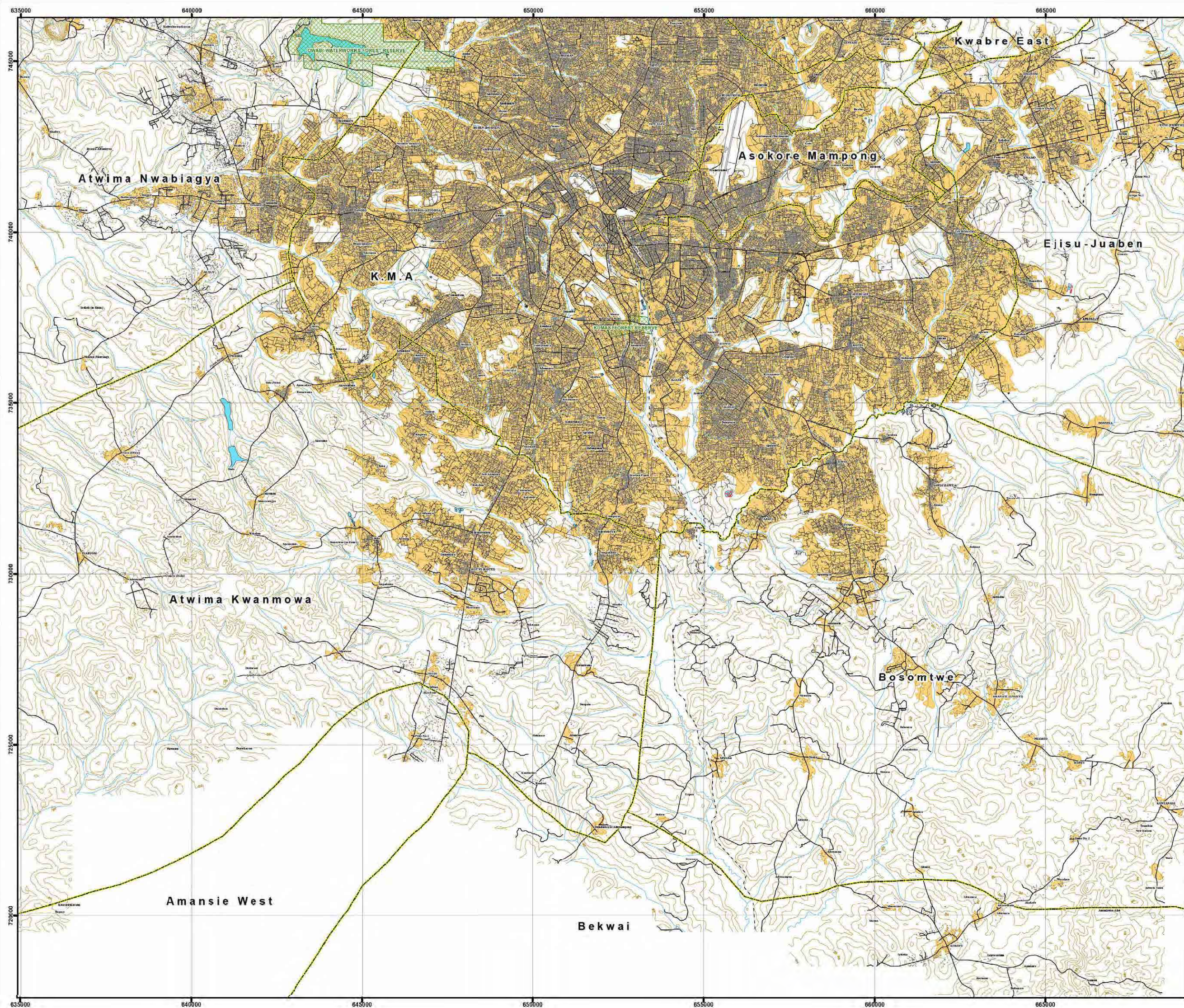
Map Projection:
- Projected Coordinate System: WGS 1984 UTM Zone 30N
- Projection: Transverse Mercator

Source:
1) ALOS AVNIR-2, JAXA, 2008/2011
2) Topographic Map, 1:50,000, SDG, 1972
3) ASTER GDEM Version 2, METI and NASA



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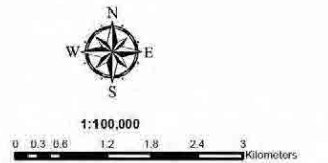


12-5

TOPOGRAPHIC MAP
SCALE 1:50,000
0602A4

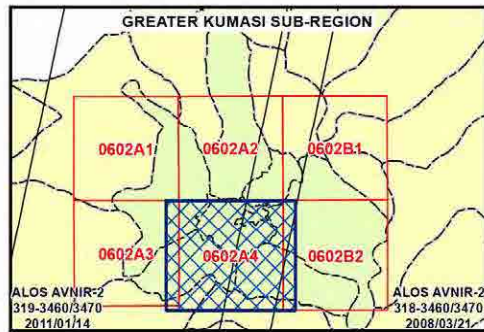
LEGEND

- Administrative Boundary**
 - District Boundary
- Building**
 - 3005 House
- Transportation**
 - 2110 Runway (Airport)
 - 2300 Railway
 - 2100 Road
- Hydrology**
 - 5101 Wide River
 - 5105 Lake/Pond
 - 5106 Marsh, Swamp
 - 5201 (Single Line) River
- Contour**
 - 7101 Index Contour, 50m Interval
 - 7102 Intermediate Contour, 10m Interval
- Conservation**
 - Forest Reserve
- Settlement**
 - 3000 Settlement



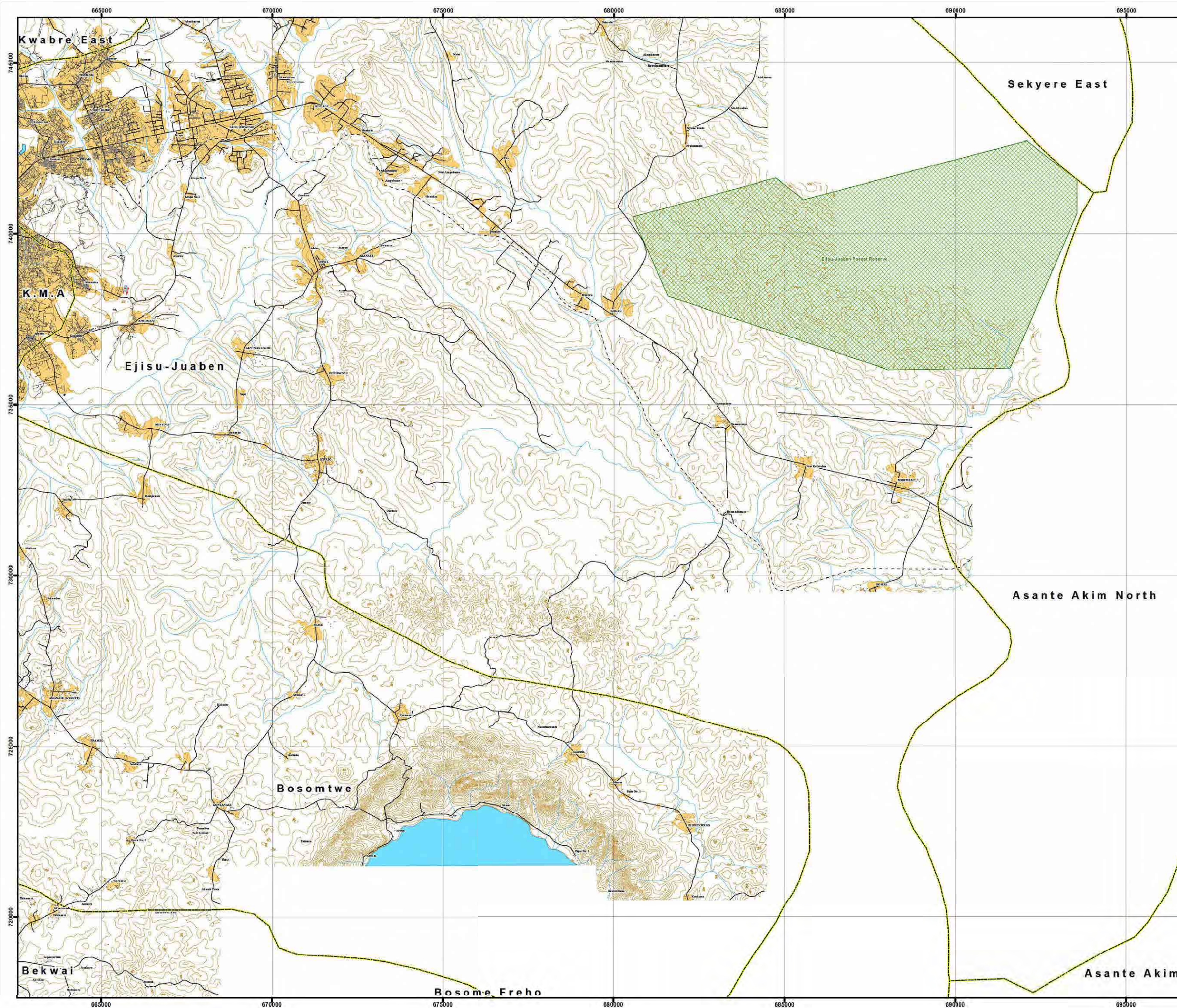
Map Projection:
- Projected Coordinate System: WGS 1984 UTM Zone 30N
- Projection: Transverse Mercator

Source:
1) ALOS AVNIR-2, JAXA, 2008/2011
2) Topographic Map, 1:50,000, SDG, 1972
3) ASTER GDEM Version 2, METI and NASA



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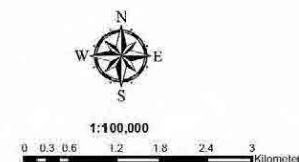
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12-6

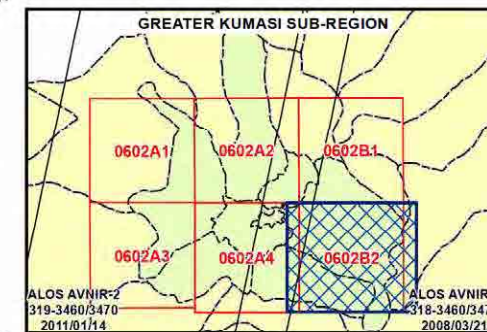
TOPOGRAPHIC MAP
SCALE 1:50,000
0602B2

- LEGEND**
- Administrative Boundary**
 - District Boundary
 - Building**
 - 3005 House
 - Transportation**
 - 2110 Runway (Airport)
 - 2300 Railway
 - 2100 Road
 - Hydrology**
 - 5101 Wide River
 - 5105 Lake/Pond
 - 5106 Marsh, Swamp
 - 5201 (Single Line) River
 - Contour**
 - 7101 Index Contour, 50m Interval
 - 7102 Intermediate Contour, 10m Interval
 - Conservation**
 - Forest Reserve
 - Settlement**
 - 3000 Settlement



Map Projection:
- Projected Coordinate System: WGS 1984 UTM Zone 30N
- Projection: Transverse Mercator

Source:
1) ALOS AVNIR-2, JAXA, 2008/2011
2) Topographic Map, 1:50,000, SDG, 1972
3) ASTER GDEM Version 2, METI and NASA

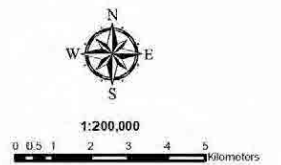


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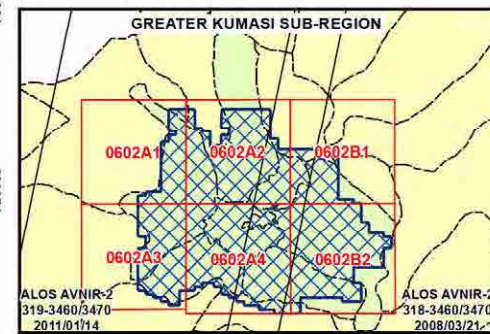
**LAND USE MAP
IN 2008/2011
SCALE 1:50,000
MAPPING AREA**

- LEGEND**
- Administrative Boundary**
 - District Boundary
 - Road**
 - 2100 Road
 - Hydrology**
 - 5101 Wide River
 - 5105 Lake/Pond
 - 5106 Marsh, Swamp
 - 5201 (Single Line) River
 - Land Use**
 - 3000 Settlement
 - 3005 Buildings
 - 4005 Other Land Use
 - 6000 Vegetation



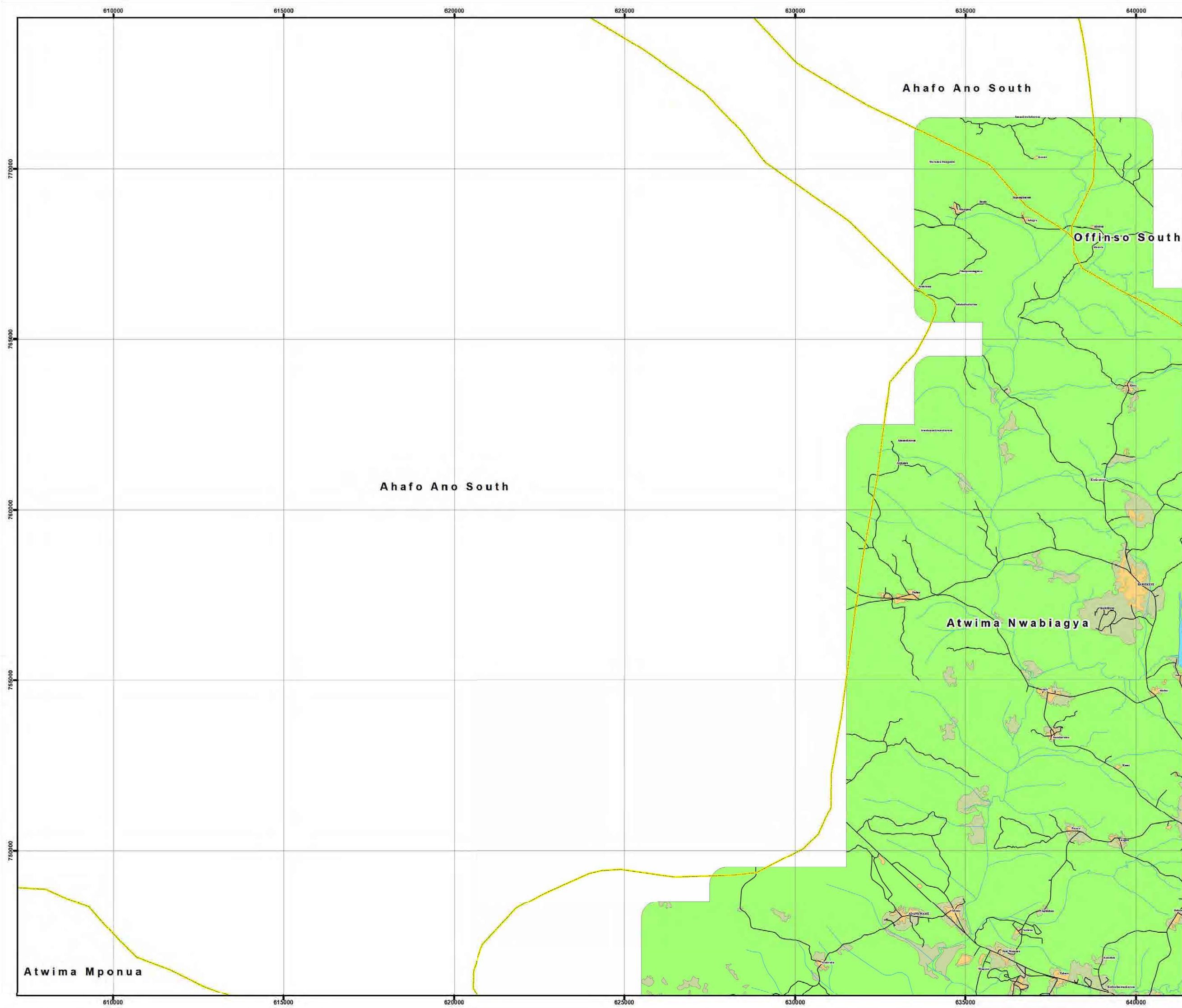
Map Projection:
- Projected Coordinate System: WGS 1984 UTM Zone 30N
- Projection: Transverse Mercator

Source:
1) ALOS AVNIR-2, JAXA, 2008/2011
2) Topographic Map, 1:50,000, SDG, 1972
3) ASTER GDEM Version 2, METI and NASA



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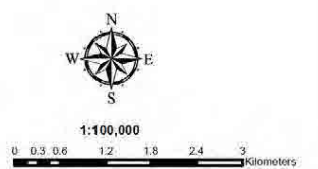
ORIENTAL CONSULTANTS Co., Ltd.
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14-1

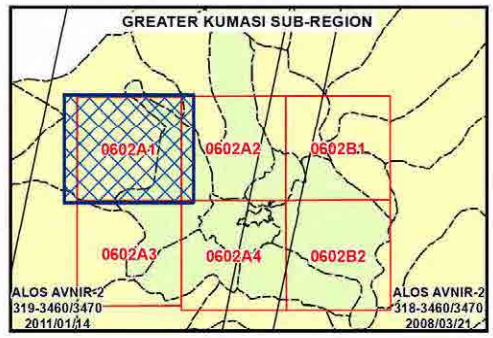
**LAND USE MAP
IN 2008/2011
SCALE 1:50,000
0602A1**

- LEGEND**
- Administrative Boundary**
 - District Boundary
 - Road**
 - 2100 Road
 - Hydrology**
 - 5101 Wide River
 - 5105 Lake/Pond
 - 5106 Marsh, Swamp
 - 5201 (Single Line) River
 - Land Use**
 - 3000 Settlement
 - 3005 Buildings
 - 4005 Other Land Use
 - 6000 Vegetation



Map Projection:
- Projected Coordinate System: WGS 1984 UTM Zone 30N
- Projection: Transverse Mercator

Source:
1) ALOS AVNIR-2, JAXA, 2008/2011
2) Topographic Map, 1:50,000, SDG, 1972
3) ASTER GDEM Version 2, METI and NASA



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14-2

**LAND USE MAP
IN 2008/2011
SCALE 1:50,000
0602A2**

LEGEND

- Administrative Boundary**
District Boundary
- Road**
2100 Road
- Hydrology**
5101 Wide River
5105 Lake/Pond
5106 Marsh, Swamp
5201 (Single Line) River
- Land Use**
3000 Settlement
3005 Buildings
4005 Other Land Use
6000 Vegetation

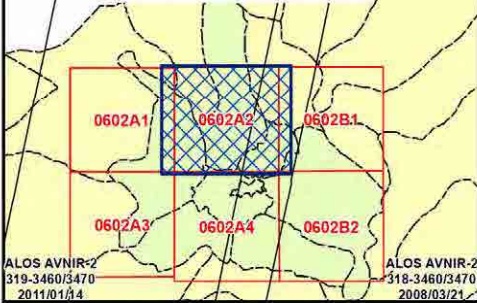


1:100,000
0 0.3 0.6 1.2 1.8 2.4 3 Kilometers

Map Projection:
- Projected Coordinate System; WGS 1984 UTM Zone 30N
- Projection: Transverse Mercator

Source:
1) ALOS AVNIR-2, JAXA, 2008/2011
2) Topographic Map, 1:50,000, SDG, 1972
3) ASTER GDEM Version 2, METI and NASA

GREATER KUMASI SUB-REGION



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14-3

**LAND USE MAP
IN 2008/2011
SCALE 1:50,000
0602B1**

LEGEND

- Administrative Boundary**
District Boundary
- Road**
2100 Road
- Hydrology**
5101 Wide River
5105 Lake/Pond
5106 Marsh, Swamp
5201 (Single Line) River
- Land Use**
3000 Settlement
3005 Buildings
4005 Other Land Use
6000 Vegetation

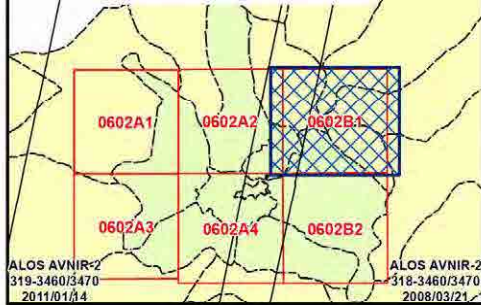


1:100,000
0 0.3 0.6 1.2 1.8 2.4 3 Kilometers

Map Projection:
- Projected Coordinate System: WGS 1984 UTM Zone 30N
- Projection: Transverse Mercator

Source:
1) ALOS AVNIR-2, JAXA, 2008/2011
2) Topographic Map, 1:50,000, SDG, 1972
3) ASTER GDEM Version 2, METI and NASA

GREATER KUMASI SUB-REGION



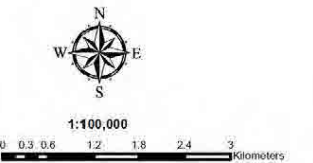
MINISTRY OF ENVIRONMENT, SCIENCE, TECHNOLOGY
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14-4

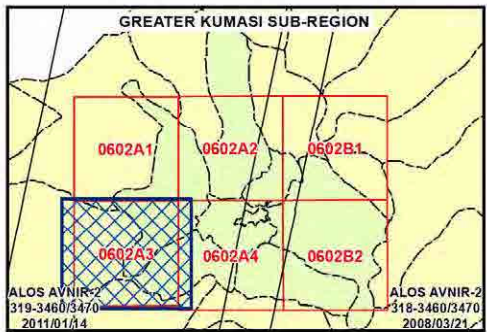
**LAND USE MAP
IN 2008/2011
SCALE 1:50,000
0602A3**

- LEGEND**
- Administrative Boundary**
 - District Boundary
 - Road**
 - 2100 Road
 - Hydrology**
 - 5101 Wide River
 - 5105 Lake/Pond
 - 5106 Marsh, Swamp
 - 5201 (Single Line) River
 - Land Use**
 - 3000 Settlement
 - 3005 Buildings
 - 4005 Other Land Use
 - 6000 Vegetation



Map Projection:
- Projected Coordinate System; WGS 1984 UTM Zone 30N
- Projection: Transverse Mercator

Source:
1) ALOS AVNIR-2, JAXA, 2008/2011
2) Topographic Map, 1:50,000, SDG, 1972
3) ASTER GDEM Version 2, METI and NASA



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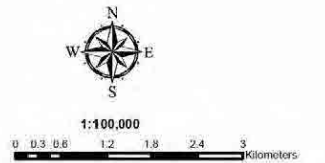
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14-5

**LAND USE MAP
IN 2008/2011
SCALE 1:50,000
0602A4**

LEGEND

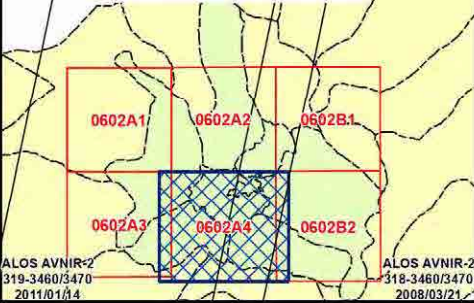
- Administrative Boundary**
District Boundary
- Road**
2100 Road
- Hydrology**
5101 Wide River
5105 Lake/Pond
5106 Marsh, Swamp
5201 (Single Line) River
- Land Use**
3000 Settlement
3005 Buildings
4005 Other Land Use
6000 Vegetation



Map Projection:
- Projected Coordinate System: WGS 1984 UTM Zone 30N
- Projection: Transverse Mercator

Source:
1) ALOS AVNIR-2, JAXA, 2008/2011
2) Topographic Map, 1:50,000, SDG, 1972
3) ASTER GDEM Version 2, METI and NASA

GREATER KUMASI SUB-REGION



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14-6

**LAND USE MAP
IN 2008/2011
SCALE 1:50,000
0602B2**

LEGEND

- Administrative Boundary**
District Boundary
- Road**
2100 Road
- Hydrology**
5101 Wide River
5105 Lake/Pond
5106 Marsh, Swamp
5201 (Single Line) River
- Land Use**
3000 Settlement
3005 Buildings
4005 Other Land Use
6000 Vegetation

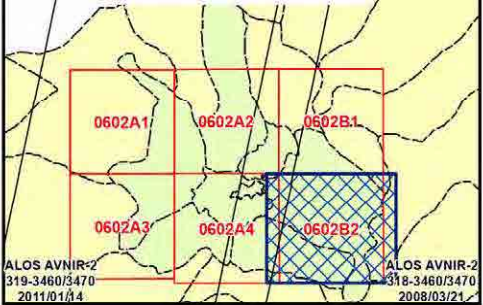


1:100,000
0 0.3 0.6 1.2 1.8 2.4 3 Kilometers

Map Projection:
- Projected Coordinate System: WGS 1984 UTM Zone 30N
- Projection: Transverse Mercator

Source:
1) ALOS AVNIR-2, JAXA, 2008/2011
2) Topographic Map, 1:50,000, SDG, 1972
3) ASTER GDEM Version 2, METI and NASA

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TOPOGRAPHIC MAP SCALE 1:10,000 MAPPING AREA

LEGEND**Administrative Boundary**

District Boundary

Building

- 3001 Permanent Building (More than 40m)
- 3002 Building (More than 40m)
- 3005 Building (Less than 39m)
- 3524 School
- 3523 Church
- 3532 Hospital
- 3539 Market
- 3540 Mosque

Railway

2300 Railway

Road

- 2101 Main Road
- 2103 Other Road
- 2110 Runway
- 2104 (Single Line) Road
- 2105 Footpath

Hydrology

- 5101 Wide River
- 5102 Wide Seasonal River
- 5103 Wide Ditch
- 5104 Wide Canal
- 5105 Lake/Pond
- 5106 Marsh, Swamp
- 5201 (Single Line) River
- 5202 (Single Line) Seasonal River
- 5203 (Single Line) Ditch
- 5204 (Single Line) Canal

Cartography

6141 Wall

6142 Fence

Contour

7101 Index Contour, 50m Interval

7102 Intermediate Contour, 10m Interval

Conservation

Forest Reserve

Settlement

3000 Settlement

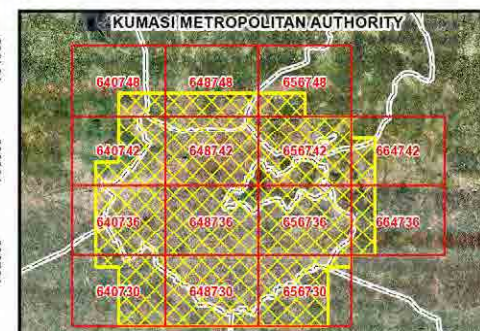
1:75,000
0 0.25 0.5 1 1.5 2 2.5 Kilometers**Map Projection:**

- Projected Coordinate System; WGS 1984 UTM Zone 30N

- Projection: Transverse Mercator

Source:

- 1) Ejisu Orthophotomaps, L.A.P. 2008/2009
- 2) Topographic Map, 1:50,000, SDG, 1972
- 3) ASTER GDEM Version 2, METI and NASA



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