

Integration of Climate Change Adaptation and Mitigation into Development Plan



RIZALDI BOER AND AKHMAD FAQIH

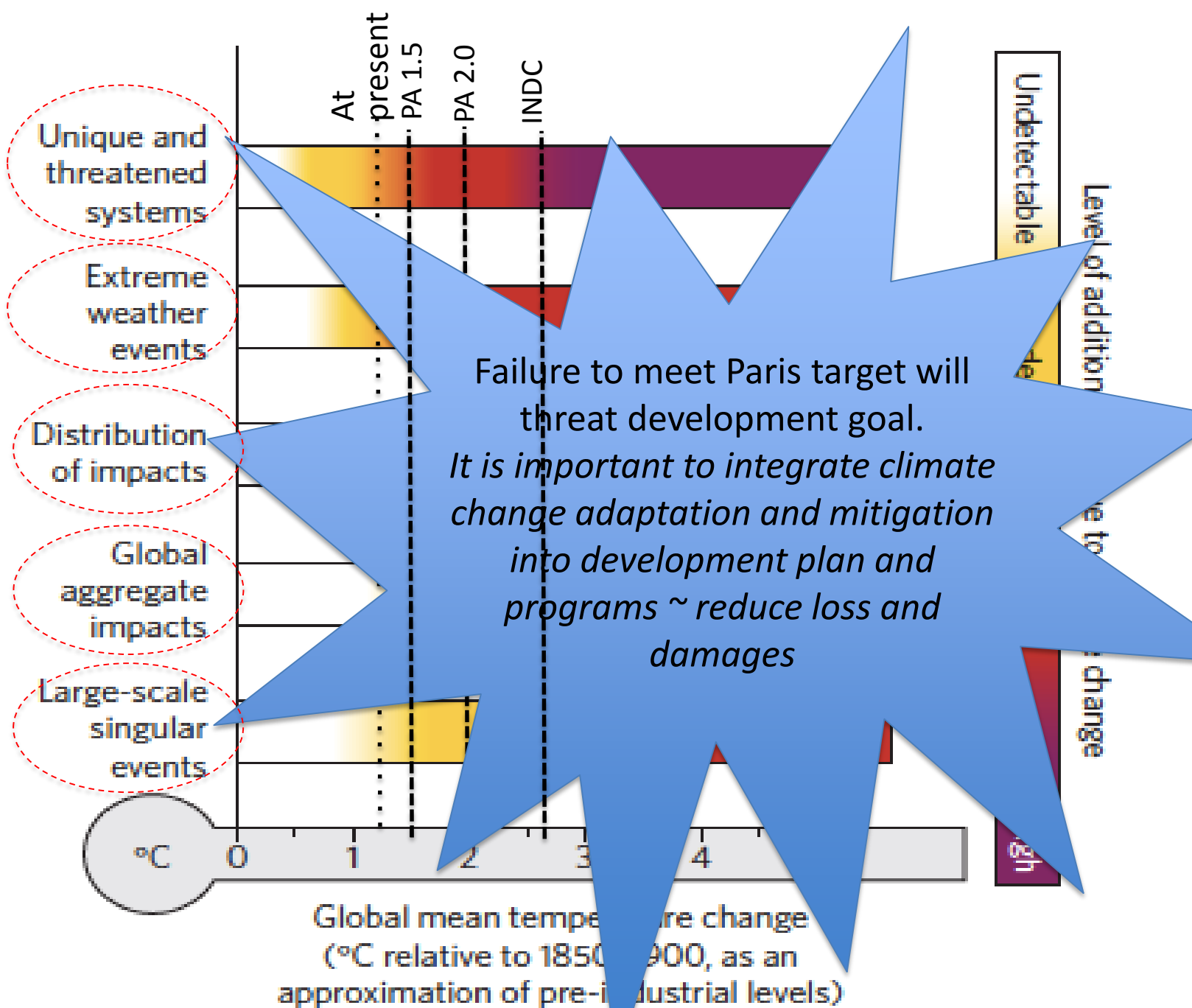
**Centre for Climate Risk and Opportunity Management Bogor
Agricultural University**

COP23 Side Event-Japan Pavilion

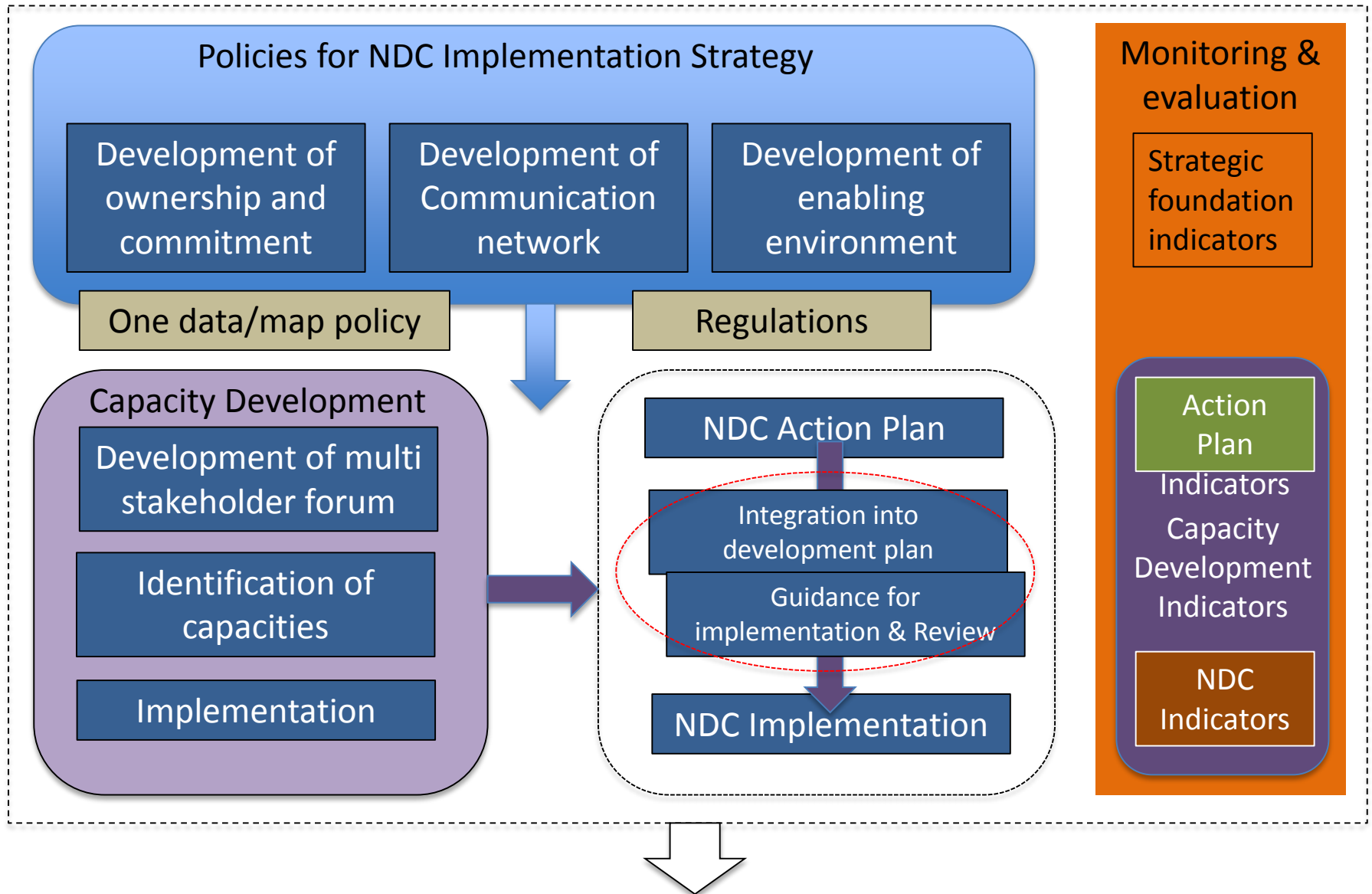
Linkage between NDC and SDGs – synergies and trade-offs

9 November 2017

PARIS TARGET AND SDGs



NDC Implementation Strategy

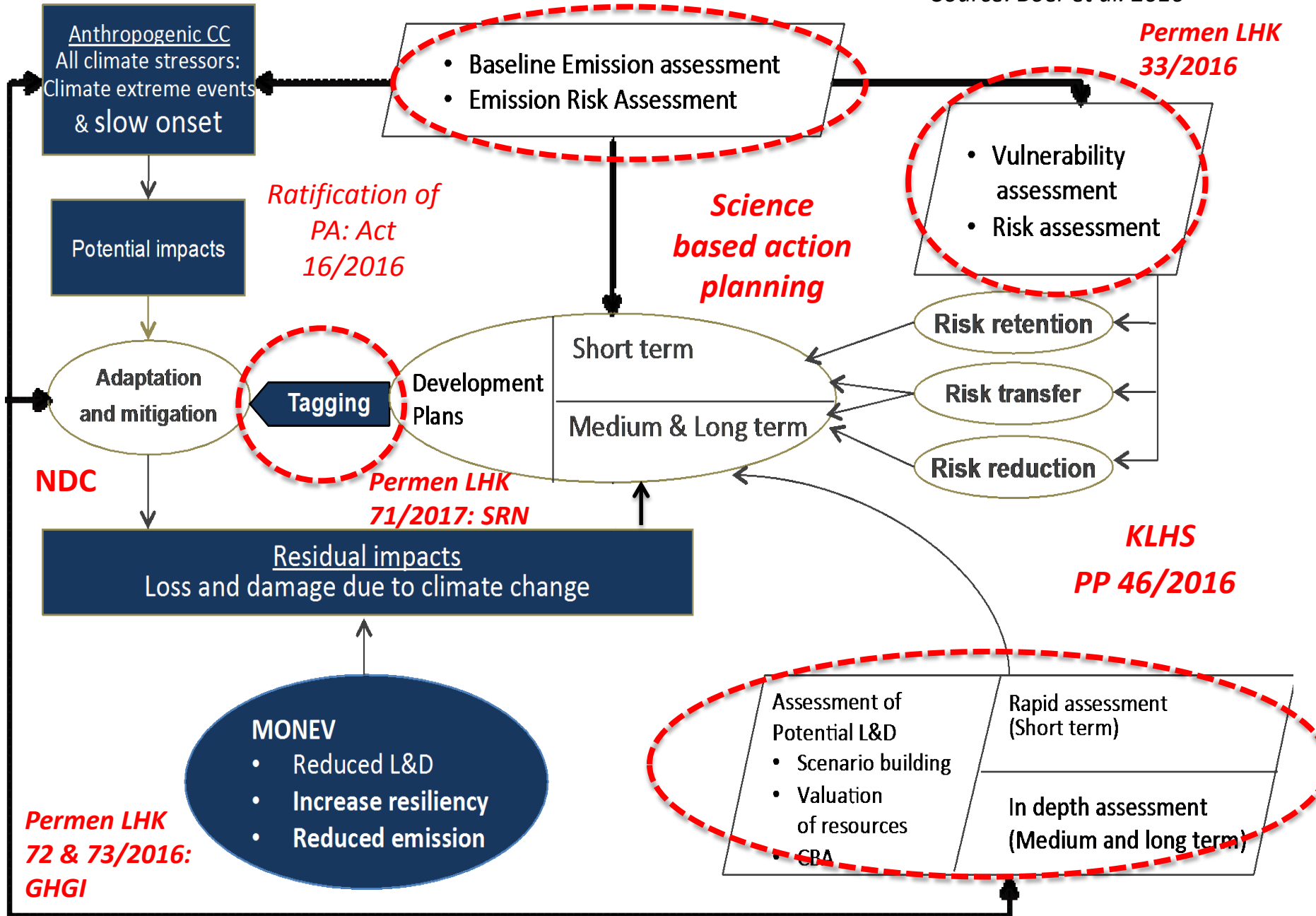


SUSTAINABLE DEVELOPMENT

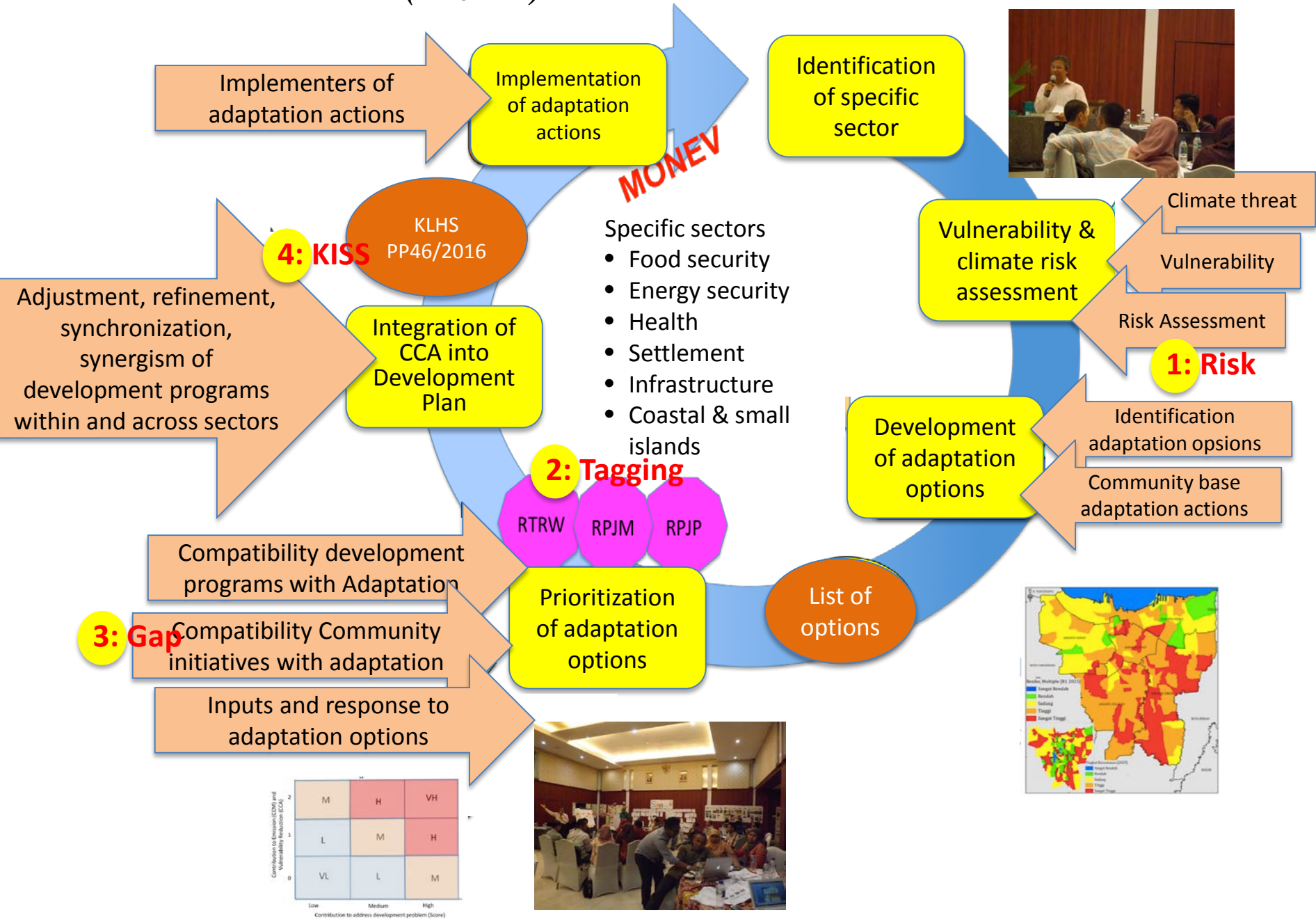
Source: MoEF, 2016

FRAMEWORK FOR LOW CARBON AND CLIMATE RESILIENCE DEVELOPMENT

Source: Boer et al. 2016



Integration Process of CCA Plans into Regional Medium-Long Term Development Plan (RPJMD): Permen LHK No.33/2016



Process Integration CCA and SDGs in Development Plan

Source: Boer et al. 2016

1. Analysis of emission risk and cc vulnerability/impact – Mapping driving factors for emission and vulnerability & priority locations
2. Identification of Development Programs (*Tagging*) and its linkage with CC and SDGs
3. Gap Analysis for Program Enhancement, and establish synchronization & Synergy of Programs within and across sectors
4. Setting mechanisms for coordination on programs synergy, synchronization and integration and MRV



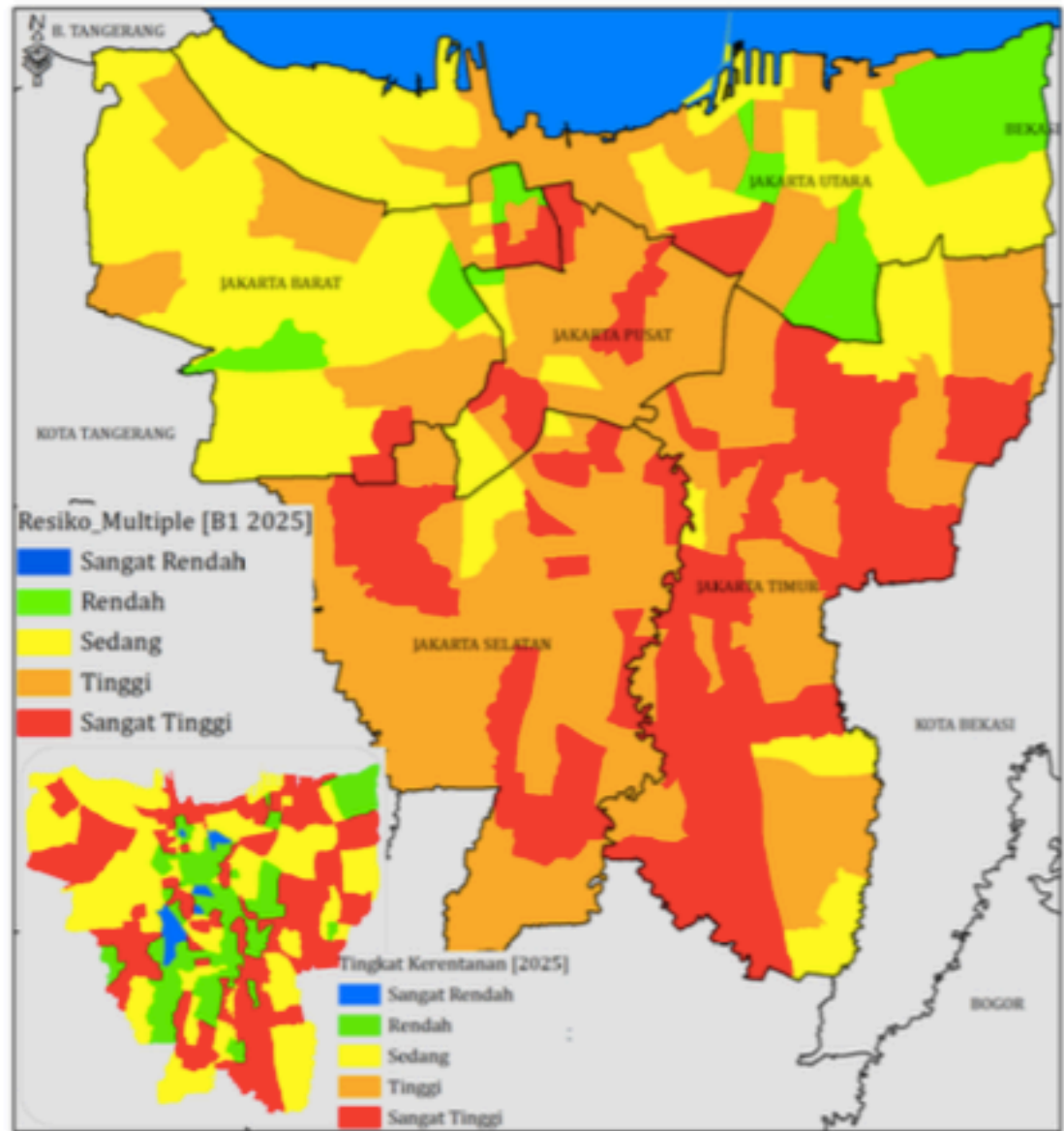
1: Analysis of emission risk and climate risk – Mapping driving factors for emission and vulnerability & priority locations

- Facilitating local governments to analyze historical and future emission trend and to understand drivers of emissions using tool (SIGN SMART: http://signsmart.menlhk.go.id/signsmart_new/web/home/) and vulnerability (SIDIK: <http://182.253.238.238/administrator/dashboard>)
- This process produces information on main driving factor & hot spot (*high risk*) area
- Two steps of analysis include
 - Assessing historical risks
 - Identifying drivers and hot spot areas (prioritizing locations for CCA&CCM) by evaluating future emission and climate risks



Climate risk assessment at village level (SIDIK), function of vulnerability and change of probability of extreme climate events

Prob. of ECE / Vulnerability	Increase	Constant	Decrease
V. High	Very High	Very High	High
High	Very High	High	Medium
Medium	High	Medium	Low
Low	Medium	Low	Very Low
V. Low	Low	Very Low	Very Low



Level of Priority ■ Very High ■ High ■ Medium ■ Low ■ Very Low

SIDIK: <http://182.253.238.238/administrator/dashboard>

DASHBOARD | Perhitungan Kerentanan

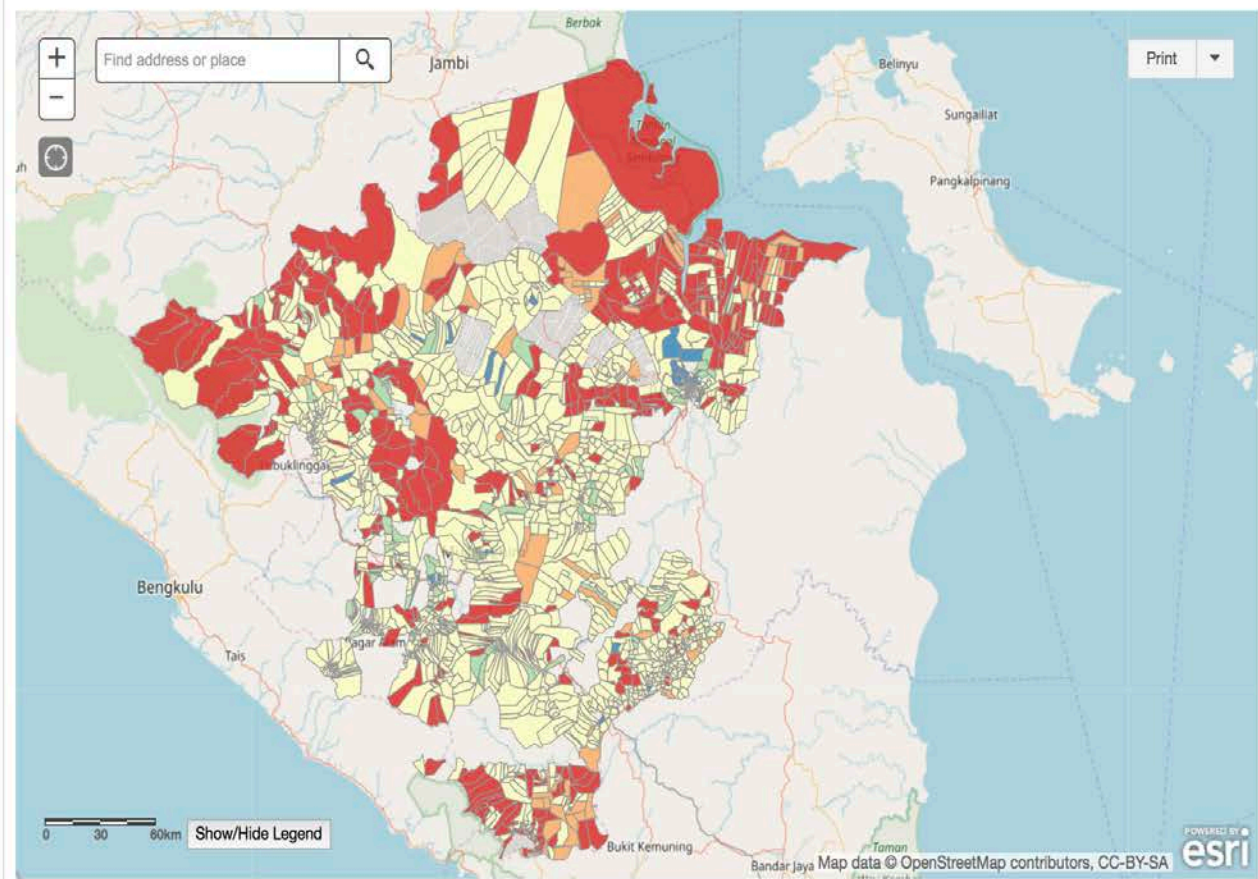
MASTER DATA < Hasil Kerentanan 5 Kelas

INDIKATOR Skenario: rcp45

PERHITUNGAN Perhitungan #917

TANGGAL: 28/06/2018 | WILAYAH: Prov. Sumatera Selatan | UNIT PERHITUNGAN: Desa | INDIKATOR: Indikator Nasional

KERENTANAN | RINGKASAN | PETA KERENTANAN | PETA RISIKO



Pilih Kategori:
Kerentanan

Indeks Kapasitas Adaptif
IKA: 0.44

Indeks Keterpaparan dan Sensitivitas
IKS: 0.44



SIGN SMART
Direktorat Inventarisasi Gas Rumah Kaca dan
Monitoring, Pelaporan, dan Verifikasi

[Beranda](#) [Emisi](#) [CRF](#) [EFDB](#) [Berita](#) [Download](#) [Tentang Kami](#)

Selamat datang di website



EMISI GAS RUMAH KACA INDONESIA 2013

KEMENTERIAN LINGKUNGAN HIDUP DAN KEHUTANAN REPUBLIK INDONESIA

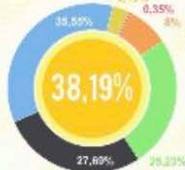
SEKTOR KEHUTANAN



TOTAL EMISI
630.376,46
Gg CO₂e

- BERKUPUSISI SAMBUT 380.163,71 Gg CO₂e
- KEBUNYAMAN SAMBUT 205.675,31 Gg CO₂e
- PERUBAHAN TUTUPAN LAHAN 44.537,44 Gg CO₂e

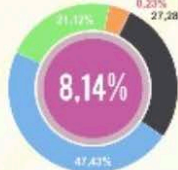
SEKTOR ENERGI



TOTAL EMISI
548.204,71
Gg CO₂e

- INDUSTRI PEMBANGET 164.371,81 Gg CO₂e
- INDUSTRI MANUFAKTUR & KONSTRUKSI 151.793,02 Gg CO₂e
- TRANSPORTASI 136.327,21 Gg CO₂e
- SEKTOR LAIN 43.629,46 Gg CO₂e
- TAMBAH MIRAAS 17.468,52 Gg CO₂e
- TAMBAH DATAER 1.623,67 Gg CO₂e

SEKTOR LIMBAH



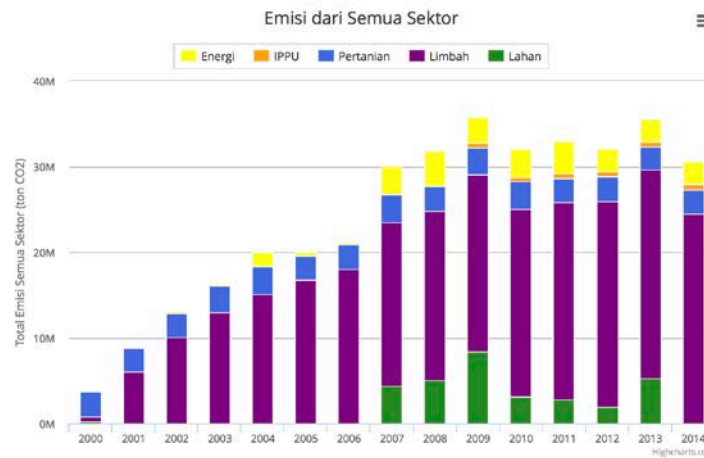
TOTAL EMISI
116.895,81
Gg CO₂e

- LIMBAH CAHINDUSTRI 55.448,39 Gg CO₂e
- SAMPAH PADAT 31.886,22 Gg CO₂e
- LIMBAH CAH LAIN 28.287,38 Gg CO₂e
- PEMBAK KHRAN SAMPAH 4.937,48 Gg CO₂e
- PENDELAHAN BLOK LAMBAH PADAT 233,52 Gg CO₂e

Total Emisi · Sektor Energi · Sektor IPPU · Sektor Pertanian · Sektor Kehutanan · Sektor Limbah

Grifik Total Emisi

Tampilkan Grifik: Aceh Semua Kota



Login SIGN SMART

Ketikkan username

16,278
1,473
10

Mapping Emission Risk: Land Base

Matrix of emission risks (historical emission)-Step 1

Rate	Trend	
	Increasing	Constant
High	VH (5)	
Medium	H (4)	
Low	M (3)	

Note:

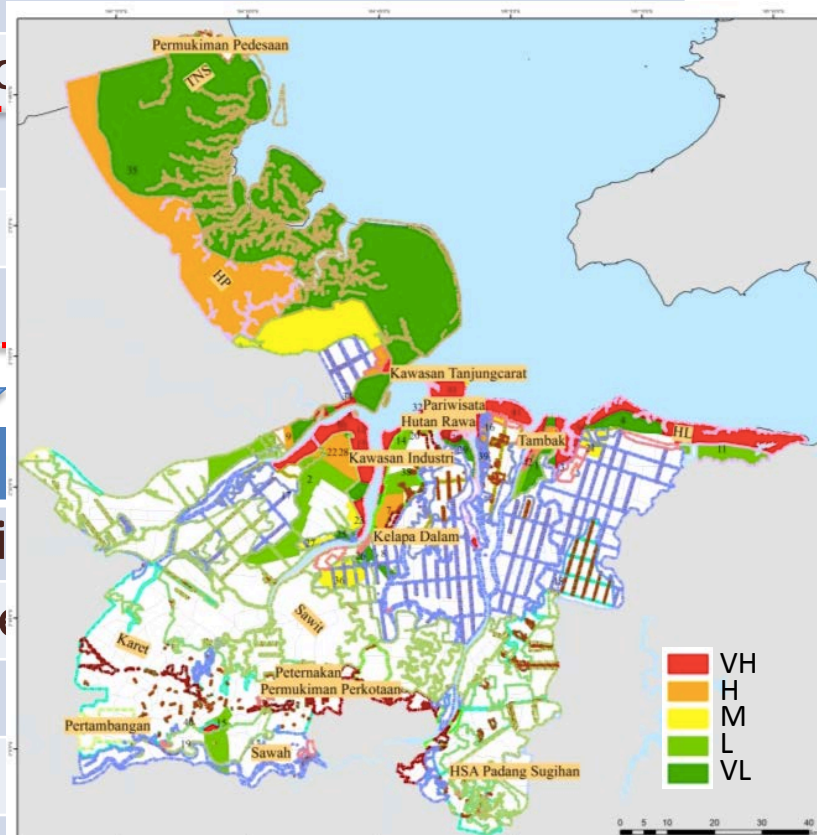
Very High

High risk;
Medium

Low risk;
Very Low

Location prioritization-Step 2

Level of risks (Historical)	Projection of emission	
	High	Medium
Very high (5)	VH	
High (4)	VH	
Medium (3)	H	
Low (2)	M	
Very low (1)	L	



Very High

High priority;
Medium

Low priority;

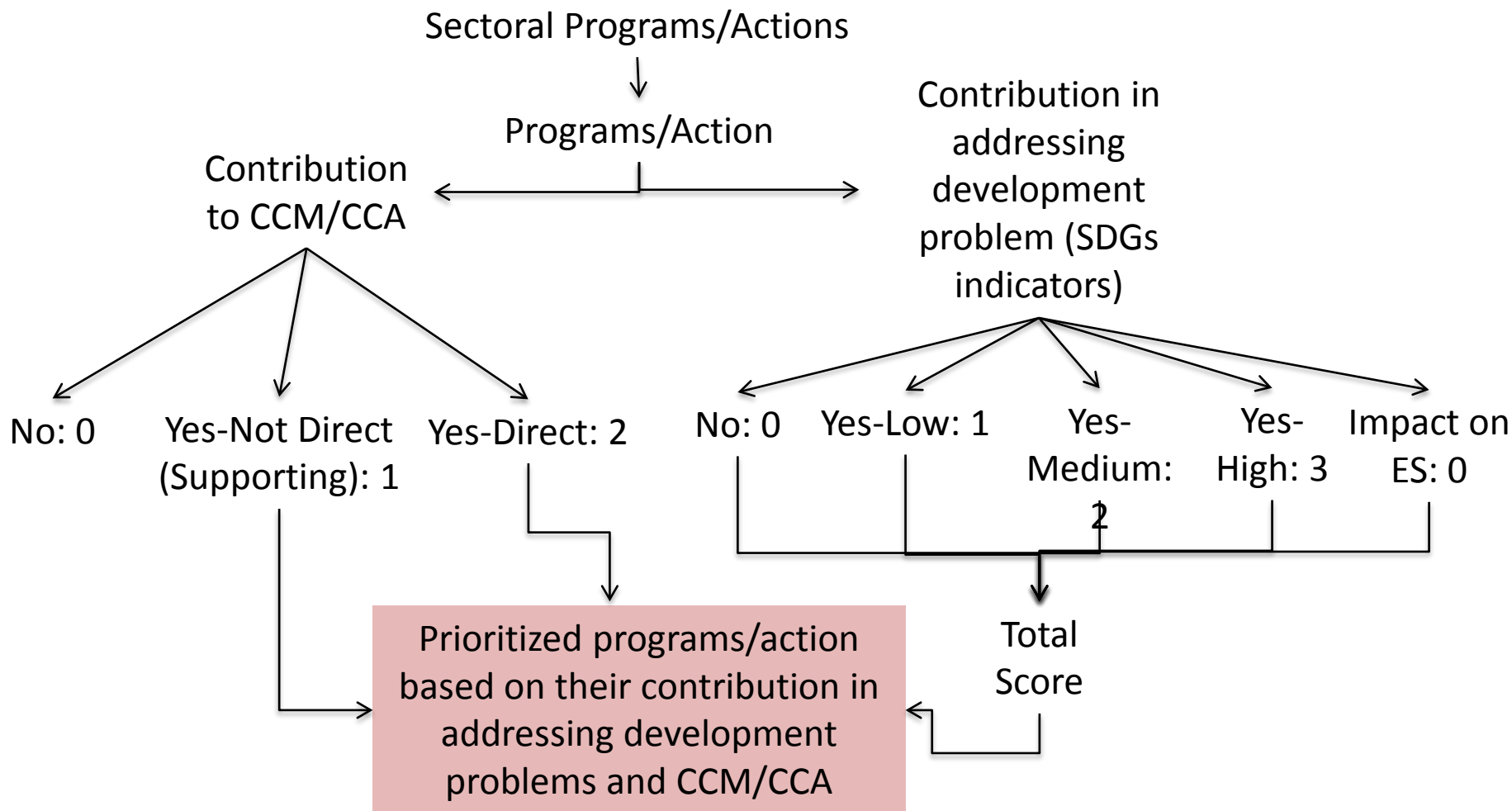
- L – Low priority;
- VL – Very Low priority

2: Identification of Programs (*Tagging*)

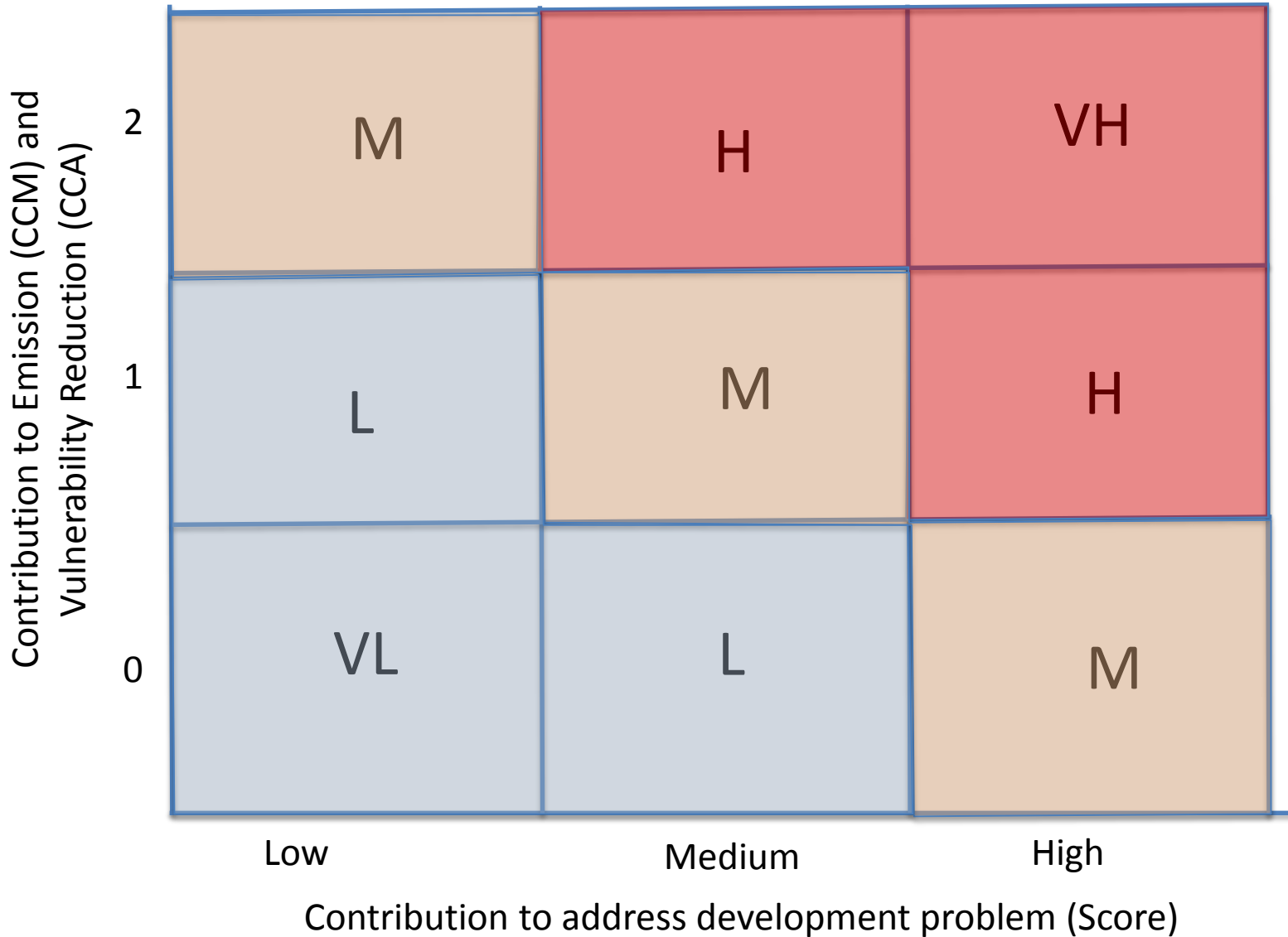
- Assisting local governments
 - to better understand programs that will contribute to address not development problems but climate change mitigation and adaptation (CCM/CCA)
 - To evaluate their programs in term of their contribution in addressing development issues (poverty alleviation, livelihood, education, governance, infrastructure, health, etc) and climate change mitigation and adaptation (CCM/CCA) & co-benefit (ES)



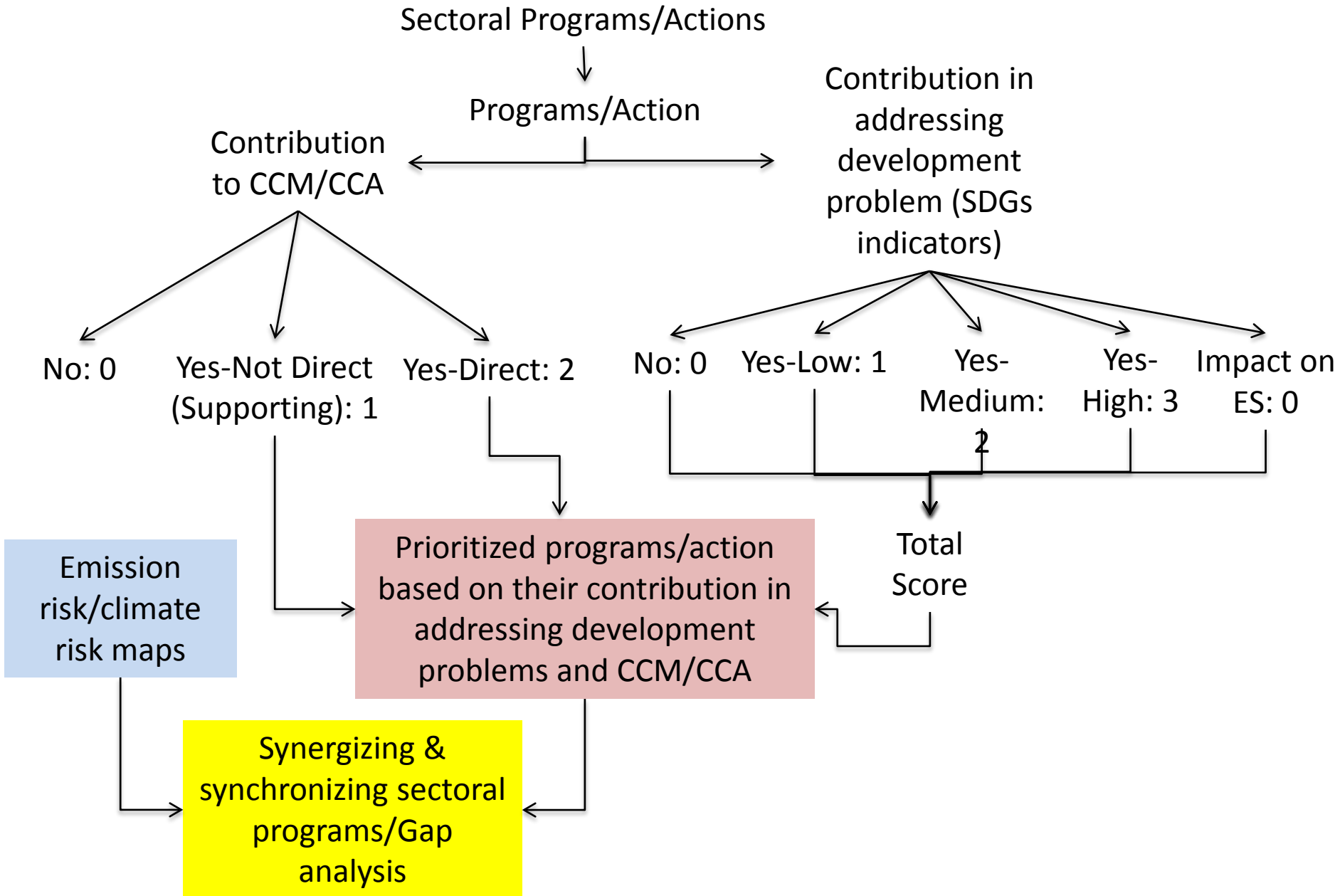
2: Identification of Programs (*Tagging*)



Categorizing Program/Activities of Sector in term of their contribution in addressing development problem and reducing GHG emissions



3: Gap Analysis for Program Enhancement, and establish synchronization & Synergy of Programs within and across sectors



4: Setting mechanisms for coordination on programs synergy, synchronization and integration and MRV

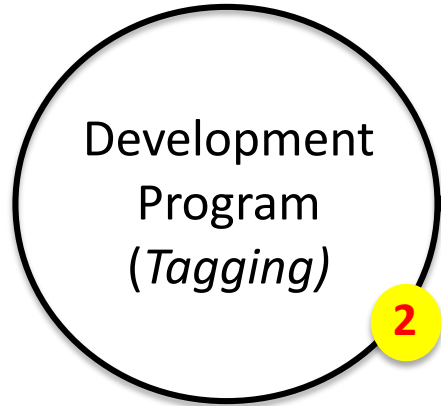
Planning Unit	Priority Locations	Main Program (PU)	Supporting Program (PP)	Beneficiaries	Main Agency and Supporting Agencies
Conser- vation zone	ST (1)	PU1	PP1, PP2, PP3 etc	Communities surrounding forest etc.	Agency A/Agencies B, C, D
Develop- ment zone	T (2)	PU2	PP1, PP2,	Masyarakat sekitar hutan	Agency B/Agencies A, D, F
Etc	Etc	Etc	Etc	Etc	Agency C/Private-y
...



Four Steps: Integration Process of CCA and CCM Action Plans into Regional Medium-Long Term Development Plan (RPJMD):

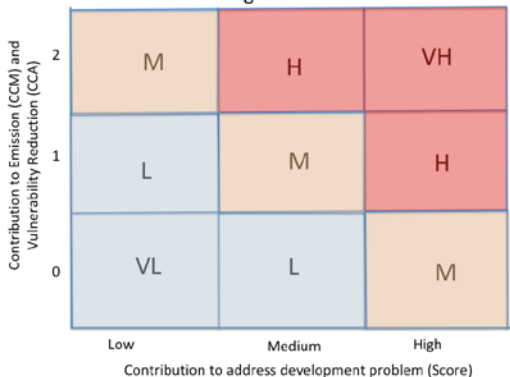
Permen LHK No.33/Menlhk/Setjen/Kum.1/3/2016

TAGGING PROSES



Prioritized Program/Actions

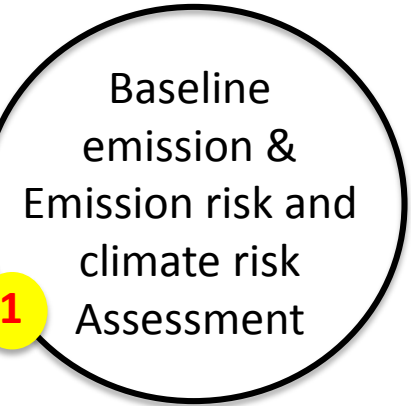
- High
- Medium
- Low



Gap Analysis 3

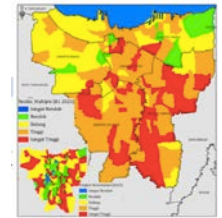
- What program (**WHAT**) and target location (**WHERE**)
- Scale of problems and funding availability and level of urgency (**WHEN**)
- **WHO** to implement and **HOW** to monitor the performance and achievement

Risk Assessment



Prioritized Locations

- Very high
- High
- Medium
- Low
- Very Low



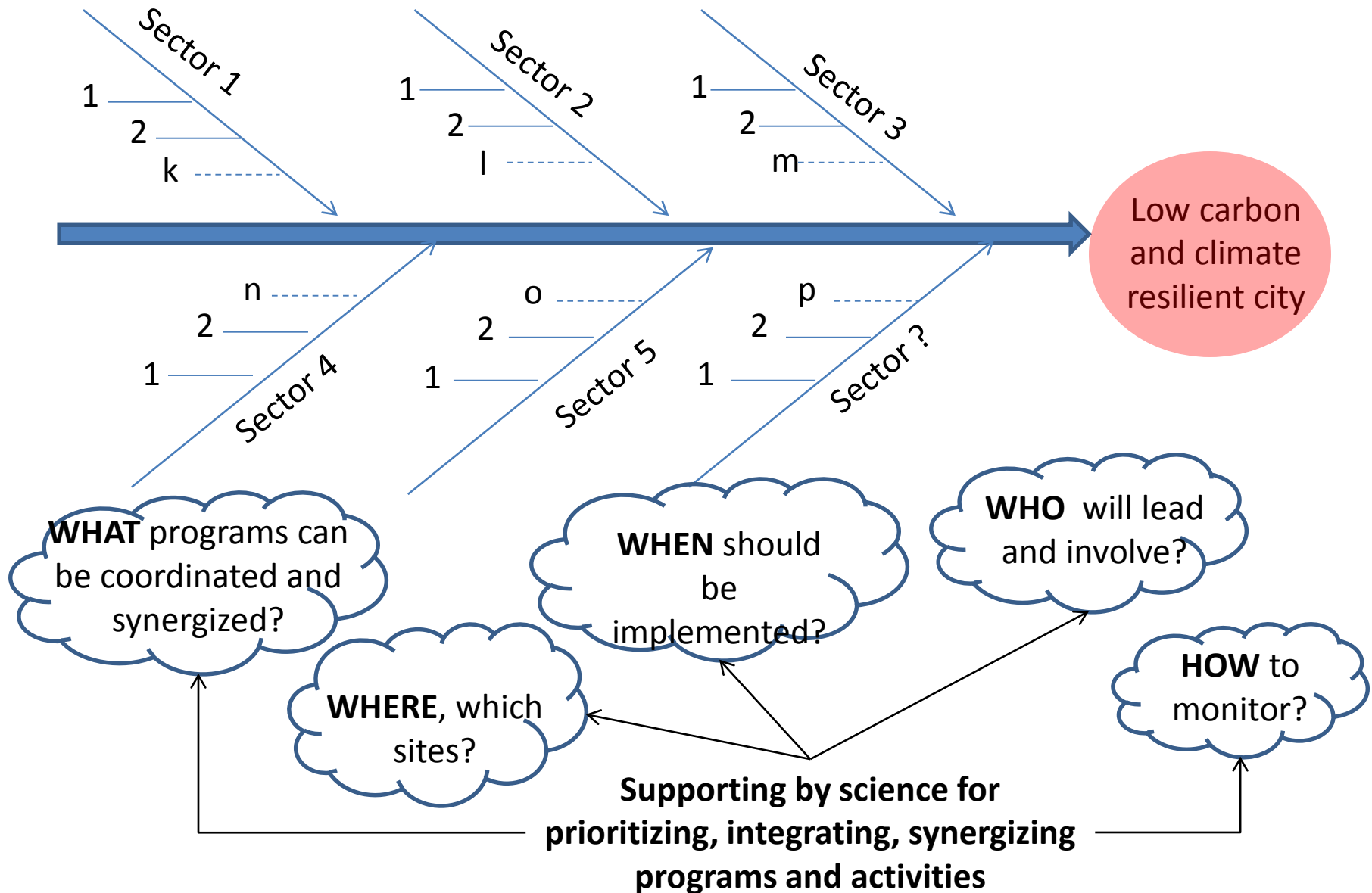
CCA/CCM actions
(Expert, stakeholder, survey and others)



4 Adjustment, refinement, synchronization, synergism of programs within and across sectors and monitoring and evaluation system (**KISS ME**)

Identification of other development partners and additional funding sources (**WHO**)

Coordinating, Synergizing, integrating Programs and activities across sector and partners that contribute toward low carbon and climate resilience development



Epilogue

- Availability of tool is very useful for assisting the local government in the process of synchronizing climate actions and SDGs
 - Increasing understanding on linkage between climate actions and SDGs
 - Designing short-medium and long-term strategy for addressing development issue but also GHG emission and climate risk under multi-stakeholder setting
 - Facilitating process of synergizing, synchronizing and integrating sectoral programs
 - Facilitating coordinated actions in addressing the development problems and implementing low carbon and climate resilience development
 - Assisting in defining funding needs toward low carbon development and climate resilience development