

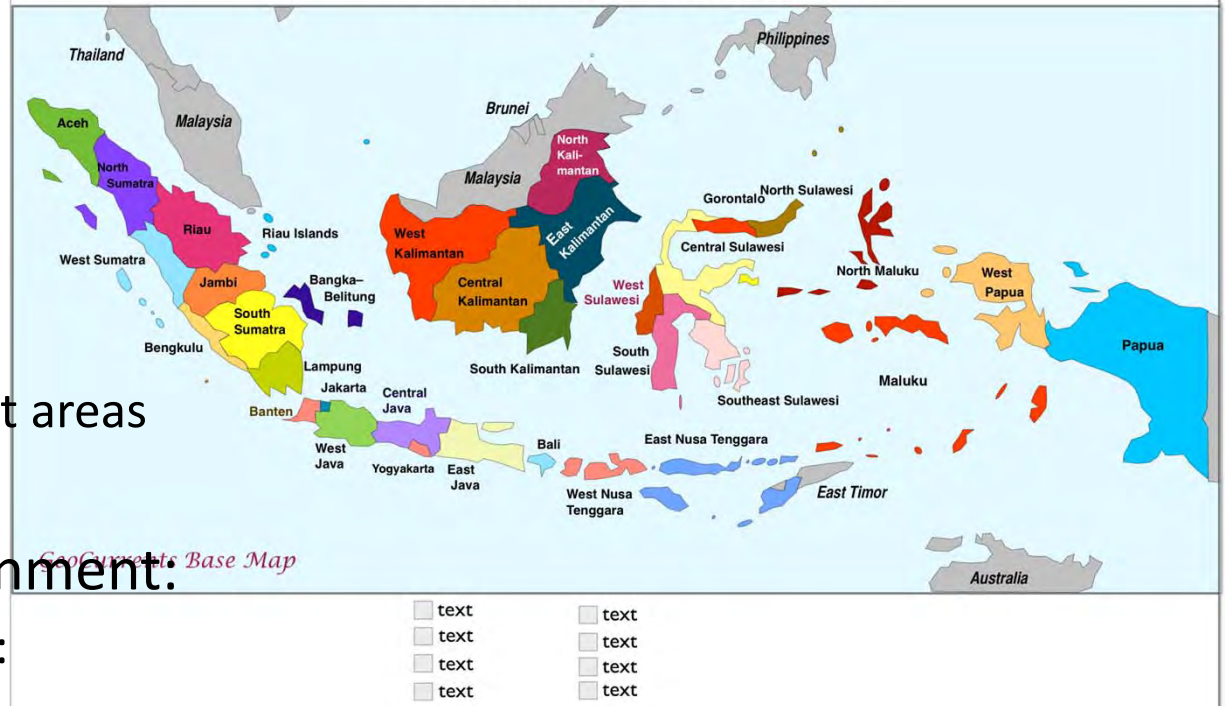
Progress of Water Environment Governance in Indonesia

The 14th WEPA Annual Meeting
22 February 2019
Tokyo

Indonesia's statistic

Provinces of Indonesia

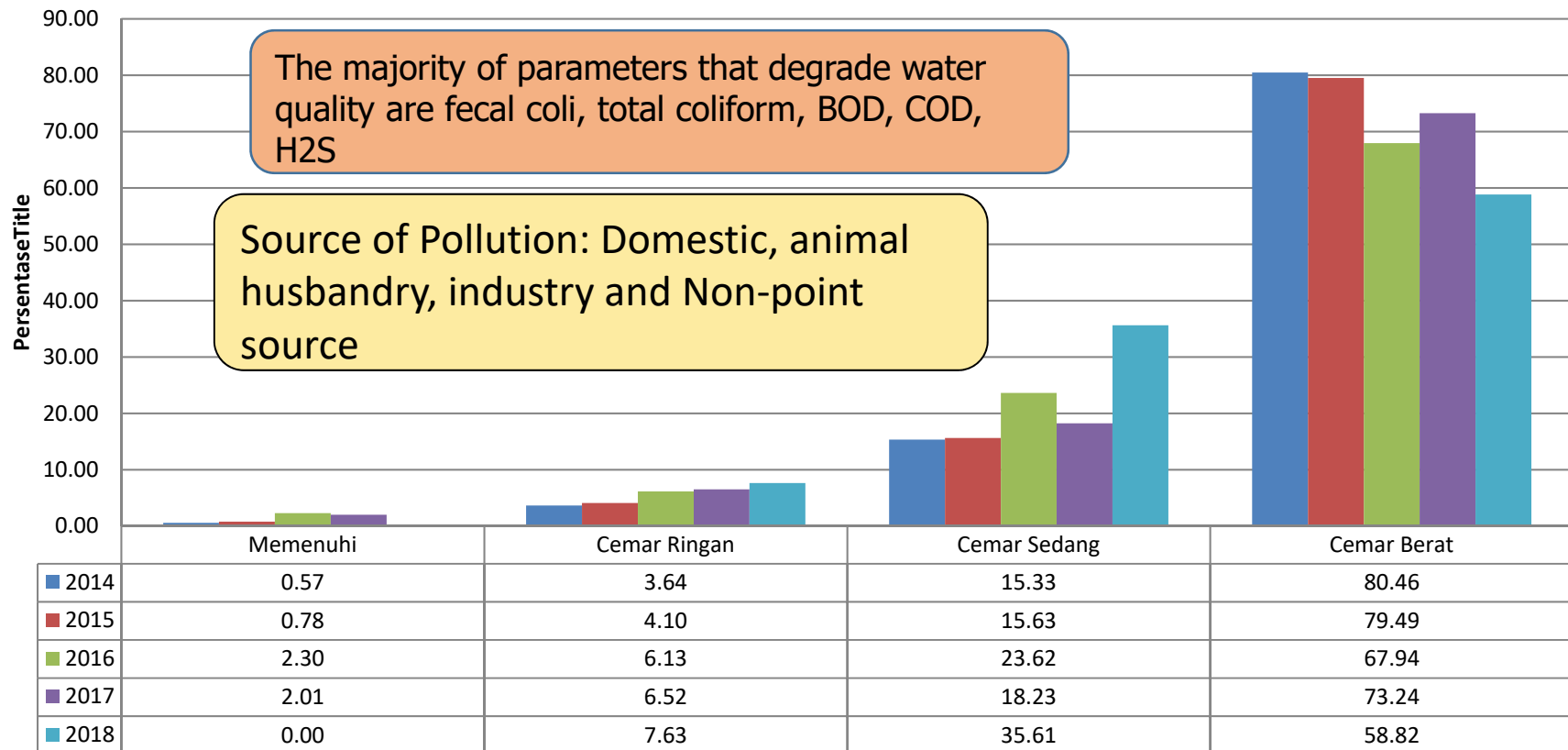
- Comprises:
 - 17000 islands;
 - 5590 rivers →
 - 458 catchment areas
 - 34 Provinces;
 - 514 local government:
 - 416 regencies:
 - 98 cities



Facts and statistics of water quality

TREND OF WATER QUALITY STATUS IN INDONESIA 2014-2018

STATE OF WATER QUALITY IN INDONESIA COMPARED TO CLASS II WATER PP 82/2001



Facts and statistics of domestic wastewater management

Integrated urban domestic wastewater treatment plant

City	number	System	Capacities	Idle
Medan	1	UASB	10.000	43,5 %
Parapat	1	Aerated Ponds	2000	94,25%
Batam	1	Oxidation Ditch	2.852	97,37%
Jakarta Zone 0	1	MBBR	38.880	98,19%
Tangerang	1	Aerated Ponds	2.800	94,74%
Bandung	1	Lagoons	80.835	0%
Cirebon	4	Lagoons	20.500	53%
Surakarta	3	Biofilter & Lagoons	14.000	56,38%
DI Yogyakarta	1	Aerated Ponds	15.500	64,5%
Denpasar & Badung	1	Aerated Ponds	51.000	37,2%
Balikpapan	1	Aerated Ponds	800	20%
Banjarmasin	7	RBC	18.000	85,55%
Manado	1	RBC	2.000	90%



Facts and statistics of Industrial wastewater management
PROPER- an approach to increase compliance
to environmental regulation

- PROPER is a Corporate Performance Rating Program in Environmental Management developed by the Ministry of Environment (KLH) since 1995, to encourage companies to improve their environmental management.
- Aspects to be evaluated:
 - Water pollution control;
 - Air pollution control;
 - Hazardous waste management;
 - Land management (mining)

PROPER Evaluation level 2017-2018

	Performance level	category	Number of companies	%
1	gold	Zero emission	20	1.07
2	green	Beyond compliance	155	8.28
3	blue	compliance	1454	77.67
4	red	Failure to reach requirement	241	12.87
5	black	Non-compliance/insignificant effort to comply	2	0.11
		total	1872	100

LEVEL RED INDUSTRIES DUE TO INCOMPLIANCE TO WATER POLLUTION CONTROL REGULATION- (PROPER 2017-2018)

No.	SECTOR	number	%
1	Mining, energy, oil and gas	14	7,69
2	agroindustry	110	60,44
3	manufacture	58	31,87
	sum	182	100

Disobedient Related to Wastewater Management-(PROPER 2017-2018)

No	aspect	Number offender
1	permit	27
2	Point of compliance	19
3	parameters	10
4	reporting	63
5	Water quality standard	84
6	Technical requirements	33

Legislative framework for water environmental governance

	Name of regulation	Purpose/key elements
	Law 32 year 2009 on protection and management of the environment	Instruments for prevention of pollution and / or environmental deterioration including environmental quality standards; environmental permits, etc.
	Government Regulation 82 year 2001 on Water pollution control and management of water quality	<ul style="list-style-type: none"> - class of water (4 classes) - national/interest rivers; Provincial rivers: and Local rivers: - Permit to discharged wastewater issued by local government
	Decree of ministry of environment 05 year 2014 on wastewater quality standard	<ul style="list-style-type: none"> • Ways to determine effluent quality standard (by local government); • National wastewater quality standard

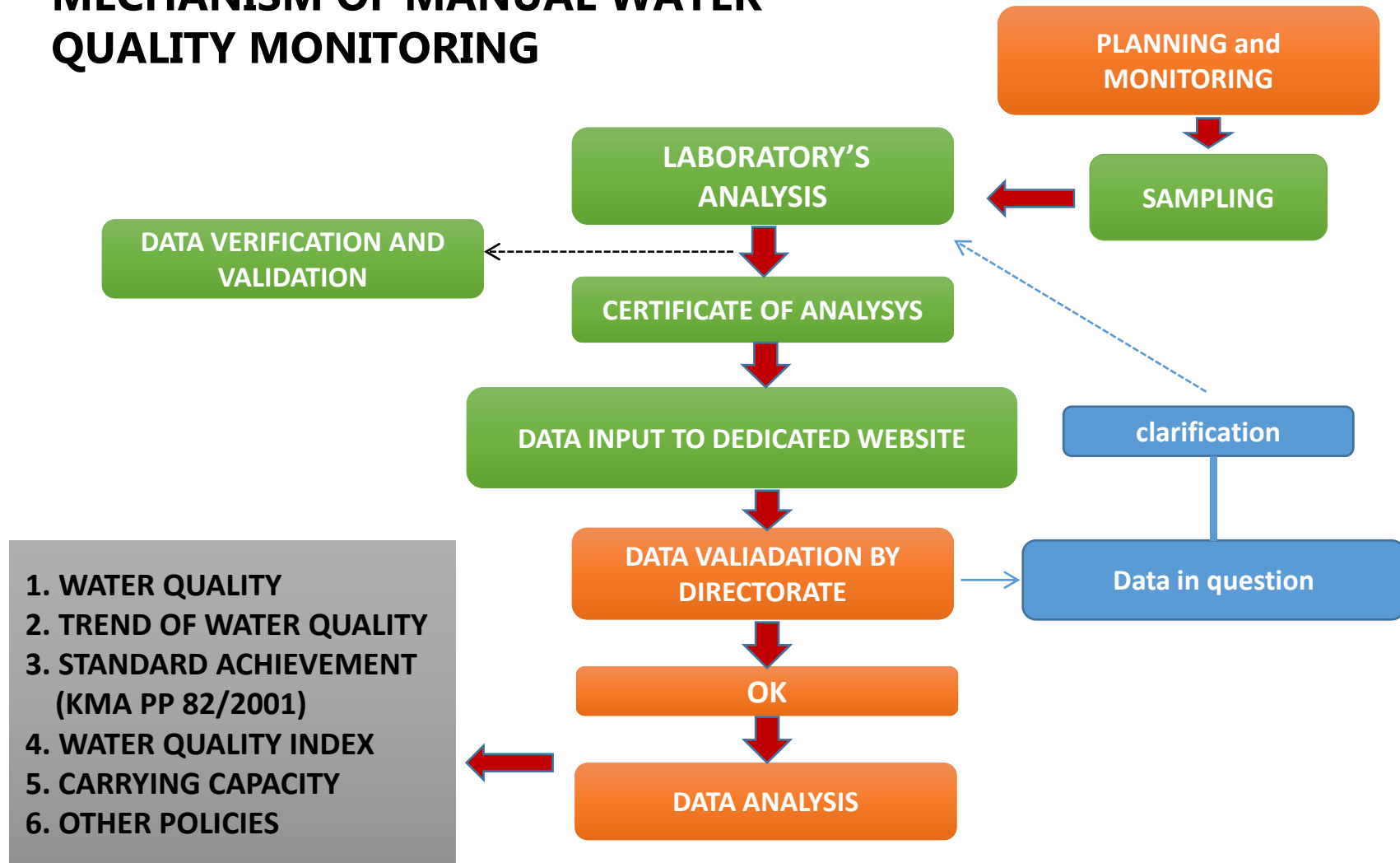
Institutional framework for water environmental governance

MOEF	<ul style="list-style-type: none"> • Determine class for national rivers/waters; • Determination of national quality standards for ambient water and waste water; • Secondary layer for environmental law enforcement; 	
provincial environmental service	<ul style="list-style-type: none"> • Determine class for province rivers/waters; • Determination of national quality standards for ambient water and waste water in province rivers/waters; 	
City/regent environmental service	<ul style="list-style-type: none"> • issuance of permit for disposal of waste water • oversight of waste water disposal permits 	

Water quality monitoring framework

- 1. Manual monitoring framework
- 2. Online monitoring system

MECHANISM OF MANUAL WATER QUALITY MONITORING



DETERMINING THE LOCATION FOR WATER QUALITY MONITORING

- Refer to administrative area
- geographical position
- Representing sources of pollutions
- Outlet of catchment area
- intake points of treating water for drinking
- Upstreams which are considered not affected by human activities

MONITORING PARAMETERS

FIELD PARAMETERS

pH,
temperature,
Conductivity,
Total Dissolved
Solid (TDS),
Dissolved
Oxygen (DO),
debit.

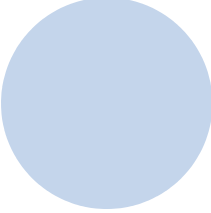
LABORATORY PARAMETERS

TSS, BOD, COD,
NO₂, NO₃,
Ammonium (NH₃),
T-P, free chlorine
(Cl₂), phenol,
Minyak dan Lemak,
Deterjen (MBAS),
Fecal Coli, Total
Coliform, cyanides
(CN⁻), Sulphides
(H₂S)

SPECIFIC PARAMETER

traditional
gold
mining -->
Hg dan
cyanides
(CN⁻).

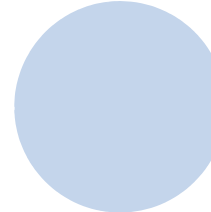
MONITORING IMPLEMENTERS



Registered and/or accredited environmental Laboratories owned by environmental institution of cities or regencies



Registered and/or accredited environmental State owned or private Laboratories;



Environmental Laboratories have sufficient technical competency proven by good result in proficiency tests

Enforcement instruments for water environment management

- Environmental monitoring is an activity carried out directly or indirectly by the Environmental Supervisory Officer (PPLH) and the Regional Environmental Supervisor Officer (PPLHD) to determine the level of compliance of the person in charge of the business and / or activities in terms of environmental permits and regulations;
- PPLH belongs to MOEF, The Directorate General for environmental Law Enforcer; PPLHD belongs to Environmental institutions in province, city or regency.
- Monitoring frequency depend on the need and strategy



- Enterprises have obligation to report their activities on managing wastewater once every 3 months
- For violating effluent standard, warning letter to improve the wastewater treatment system provided. if it fails and is considered not serious about overcoming it, it can result in government coercion, suspension of environmental permit and eventually revocation of environmental permits and/or bring them to court

Future targets/plans, issues and challenges of water environment governance

1. Please add information of the government's plan to improve water environment governance
 - Developing policies for pollution prevention in small scale enterprises and nonpoint sources;
2. Issues and challenges need to be addressed;
 1. Effectiveness of policies;
 2. Mainstreaming issue of pollution from nonpoint sources
3. Expectation from WEPA to address identified challenges;
 1. To facilitate share of experiences in effectiveness managing pollution from small scale enterprises:
 2. Development simple and feasible methods to identify the magnitude of non-points source pollutants either from rural and urban areas (modelling, survey, etc)

Terima Kasih



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