

# 9th Annual Shelter Academy 2019 Case Study Presentation

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MRS. SAW SANDAR OO  
DEPUTY DIRECTOR, URBAN PLANNING AUTHORITY,  
YANGON CITY DEVELOPMENT COMMITTEE,  
MYANMAR



# Contact


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- Myanmar: Urban Planning Status



- Government Structure



- Study Area: Yangon City



- Challenges and Response related with Climate Change



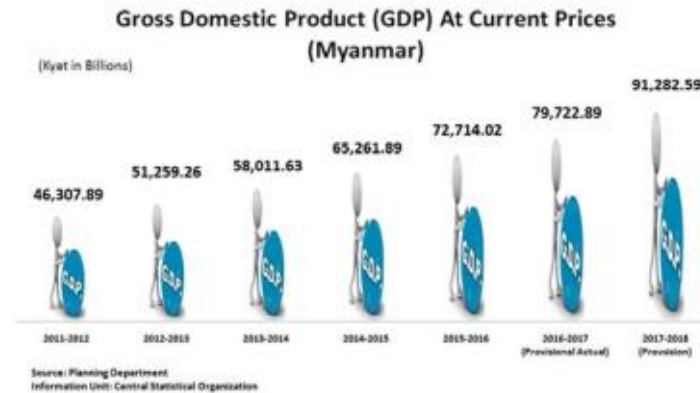
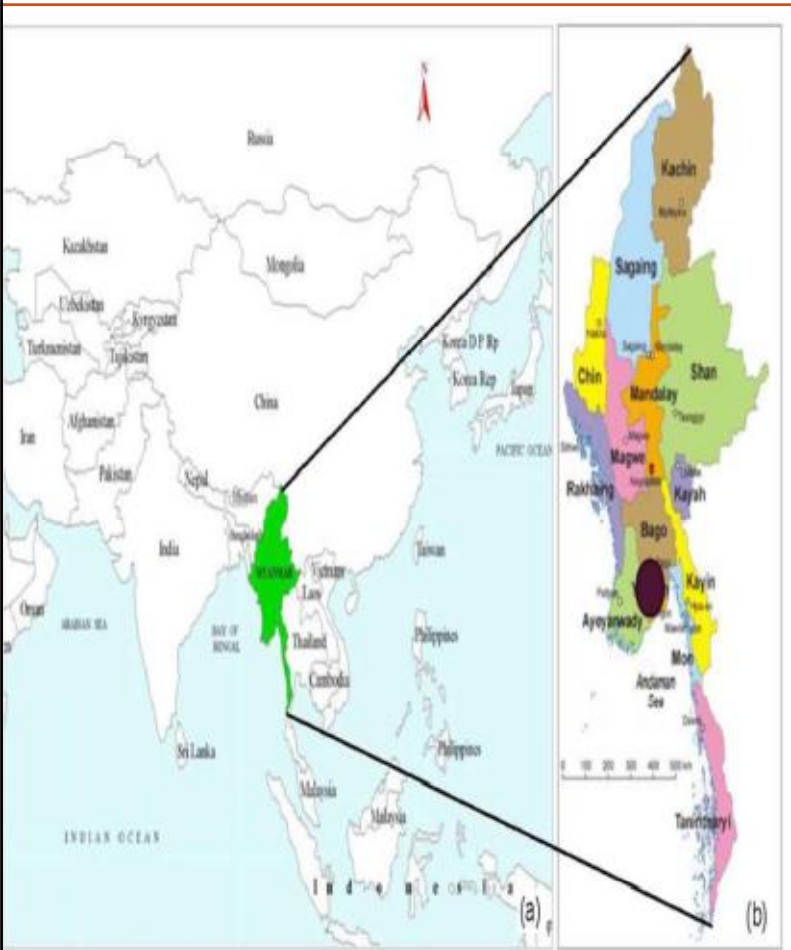
- Outcomes and Future Improvements



- Lesson Learned and Conclusion



# Myanmar: Urban Planning Status



**Urban Population**  
29.6%

**Poverty Population**  
32%  
(15.8 million)

**Poverty Rate in Rural Area**  
38.8%

**Poverty Rate in Urban Area**  
14.5%

**Density 1 sq km**  
76 unit



**Total Area**  
676,578 sq.km



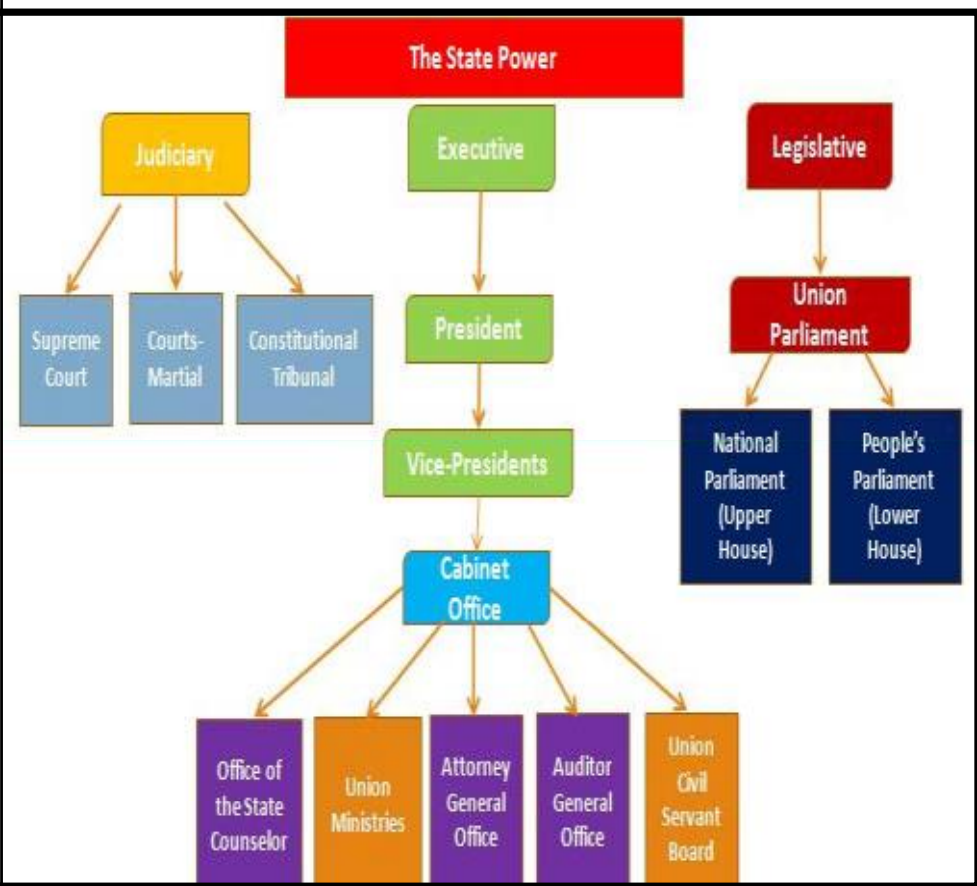
**Population**  
51.4 million  
(2014 Census)

**By 2040**  
70 million

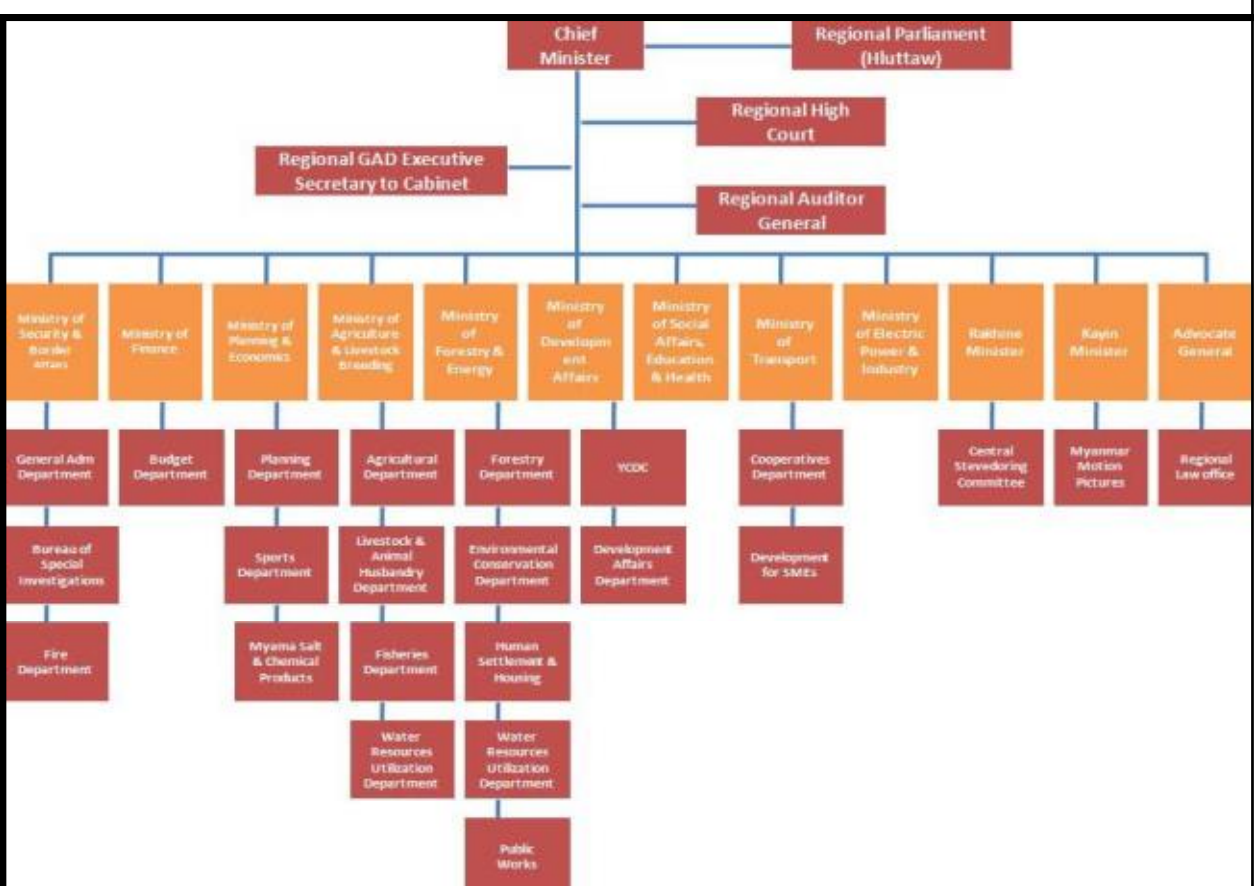
Source: World Bank Report, 2015

# Government Structure

System of Myanmar Government

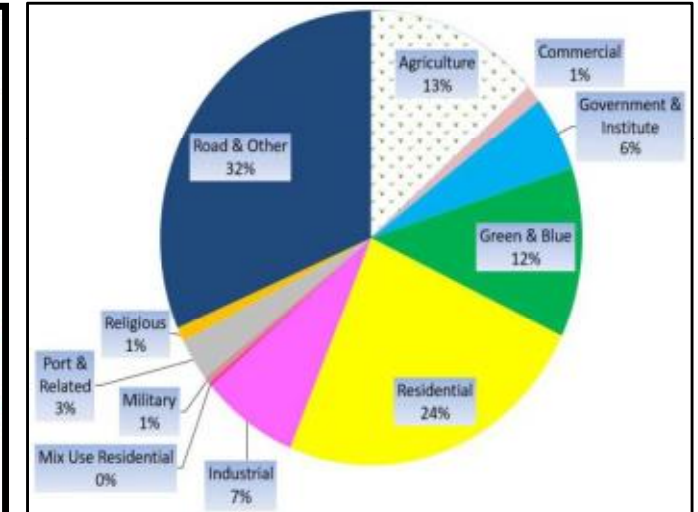
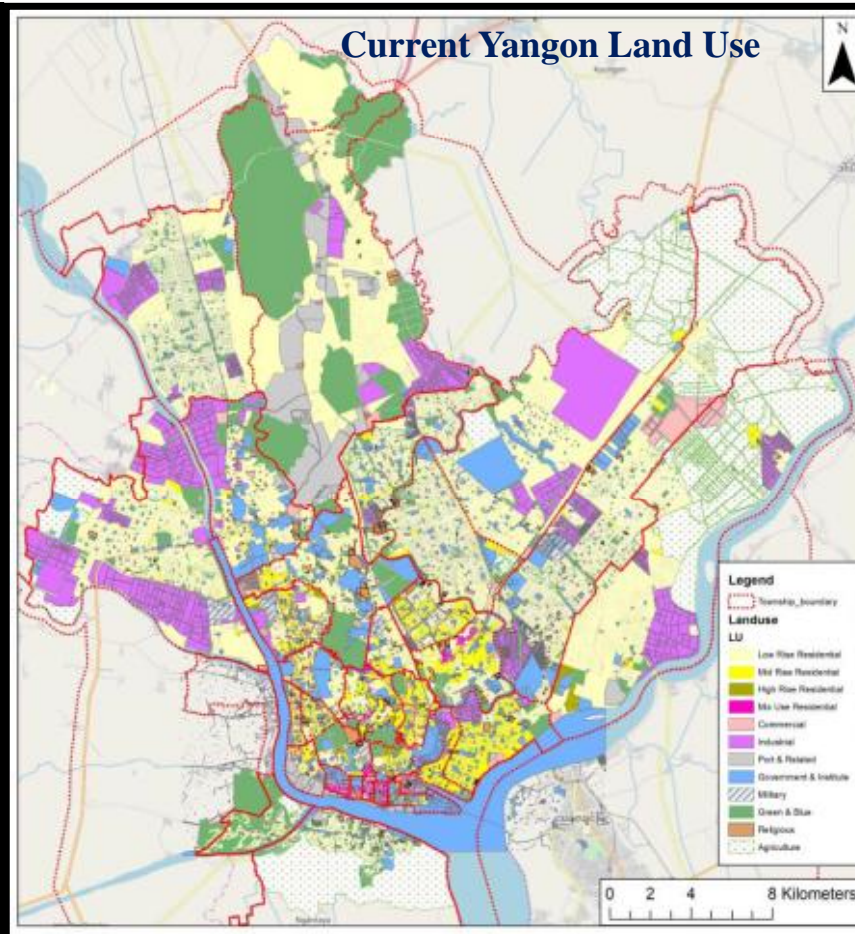


Yangon Regional Government Organization Structure





# Study Area: Yangon City



**Total Area**  
**9178.96 sq.km**

(Yangon Region)

**1043.57 sq.km**  
(YCDC)

**1 sq.km in**  
**716 unit of**  
**density**

**Heritage**  
**Building**  
**189**

# Study Area: Yangon City



## Population

**5.14 millions** (Yangon City)  
**7.3 millions** (Yangon Region)  
 (2014 Census)

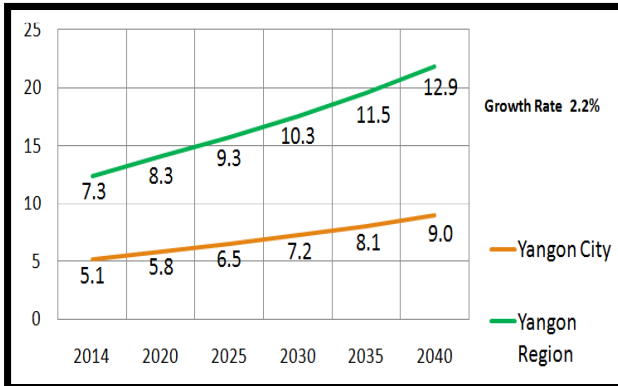
**Urban  
Population  
70%**

**Density  
716 per km sq**

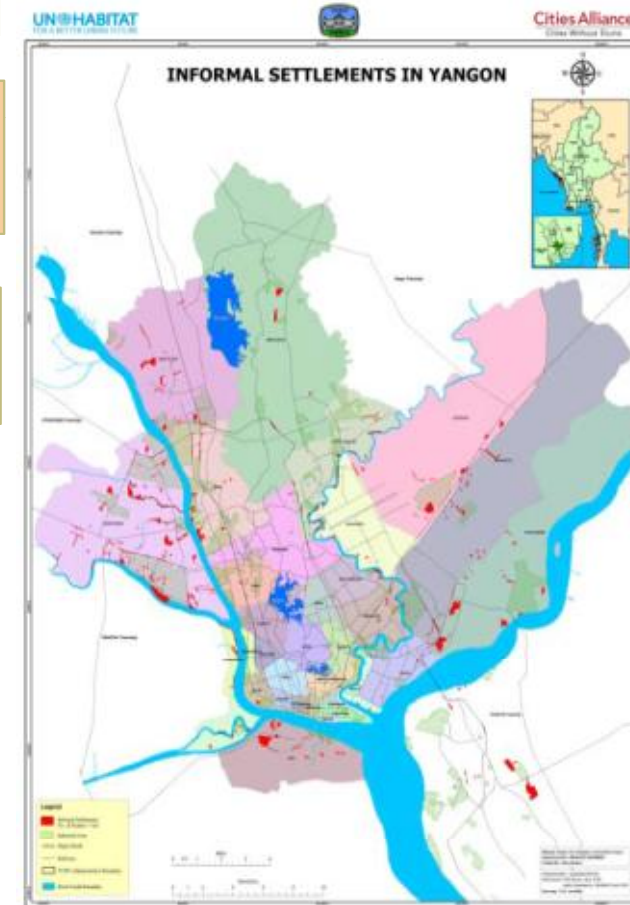
**1.23% of city area is Slum  
area** which is 432 wards in  
21 townships.

**34% of city pop: is living below the poverty line**

## Population Projection of



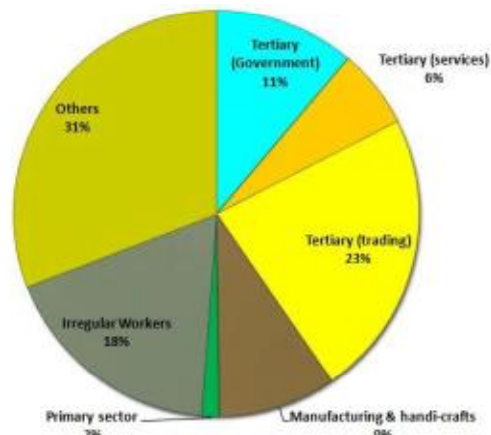
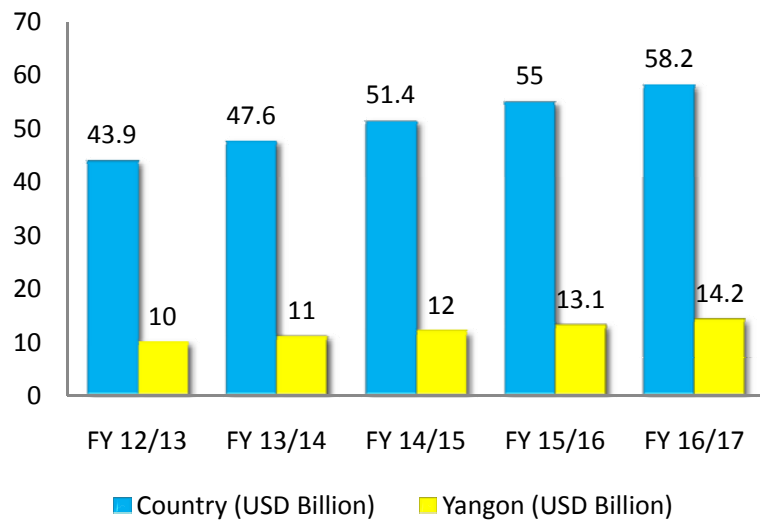
Source: Urban Planning  
Authority, 2018





# Resources of Socio-economics in Yangon

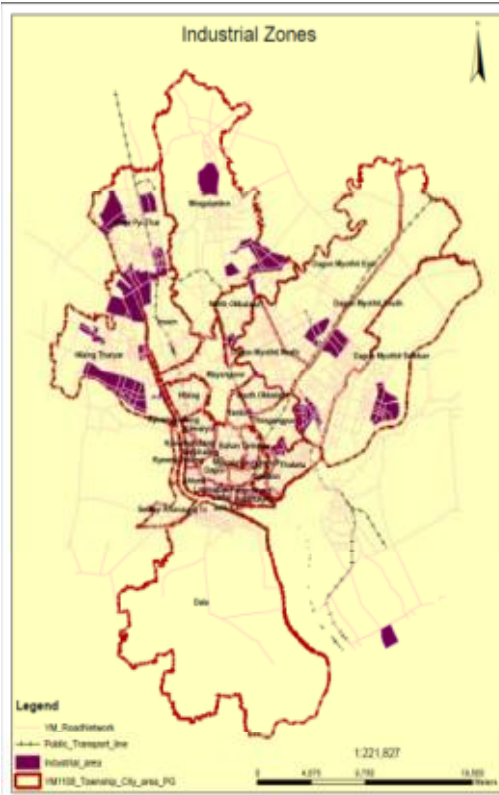
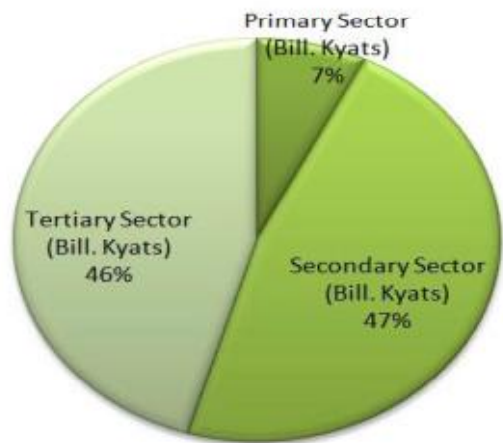
Myanmar and Yangon Region GDP (USD Billion)



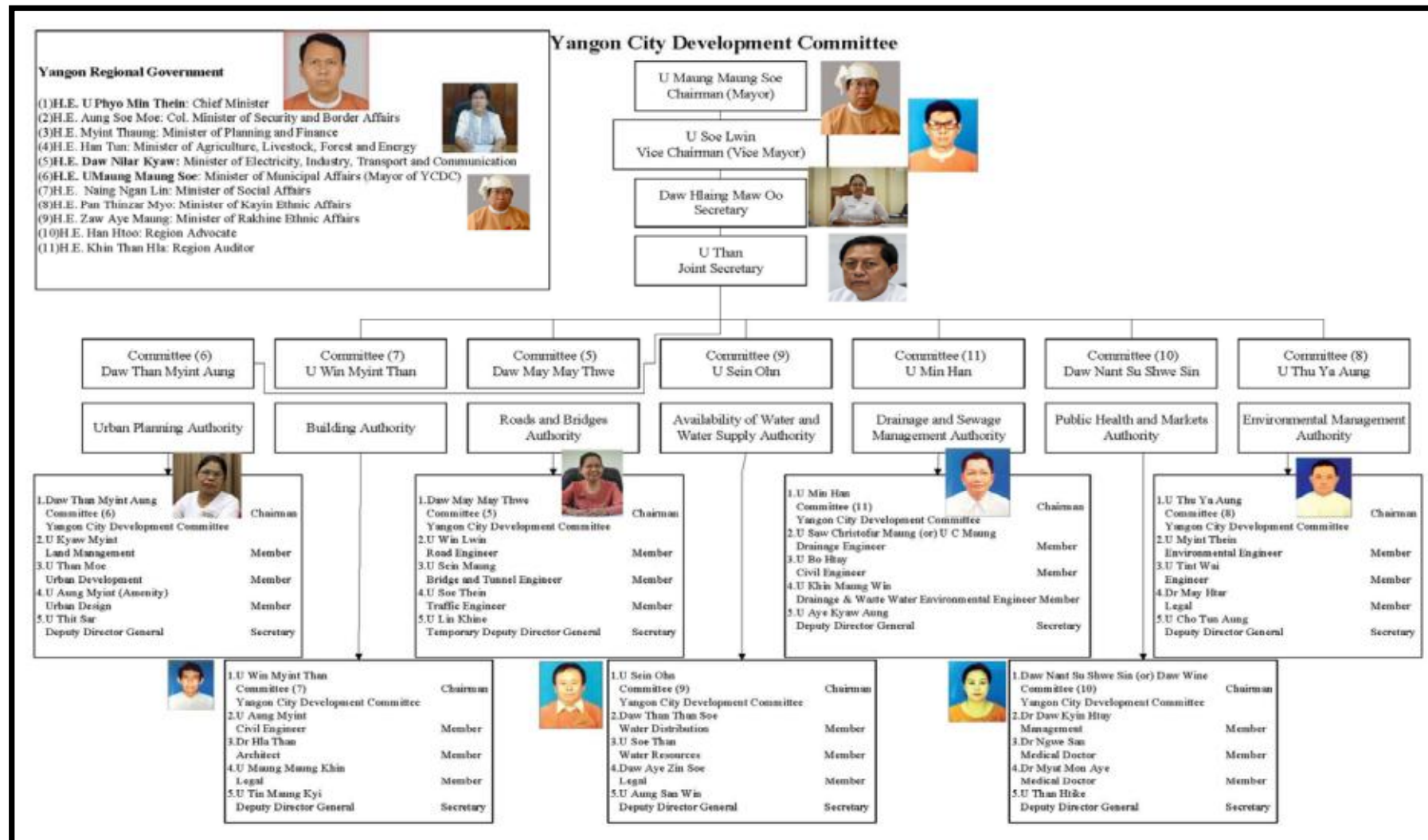
The secondary sector employment in YCDC is around 25%

Economically Active Population 71%

GDP in Yangon Division

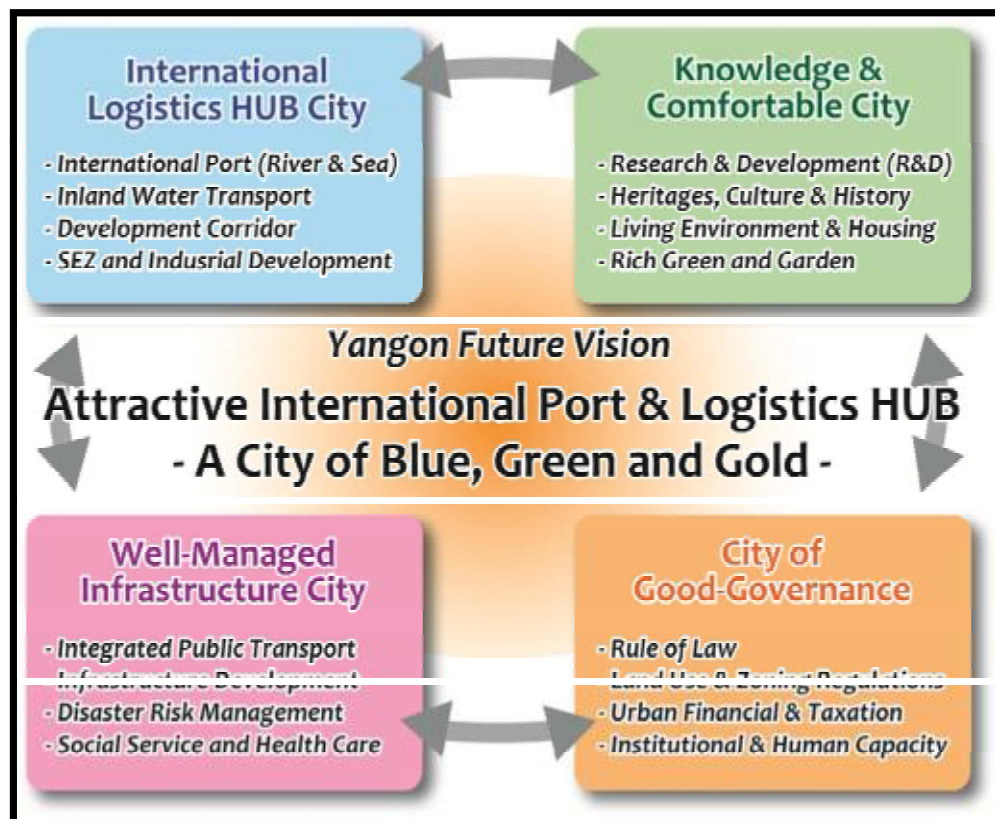


# Organization Structure of YCDC

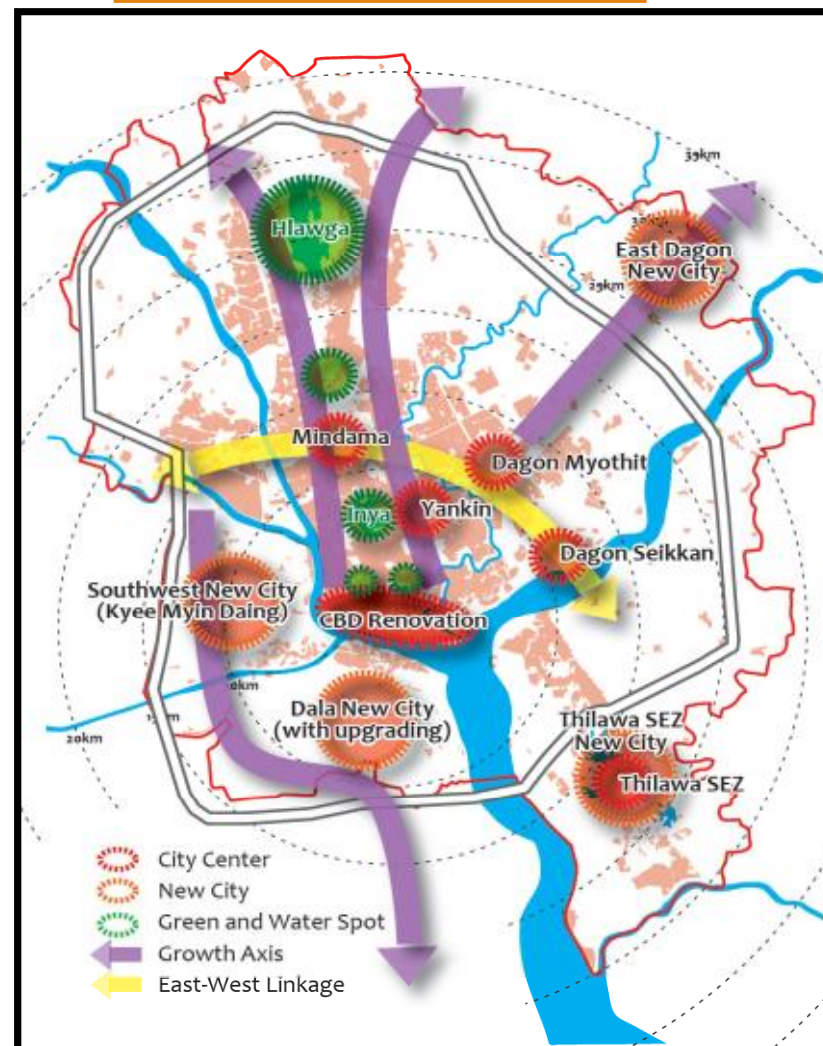




## Development Vision



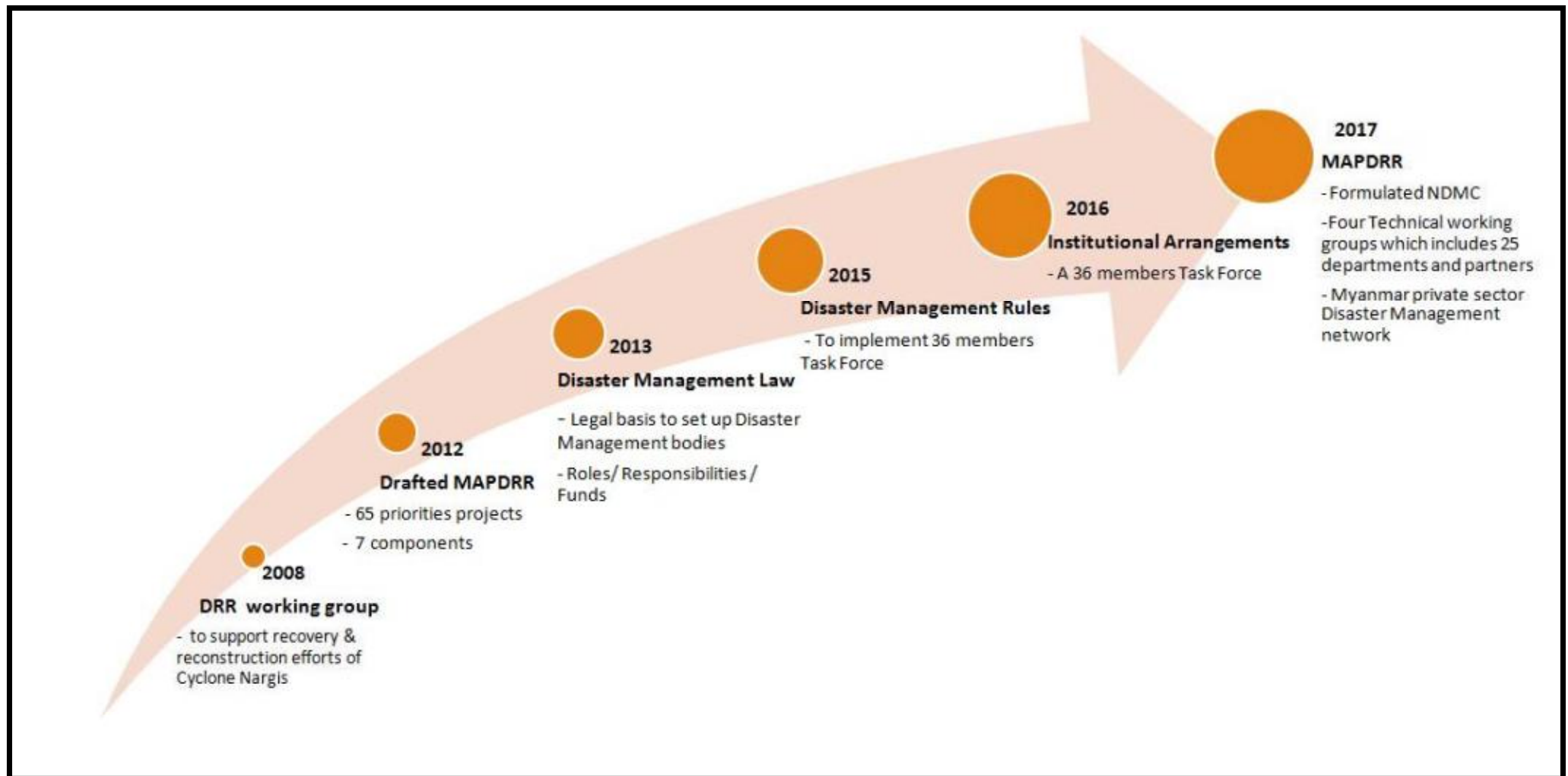
## Urban Structure



## Main Challenges & Response linked with Climate Change

Challenges & Causes		Responses
<b>Urban Management</b>	<ul style="list-style-type: none"> <li>▪ High migration</li> <li>▪ Increased informal settlement</li> <li>▪ Lack of specific regulations for standards which have not met the actual requirements</li> </ul>	<ul style="list-style-type: none"> <li>▪ Legal system reform</li> <li>▪ Systematic urban management</li> </ul>
<b>Flooding</b>	<ul style="list-style-type: none"> <li>▪ Pollution of urban rivers by solid waste lead to reduce the water flow</li> <li>▪ Flooding in urban area</li> <li>▪ Old sewage system and inadequate storage and drainage</li> <li>▪ There is no separate rainwater drainage system in the urban area</li> </ul>	<ul style="list-style-type: none"> <li>▪ Flood Risks Modal &amp; Flood Hazards Modal</li> <li>▪ Flood forecasting in future</li> <li>▪ Plan to relocate informal settlements</li> </ul>
<b>Land Use Planning</b>	<ul style="list-style-type: none"> <li>▪ Urban sprawl/Area-wise development projects</li> <li>▪ Increase the rate of concretization and reduce the proportion of green areas</li> <li>▪ Green area and surface permeability decreased</li> <li>▪ Lack of planning guideline &amp; zoning plan</li> </ul>	<ul style="list-style-type: none"> <li>▪ Demarcation of Zoning Layer</li> <li>▪ Development Permission system (YUDM)</li> <li>▪ Develop Zoning Regulation</li> </ul>

# Climate Change Integration into Planning

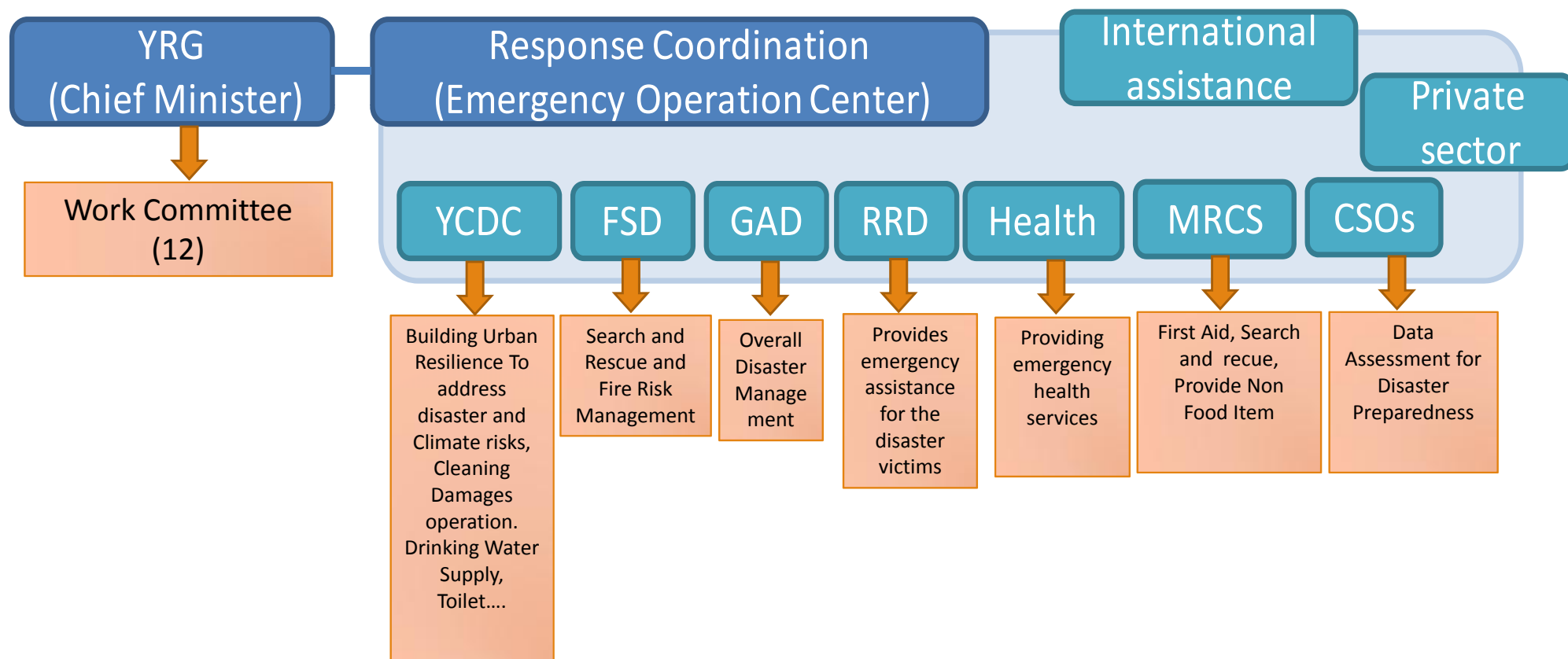


# Disaster Management Bodies in Myanmar



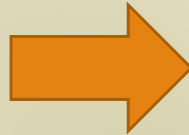


# Region/State Disaster Management Body



# Financial Sources

- ❖ State Budget (Both National & Local )
- ❖ International Support
- ❖ Private Sector
- ❖ Community Contribution



- Annual Department Budget( Lead Ministry )
- National Disaster Management Fund(NDMF)- 20 Bill MKK/ Year
- Contingency Fund (erstwhile President's Reserve Fund)
- Region & State Budget
- Public Private Partnership ( Union of Myanmar Federation of Chambers of Commerce and Industry UMFCCI)



# Ongoing Projects with YCDC

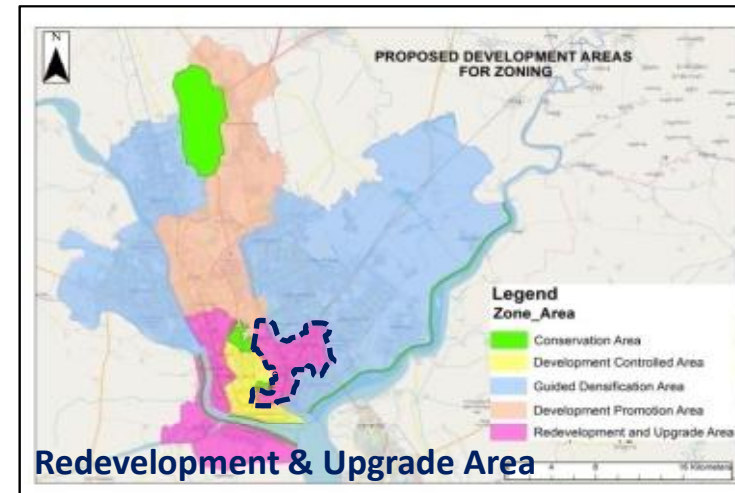
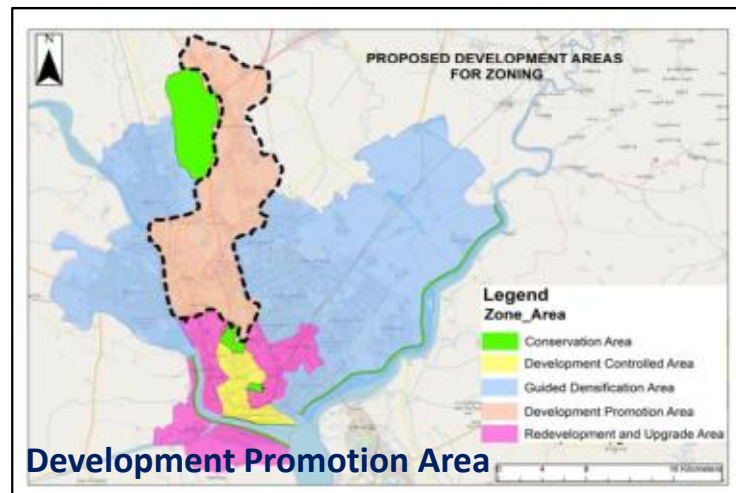
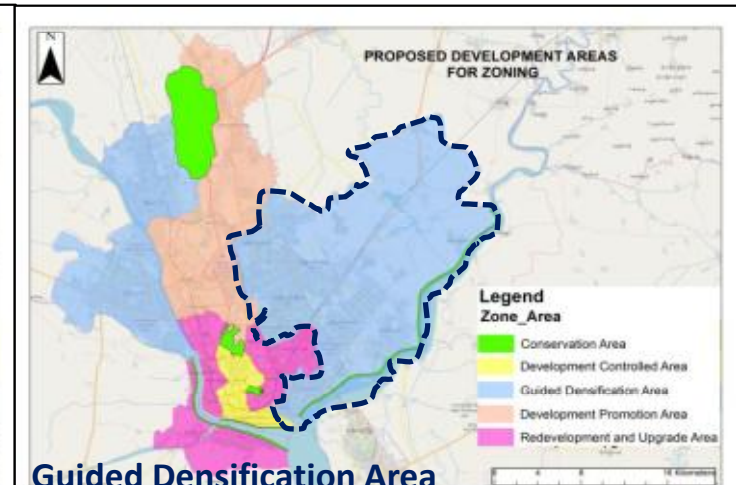
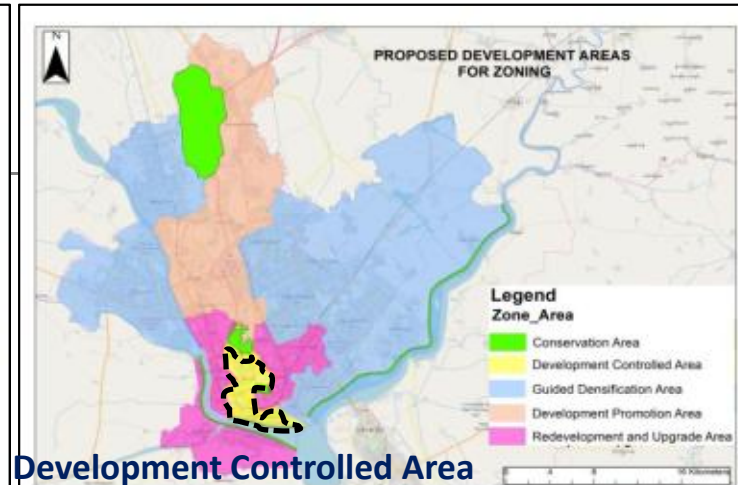
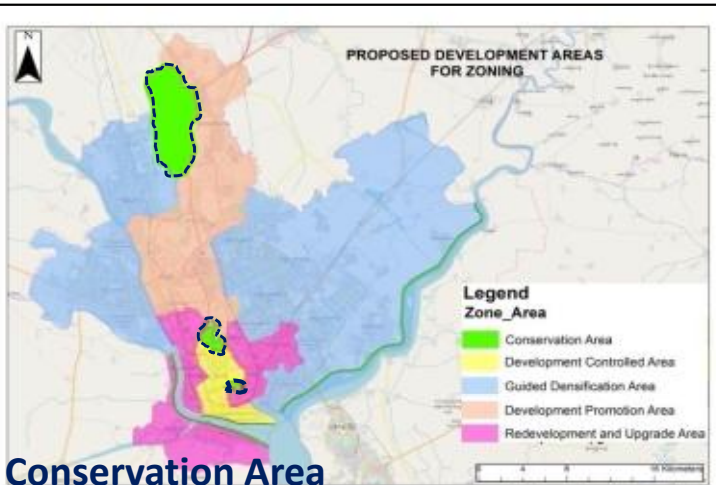
Project Name	Objects	Term	Development Partner
Global Future Cities Programme	<ul style="list-style-type: none"> <li>▪ Urban Planning, to provide technical assistance for spatial restructuring (Heritage)</li> <li>▪ Resilience, to provide technical assistance to develop strategies to address the impact of climate change &amp; ensure development is sustainable. (Streetscapes improvement)</li> </ul>	From mid-2019 to March 2021	Global Future Cities Programme (GFCP) , UN-Habitat & YCDC
Myanmar Southeast Asia Disaster Risk Management Project (SEA-DRM)	<ul style="list-style-type: none"> <li>▪ To reduce the impacts of flooding and earthquake in Yangon;</li> <li>▪ To enhance the capacity of the government to finance disaster response; and</li> <li>▪ To provide immediate and effective response to an eligible crisis or emergency through a regional financial protection mechanism.</li> </ul>	2017- 2023	World Bank, YCDC
Yangon Mapping Project	<ul style="list-style-type: none"> <li>▪ To install the CORS station install and data center</li> <li>▪ To produce Digital topographic Maps for of Yangon</li> <li>▪ To formulate zoning regulation and zoning classification</li> </ul>	2017-2019	JICA & YCDC
Yangon Urban Development Management Project	<ul style="list-style-type: none"> <li>▪ Urban development in Yangon will be properly managed according to zoning regulation and development permission system.</li> </ul>	2018 - 2021	JICA & YCDC
Multiple risks management in extreme events in fast growing (mega)cities in Myanmar	<ul style="list-style-type: none"> <li>▪ Understanding the multiple risks challenges for Yangon in detail, in order to establish a comprehensive, integrative multiple risk management</li> </ul>	From Nov 2017 to 2025 (estimated)	BMBF, Cologne University (Germany), YCDC
Building Urban Resilience of children, communities and institutions in Myanmar	<ul style="list-style-type: none"> <li>▪ Vulnerable communities, especially children &amp; young people , in urban areas have increased resilience against disasters, shocks and stresses.</li> </ul>	2018-2021	Australian aids, Plan International Myanmar, YCDC

# Outcomes & Future Improvements

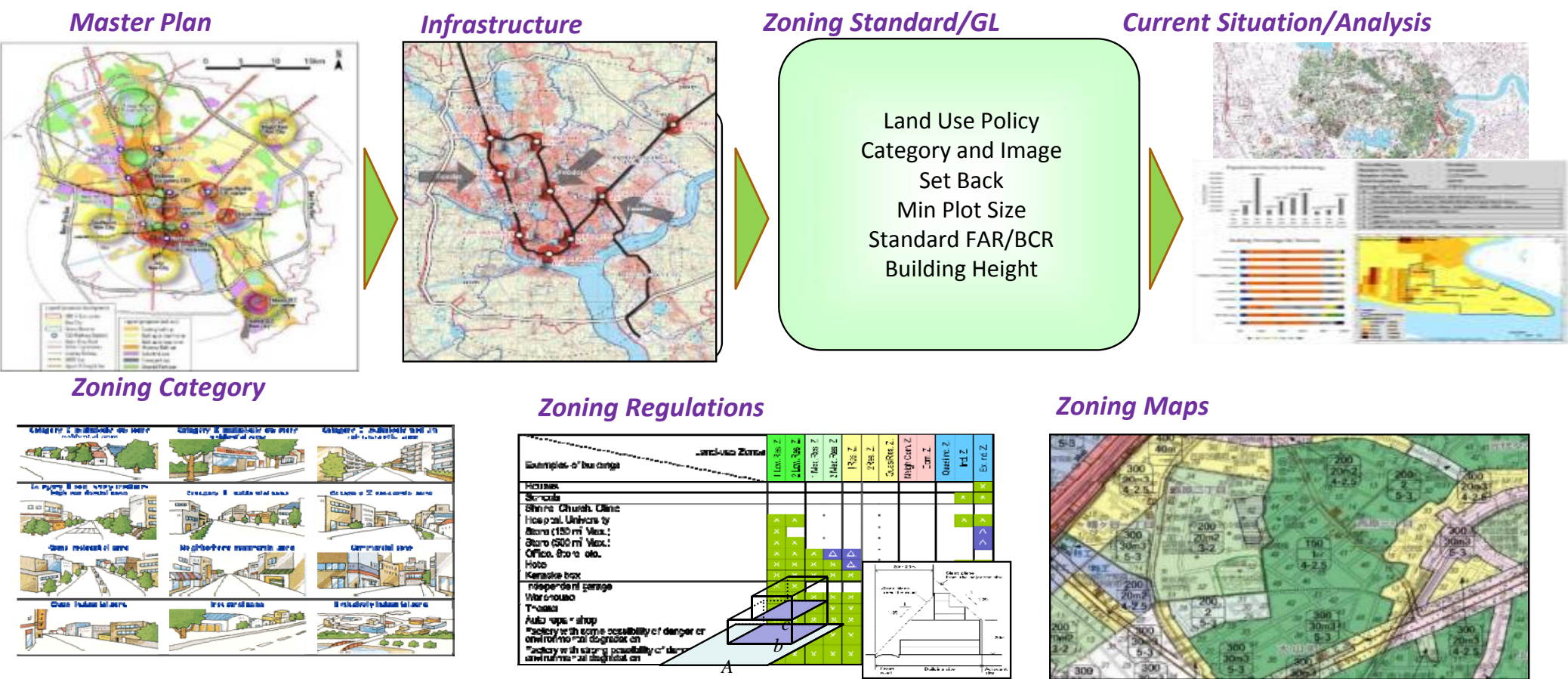
Project Name	Outcome	Future improvement
Global Future Cities Programme	<ul style="list-style-type: none"> <li>Strategies</li> <li>Streetscapes improvement</li> </ul>	<ul style="list-style-type: none"> <li>Can follow up design, technique &amp; cost for future projects</li> </ul>
Myanmar Southeast Asia Disaster Risk Management Project (SEA-DRM)	<ul style="list-style-type: none"> <li>Flood Risk Modal &amp; Flood Hazard Model by making the Light Detection and Ranging-LiDAR Process.(370 sq Km)</li> <li>Priority public facilities to reduce disaster risk by retrofitting (Reservoir , Compressor Station, Pumping Station, Markets)</li> <li>Risk assessment s for lifeline infrastructure</li> <li>Capacity development</li> </ul>	<ul style="list-style-type: none"> <li>Flood Hazard Map &amp; Flood Risk Map</li> <li>Has to apply the LiDAR data for other services</li> </ul>
Yangon Mapping Project	<ul style="list-style-type: none"> <li>Esquires strict and concise map scale. (1:5,000 for YCDC area (1,500km2)/ 1:10,000 in the south suburbs of Yangon area (1,100km2)</li> </ul>	<ul style="list-style-type: none"> <li>To sustain the construction of urban development with GIS system .</li> <li>Land management system is improvement (To support establishment of the Continuously Operating Reference Stations (CORS) in Yangon Area)</li> <li>web based geospatial platform</li> </ul>
Yangon Urban Development Management	<ul style="list-style-type: none"> <li>Zoning regulation and improved development permission system</li> </ul>	<ul style="list-style-type: none"> <li>Demarcation of Zoning Layer</li> <li>Formulation of Development Policies and Land use Plan</li> <li>Mitigate &amp; adapt disaster management</li> </ul>
Multiple risks management in extreme events in fast growing (mega)cities in Myanmar (Yangon, Mandalay,, Naypyitaw, Taunggyi, Mawlamyaing)	<ul style="list-style-type: none"> <li>Phase-1 : Structure of project &amp; good proposal</li> <li>Phase-2: Analysis of situation &amp; problems, SWOT</li> <li>Phase-3 : Research on concepts, procedures and stakeholder's priorities and action</li> <li>Phase-4 : Implementation of the developed concepts and procedures for risk awareness and risk management, capacity enhancement</li> </ul>	<ul style="list-style-type: none"> <li>effective/reliable research-based data bank, inter-institutional dissemination of information (incl. Geographic Information System)</li> </ul>
Plan International Myanmar	<ul style="list-style-type: none"> <li>Job opportunities, Awareness Raising Events, Vulnerable communities especially for youths and children in urban areas have increased resilience against disasters</li> </ul>	<ul style="list-style-type: none"> <li>Communities have a safer &amp; enabling environment that can increase child &amp; youth resilience to prepare &amp; respond to disasters</li> </ul>



# Defined Development Areas for Zoning



Zoning Regulation and Zoning Map shall be established considering the Master Plan, current land/building usage and the capacity of the infrastructure as well as Zoning Standard and Guidelines



## Lesson Learned

- ❖ Management and supervise the implementation of Urban Planning.
- ❖ Risk of climate change and natural disasters
- ❖ Lack of uniform and standardized database system among sectors
- ❖ Stakeholders and community involvement to let them to be aware of the importance of the systematic urban management.

# Conclusions

- Implementation and future development of the legal basis for Urban Planning is needed, responding to climate change.
- Provide precise management, implementation of the counter measures and supervision for Urban Disaster to minimize the risks.
- Effective use of human and natural resources in Urban Disaster.
- IT application in Urban Planning management in response to climate change.
- Mechanisms to provide useful information to stakeholders and support decision-making.





Building disaster resilience is not an option. Past events have clearly demonstrated the far reaching, detrimental impact of disasters on hard-won development gains. I congratulate the National Disaster Management Committee for preparing the "Myanmar Action Plan on Disaster Risk Reduction 2017", which lays out the path that must be followed to make our country disaster resilient. The backbone of our nation is our people and their role in the implementation of the Plan cannot be overstated. Let us all join with the National Disaster Management Committee to build a truly disaster resilient Myanmar.

*Aung San Suu Kyi*

H.E. Daw Aung San Suu Kyi  
State Counsellor, Republic of the Union of Myanmar  
9-10-2017



**THANK YOU!**