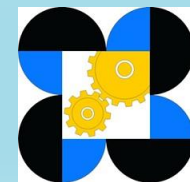


Policy Formulation and Governance related to WEF in Philippines

Norbert G. Ambagan



Department of Science and Technology (DOST)
Industrial Technology Development Institute (ITDI))



Outline



Country information

Water Resources

Energy Resources

Food Resources

Policy Development – National Issues and Direction

Policy Development – Legislative Process

Policies and Programs on Water, Energy and Food

Summary

Country Info



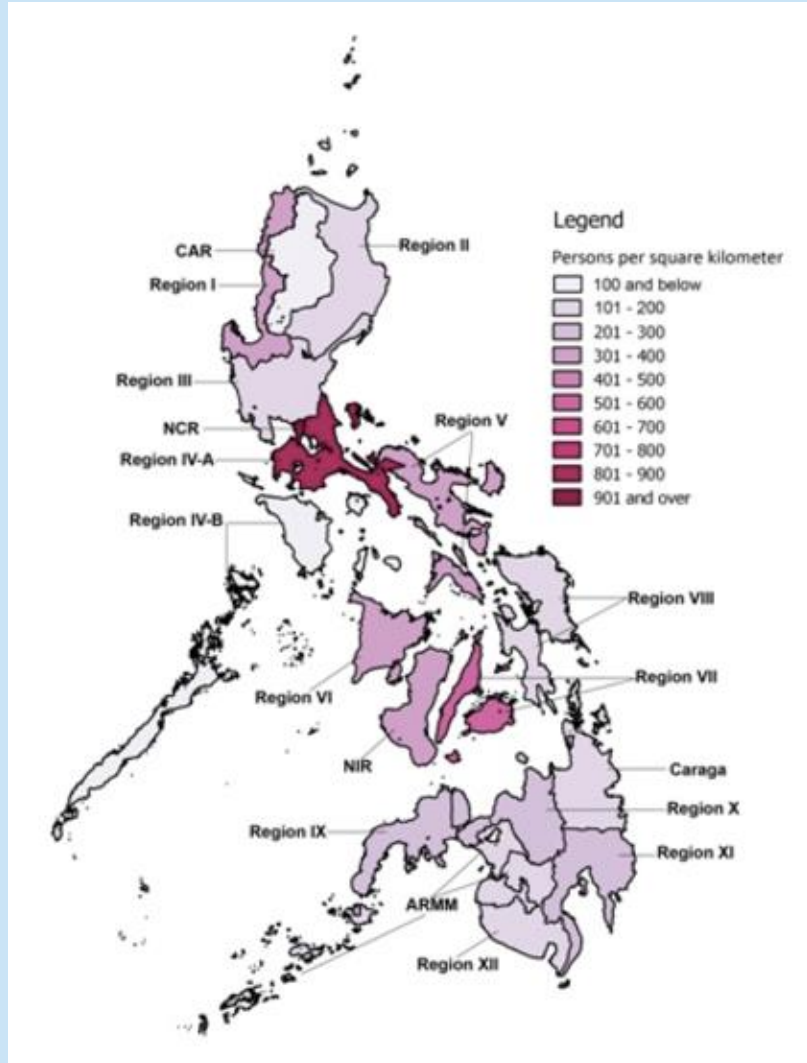
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Geographical:	3 island groups Luzon, Visayas, Mindanao
Political:	18 Regions; 81 provinces
Area:	300,000 sq. km [CountryStat Phil 2015]
Land:	298,170 sq. km
Water:	1,830 sq. km
Coastline:	ca > 36,000 km
Population:	> 102 million (2016) 44.4% lives Urban areas 55.6% lives in Rural areas GDP per capita = USD 6649 [2014]
Pop. Density:	337 persons/sq. km (national) 20,785 persons/sq. km (NCR) [2015] > 42,000 persons/sq. km [Manila]
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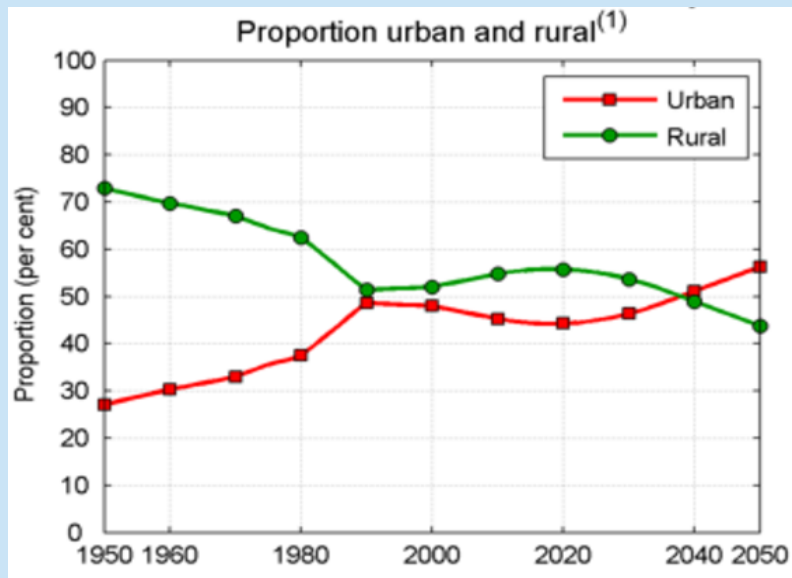
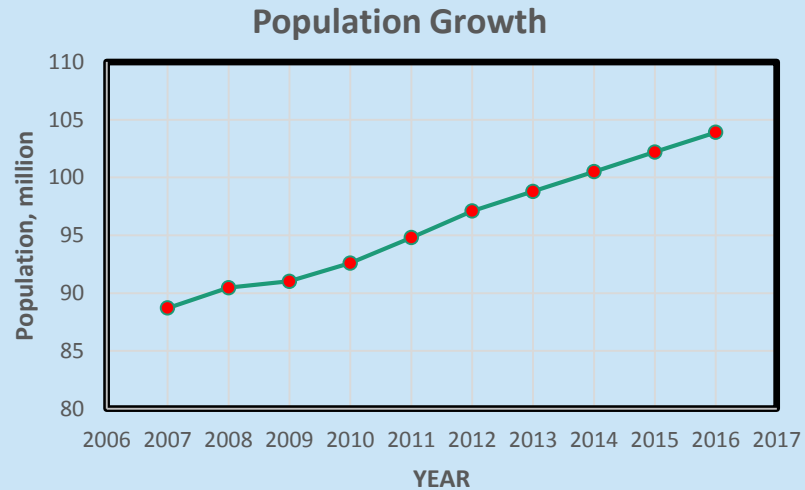
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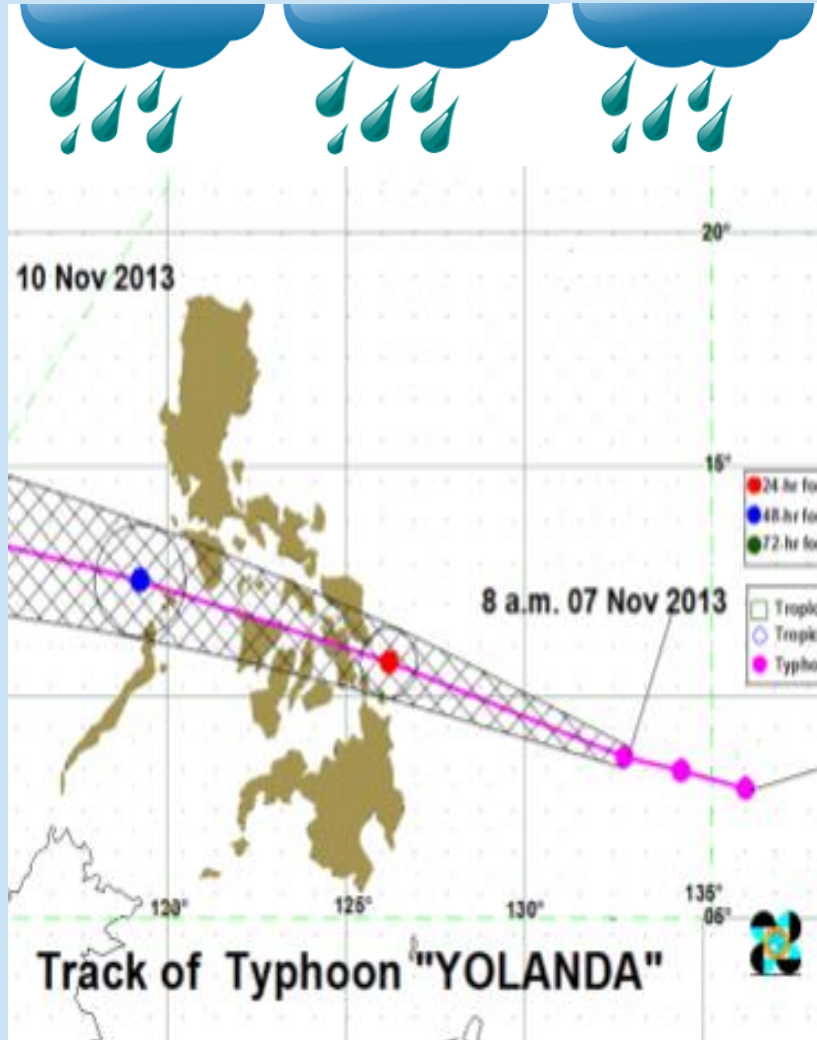
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Rainfall: 965 to 4,064 mm annually [PAGASA-DOST]
1000-2000 mm collected as runoff
20 typhoons/year , 5 destructive[NDRRMC]
Country most exposed to tropical storm in the world

Surface Water:

Rivers - 20 major/421 principal river basins [NWRB]

Lakes - 79 lakes mostly utilized for fish production.

Laguna Lake country's largest; 3,813.2 sq. km.[BFAR]

Groundwater reservoir 50,000 sq. km. [MGB]

Demand – ca. 4.3 bcm (1988) – 5.8 bcm (1994)

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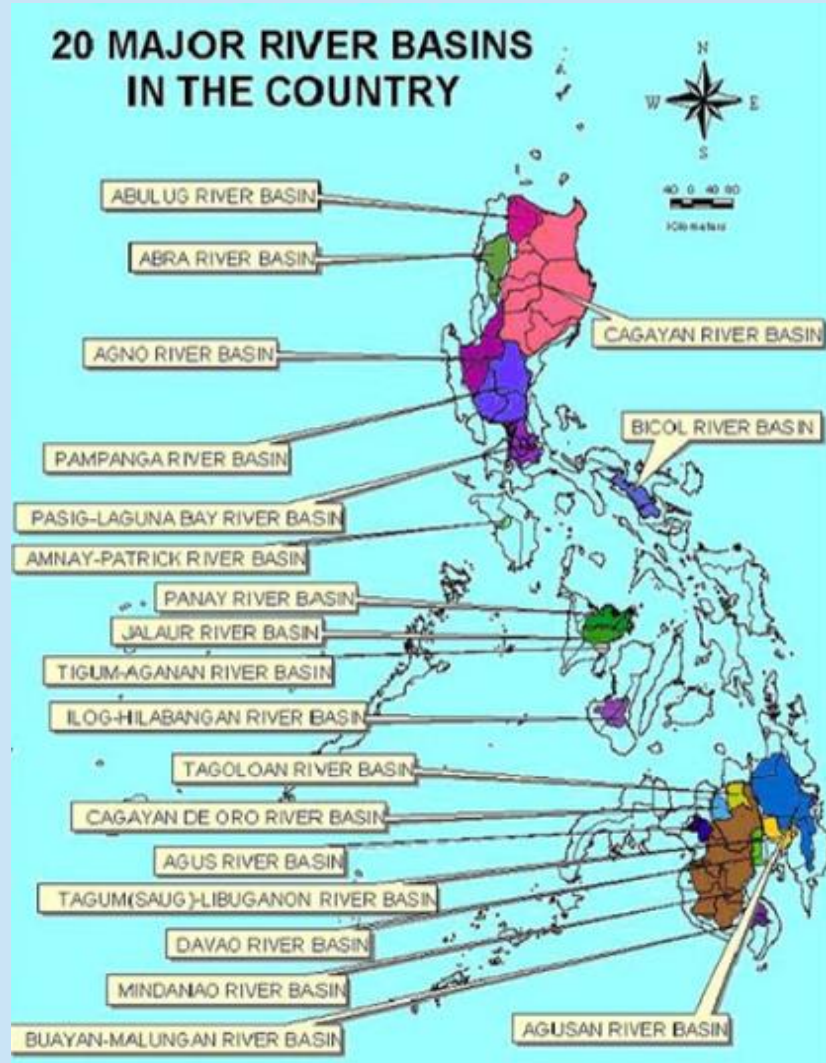
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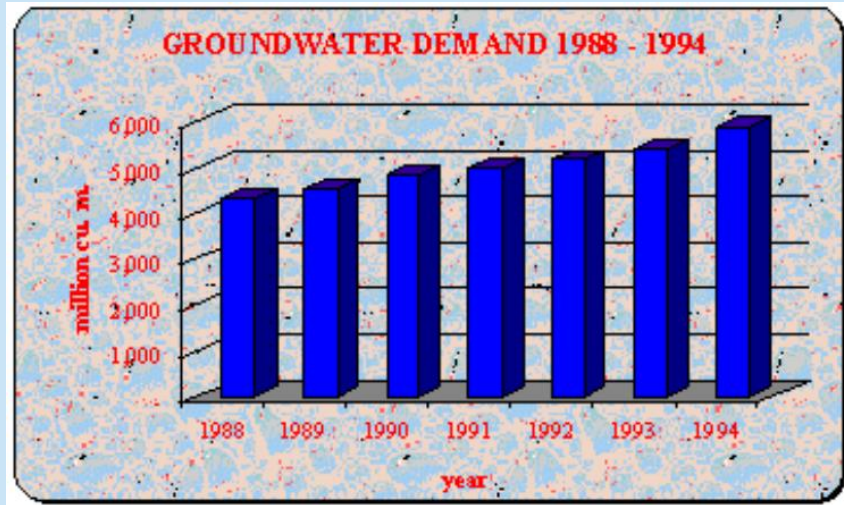
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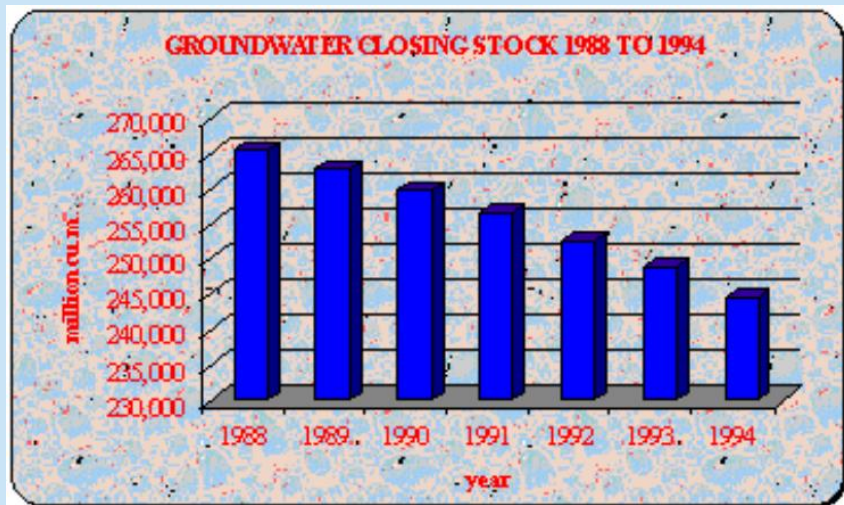
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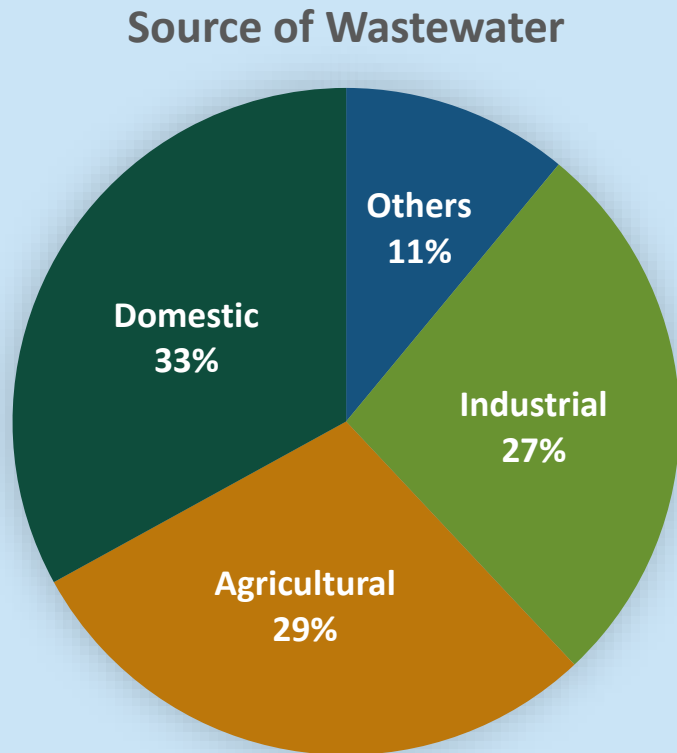
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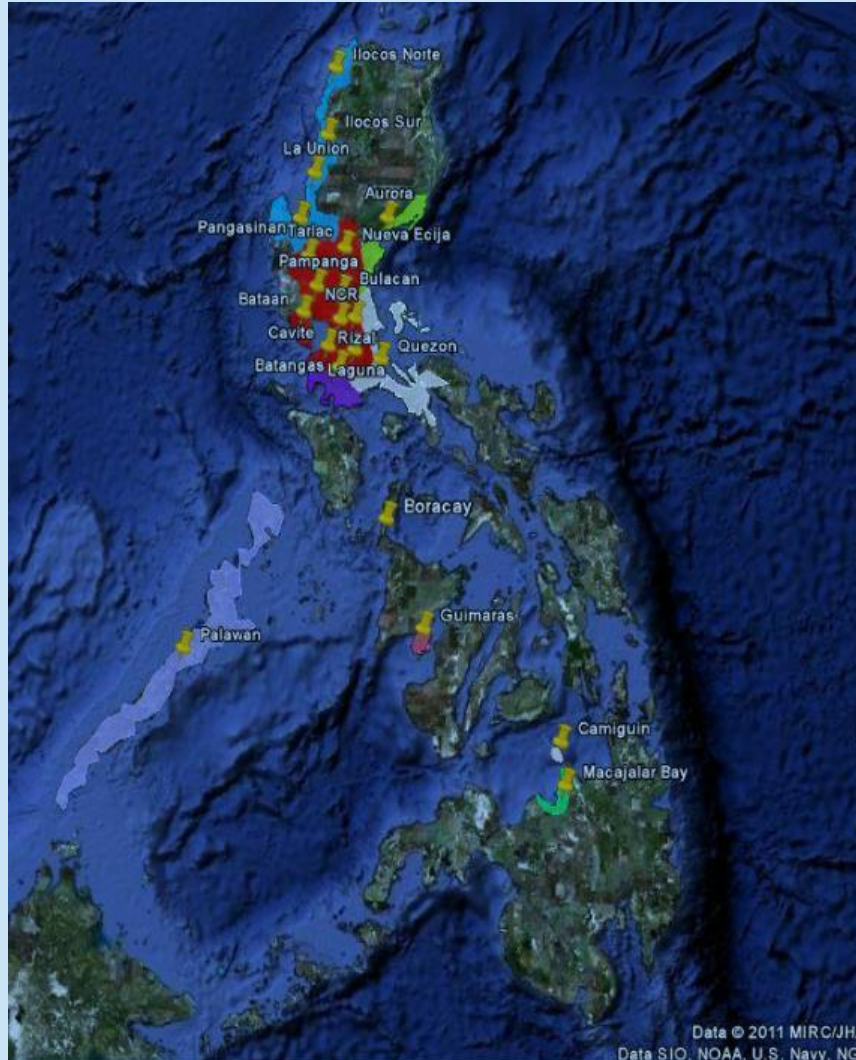
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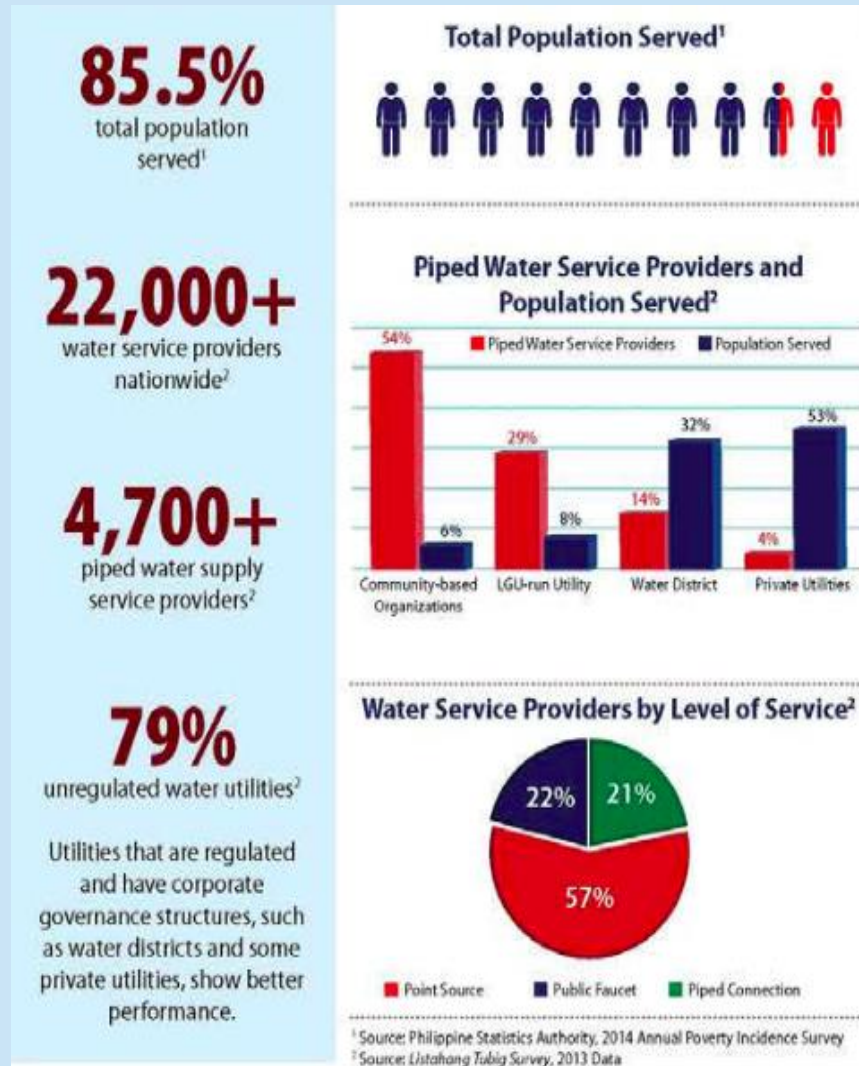
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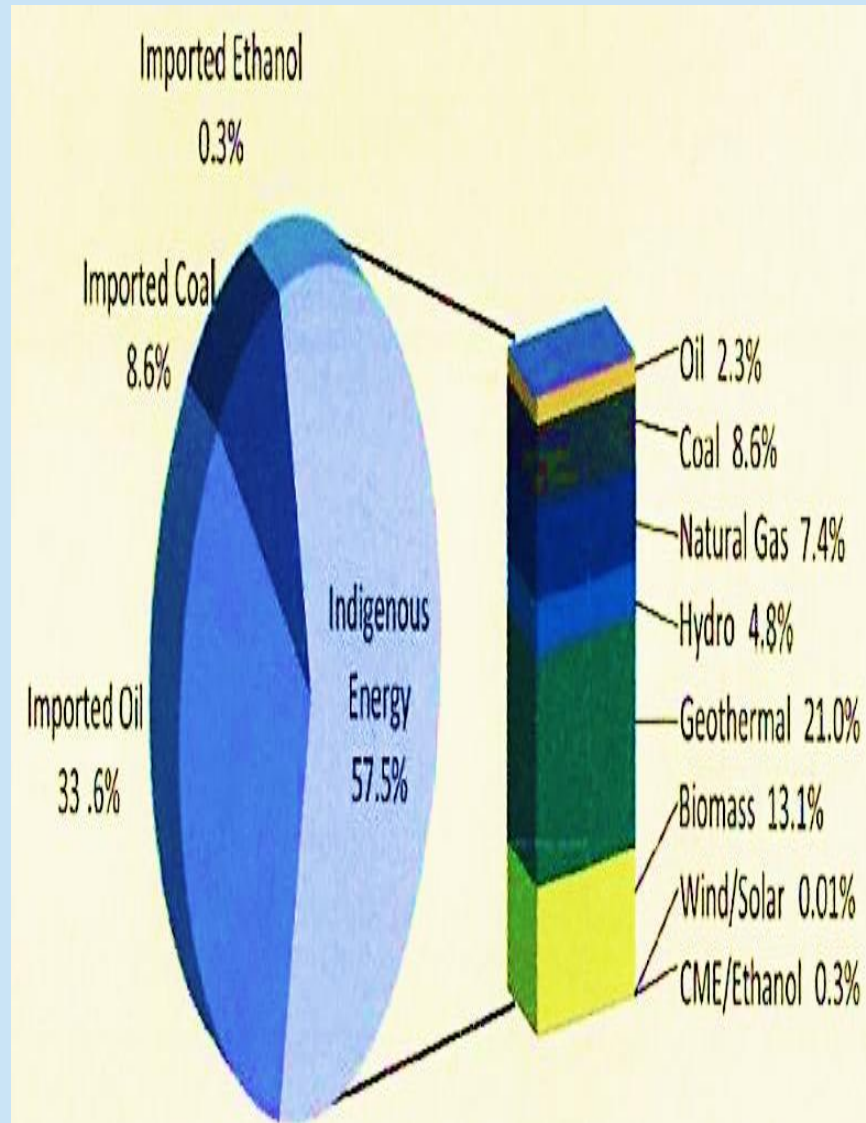
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Primary Energy:

Indigenous - geothermal, biomass, coal, natural gas

Imported – oil, coal

Usage: 40.7 MTOE (57.5% Self-sufficient) [2010]

Consumption by Sector:

transport > residential > industry >....

Consumption by Fuel:

oil > biomass > electricity > coal ...

Energy Indicators Per capita:

Energy: 0.42 TOE/person (2011); 1% lower than 2010

Oil: 1.05 BBL/person (2011); 7.9% lower than 2010

Electricity: 0.73 MWh/person (2011)

Access to Electricity:

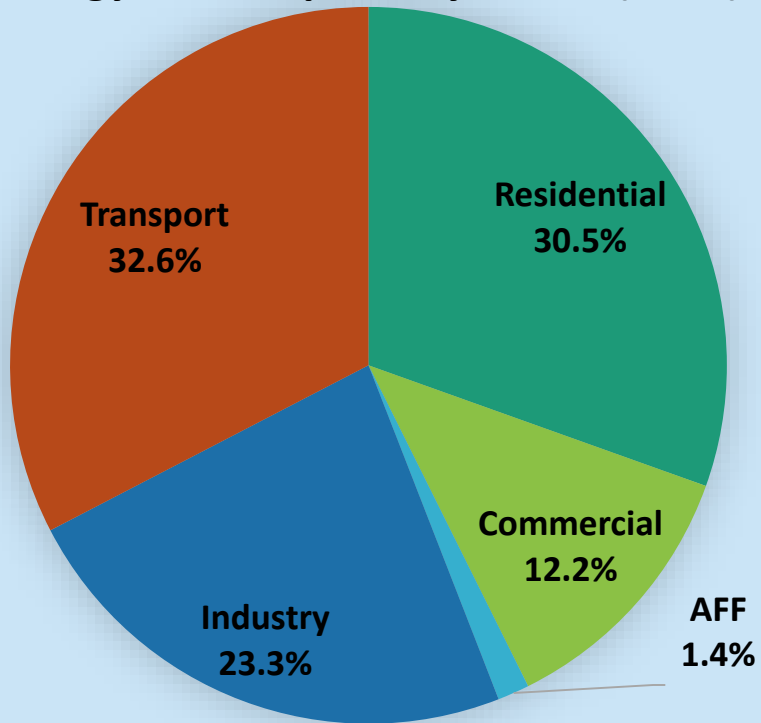
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Urban - 97.3% (2014)

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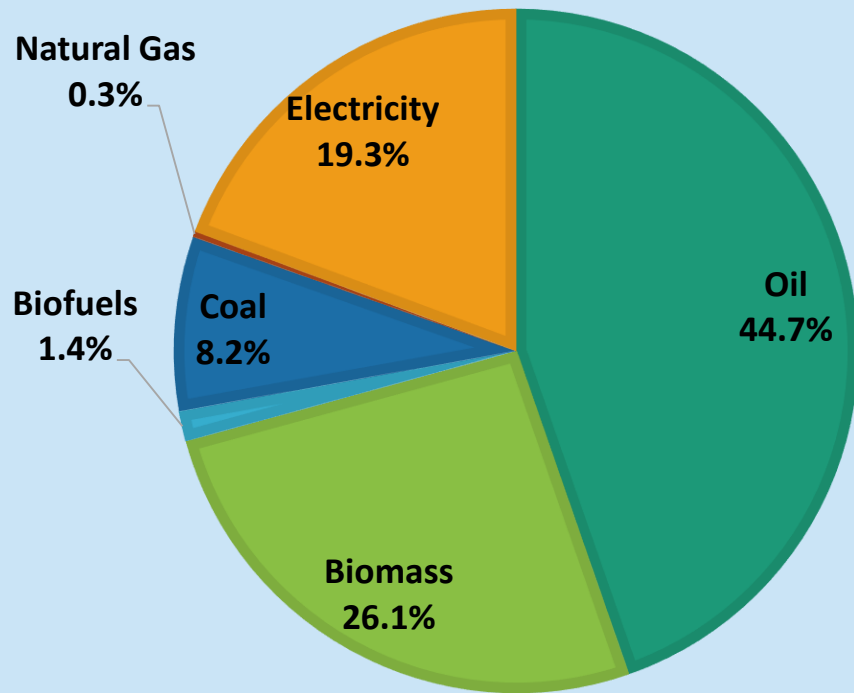
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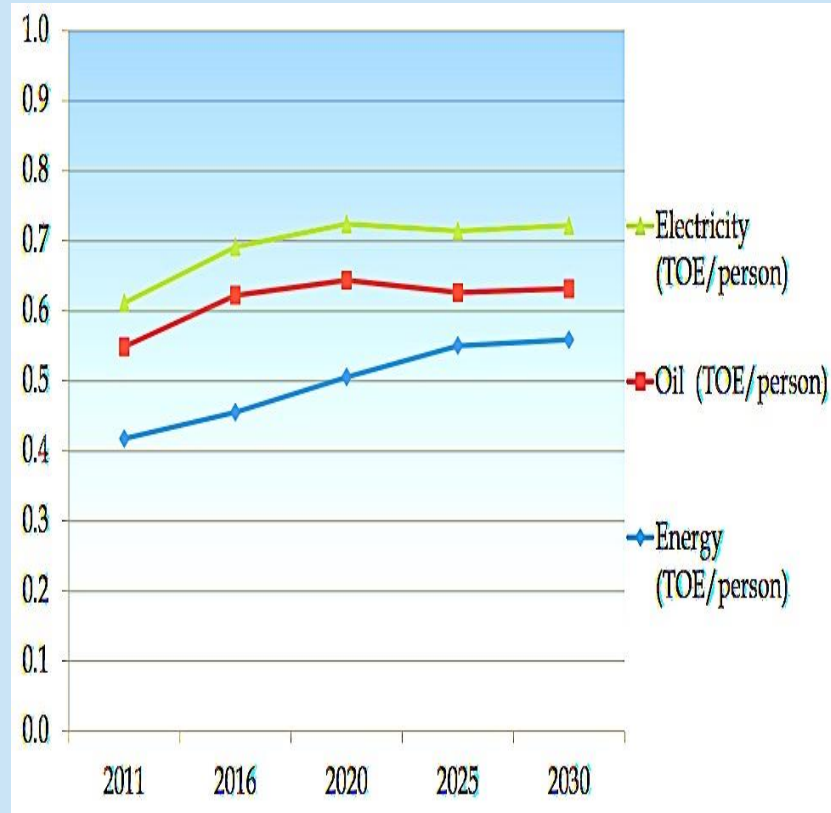
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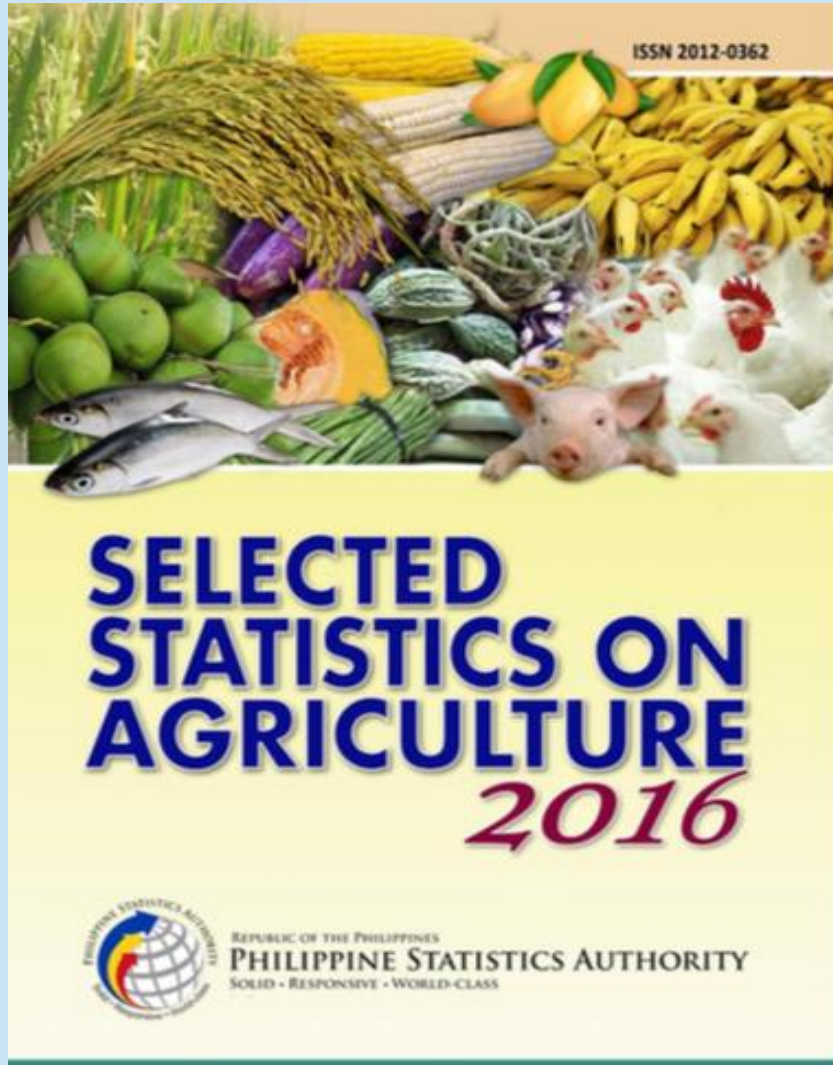
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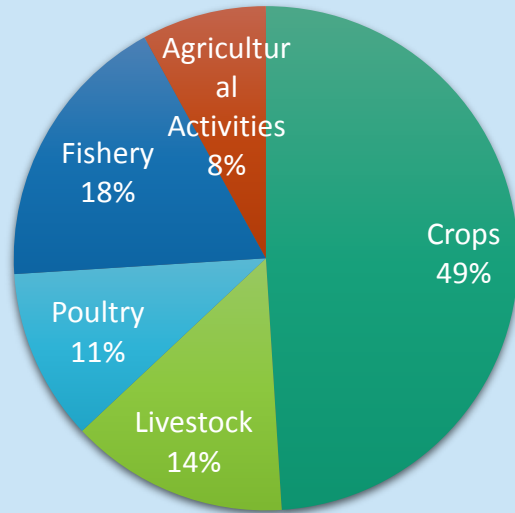
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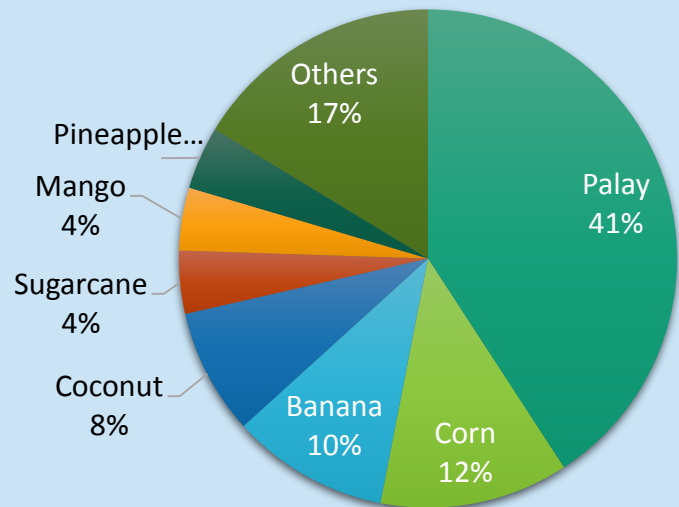
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Land Use:	7.19 million hectares
Value:	PHP 1.364 billion (9% of GDP) [2015]
Sub-sectors:	Crops, livestock, poultry and fishery
Major Crops:	Rice > corn > banana > coconut > sugarcane
Employment:	11.29 M persons / 38.74 million (29% of total)
Food Insecurity:	Natural disasters (typhoon, earthquake, floods) Internal conflicts esp. Mindanao
Food/Beverage Manufacturing:	Manufacturing 23 % of GDP (2011-2014) Food & Bev 40.8% of Manufacturing 26% Growth (Value and Volume 2016) [NEDA] >12,000 registered MSMEs [2015 Phil FDA]

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% Production Value by Sector



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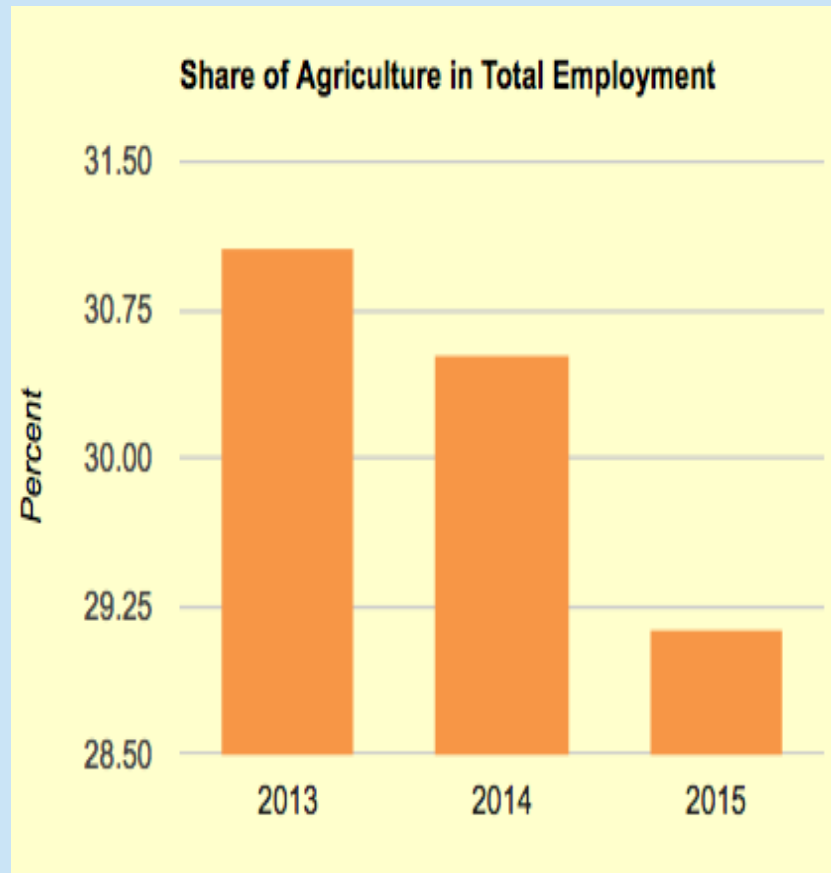
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Socioeconomic Polices. Performance in previous years; Local/global developments/emerging issues;
Shifts in policy emphasis of the new administration (NSO, NSCB, POPCOM, PIDS, cabinet departments, other groups)

Policy Development – National Issues

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Social development (education/manpower, social welfare/community, health/nutrition, housing);
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First SONA . New policy directions: macroeconomics, poverty alleviation, ICT, tourism, infra dev, agriculture, environment, education, health care, housing, peace and order, and foreign policies.

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Policy Development – National Issues

5. Evaluation. NEDA and attached agencies
Implementation and economic performance. Inputs to cover policy gaps and improvements of the policy for the next policy cycle.

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Policy Development – National Issues

Philippine Development Plan 2017-2022

- long-term vision for the country (AmBisyon Natin 2040),
- long-term development agenda (Agenda 2030)
- Directive Memo Circulari No.12 Oct 24, 2016
- Priorities of the administration (10-pt socioeconomic agenda)
- Addresses the concerns of multistakeholders (Social Development Initiative Summit)



15 Years 17 Goals 169 Targets 232 Indicators



Vision for Country

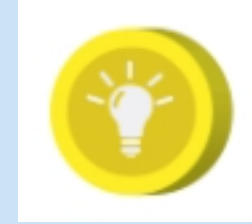
“By 2040, the Philippines shall be a prosperous, predominantly middle-class society where no one is poor. Our peoples will enjoy long and healthy lives, are smart and innovative, and will live in a high-trust society”



Policy Development – Legislative Process House of Representatives



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1st reading. Referral to committees
2nd reading. Sponsorships, debates, and amendments.
3rd reading. Final check and vote via roll call.



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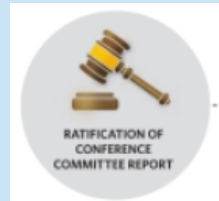
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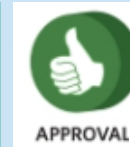
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5. Office of the President, the bill can take one of three routes:
- *Approved*. Becomes a Republic Act and takes effect 15 days after publication
 - *Vetoed*. An explanation on why it was vetoed.
 - *Lapsed into law*.



Policies on Water, Energy and Food

Policy	Date	Title	Scope
R.A. No. 4850	July 16, 1966	Creation of Laguna Lake Development Authority	Protection of Laguna Lake area and the surrounding provinces, cities and towns
PD No. 274	August 18, 1973	Preservation, Beautification, Improvement, and Gainful Utilization of the Pasig River	Providing for the regulation and control of pollution of the river and its bank
	1973	Masagana 99 program	Improved rice production. Phil exported rice.
P.D. No. 704	May 16, 1975	Fisheries Decree of 1975	Integrated development of the fishery industry and to keep the resources in optimum productive condition.
P.D. O. 856	July 1, 1976	"Code on Sanitation of the Philippines"	The health of the people, public services towards the protection and promotion of health
P.D. No. 1067	December 31, 1976	The Water Code of the Philippines	Appropriation, control and conservation of water resources and rational utilization of these resources
P.D. 1152	June 6, 1977	"The Philippine Environment Code."	Establishing environment management policies and prescribing environment quality standards
P.D. 1151	June 7, 1977	"The Philippine Environment Policy."	Environmental protection through environmental impact assessments and statements

Policies on Water, Energy and Food

Policy	Date	Title	Scope
P.D. No. 1206	October 6, 1977	Creation of the Department of Energy	To ensure a continuous and adequate supply of energy, exploration and development of indigenous energy resources, and efficient utilization of energy
R.A. NO. 7900	February 23, 1995	"High-Value Crops Development Act of 1995."	Growth and development of agriculture, enhance productivity and incomes of farmers, improve agribusiness and develop high-value crops
R.A. NO.8041	June 7, 1995	"National Water Crisis Act of 1995."	Address the nationwide water crisis which adversely affects the health and well-being of the population , food production and industrialization process.
R.A. No. 8435	December 22, 1997	"Agriculture and Fisheries Modernization Act of 1997."	Promote food security. Modernize the agriculture and fisheries sectors.
R.A. No. 9275	March 22, 2004	"Philippine Clean Water Act of 2004."	Water Quality Management in all water bodies ; abatement of pollution from land- based sources; Enforcement of WQ standards, regulations and penalties
E.O. 816	July 6, 2009	River Basin Control Office under DENR	The integrated planning, management, rehabilitation and development of the country's river basins

Policies on Water, Energy and Food

Policy	Date	Title	Scope
E.O. 533	June 6, 2006	Integrated Coastal Management (ICM) Policy	All coastal and marine areas, addressing the inter-linkages among associated watersheds, estuaries and wetlands, and coastal seas,
R.A. No.9367	January 12, 2007	Biofuels Act of 2006	The production, blending, storage, distribution, use, and sale of biofuels, biofuel-blends, and biofuel feedstock
R.A. No. 9513	December 1, 2008	Renewable Energy Act of 2008	Development of renewable energy resources: biomass, solar, wind, hydro, geothermal and ocean energy systems
R.A. No. 10068	April 6, 2010	"Organic Agriculture Act of 2010"	The practice of organic agriculture that will cumulatively condition and enrich the fertility of the soil, increase farm productivity, reduce pollution and destruction of the environment, prevent the depletion of natural resources, further protect the health of farmers, consumers, and the general public,
R.A. No. 10611	August 23, 2013	"Food Safety Act of 2013"	To strengthen the food safety regulatory system in the country

Summary



- 1. The country has several issues and challenges regarding W-E-F NEXUS in terms of its unique geography, its people and the structure of society.**
- 2. Natural resources are "not scarce" but needs to be managed and protected.**
- 3. Population growth and increasing density in the cities are significant factors stressing the availability of W-E-F resources.**
- 4. Climate change and vulnerability to natural calamities needs to be needs to be integrated with the W-E-F NEXUS based planning.**
- 5. The system of cyclic, fragmented and reactive policies needs to be re-assessed and evaluated.**

Thank You!!!