

# **THE ROLE OF INDUSTRIAL PARKS IN MYANMAR'S AGRIBUSINESS SECTOR**

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MINISTRY OF CONSTRUCTION**

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**CONTENT**

**Background of Industrial Zones in Myanmar**

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**Myanmar Comprehensive Development Framework  
and Agribusiness Development**

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**Industrial Complex Development linking New  
Economic Corridors and Growth Poles of Myanmar**

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**Study on Existing Industrial Zones and Future Aspect  
in Yangon City**

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**SEZ Development (Thilawa, Kyaukphyu, Dawei)**

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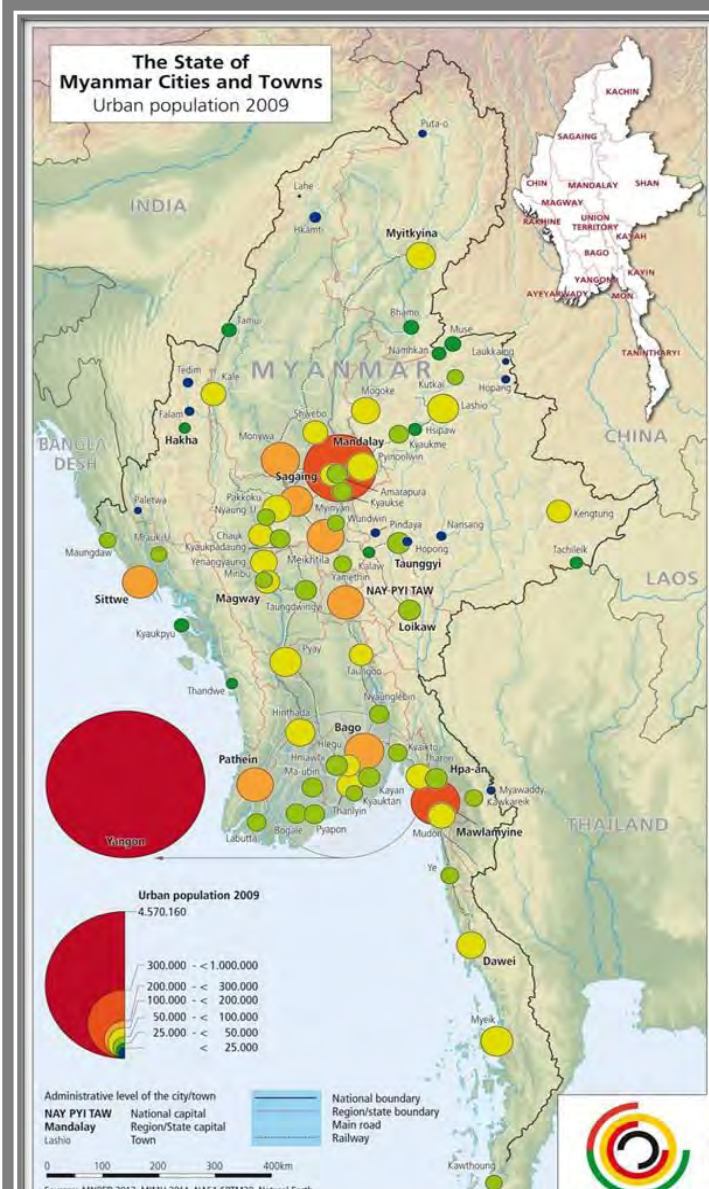
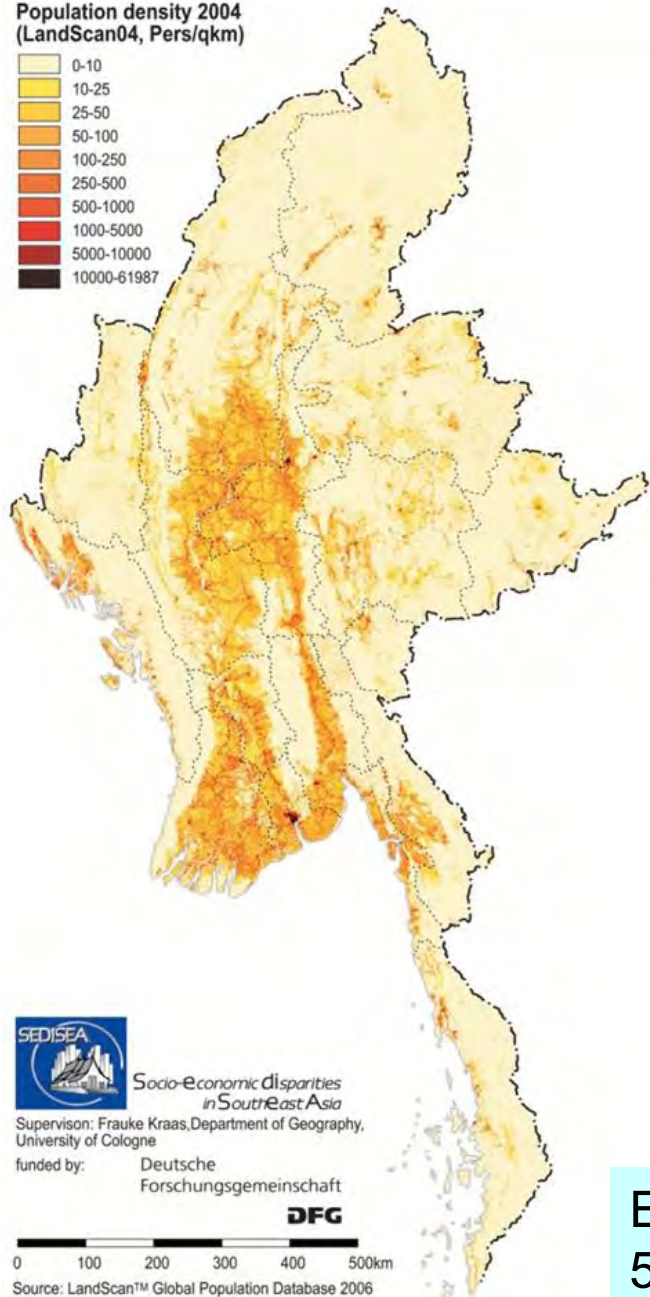
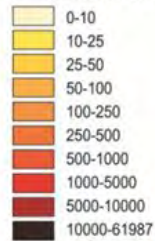
**Integration of Industrial Park in Urban and Regional  
Development Plan**

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# The State of Myanmar Cities and Towns



Population density 2004  
(LandScan04, Pers/qkm)



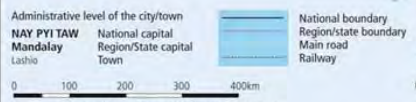
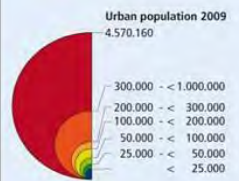
City/town ranking urban population 2009

- 1 Yangon
- 2 Mandalay
- 3 Mawlamyine
- 4 Bago
- 5 Monywa
- 6 Meiktila
- 7 Patheingyi
- 8 Nay Pyi Taw
- 9 Sittwe
- 10 Myingyan
- 11 Myeik
- 12 Pyaw
- 13 Lashio
- 14 Pinnawlin
- 15 Hinthada
- 16 Myittha
- 17 Pakokku
- 18 Dawei
- 19 Mogoke
- 20 Mudon
- 21 Thant
- 22 Yangon
- 23 Thant
- 24 Kale
- 25 Shwebo
- 26 Magway
- 27 Kengtung
- 28 Chauk
- 29 Hlegu
- 30 Sagaing
- 31 Taungtha
- 32 Taungtha
- 33 Loikaw
- 34 Hpa-An
- 35 Hmawbi
- 36 Kayan
- 37 Taungtha
- 38 Bogale
- 39 Amarapura
- 40 Maubin
- 41 Pyaw
- 42 Kyaukpadaung
- 43 Kyaukse
- 44 Nyaung-U
- 45 Kyaukse
- 46 Kyaukse
- 47 Labutta
- 48 Nyaung-U
- 49 Kawkaik
- 50 Yamethin
- 51 Ye
- 52 Minbu
- 53 Wundwin
- 54 Kyauktan
- 55 Kawthong
- 56 Maungdaw
- 57 Kutkai
- 58 Mrauk-U
- 59 Muse
- 60 Bhamo
- 61 Tamu
- 62 Kyaukpadaung
- 63 Namkan
- 64 Hsipaw
- 65 Tachileik
- 66 Kalaw
- 67 Hakha
- 68 Thandwe
- 69 Hkamti
- 70 Tedim
- 71 Hopong
- 72 Nansang
- 73 Falam
- 74 Pindaya
- 75 Hopang
- 76 Myawaddy
- 77 Puta-O
- 78 Paletwa
- 79 Laukaing (calc.)
- 80 Lahe

Yangon (5.5m)  
Mandalay (1.2m)  
Naypyitaw (1.0m)

Cities 0.15-0.3m pop

Mawlamyine  
Bago  
Monywa  
MyitKyina  
Sittwe  
Meikthila  
Myeik  
Lasho  
Taunggyi



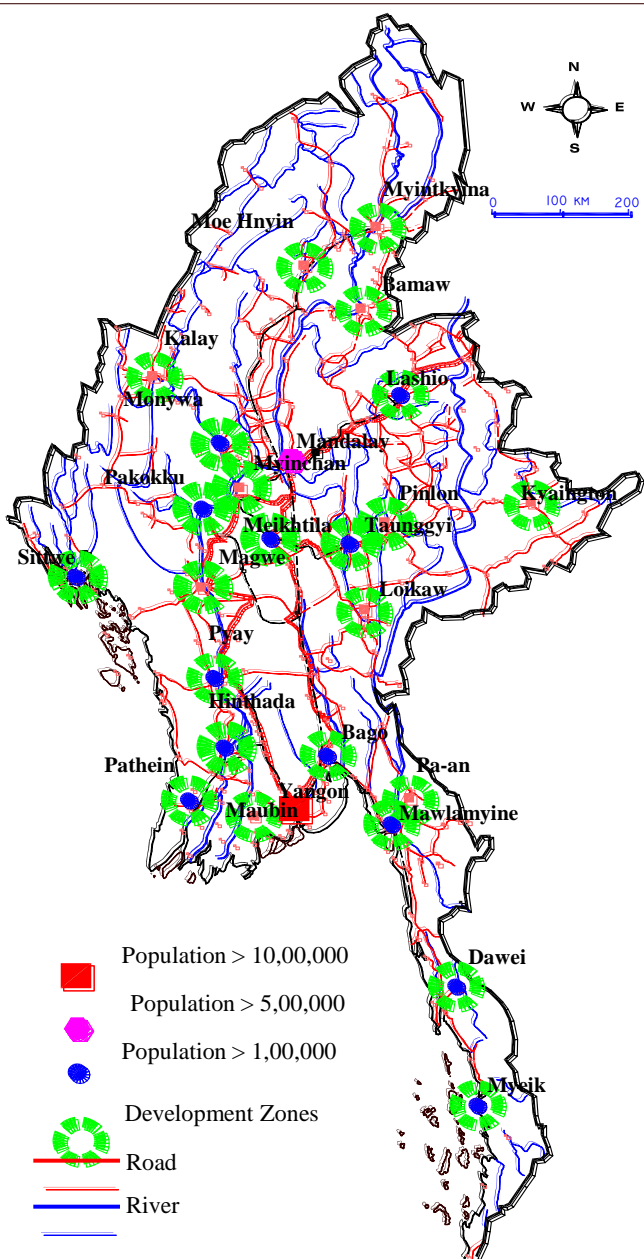
SEDISEA  
Socio-economic disparities in South East Asia  
Supervision: Frauke Kraas, Department of Geography, University of Cologne  
funded by: Deutsche Forschungsgemeinschaft  
DFG

Source: LandScan™ Global Population Database 2006  
Cartography: Regine Spohner

Establishment of Urban Network System, Study on 56+ Cities Socio-Economic Development Potential

# City Size Distribution above 1,00,000 Population and 24 Development Zones (1990-2011)

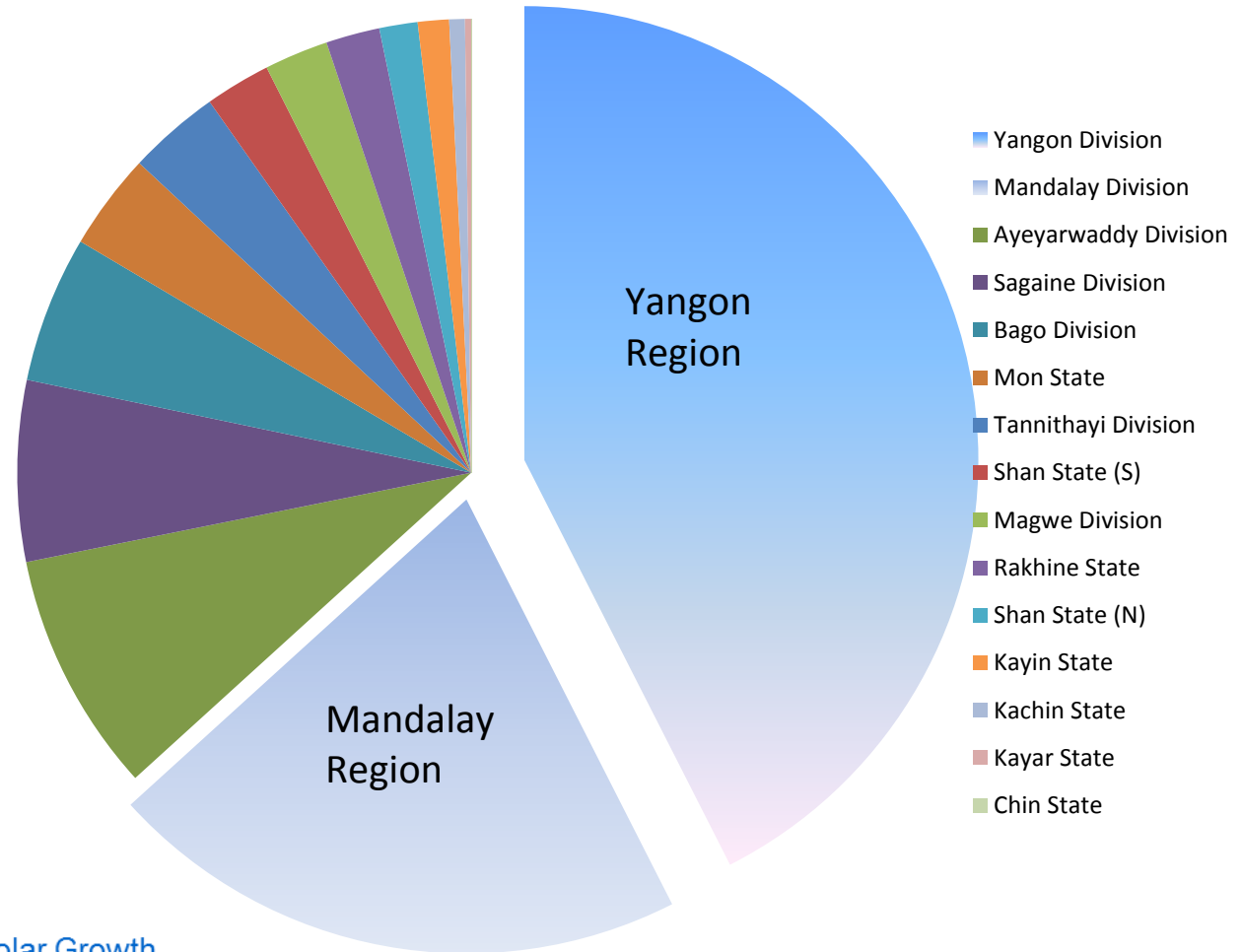
## List of 18 Industrial Zones



| Zone                              | Established Year | acre    | No, of Industries |
|-----------------------------------|------------------|---------|-------------------|
| 1. Mandalay Industrial Zone       | 1990, 1997       | 946.51  | 994               |
| 2. Myingyan Industrial Zone       |                  | 163.590 | 306               |
| 3. Meikhtila Industrial Zone      | 1997             | 385.450 | 81                |
| 4. Monywa Industrial Zone         | 1992             | 296.700 | 490               |
| 5. Yae nan Chaung Industrial Zone | 1998             | 98.810  | 137               |
| 6. Pakokku Industrial Zone        | 1999             | 321.000 | 448               |
| 7. Pyay Industrial Zone           |                  |         | 124               |
| 8. Patein Industrial Zone         | 1993             |         | 326               |
| 9. Myaungmya Industrial Zone      |                  | 101.650 | 58                |
| 10. Hinthada Industrial Zone      |                  |         | 482               |
| 11. Myeik Industrial Zone         |                  |         | 153               |
| 12. Taunggyi Industrial Zone      | 1999             | 287.000 | 342               |
| 13. Mawlamyine Industrial Zone    |                  | 163.400 | 326               |
| 14. Bago Industrial Zone          |                  |         | 35                |
| 15. Yangon (East)                 |                  |         |                   |
| 16. Yangon (West)                 |                  |         |                   |
| 17. Yangon (North)                |                  |         |                   |
| 18. Yangon (South)                |                  |         |                   |

# Industrial base in Yangon and Mandalay

Distribution of Large-scale Private Factories in 2009

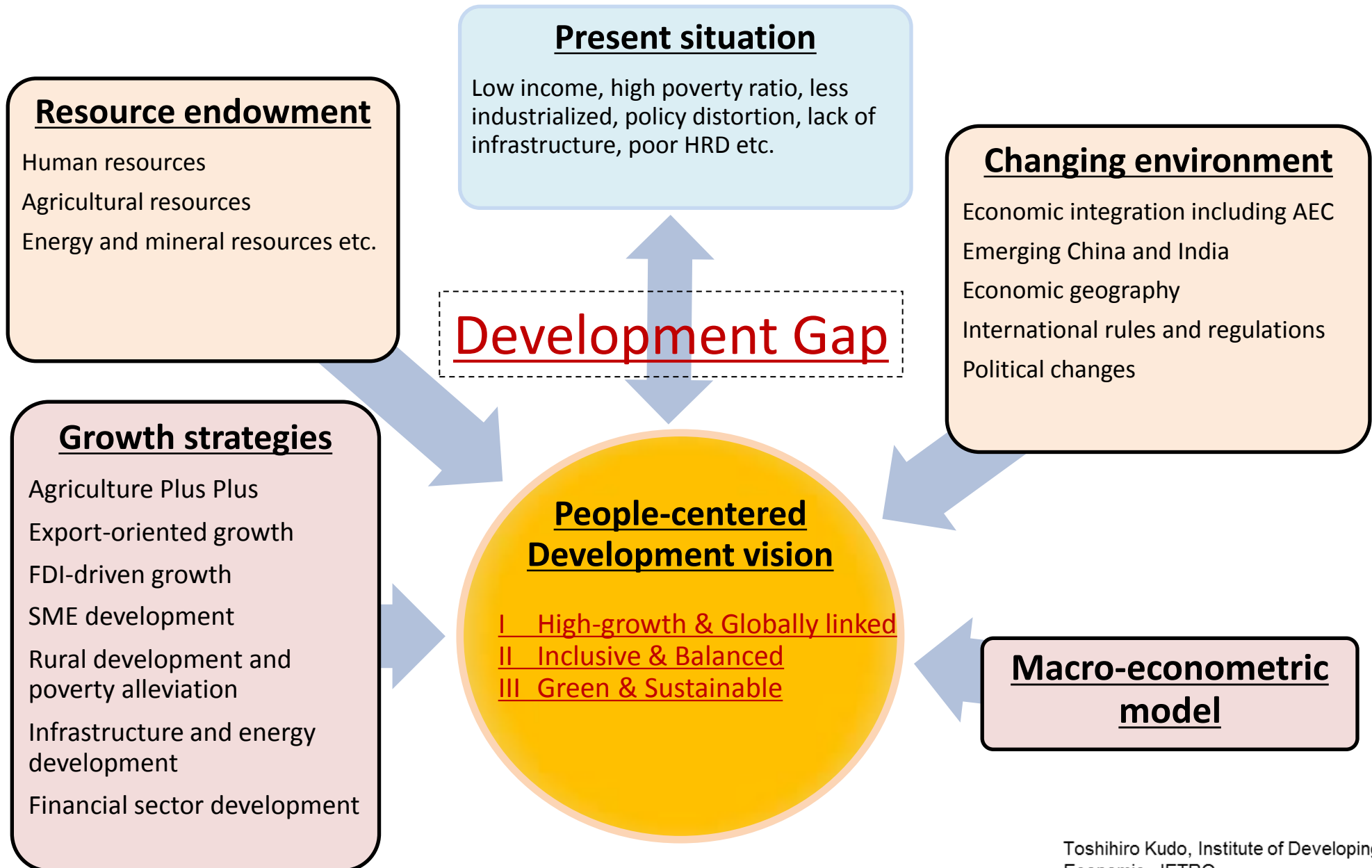


- More than 40% of large-scale private factories were located in Yangon, followed by Mandalay (20.7%) in 2009.

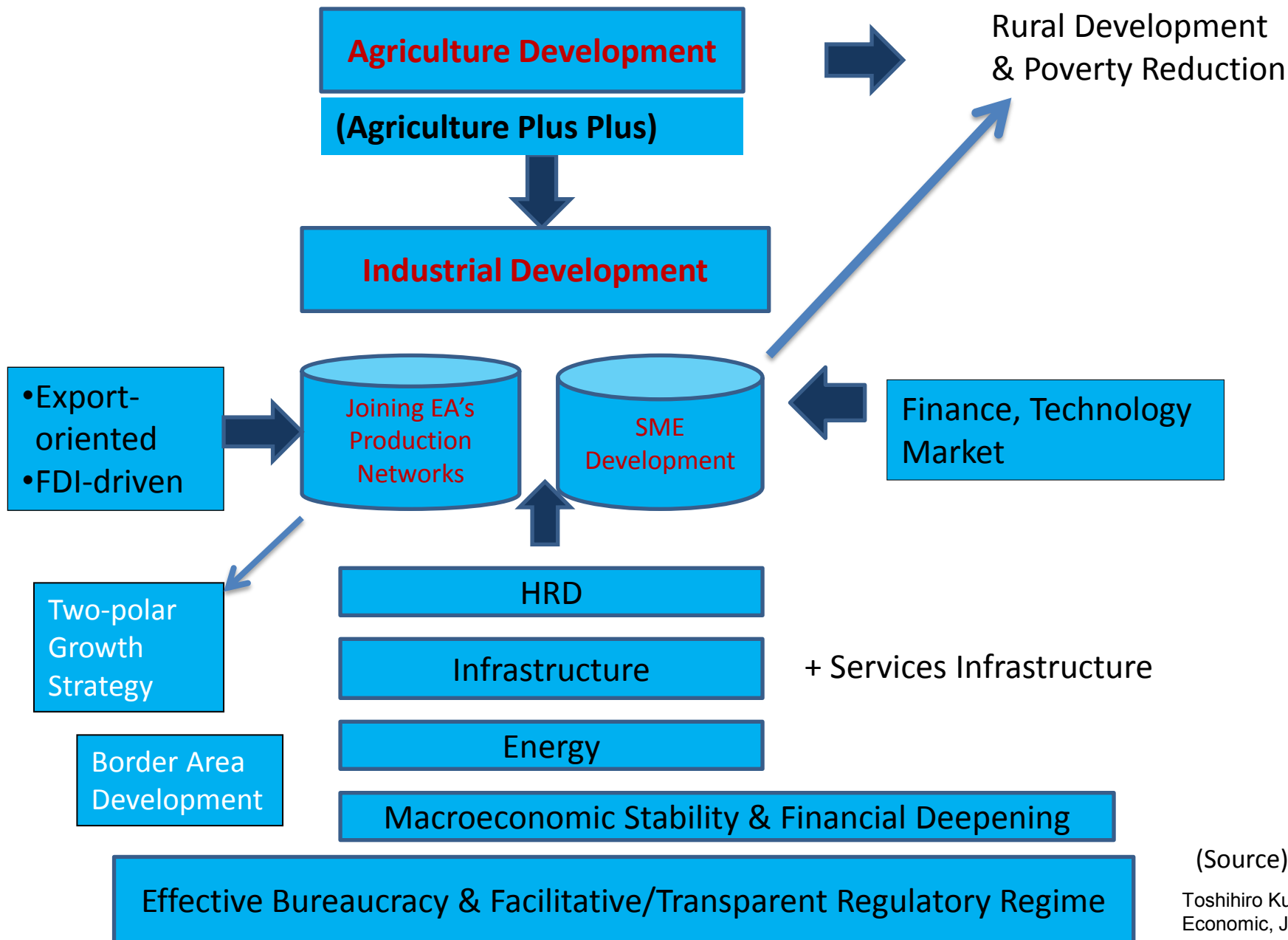
- Yangon and Mandalay can function as two engines for Myanmar's industrial

Source: Kudo T., Kumagai S. [2012] "Two Polar Growth Strategy in Myanmar: Seeking 'High' and 'Balanced Development'" IDE Discussion Paper No. 371

# Conceptual framework of MCDV



# Growth strategy for Myanmar

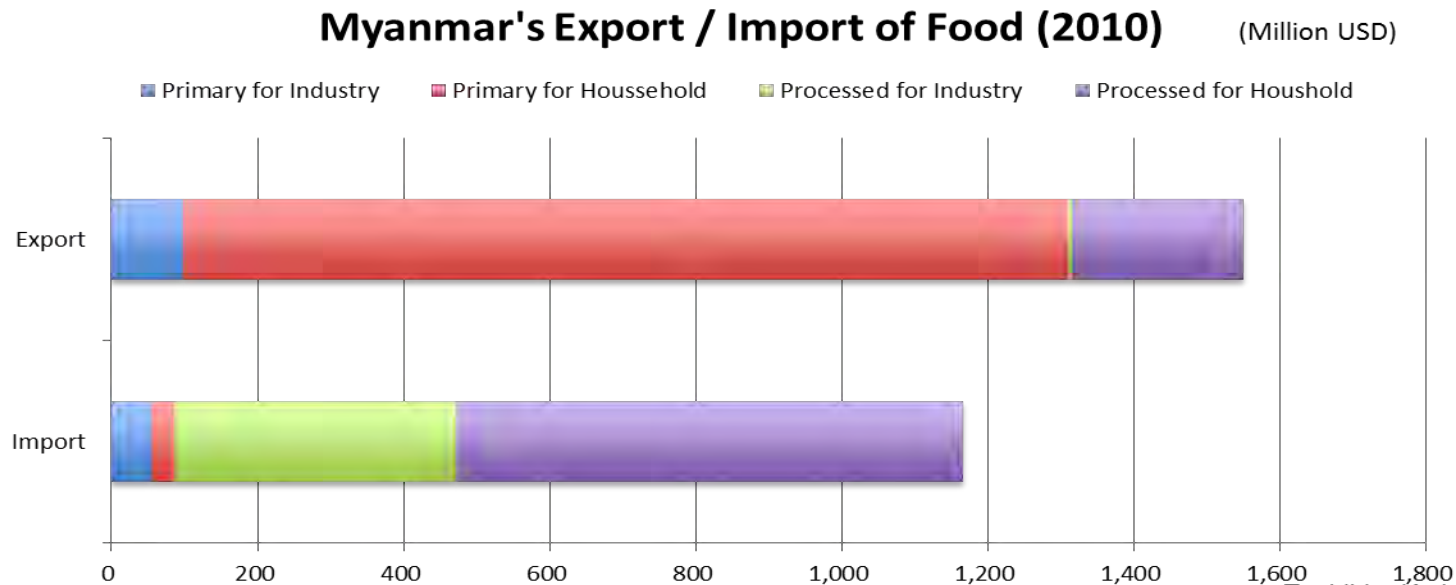


(Source) MCDV Report.

Toshihiro Kudo, Institute of Development Economics, JETRO

# Exporting high-quality agricultural products

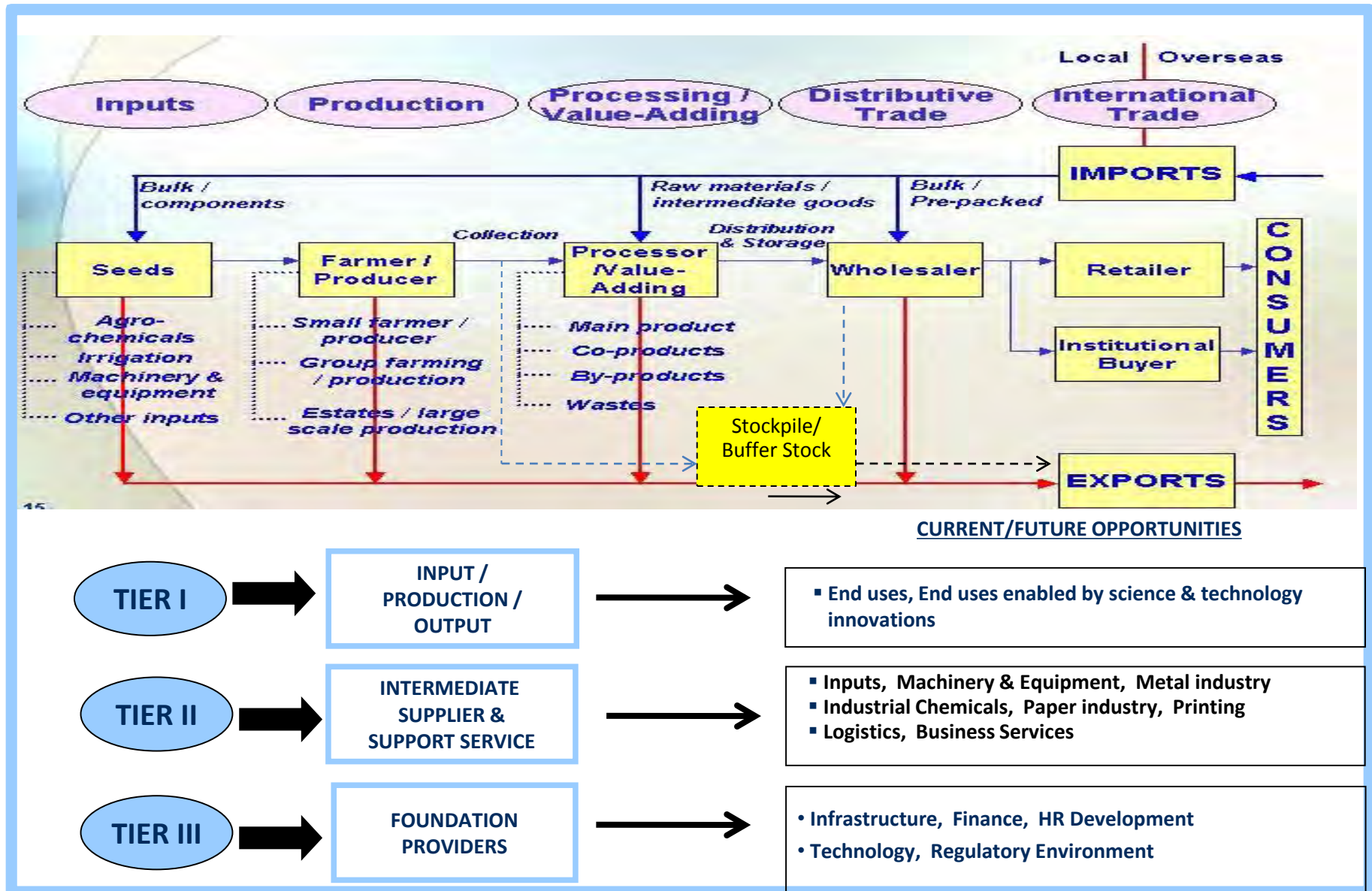
- Myanmar is an exporter of food such as rice, beans and pulses, sesame seeds and so forth. Myanmar can export more agricultural produce such as rice. Myanmar exports low-quality agricultural produce. For example, Thai white rice price is nearly twice as high as that of Myanmar rice in the international markets.
- **Myanmar is an importer of food, processed one in particular.**
- **Myanmar exports low-quality and primary agricultural produce, and import processed food.**
- **Quality seeds, farm management, improvement in post-harvest system, processing and marketing is necessary to provide high-quality agricultural produce.**



(Source) UNCOMTRADE.

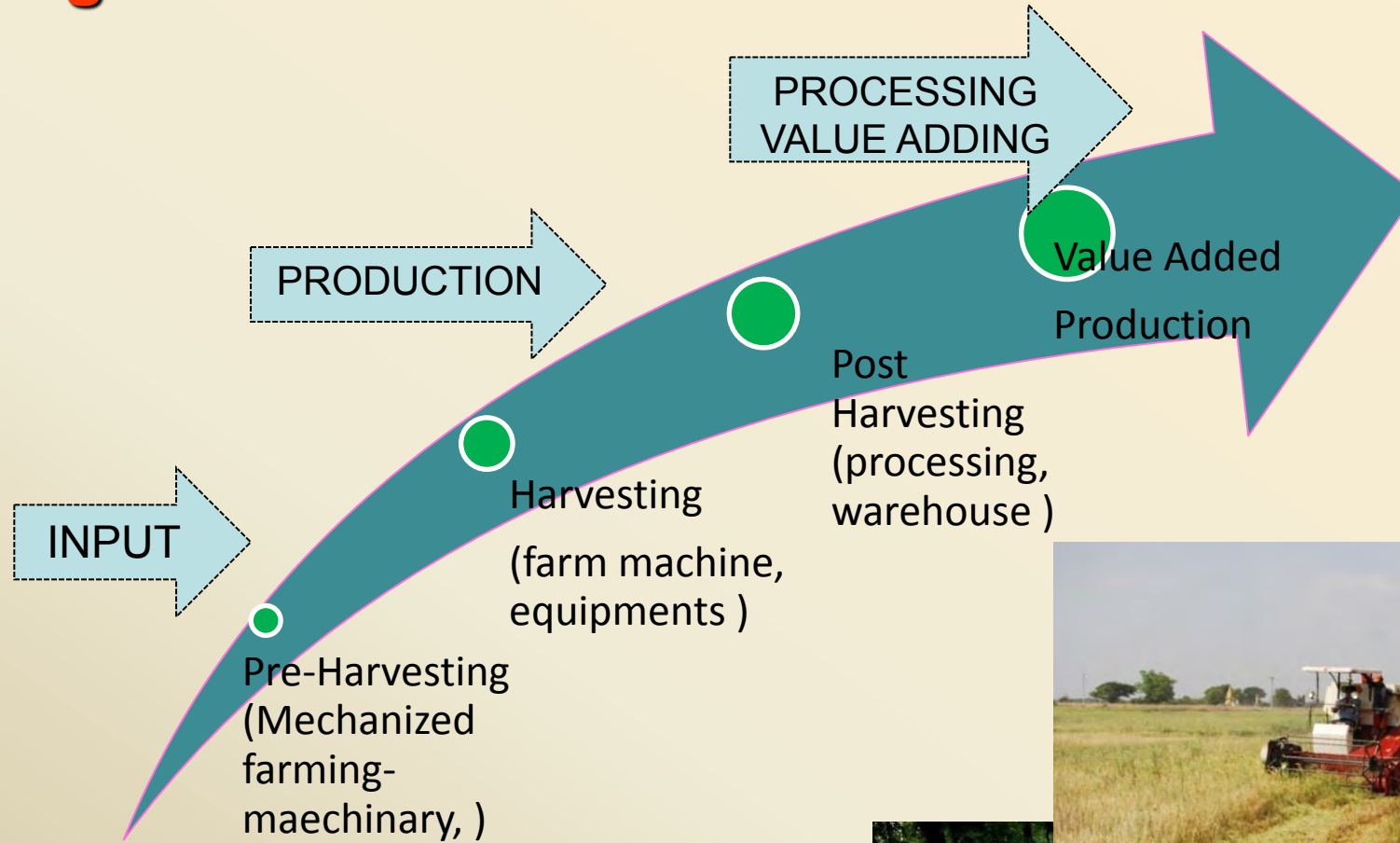


# COMPREHENSIVE RICE SUPPLY CHAIN – Productivity increases and value adding along supply chain



# Strategy to Strengthen Agribusiness Activities

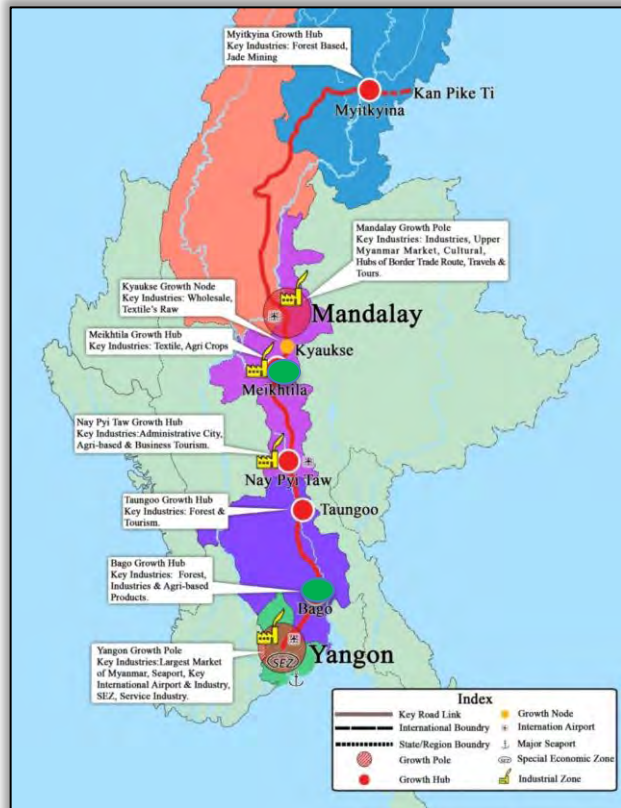
Value-added production and agro-based industries



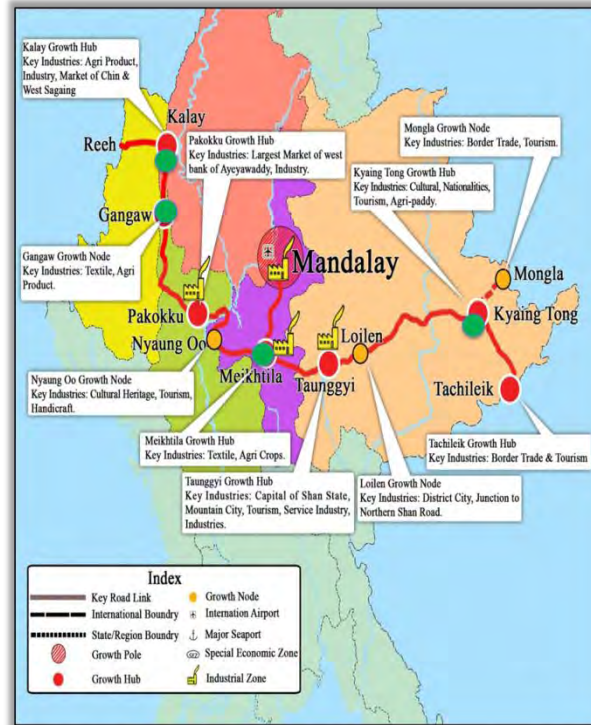
**Industrialization on Agribusiness**

# Maps of hub and node cities along Economic Corridors

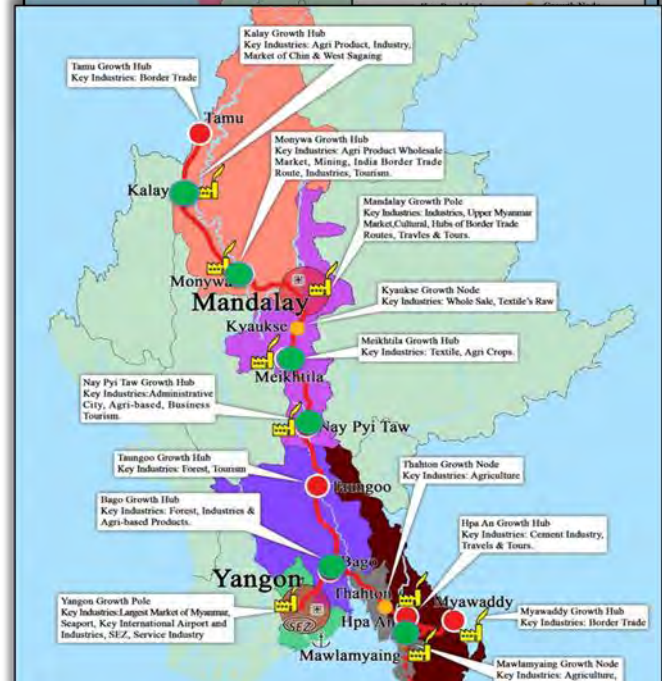
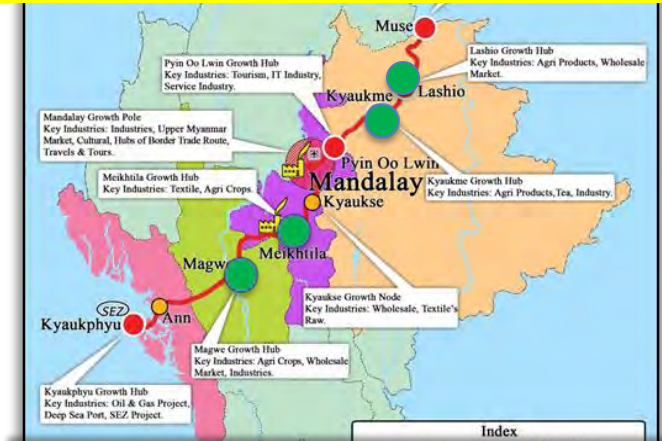
## North-South Corridors (Yangon-Myitkyina-Mandalay-Kan Pai Ti)



## East-West Corridors (Tachileik-Mandalay/Meikhtila, Kalay-Reeh)



## Right – Sash Corridors (Muse-Mandalay-Kyaukphyu)



## Hub of Agribusiness Industry Development (Kalay, Monywa, Meikhtila, Lasho, Kyaukme, Naypyitaw, Bago, Malwamyine, Phaen )

Toshihiro Kudo, Institute of Developing Economic, JETRO

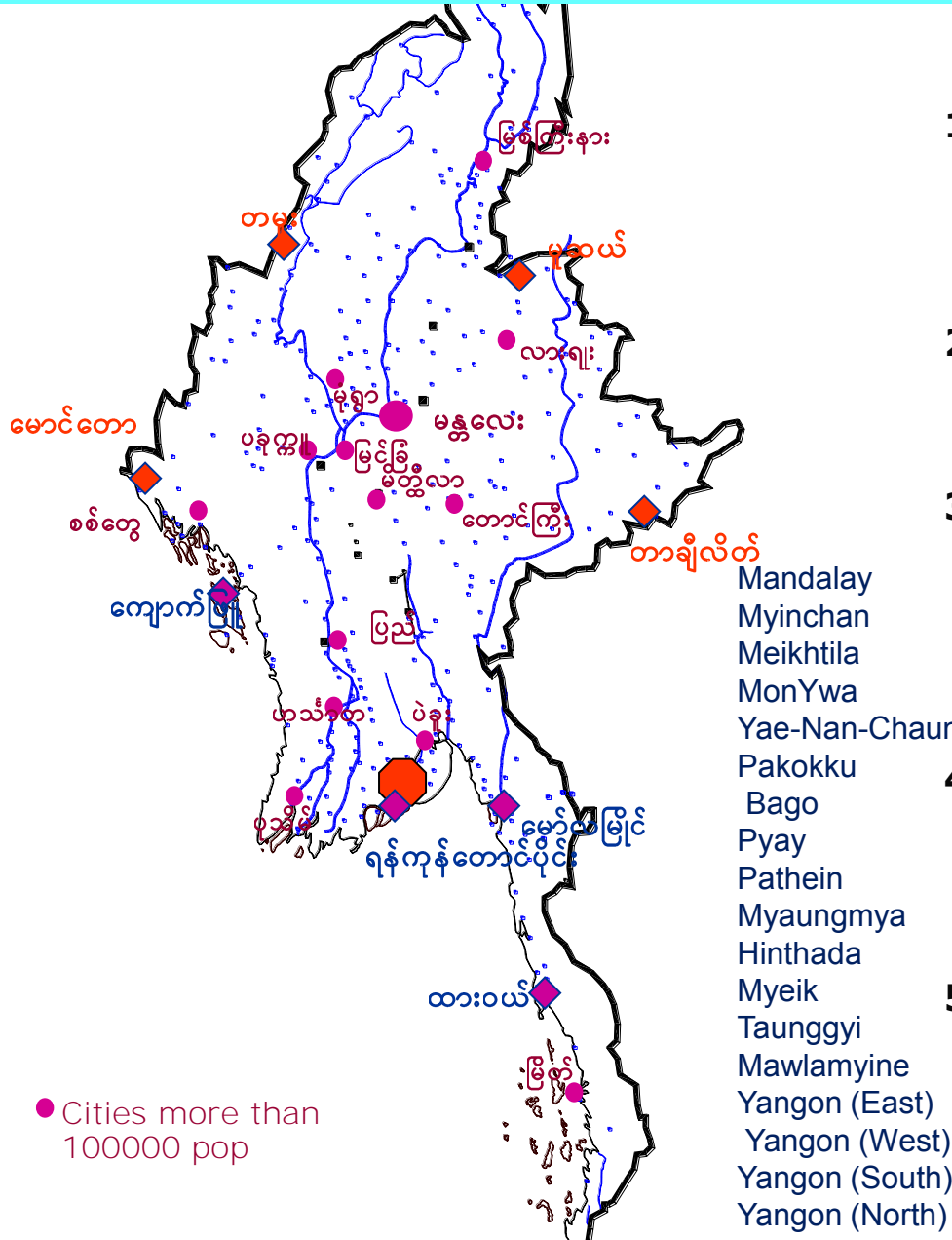
## Left-Sash Corridors (Myawaddy-Mandalay, Tamu)

# Industrial Zones Development Strategy in Myanmar



## Types of Industries Emphasized

1. **Large Scale Special Industrial Zone (SIZ)**  
(Dawei/ Mawlamyine/ Kyaukphyu/ Thilawa & South Yangon)
2. **Small & Medium Enterprises**  
(Outskirts of Major Urban Areas)
3. **International /Cross Border Trading (FTZ)**  
(Thailand: Tachileik, Myawaddy, etc. /  
China: Muse, etc. / India: Tamu /  
Bangladesh: Maung Taw, etc.)
4. **Tourism Based MEZ**  
(Bagan Tourism MEZ/ Inlay Lake Tourism  
MEZ/ Andaman Marine Tourism MEZ)
5. **Resource Based Industrial Zone**  
(Fishery Processing IP/ Agro-based IP)



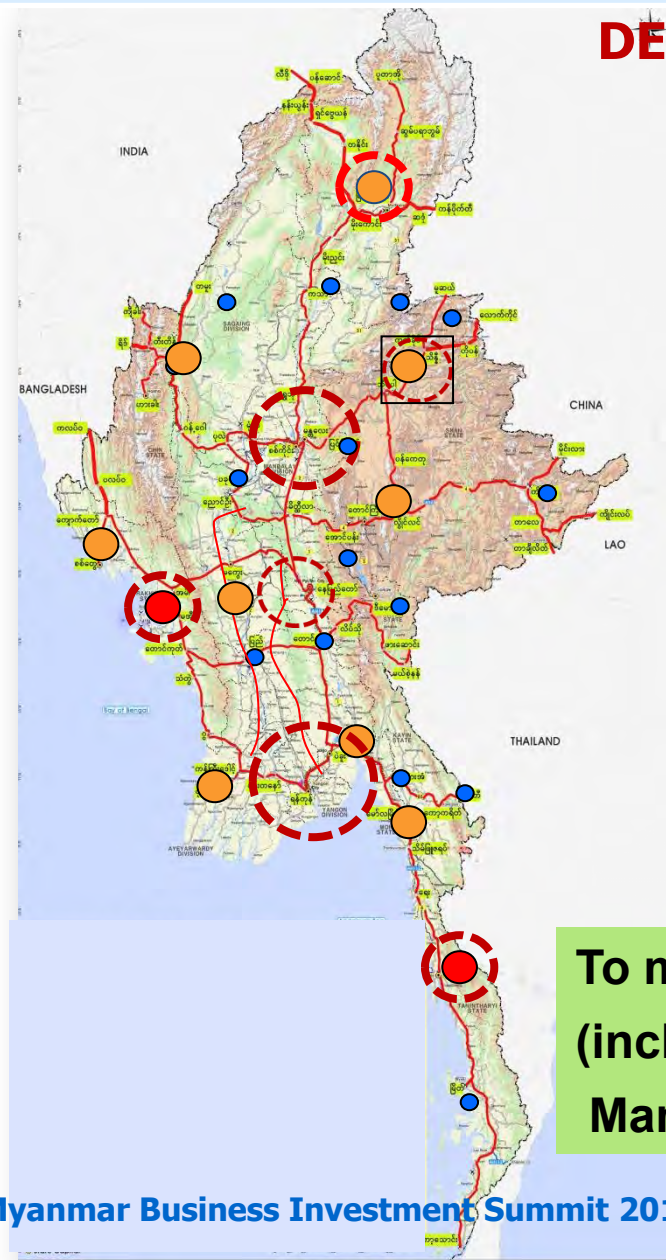
# NATION DEVELOPMENT STRATEGY



## CONCEPT OF CONCENTRATED AND DECENTRALIZATION DEVELOPMENT STRATEGY

**Two-Polar Development Concept (Yangon & Mandalay): Two-polar growth strategy and border development with enhancement of connectivity**

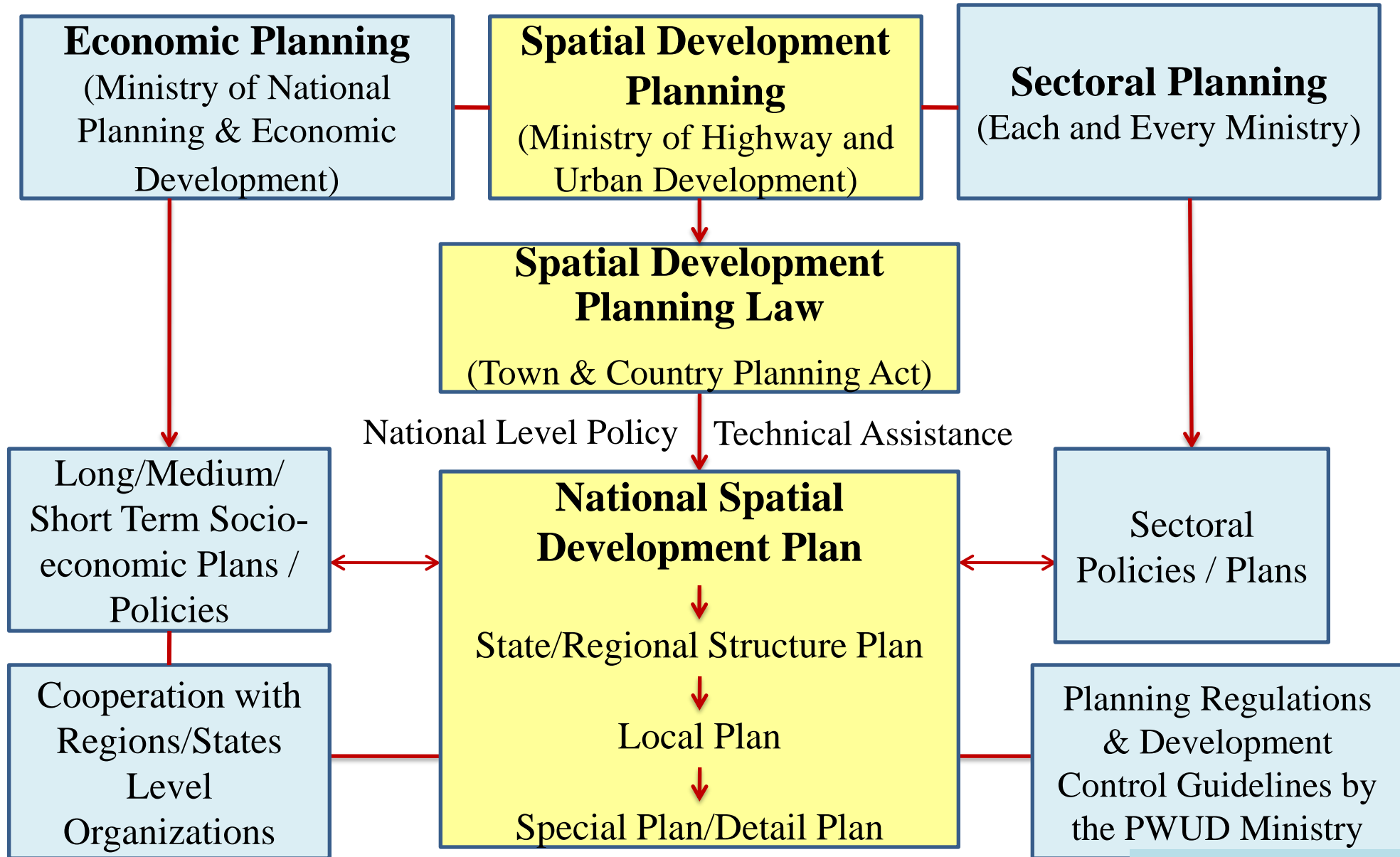
- Capital City (Administrative, Transport & Logistic Hub )
- National Economic Growth Centre (SEZ, Port, Int. Airport, Trading, Financial )
- Secondary Regional Growth center
- Other Growth center Town with more then 50000 inhabitants



**To make the strategy feasible, spatially targeted investment (including physical and institutional infrastructure) in Yangon, Mandalay and some border areas is required.**

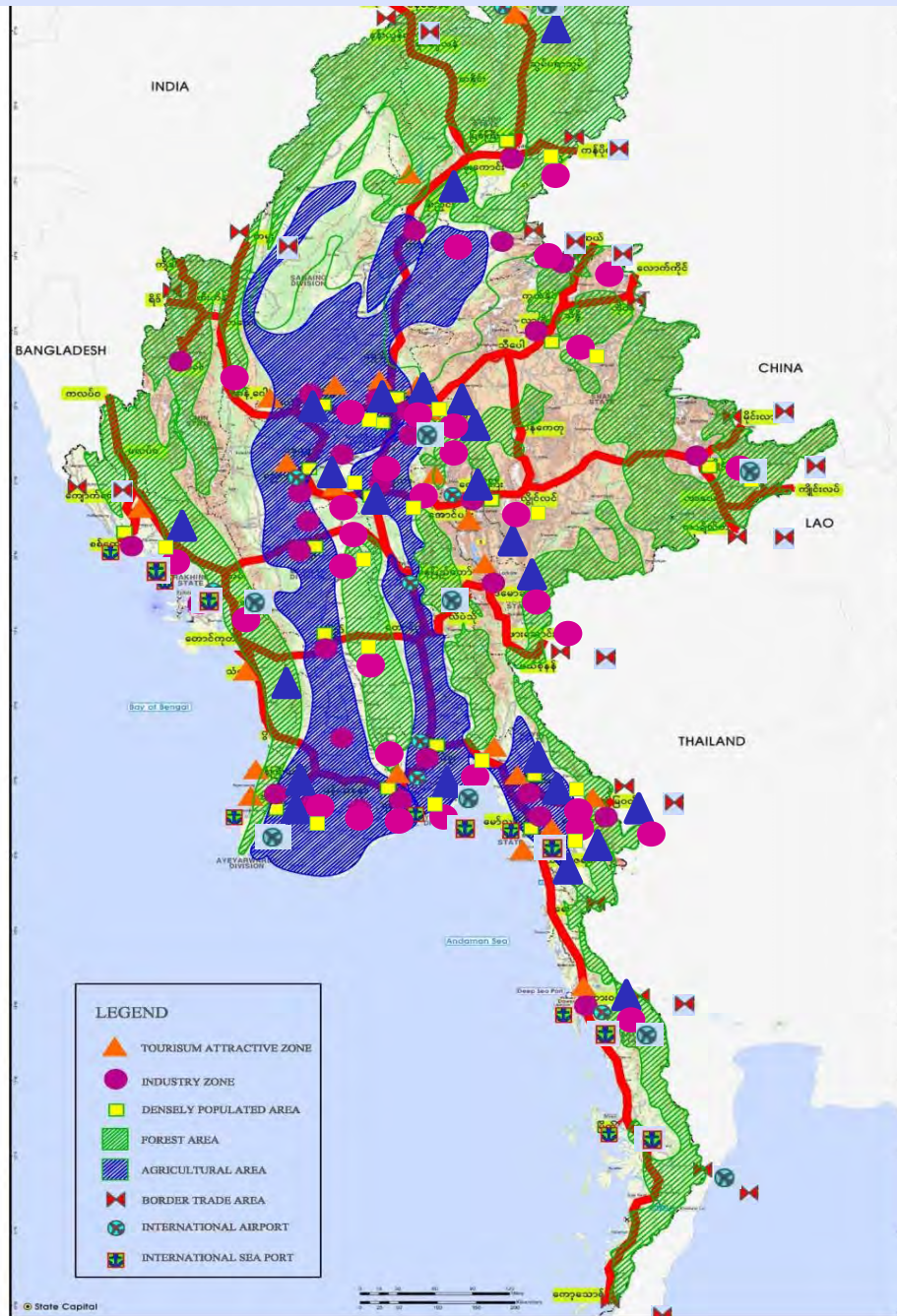


# Spatial Development Planning System



# FUTURE DEVELOPMENT OF NATIONAL PHYSICAL PLAN

## Myanmar Future Major Urban Network and Special Development Activities



-  TOURISM ATTRACTIVE ZONE
-  INDUSTRY ZONE
-  DENSELY POPULATED AREA
-  BORDER TRADE AREA
-  INTERNATIONAL AIRPORT
-  INTERNATIONAL SEA PORT
-  FOREST AREA
-  AGRICULTURAL AREA

# 1958-1959

## Satellite Town Establishment

- South Okkalapa (1958) - (132 plots)(35 acres)
- North Okkalapa (1959) - (262 plots)(109.7 acre)
- Thaketa (1959) - (168 plots)(200 acree)

## 1995 – 2006 ( 8-Zones)

### New Town Development & Industrial Zone Established by DHSHD

- Hlaing Thaya Zone (1,2,3,4,5,6,7)
- Shwe Pyitha Zone (1,2,3,4)
- Shwe Paukkan
- Dagon Seikkan, Dagon East, Dagon South
- Thilawa
- Myaung Ta Ga (Hmaw Bi)

## 1995 – JV ( 2-Zones)

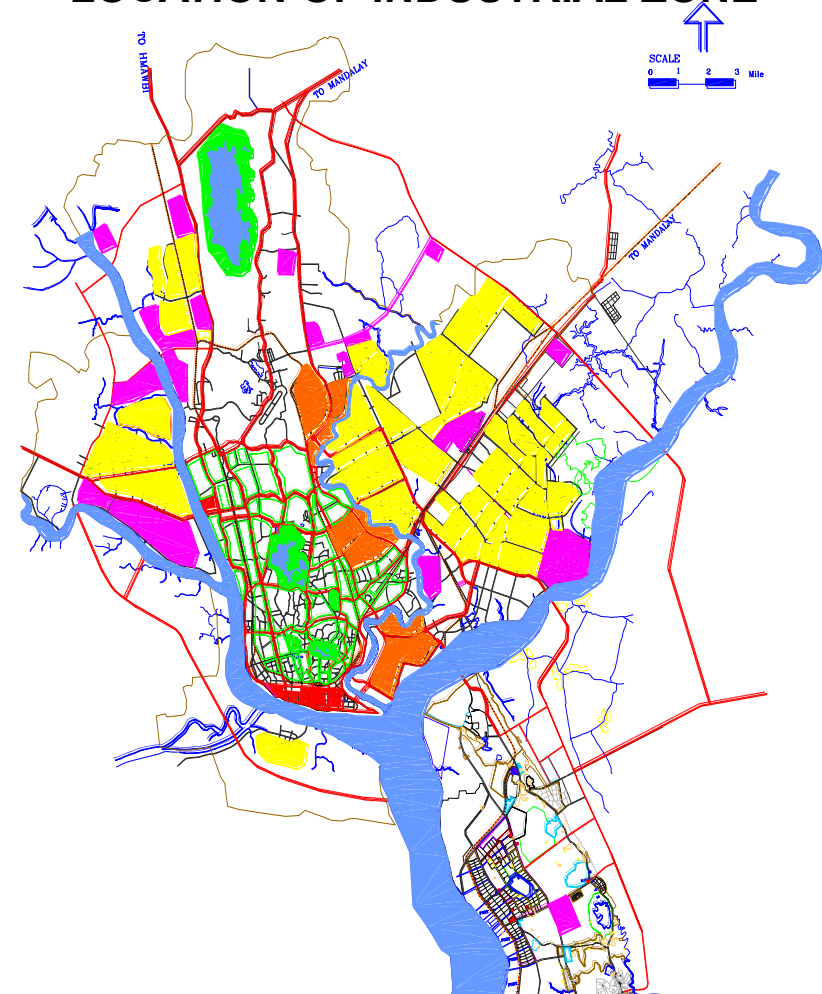
### FDI PROMOTION ZONE Mingaladon Industrial Park & Sinmardev)

## 2000 – 2010 (6 Zones)

### Area Development & Industrial Zone Established by Private Developer

- Yangon Industrial zone
- Shwe Than Lwin
- Mya Sein Yaung Industrial Zone
- Anawahtar Industrial Zone
- Thardukan Industrial Zone
- December Industrial Zone

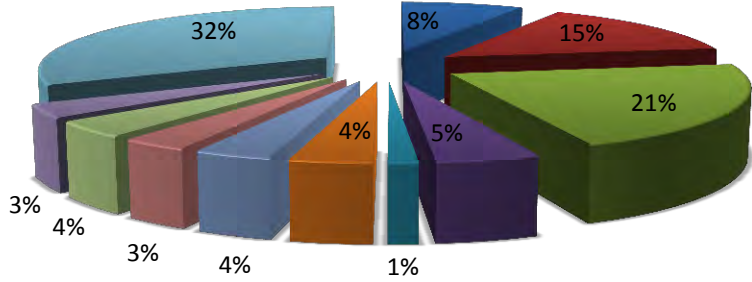
## YANGON CITY – LOCATION OF INDUSTRIAL ZONE



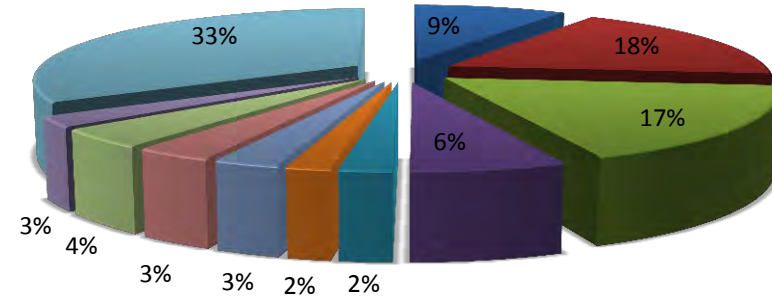
**PLANNED INDUSTRIAL ZONE - (19) no.**  
**Total Ind. Plot - 5000 plots**  
**Total Ind. Land Area - 10631 acres**



### Type of Manufacturing in Industrial Zones in Yangon ,2010

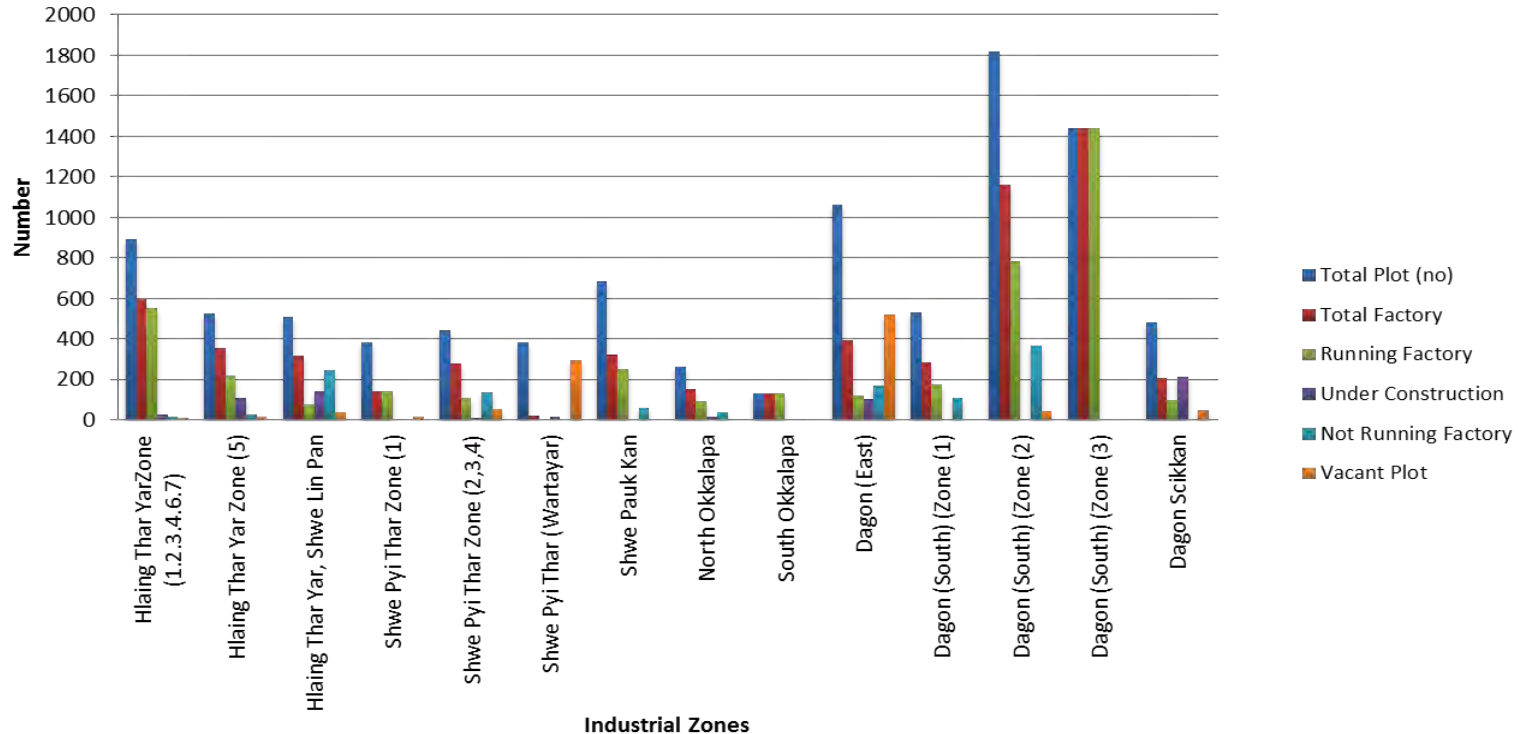


### Type of Manufacturing in Industrial Zones in Yangon ,2013



- Garment
- Foodstuff
- Consumer's Product
- Construction Material
- Electrical Appliance
- Wood based
- Chemical
- Paper & Stationary
- Machine
- Fishery Product

### Situation of Industrial Zones Established by DHSHD in Yangon, 2013





# **ISSUES ON LOCAL INDUSTRIAL ZONE**

## **Weakness in integration of industrial Process and Chain system**

- Infrastructure (energy, land, transport, communication, etc)**
- Supporting services ( finance, IT, legal services, public services)**
- Consumers / market ( the distance from market)**
- Suppliers / resources (( the distance from suppliers )**
- Environmental security**

## **Poor LAND USE Planning and INDUSTRIAL LAYOUT**

## **Weak in Development Control and Law Enforcement**

## **Inadequate provision of INFRASTRUCTURE and Utility Services**

- Lack of Proper Drainage System, Power Supply and Water Supply System**
- Lack of Waste Water Treatment System**
- Insufficient Industrial Waste Disposal & Management System**

## **ENVIRONMENTAL ISSUE**

- No Pollution control, without Monitoring System**
- Environmental Problems - Water, Air, Noise, Soil and Visual  
Pollution & Ground water contamination**

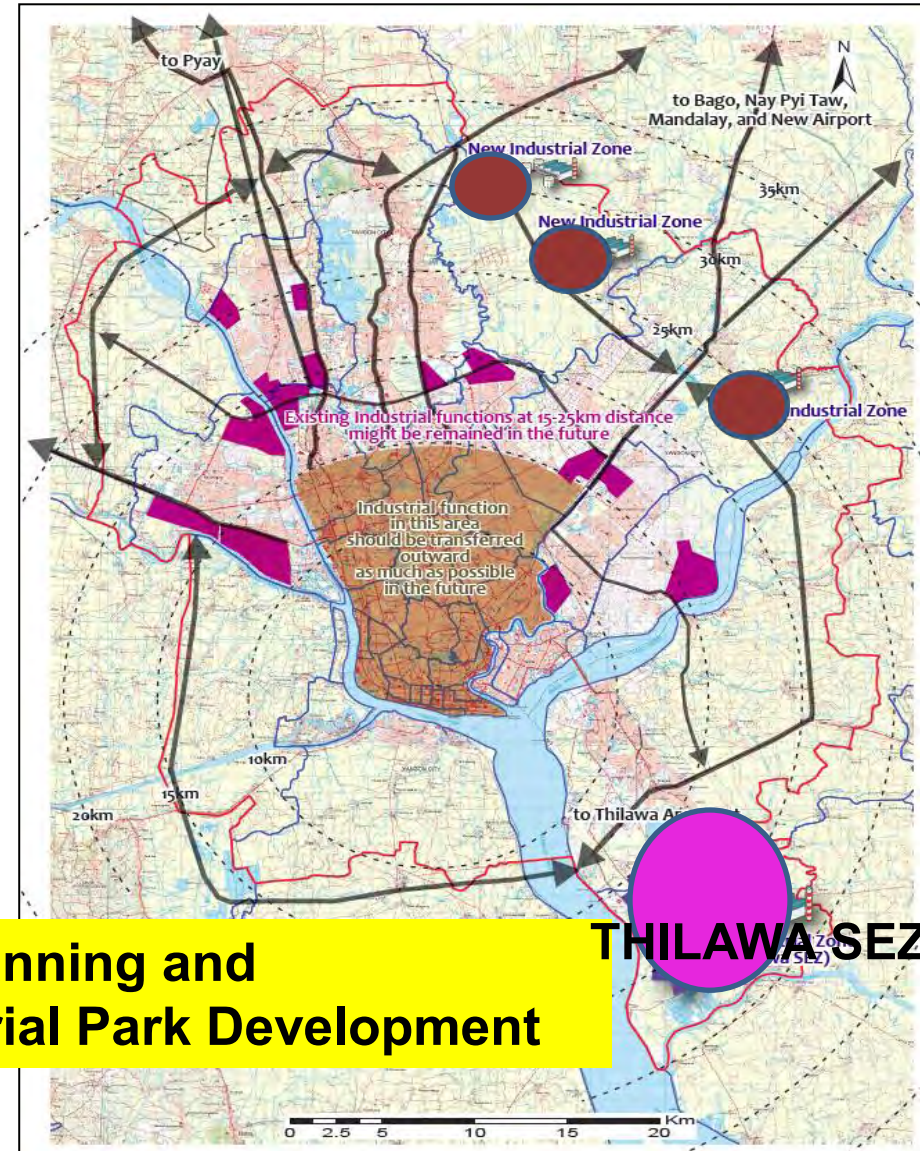
## **LAND ISSUES**

- Very High Land Price and Land Speculation**
- Unused industrial Land and low productivity**
- Farm Land – Farmers & Squatter Problems**

# VISIONS & A STRUCTURE PLAN, JICA

## INDUSTRIAL FUNCTION

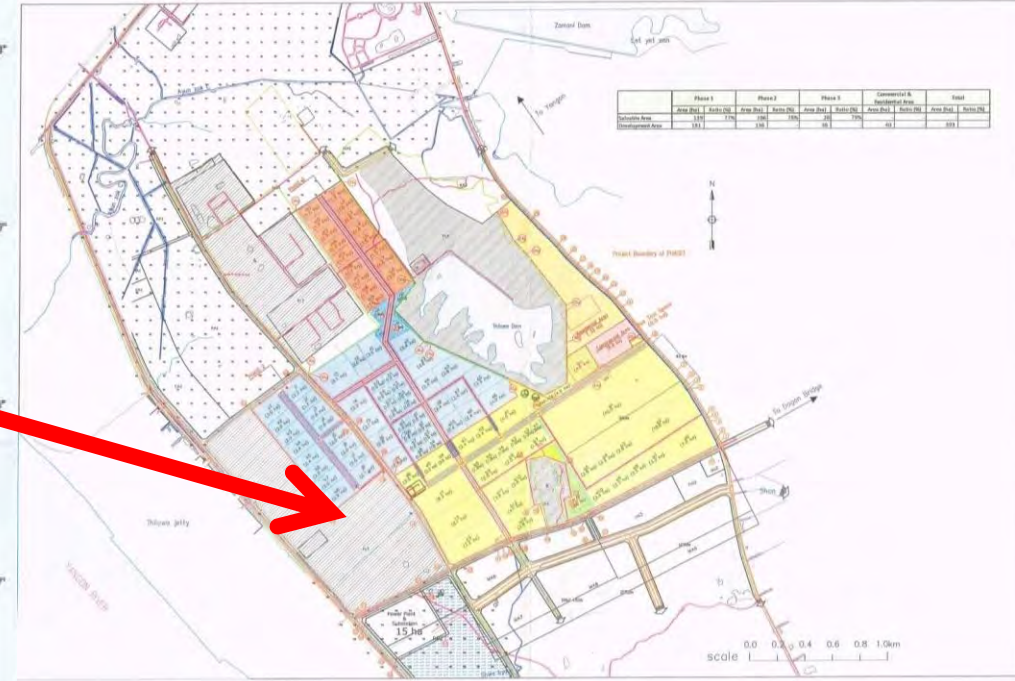
- In Yangon 24 industrial zones are currently under operating with a total area of 5,105 ha, which include some unused lands inside them. (Red)
- Beside Thialwa SEZ, 700 ha of additional **new industrial zones** will be necessary.
- New IZ will be located mainly along the **outer ring road**.



**It is needed to consider on regional planning and development aspects for future Industrial Park Development**

# THILAWA SEZ

- Total Area ~ 2400 ha
- Phase 1 "396 ha" (Class A)



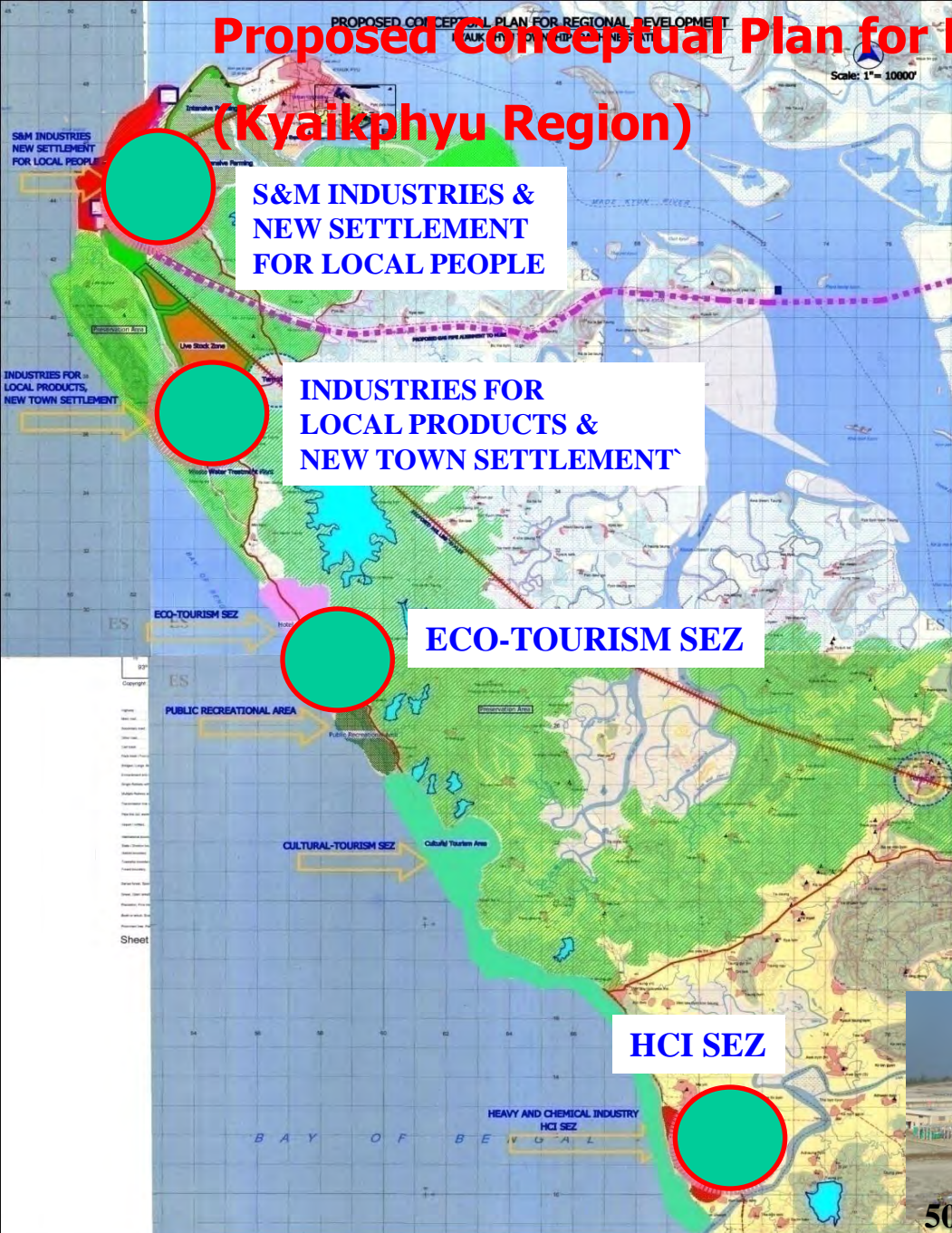
Implementation started on 30<sup>th</sup> Nov, 2013  
 Commercial Operation end of 2015

Class A- Priority for Advanced Technology  
 Manufacturing  
 ( Vehicle , Electric,..)

Mingalardon Airport - 38 km distance from Thilawa  
 Yangon Port - 18 km distance from Thilawa  
 Waterway transport - 20 km distance to Martaban Sea

# Proposed Conceptual Plan for Regional Development

## (Kyaikphyu Region)



## Kyaikphyu SEZ Concept

1. Fish-Processing Industry
2. Plus Garment and other Light Industry
3. Already 50 MW Power plant is starting from 2013 and expected to complete by 2015
4. Port, Access Road, Water Supply & Treatment Plant will be needed next step.
5. Phase 1 will be about 200 hector by 2020



500 MMCF Natural Gas Processing



22 Million ton/y Oil tanks

# DAWEI SEZ



Liquid Bulk Terminal for  
Petroleum & Petrochemical

LNG

Dry Bulk Terminals for  
Coal Fired Power Plants

Steel Mill

Fertilizer

Container Terminal

Shipyard

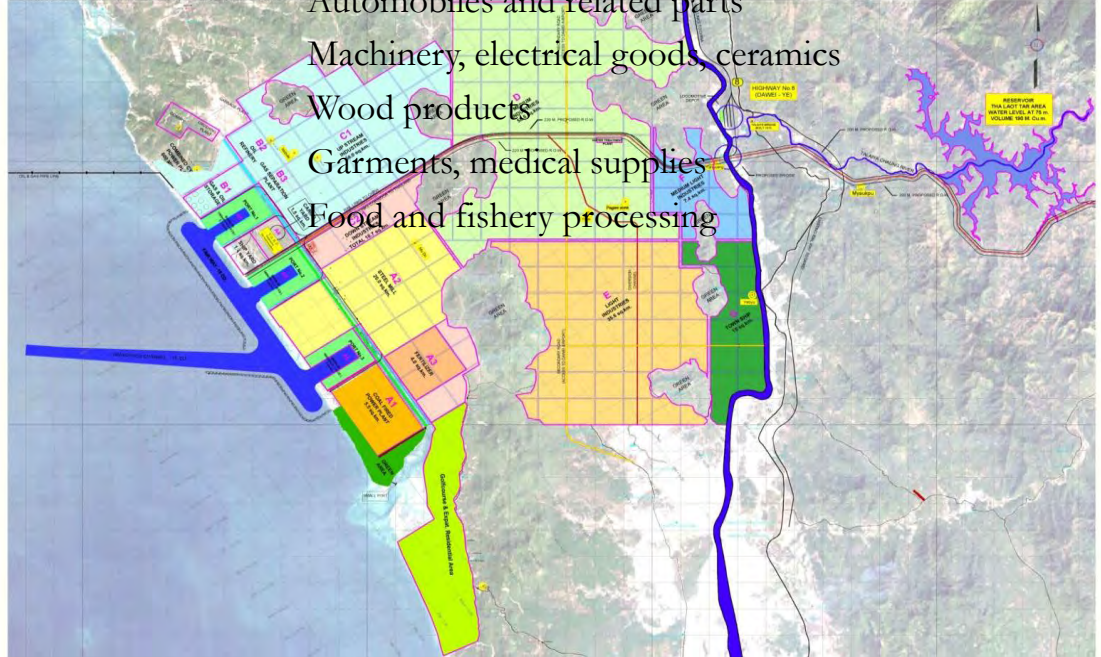
Light and Medium Industries – Gen. Cargo

## DAWEI TO KANCHANABURI CORRIDOR DAWEI DEEP SEA PORT & INDUSTRIAL ESTATE DEVELOPMENT



### Project Layout

#### DAWEI DEEP SEAPORT & INDUSTRIAL ESTATE



Agricultural products

Automobiles and related parts

Machinery, electrical goods, ceramics

Wood products

Garments, medical supplies

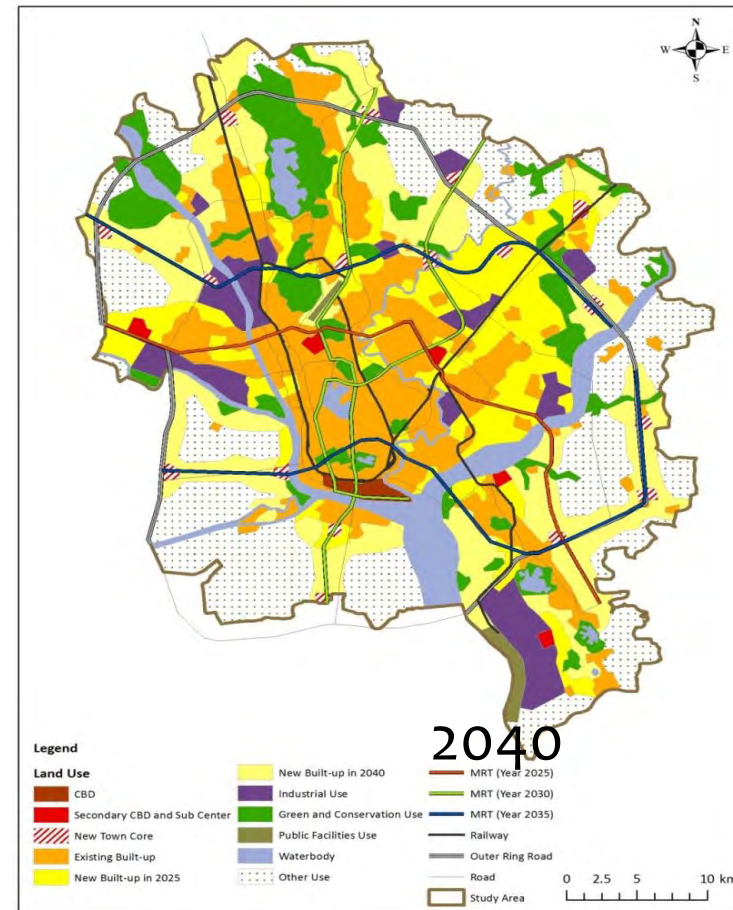
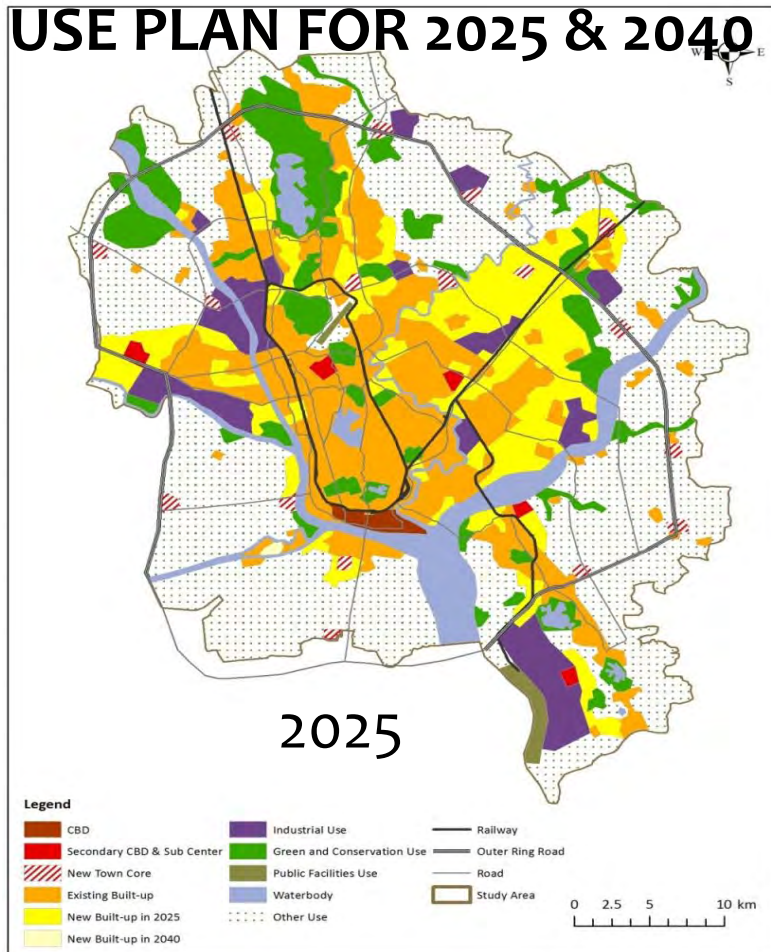
Food and fishery processing

### Proposed Optional 3 Port Basins & New Port Plan

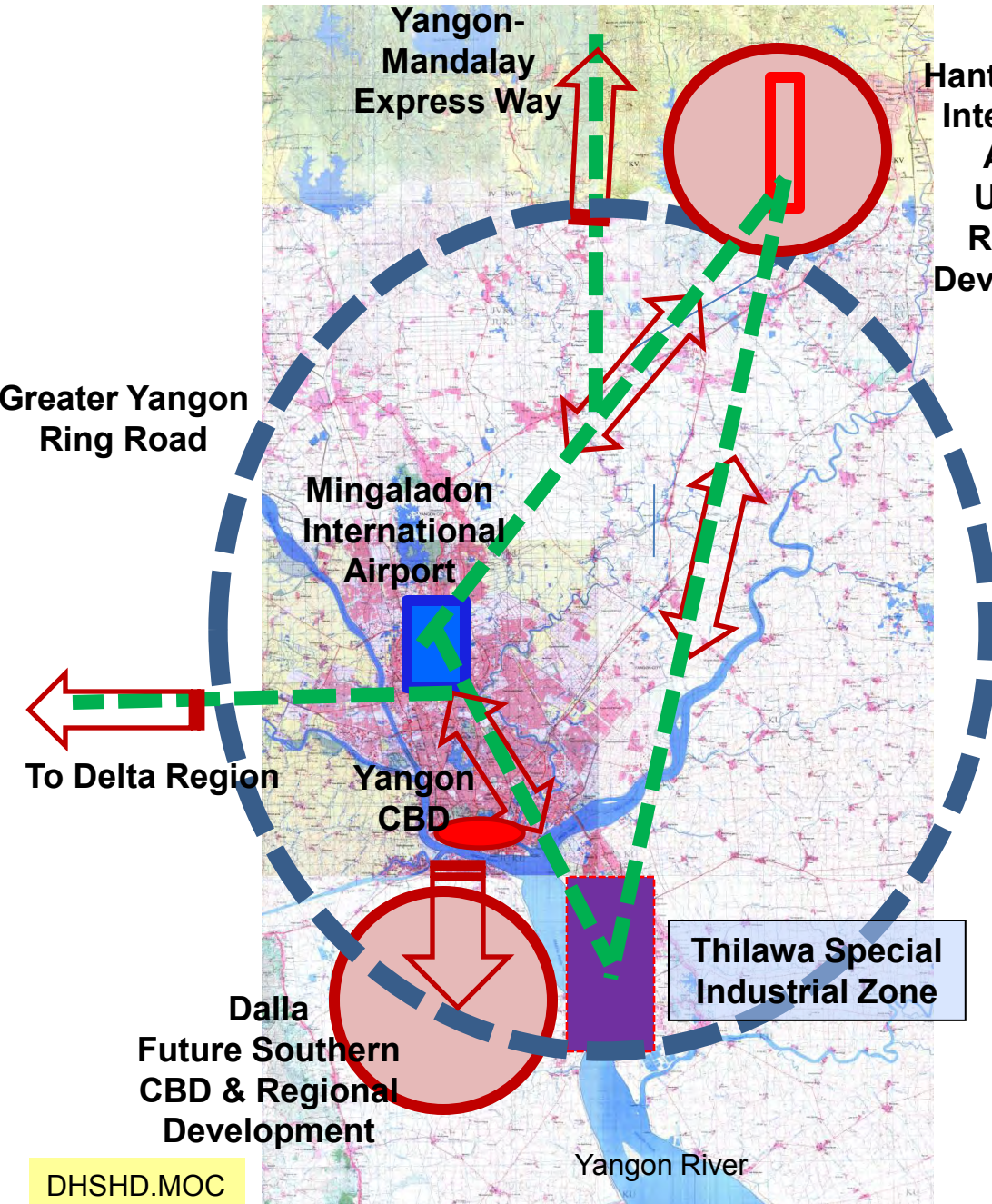
# Integration of Industrial Park in Urban and Regional Development Plan

## GREATER YANGON URBAN DEVELOPMENT MASTER PLAN, JICA

### LAND USE PLAN FOR 2025 & 2040



# DEVELOPMENT TRENDS IN THE YANGON REGIONAL DEVELOPMENT CONTEXT



**New Hantharwaddy International Airport Urban & Regional Development**

Yangon City Development Trends North & North Eastern Direction between Yangon and Bago Corridor

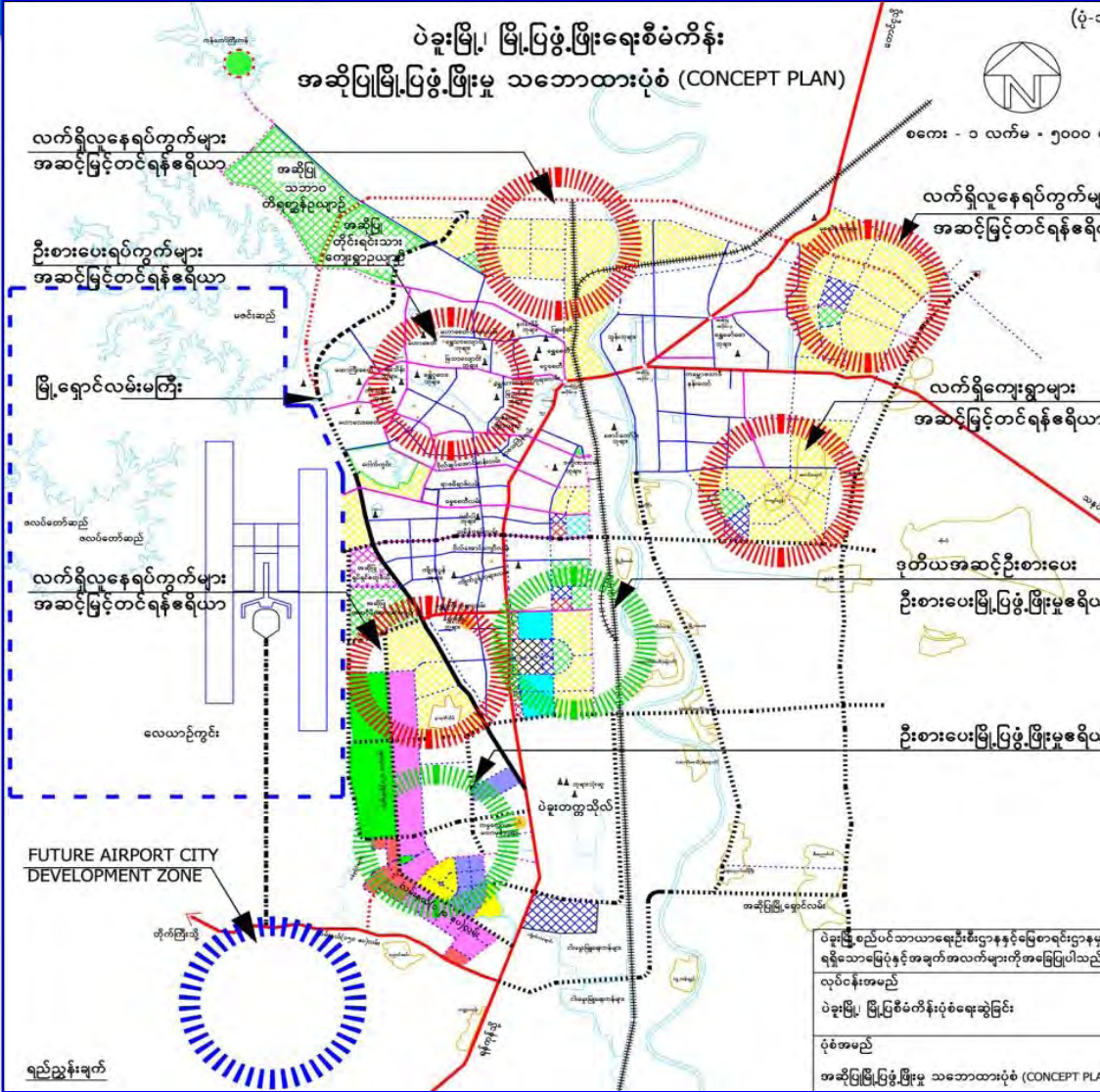
Connection of Yangon International Airport – Thilawa Port - Hanthawaddy-Bago – Express way

Development Potential & Linkages between Thilawa SEZ and Hanthawaddy New Airport




Development Potential on New CBD in Yangon Southwestern Region



# Bago Region, Proposed Bago Town Development Concept Plan



## URBAN DEVELOPMENT ZONE

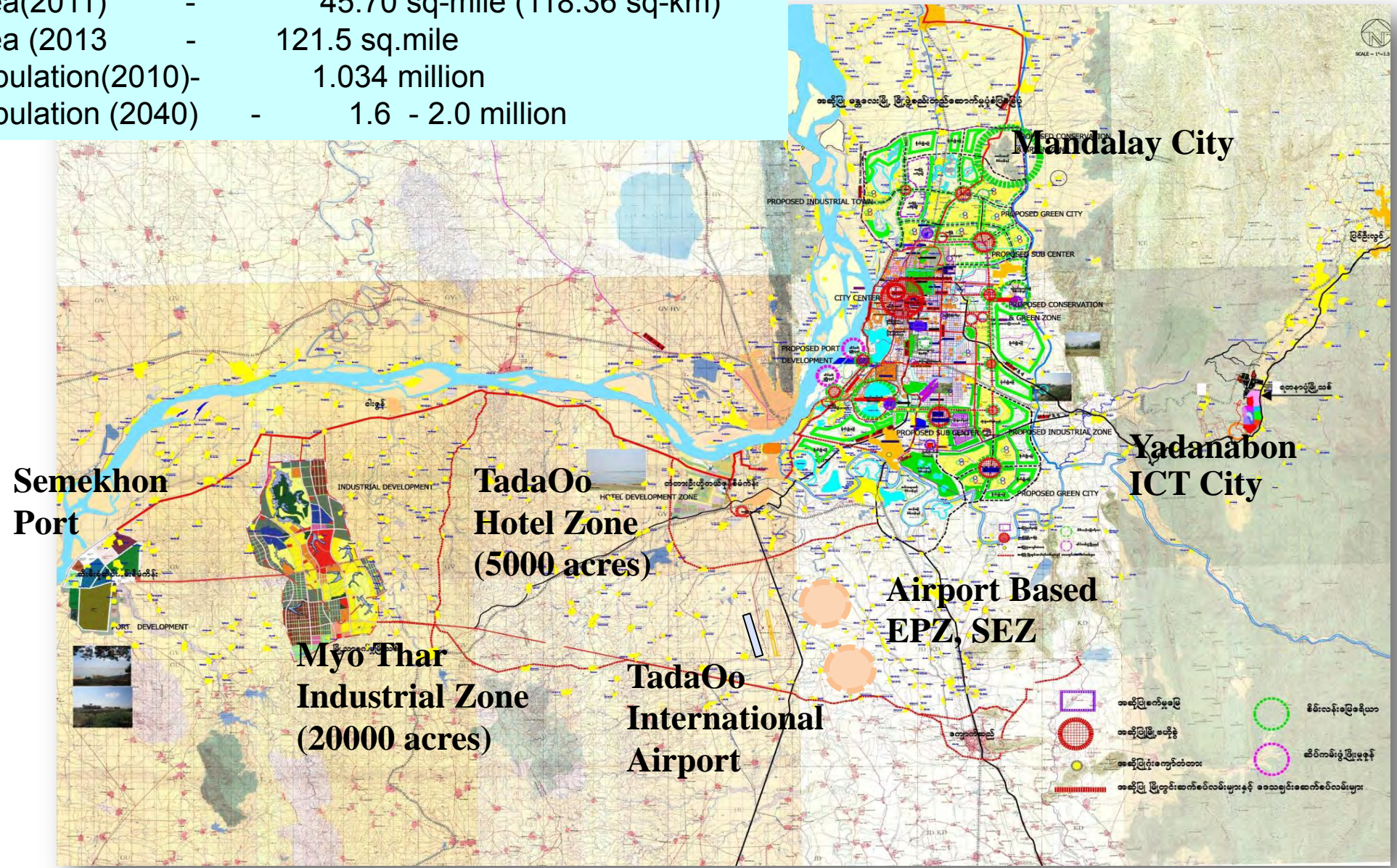
-  FUTURE AIRPORT CITY DEVELOPMENT ZONE
-  URBAN DEVELOPMENT ZONE
-  RESIDENTIAL UPGRADING ZONE

## PROPOSED ROAD NETWORK

- ရည်ညွှန်းချက်
-  စနစ်တကျစီမံကိန်းပုံစံရေးဆွဲအဆင့်မြှင့်တင်တိုးချဲ့ရန်
  -  အသေးစိတ်ရေးဆွဲထားသောအဆိုပြုလူနေဧရိယာ
  -  အဆိုပြုပြည်သူအိမ်ရာတည်ဆောက်ရန်ဧရိယာ
  -  အသေးစိတ်ရေးဆွဲထားသောအဆိုပြုပြည်သူအိမ်ရာဧရိယာ
  -  စက်မှုဇုန်
  -  အဆိုပြုအပန်းဖြေဧရိယာနှင့်စိမ်းလန်းမြေ
  -  အဆိုပြုတိုက်ဝန်ဆောင်မှုဇုန်
  -  အဆိုပြုရုပ်ရှင်စတူဒီယိုမြေ
  -  စက်မှုစိုက်ပျိုးသီးနှံဇုန်
  -  အဆိုပြုဌာနဆိုင်ရာဧရိယာ
  -  အဆိုပြုကျန်းမာရေးဆိုင်ရာဧရိယာ
  -  အဆိုပြုစီးပွားရေးဆိုင်ရာဧရိယာ
  -  အဆိုပြုအများပြည်သူနှင့်သက်ဆိုင်သောအသုံးပြုဧရိယာ

# Mandalay City & Regional Development Plan . DHSHD. MOC (2040)

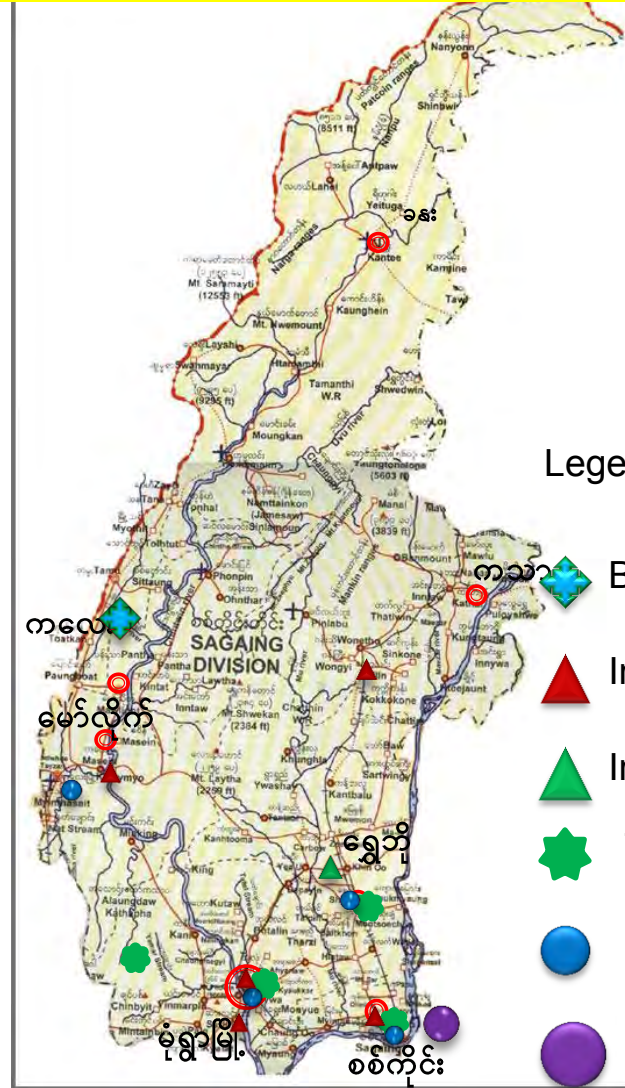
|                   |   |                              |
|-------------------|---|------------------------------|
| Area(2011)        | - | 45.70 sq-mile (118.36 sq-km) |
| Area (2013)       | - | 121.5 sq.mile                |
| Population(2010)- |   | 1.034 million                |
| Population (2040) | - | 1.6 - 2.0 million            |



Source: Department of Human Settlements & Housing Development, MOC

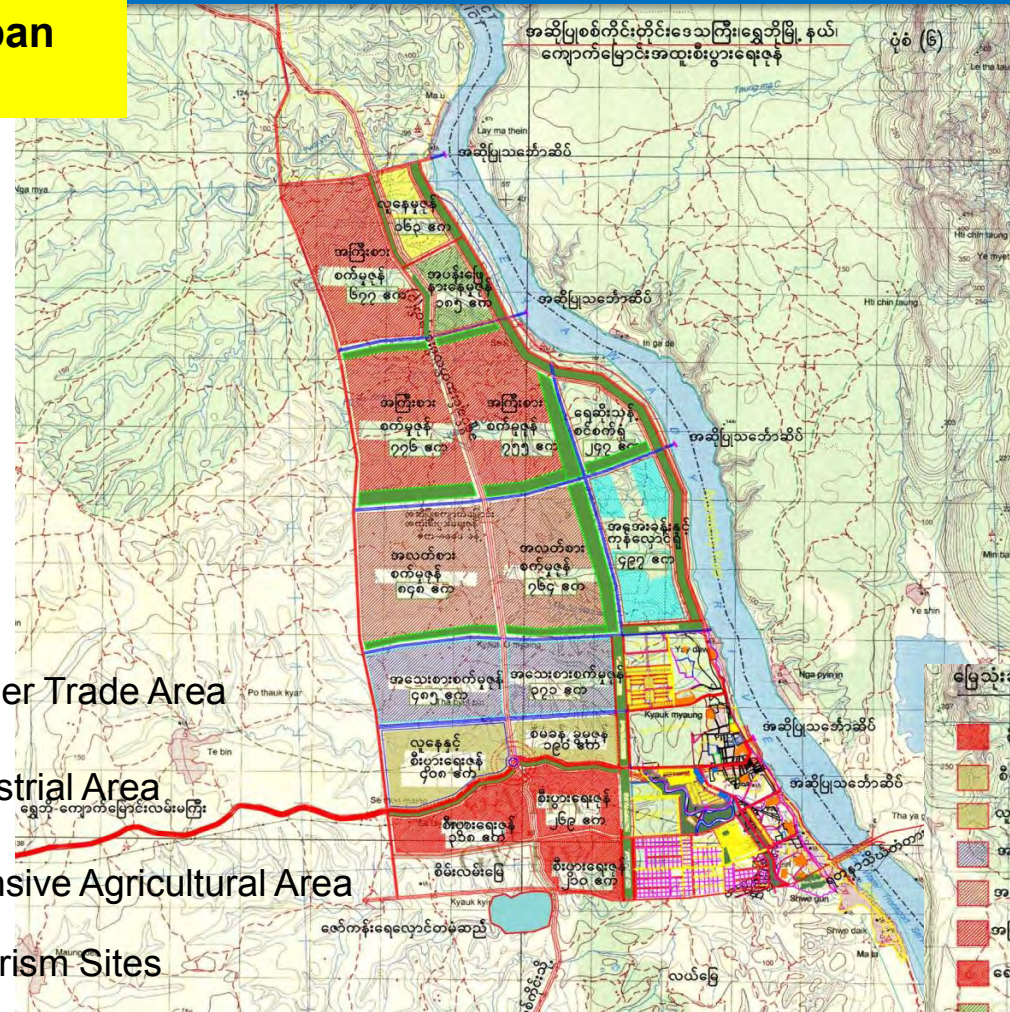














### Sagaing Region Distribution of Urban Areas and Economic Activities



#### Legend

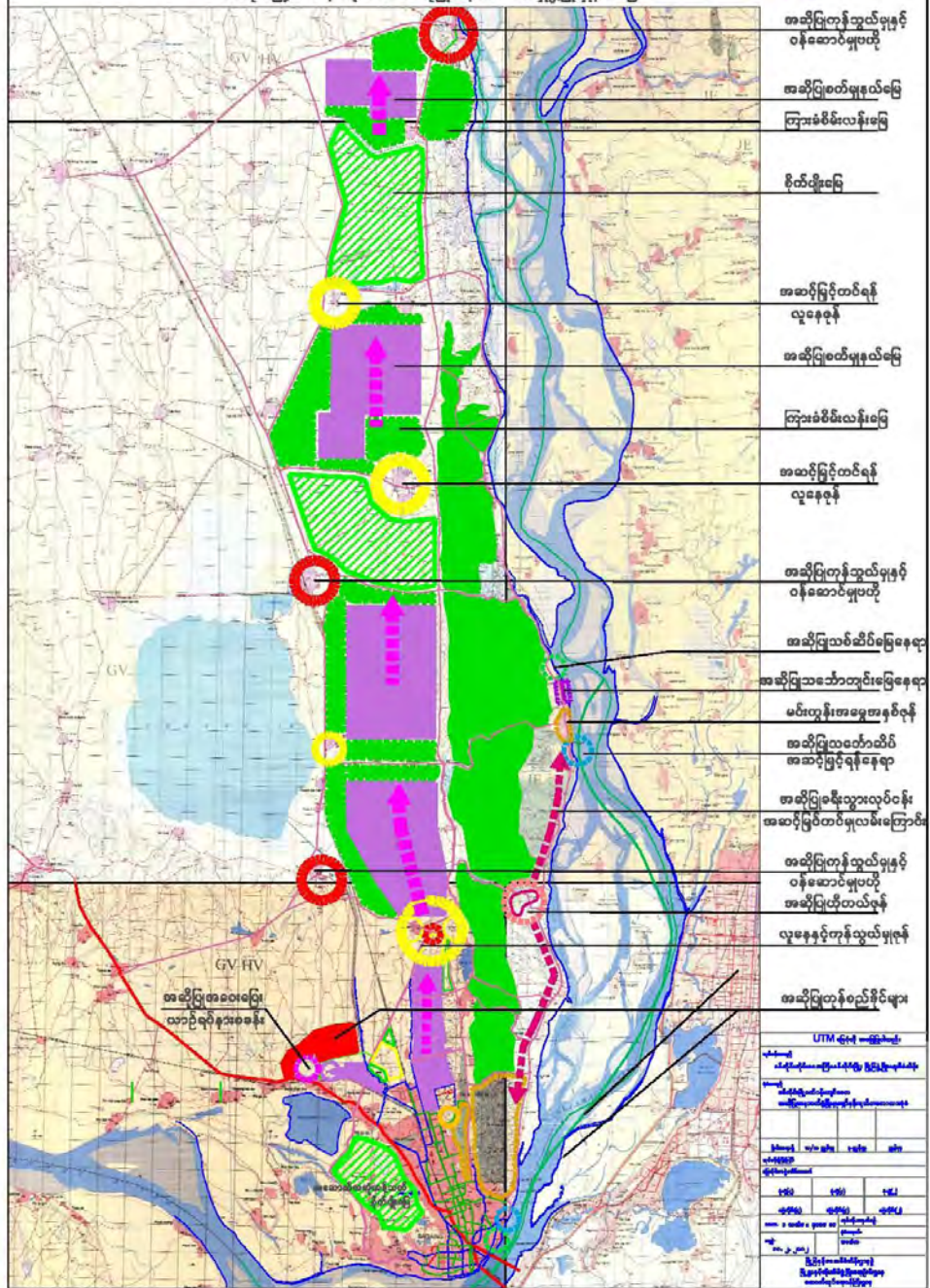
-  Border Trade Area
-  Industrial Area
-  Intensive Agricultural Area
-  Tourism Sites
-  Cities over 50,000 Population
-  Major City over 1 million Population



| ပြေညှိရေးဇုန်   |  |
|---|--|
|    | စီးပွားရေးဇုန် ၁၂၇၇.၀၀ ဧက                |
|    | စိမ့်ခန့် ခွဲမှုဇုန် ၁၉၀.၀၀ ဧက           |
|   | လူနေနှင့် စီးပွားရေးဇုန် ၄၀၈.၀၀ ဧက       |
|  | အသေးစားစက်မှုဇုန် ၈၅၆.၀၀ ဧက              |
|  | အလတ်စားစက်မှုဇုန် ၁၆၁၂.၀၀ ဧက             |
|  | အကြီးစားစက်မှုဇုန် ၂၂၀၈.၀၀ ဧက            |
|  | ရေဆိုးသန့် စင်စက်ရုံ ၂၄၇.၀၀ ဧက           |
|  | အဝန်းမြေနားနေမှုဇုန် ၁၈၅.၀၀ ဧက           |
|  | လူနေမှုဇုန် ၁၆၃.၀၀ ဧက                    |
|  | လမ်းစရိယာနှင့်စိမ်းလမ်းမြေ ၁၀၆၇.၀၀ ဧက    |
|  | စုစုပေါင်းစိမ်းတိန်းစရိယာ ၈၀၀၀.၀၀ ဧကခန့် |
|  | လမ်းမကြီးများ                            |

စစ်ကိုင်းတိုင်းဒေသကြီး၊ စစ်ကိုင်းမြို့၊ မြို့ပြနှင့် မြို့ရေးရာဦးစီးဌာန  
 စစ်ကိုင်းမြို့ပတ်ဝန်းကျင်ဒေသအစီအစဉ်နှင့် မြို့ရေးရာဦးစီးဌာနမှ အတည်ပြုထားသော  
 စစ်ကိုင်းမြို့ပတ်ဝန်းကျင်ဒေသအစီအစဉ်အစီအစဉ်အစီအစဉ်အစီအစဉ်

 (၂)  
 Scale: 1" = 7500'



# Sagaing Region Proposed Sagaing Town Plan

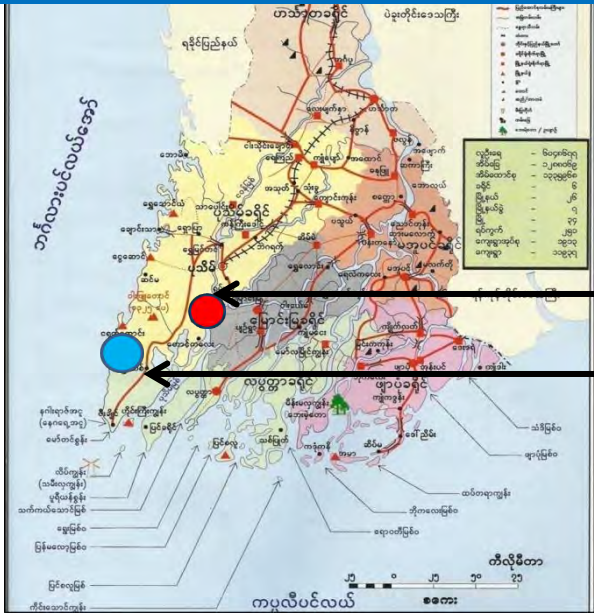
## PROPOSED LANDUSE & ZONING

- Existing Town Upgrading Area
- New Residential Area
- Proposed Industrial Zones
- Proposed Services and Hotel Zone
- Mixed Development Zone
- Green Buffer Zone
- ( Development Control Area)
- Proposed Commercial Zone
- Bus Terminal

UTM မြေပုံ အစီအစဉ်

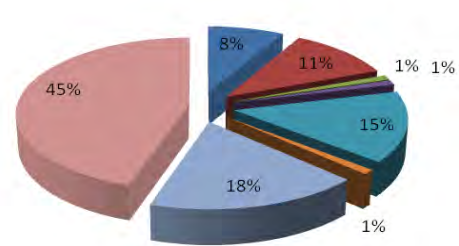
|                   |                                 |
|-------------------|---------------------------------|
| မြေပုံအမျိုးအစား  | UTM                             |
| မြေပုံအမှတ်       | 48N                             |
| မြေပုံအရွယ်အစား   | 1:7500                          |
| မြေပုံအသုံးပြုရက် | 2018                            |
| မြေပုံအသုံးပြုသူ  | မြို့ပြနှင့် မြို့ရေးရာဦးစီးဌာန |

# Industrial Complex and Port Development in Ayarwaddy Division



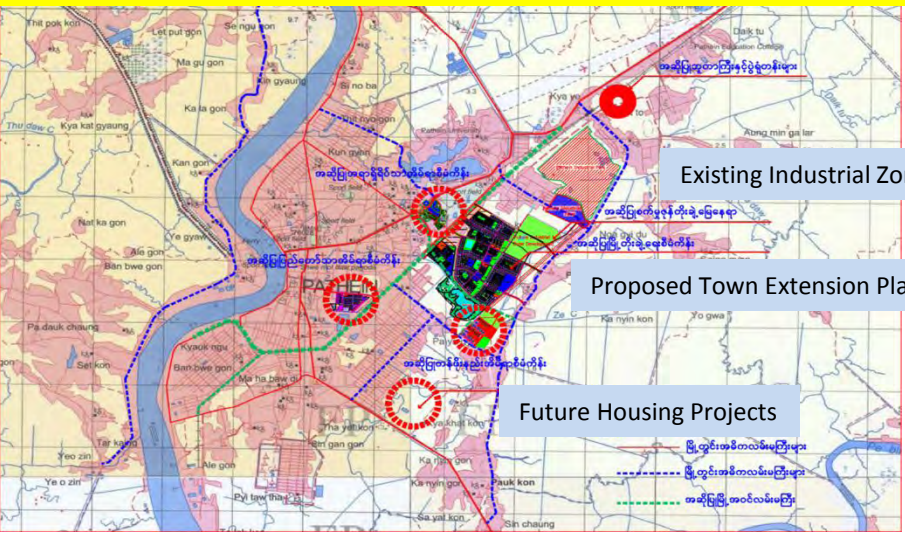
**Special Industrial Complex (Patheingyi and Ngaputaw)**

**Deep Sea Port (Ngaputaw Tsp)**



- Staff
- Daily Labor
- Agriculture
- Live stock
- Trade
- Industrial
- Nomad
- Others

## Proposed Structure Plan of Patheingyi



**Population** - 0.14 million (2013) ,  
- 0.17 -0.2 million (2033)

**Industrial Livelihood** - 1794 no (2013)  
- ( 1.3 % of total pop)

**Existing Industrial Area-** 259 acre + **Extension Area**