ENVIRONMENTAL IMPACT ASSESMENT (AMDAL) TRAINING

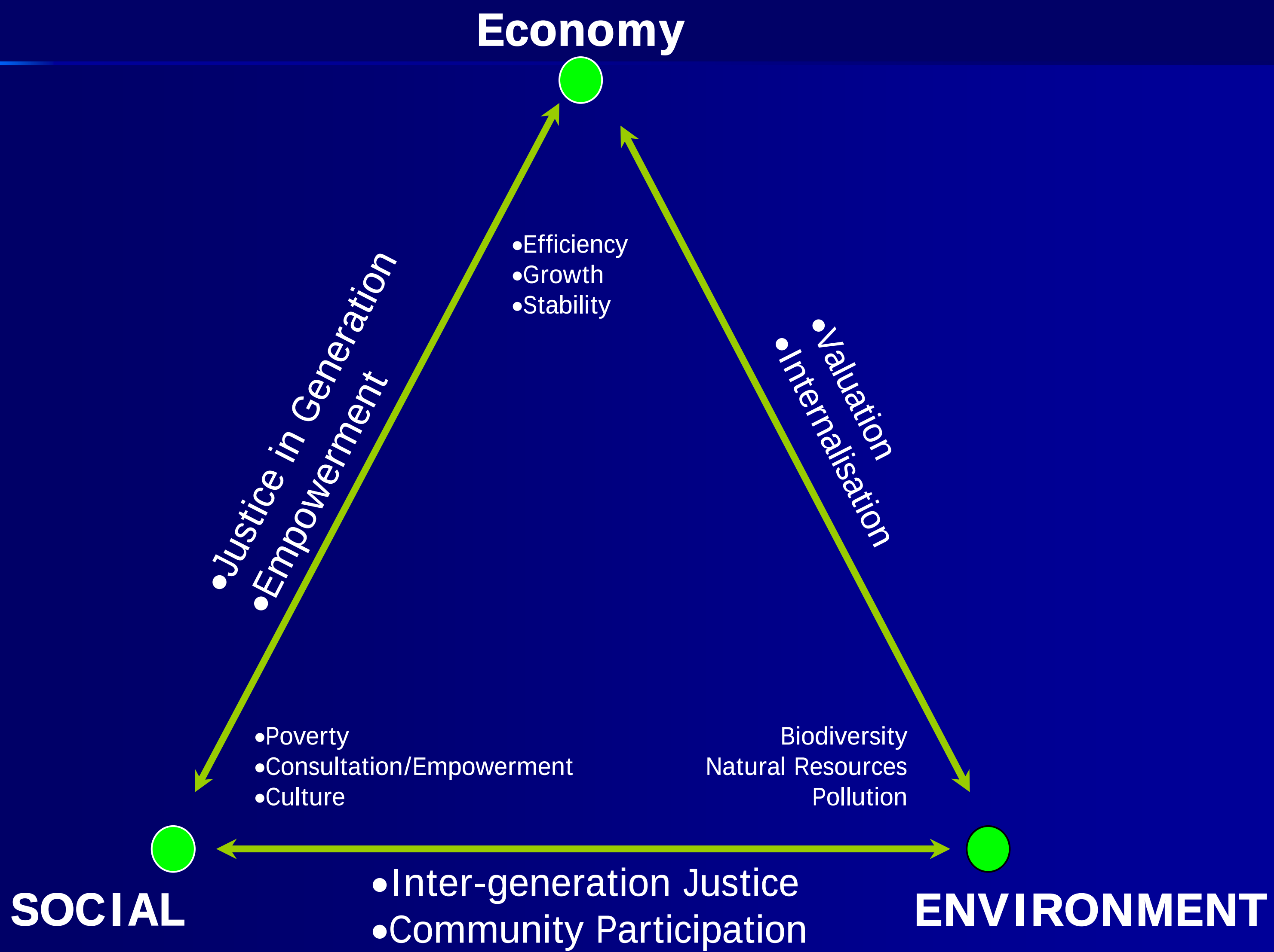
Modul 3.1

DEFINITION, PROCESS AND BENEFIT OF AMDAL

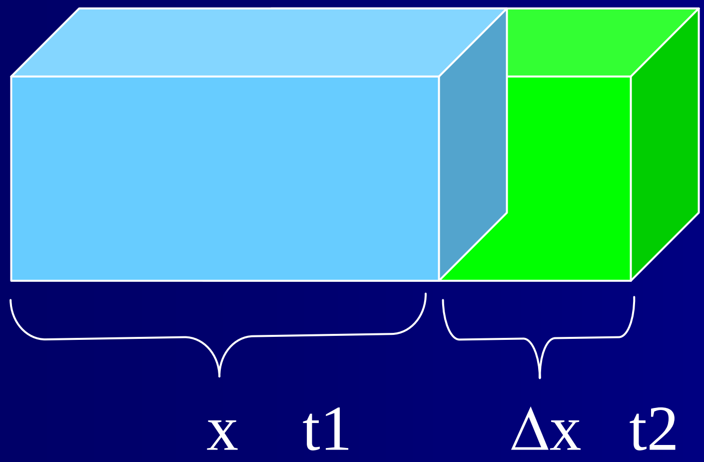
Content of Presentation

- Environmental Conservation (PLH) Policies in Indonesia
  - 3 Pillars of Sustainable Development
  - PLH policies in Indonesia
  - Environment Management System (SML) in Indonesia
- AMDAL & UKL (Environment Management Efforts)-UPL (Environment Control Efforts)
  - Change of AMDAL policies
  - Definition of AMDAL
  - AMDAL Objectives
  - Difference of AMDAL and UKL-UPL
  - Benefits of AMDAL
  - AMDAL vs Regional Development
  - AMDAL vs Externality (Impact Valuation)
- General procedures of AMDAL
- AMDAL and Letter of Permission
- AMDAL Policies; Current and Future
- Misunderstandings og AMDAL
- AMDAL scoring criteria

Three Pillars of Sustainable Development



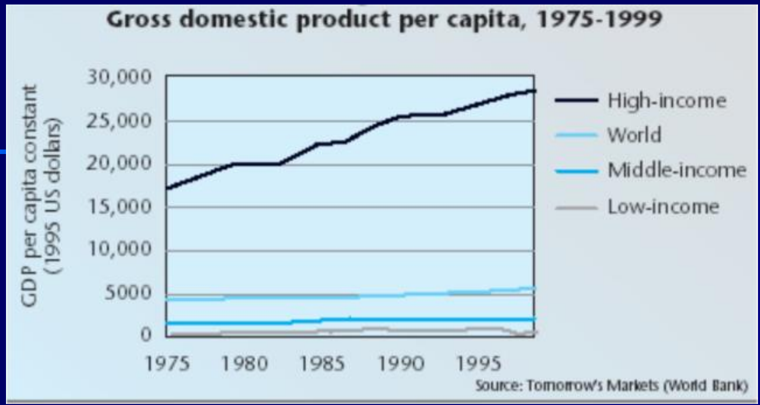
Natural Resources Exploitation Scheme (ideal)



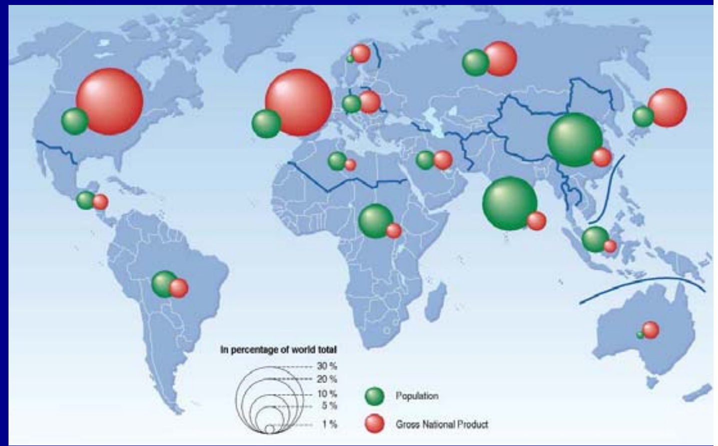
RENEWABLE

In fact………

Social



Gap between Developed Countries and Poor countries

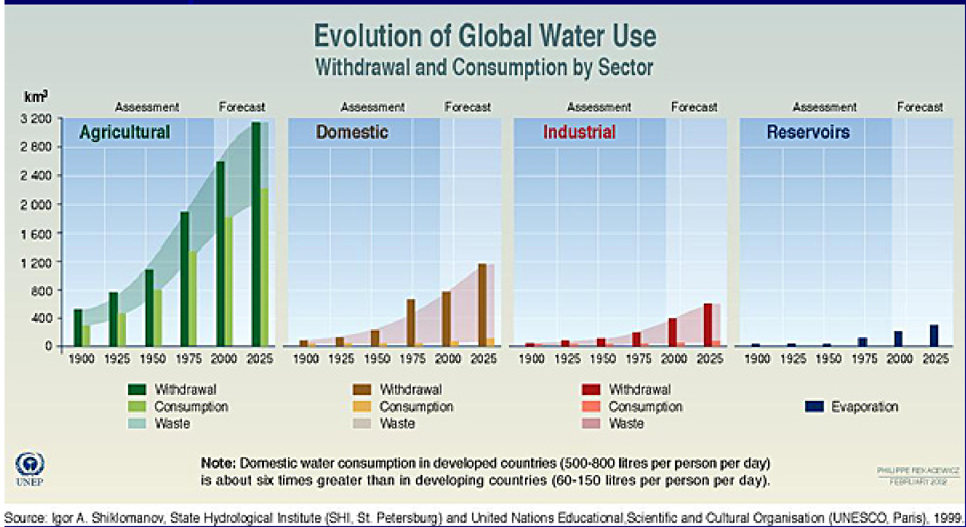


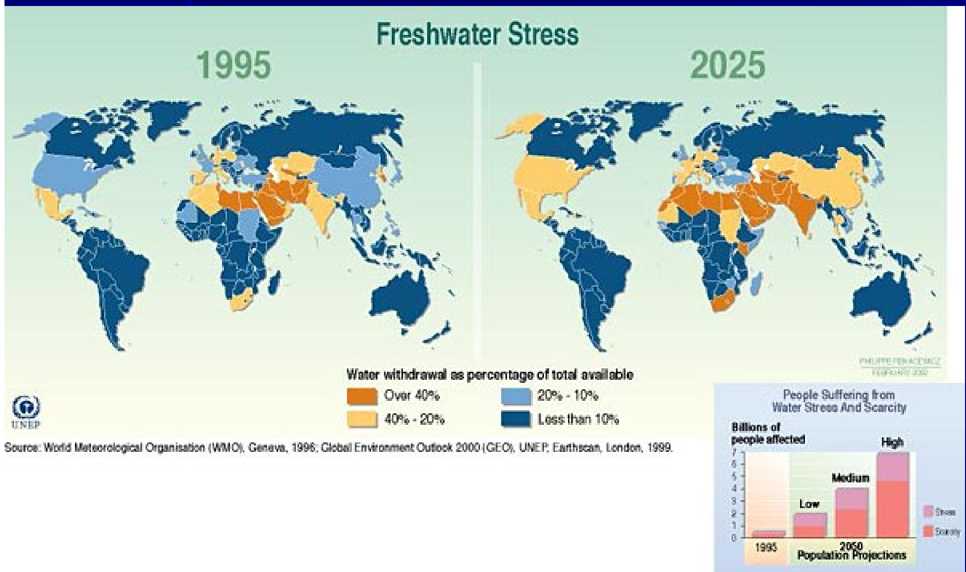
Inefficiency resources in Developed countries

Natural resources exploitation in the poor countries

Un-sustainable Development

In Fact……….





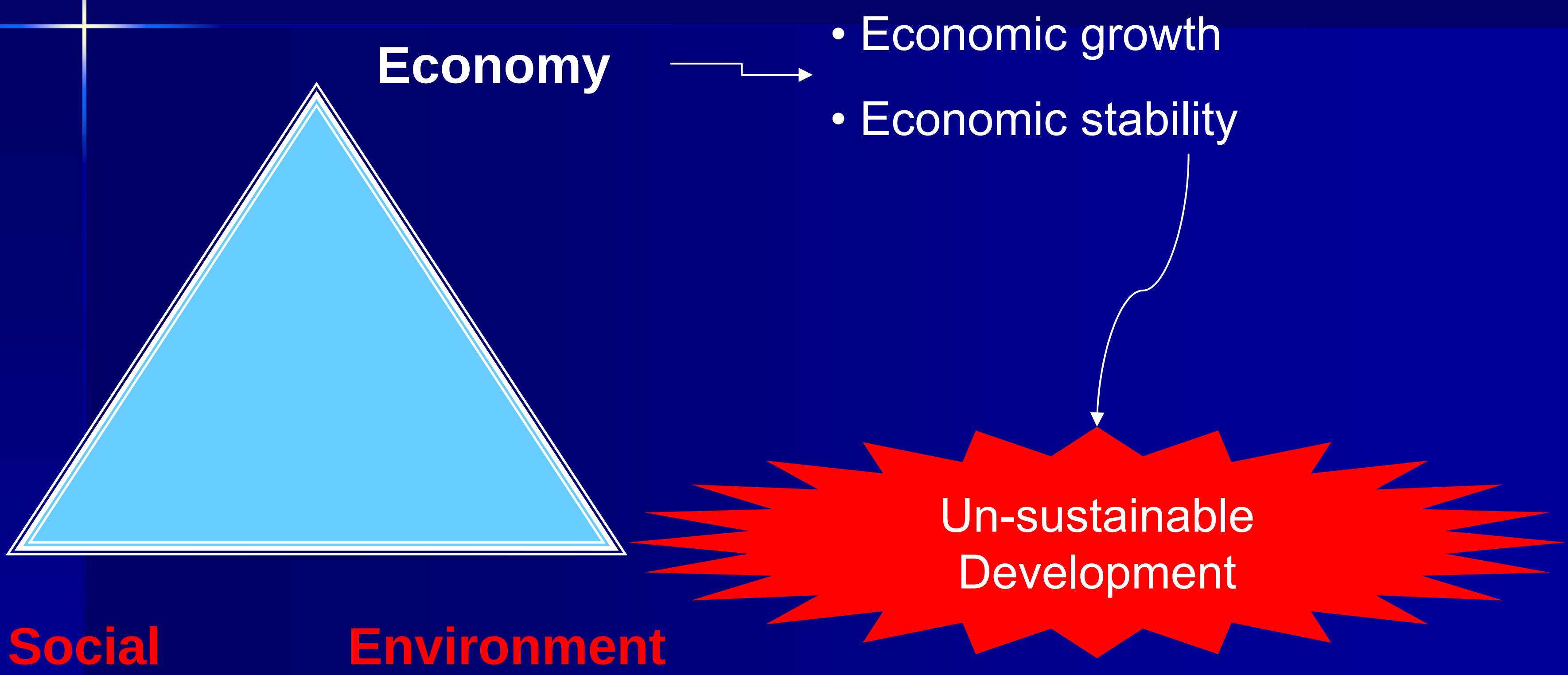
Environment

Demand of natural resources increase

Un-sustainable Development

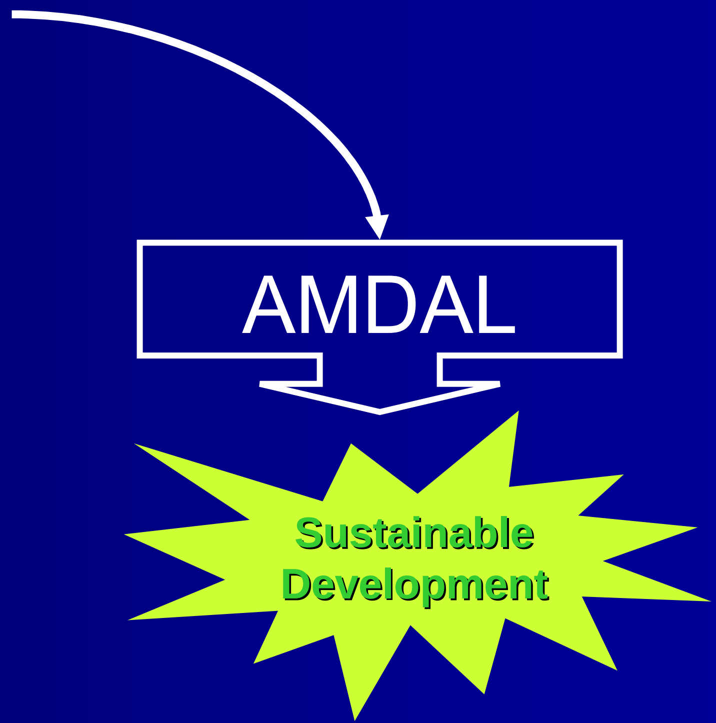
Environment quality and natural resources availability become lower

Impact...........


Economy
• Economic growth
• Economic stability
Un-sustainable Development
Social
Environment

What should we do?

Development of Environmentally Policies?, *through*



Environment Management Policies in Indonesia

preemtive

Decision making and planning

Master Plan

AMDAL

preventive

implementation

Standard of quality

Economic instrument

proactive

Production rate

ISO 14000

Environment Management System in Indonesia

Environment Management System

- **Obligatory**
  - AMDAL
  - UKL-UPL
  - OBLIGATION OF AUDIT
- **Voluntarily**
  - ISO 14001
  - POLLUTION PREVENTION
  - LIFE CYCLE ANALYSIS

AMDAL Policies Changing

PP 29/1986	PP 51/1993	PP 27/1999
Effectively 5 June 1987	Effectively 23 Okt 1993	Berlaku efektif 7 Nov 2000
AMDAL/SEMDAL Implementation: a. PIL/PEL b. KA-ANDAL/KA-SEL c. ANDAL/SEL d. RKL e. RPL	AMDALImplementation a. KA-ANDAL b. ANDAL, RKL-RPL	Pelaksanaan AMDAL a. KA-ANDAL b. ANDAL, RKL-RPL
AMDAL Study Approach: AMDAL of Single activity	AMDAL Study approach: AMDAL of single activity AMDAL of Multisector AMDAL of Area AMDAL of Regional	Pendekatan Studi AMDAL: AMDAL KegiatanTunggal AMDAL Terpadu AMDAL Kegiatan dalam Kawasan
Permit: issued after RKL-RPL approved	Related to permit: permanent business permit issued after RKL-RPL given after RKL-UPL used ffectivelly	Kaitan dengan izin: Ketentuan RKL-RPL menjadi bagian dari ijin
Scoring authority 27 comission of local AMDAL 16 comission of Central AMDAL	Scoring authority 27 comission of local AMDAL 16 AMDAL Pusat 1 Komisi AMDAL Regional & Terpadu	Kewenangan Penilaian 88 Komisi Penilai AMDAL Kabupaten/Kota 33 Komisi Penilai AMDAL Propinsi 1 Komisi Penilai AMDAL Pusat
	Pengaturan UKL-UPL	

AMDAL Definition

Assestment of *BIG AND IMPORTANT IMPACT* a business and/or planned activities to the environment required for *decision making process*

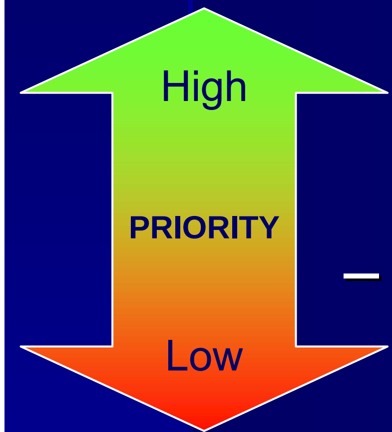
For what?

- Technical Aspects:
  - To minimalize environment impact with the result of sustainable development
  - Survay, estimation, and impact evaluation such as pollution, ecosystem disturb, relation between human-nature and global environment (nir emission, GHG, etc).

- Communication Tools:
  - To gain consensus with community (impacted), proponent and government acountability, and community involvement in the develepment

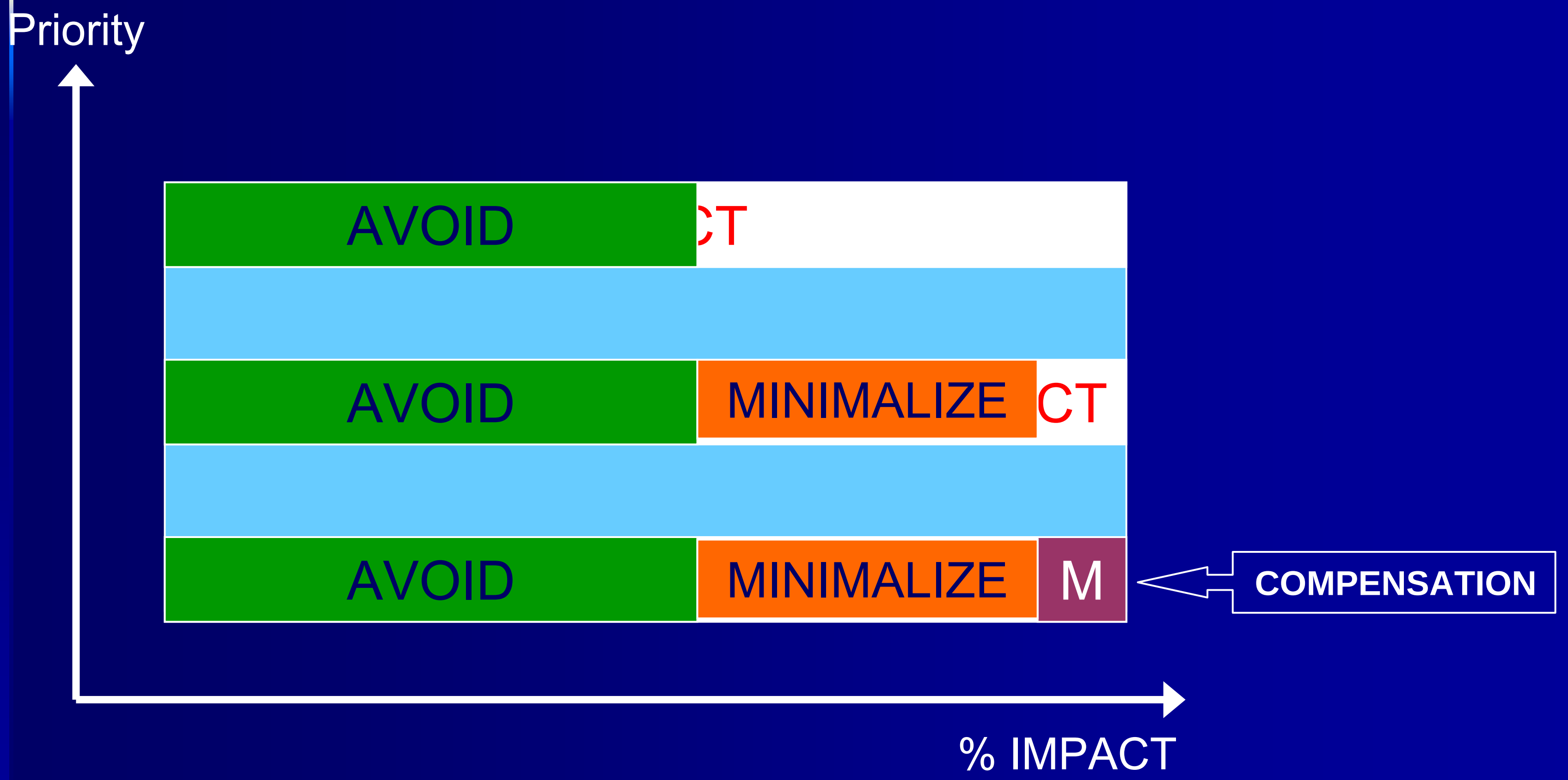
AMDAL OBJECTIVES

- AMDAL is an environment management tool to:
  - Avoid the impact
    - *Is project needed?*
    - *Is project should implemented by now?*
    - *Is there any alternative location?*
  - Minimalize the impact
    - *Reduce scale, volume and size*
    - *Is there any alternative for processing, designing, raw material or additional material?*
  - Implement Impact Compensation
    - *Give compensation or lose replacement to the damaged environment* (such as: Mitigation Bank Development)

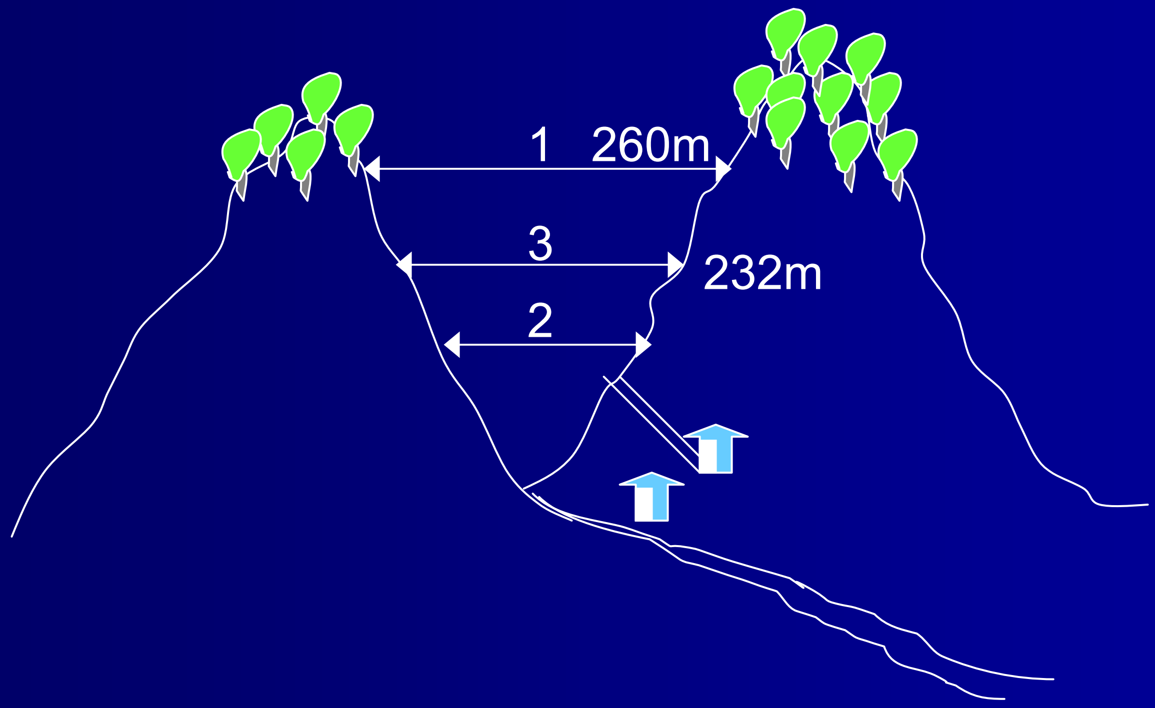


Source: UNEP, 2002

Impact vs AMDAL



Case Study: AMDAL of PLTA Cirata (Hydro Power)



AMDAL RECOMMENDATION MAY REVISED SITE PLAN, TECHNICAL DESIGN, AND OTHER REQUIREMENTS

SITE PLAN :

1. LANGKAT CEMENT INDUSTRY, NORTH SUMATERA
2. GOMBONG CEMENT INDUSTRY, CENTRAL JAWA

TECHNICAL DESIGN:

1 MILLION HECTARES PEAT SWAMP PROJECT, CENTRAL KALIMANTAN

OTHER REQUIREMENTS:

1. **LNG TANGGUH, PAPUA**
2. **MAKMUR CEMENT INDUSTRY INDONESIA, JAWA BARAT**

oOups... UKL – UPL or AMDAL ?

AMDAL

- Significant Impact
- Uncertain factors
- Specific for a project site

→ Committee process

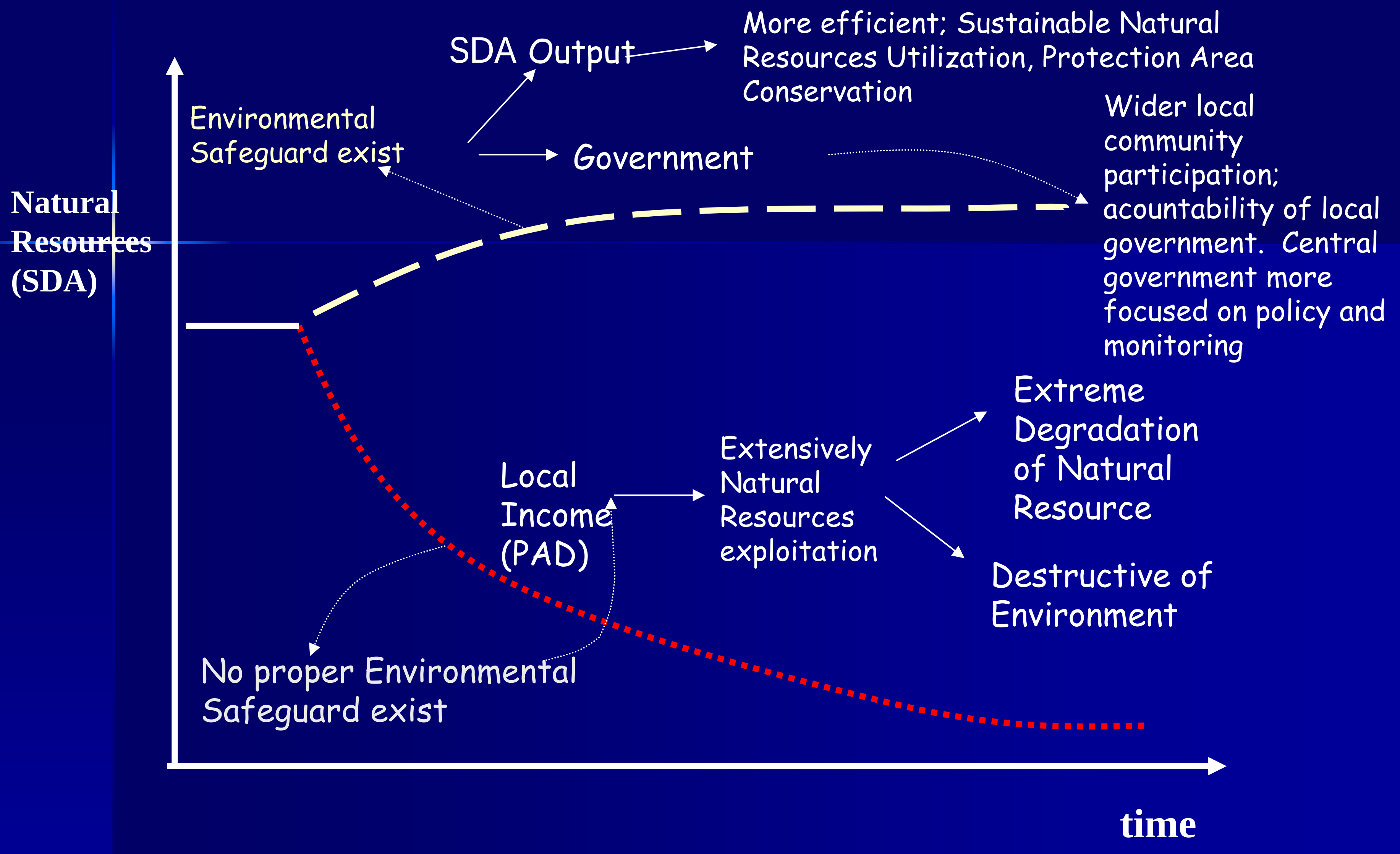
UKL - UPL

- Not significant Impact
- Certain factors – perven certain factors
- commonly for similar activities

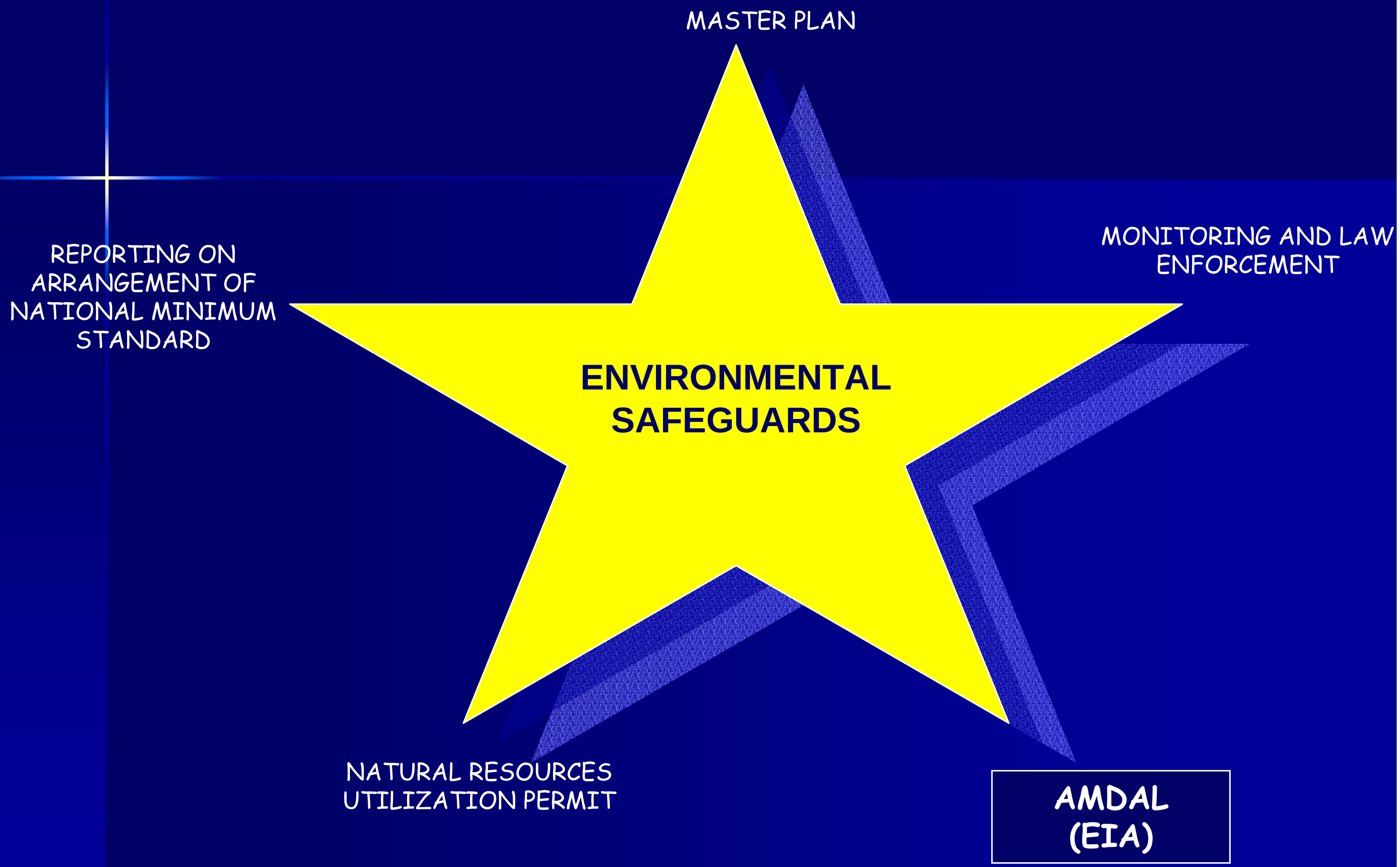
→ No Committee process

BENEFIT OF AMDAL

1. As an "environmental safe guard"
2. Feasibility study for decision making
3. Regional Development
4. Direction to mitigate the impact
5. Requirement for loan
6. Recommendation on submission of government permit.

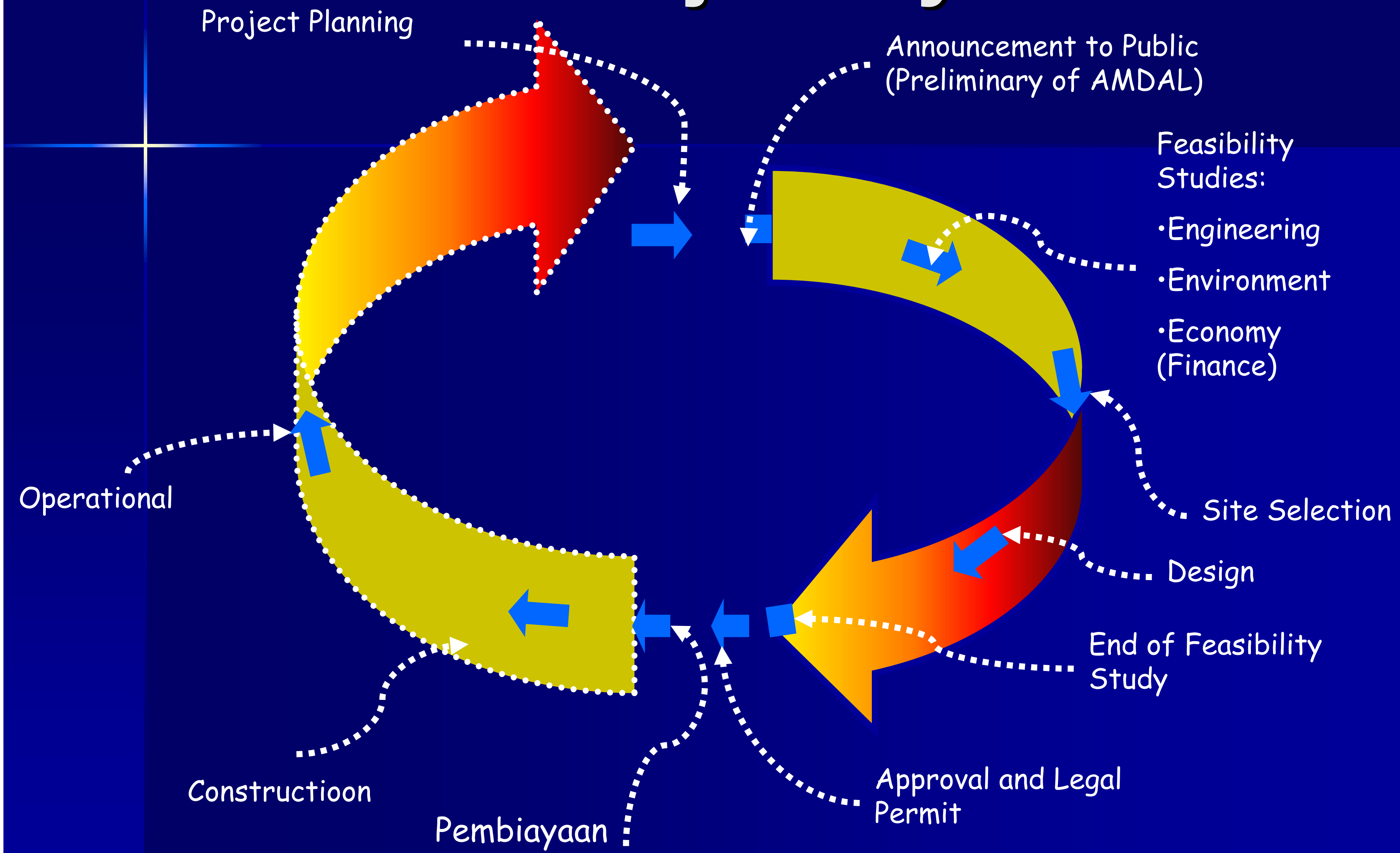


World Bank (2001), *Environment and Natural Resources Management in a Time of Transition*



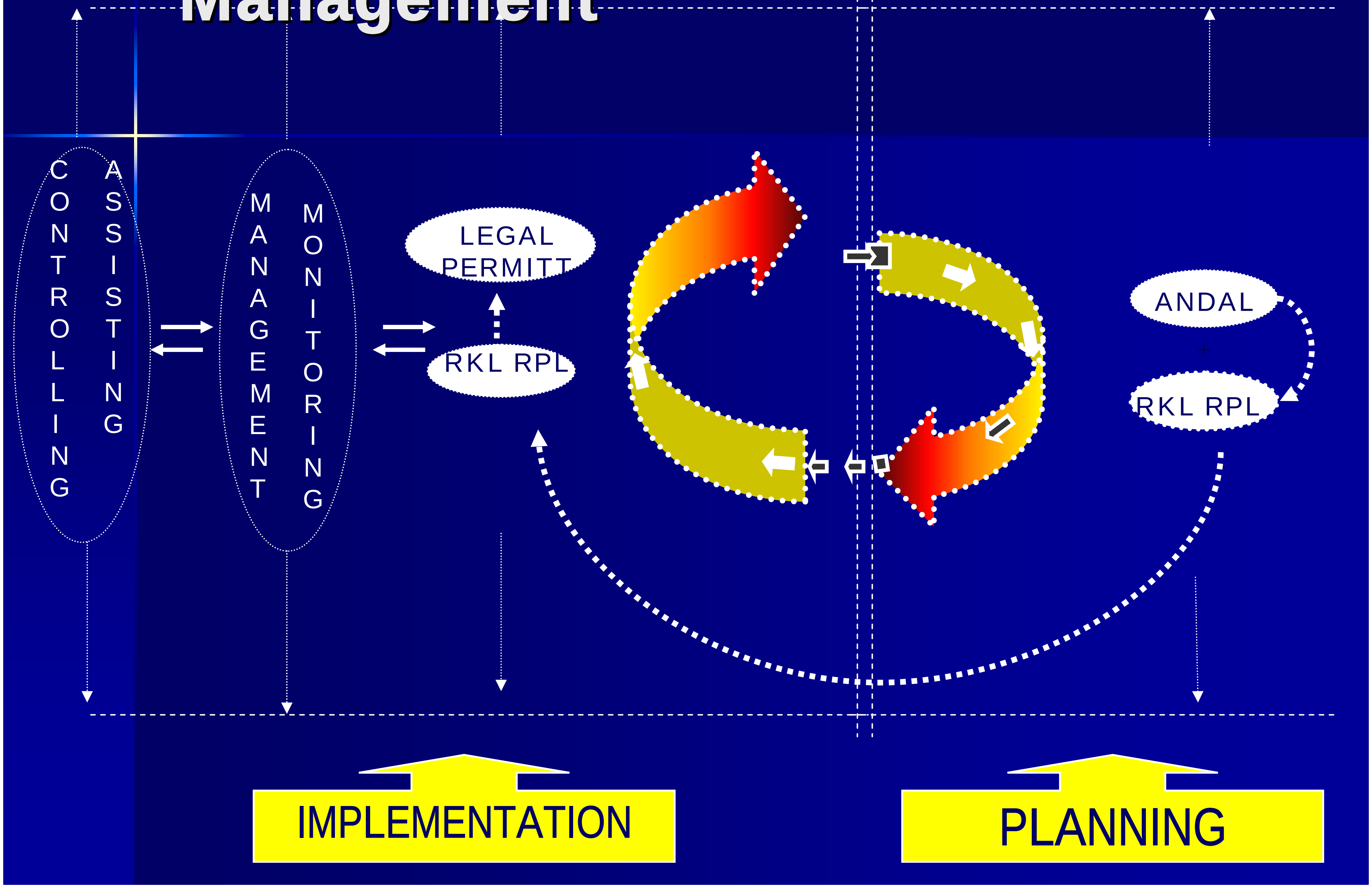
World Bank (2001), Environment and Natural Resources Management in a Time of Transition

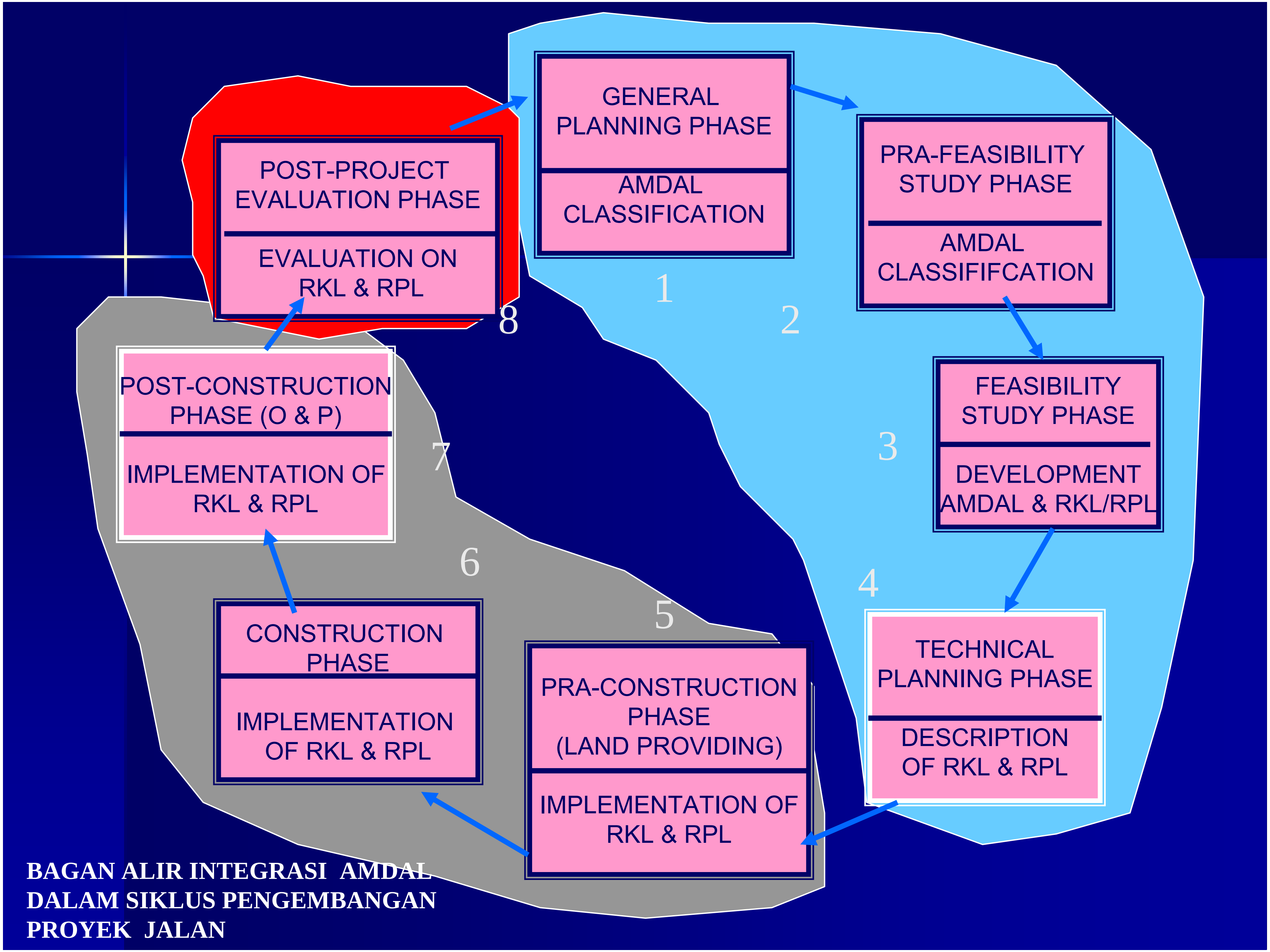
Ideal Project Cycle



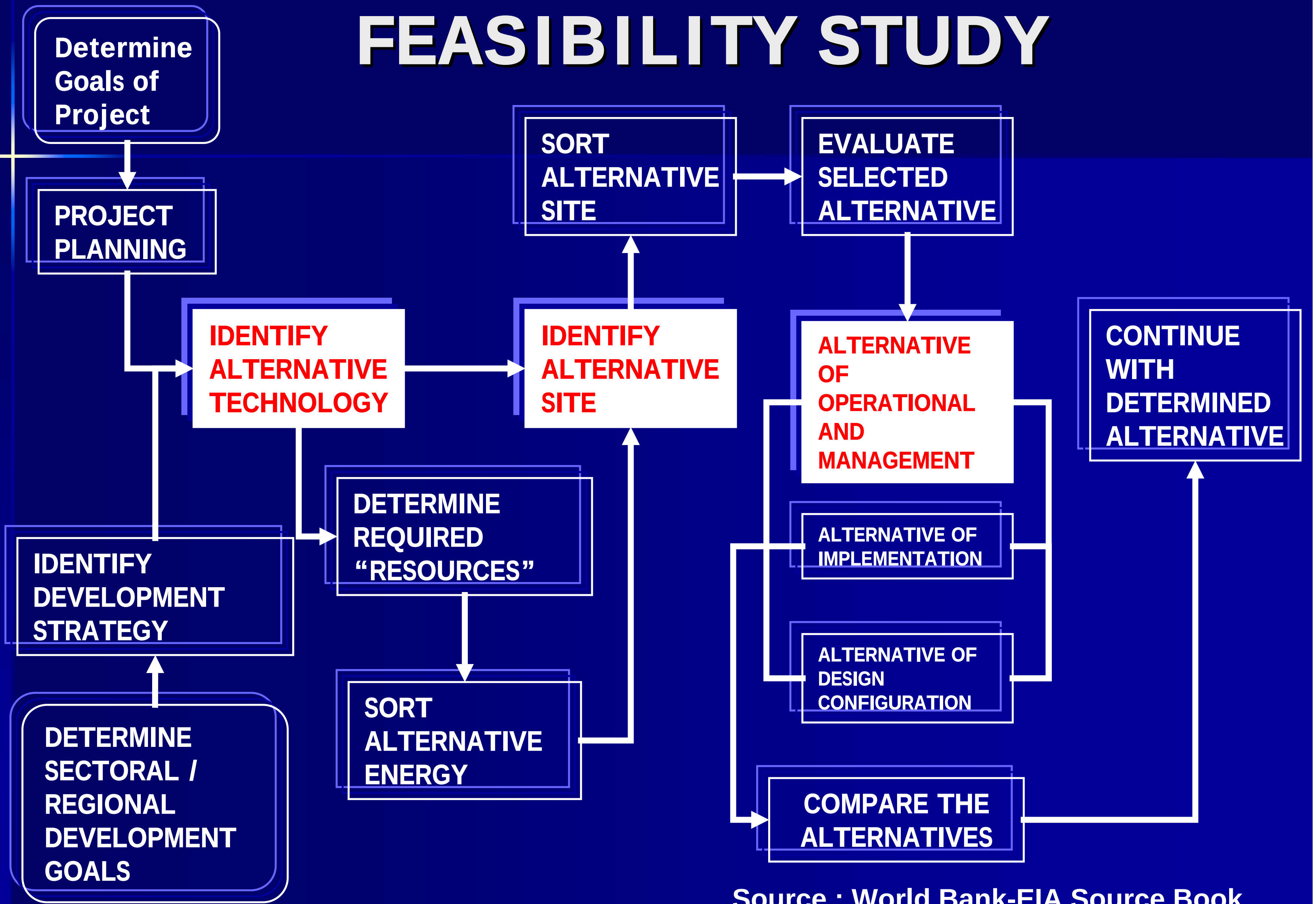
Addopted from Barrow, 1997

Project Cycle – Environmental Management



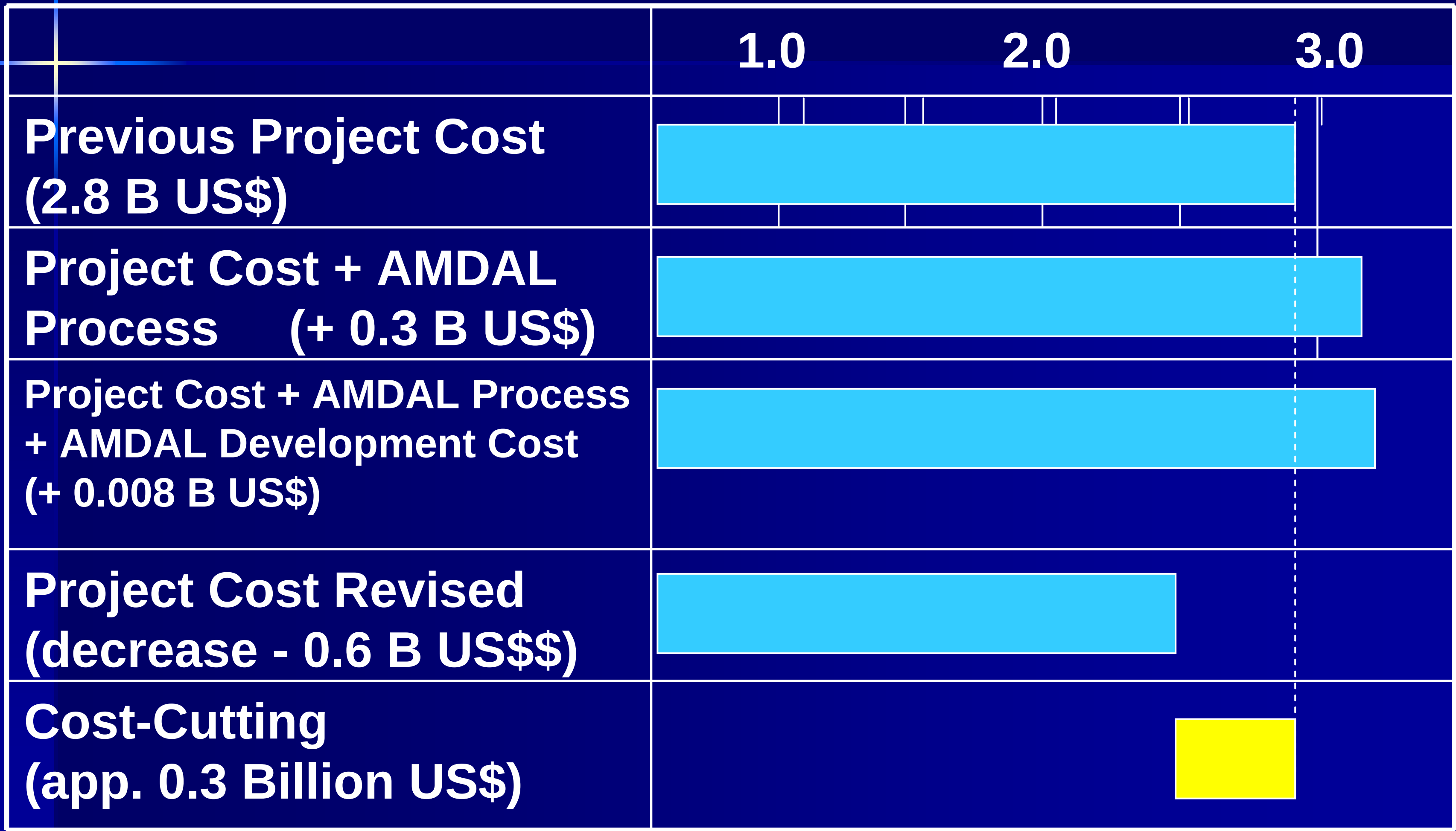

GENERAL PLANNING PHASE
AMDAL CLASSIFICATION
1
PRA-FEASIBILITY STUDY PHASE
AMDAL CLASSIFIFCATION
2
FEASIBILITY STUDY PHASE
DEVELOPMENT AMDAL & RKL/RPL
3
TECHNICAL PLANNING PHASE
DESCRIPTION OF RKL & RPL
4
PRA-CONSTRUCTION PHASE (LAND PROVIDING)
IMPLEMENTATION OF RKL & RPL
5
CONSTRUCTION PHASE
IMPLEMENTATION OF RKL & RPL
6
POST-CONSTRUCTION PHASE (O & P)
IMPLEMENTATION OF RKL & RPL
7
POST-PROJECT EVALUATION PHASE
EVALUATION ON RKL & RPL
8
BAGAN ALIR INTEGRASI AMDAL
DALAM SIKLUS PENGEMBANGAN
PROYEK JALAN

AMDAL AS FEASIBILITY STUDY



Source : World Bank-EIA Source Book

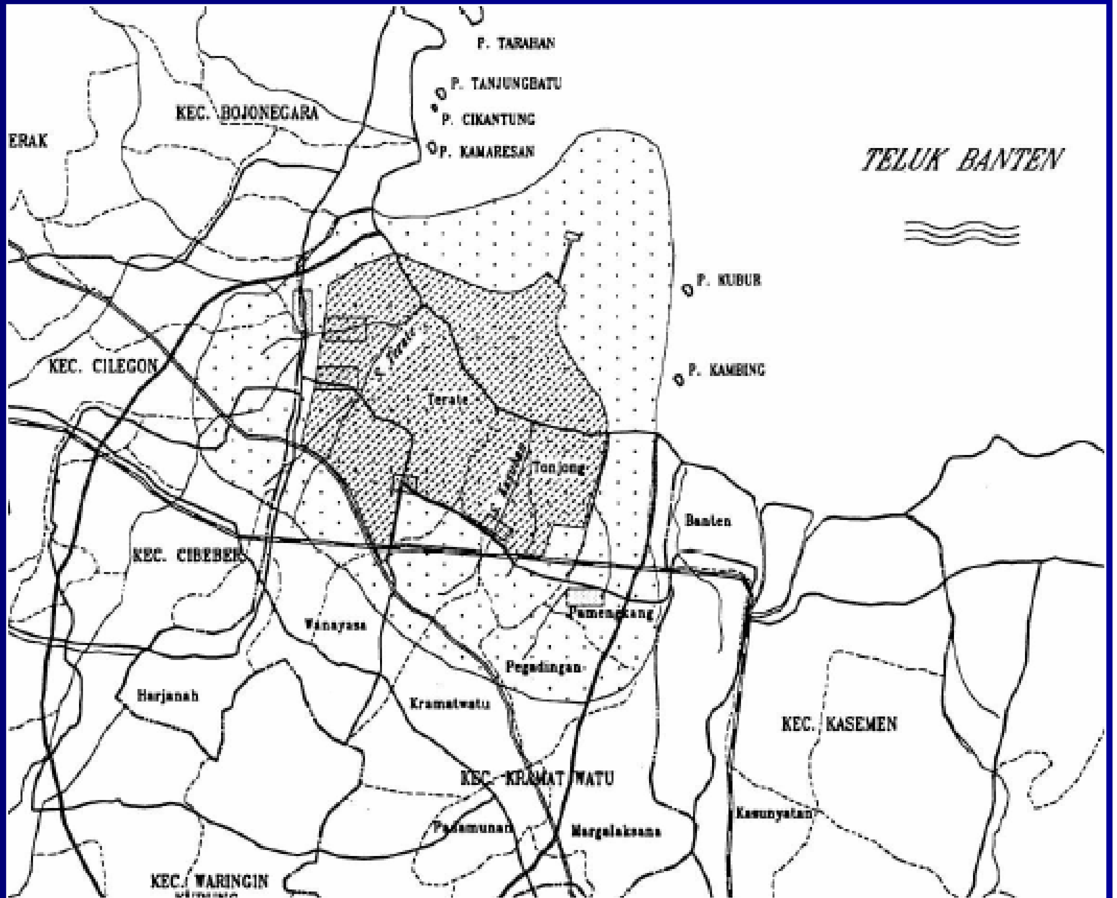
Cost Cutting by AMDAL
(52 AMDAL Studies in the world, Billion US $)



source: Adiwibowo,2002

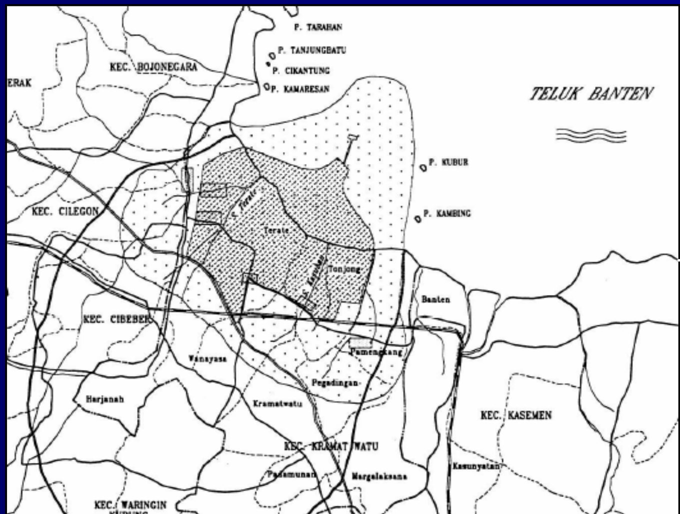
AMDAL vs Regional Development

- Development of JABABEKA, Cilegon, Serang, Banten Industrial Area
- 2000 hectares:
  - Industrial areas 1800 ha (Green area min. 10% from total area, SK Menperindag No.50/1997)
  - Industrial Workers Standard : 90-100 labour/ha
  - 1,5 workers equivalent with 1 familiy, a house required



Regional Development
(continued)

Workers :
90 workers /ha
x 1800 ha =
162.000
workers



House required:
162.000 workers / 1,5
= 108.000 house unit

for 108.000 house unit, land required: (assumption 1 house = 70 m^2)
108.000 x 70 m^2 =
7.560.000 m^2 = 756 ha

If the standard of 1 village is for 26.000 peoples, 6 villages will be formed (new?)

Regional Development *(continued)*

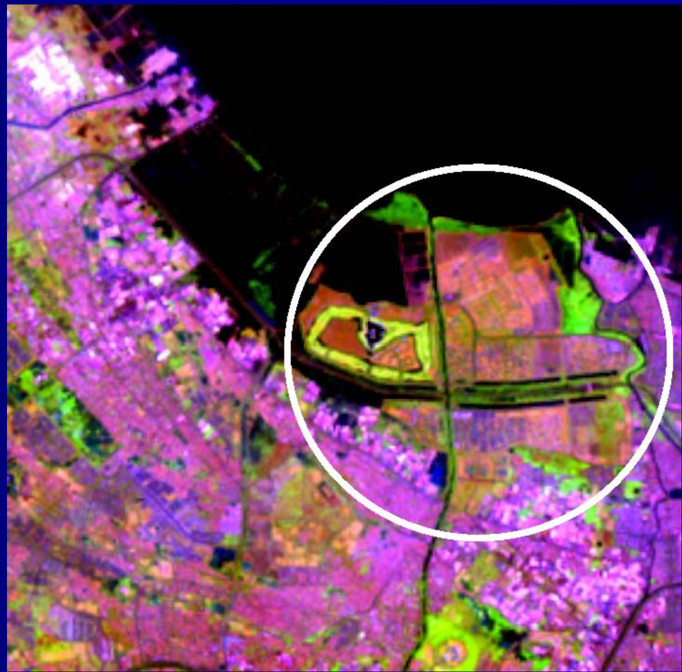
- Infrastructures required?
  - Road
  - Bridge
  - Public Facilities/Social Facilities
  - Etc
- Utilities required?
  - Water
  - Electricity
  - Telephone

Regional Development *(continued)*

- Master plan change around the area trigged by area development
- Traffic increasing (goods & workers)
- Increasing of housing requirement and facilities for new-workers
- Micro-Climate change due to change of area function
- Run-off appeared that flood potential
- Interaction among divers activity, synergic or/and antagonism
- Many of social impact, economy and culture caused by comers and local people interactive lokal

Sample Case:
Area Change of Pantai Indah Kapuk

1993



2001

AMDAL vs Externality (Valuation)

- *AMDAL result will direct efforts of mitigation, controlling and monitoring the environmental impact.*

AMDAL vs Externality (Valuation)

- Development of Main Transit Terminal of Balongan (PERTAMINA), District of Indramayu, West Java
- Economy Valuation (contruction phase, 3 years):
  - Degradation of air quality
    - By Transportation Rp. 460.465.000
    - By Pipes Digestion Rp. 31.112.500
  - Increasing of Noise Rp. 460.465.000

AMDAL vs Externality (Valuation)

- Economy Valuation (construction phase):
  - Increasing of Road facilities Rp. 460.465.000
  - Traffic Jam Rp. 9.304.815
  - Sea water quality degradation Rp. 70.518.580

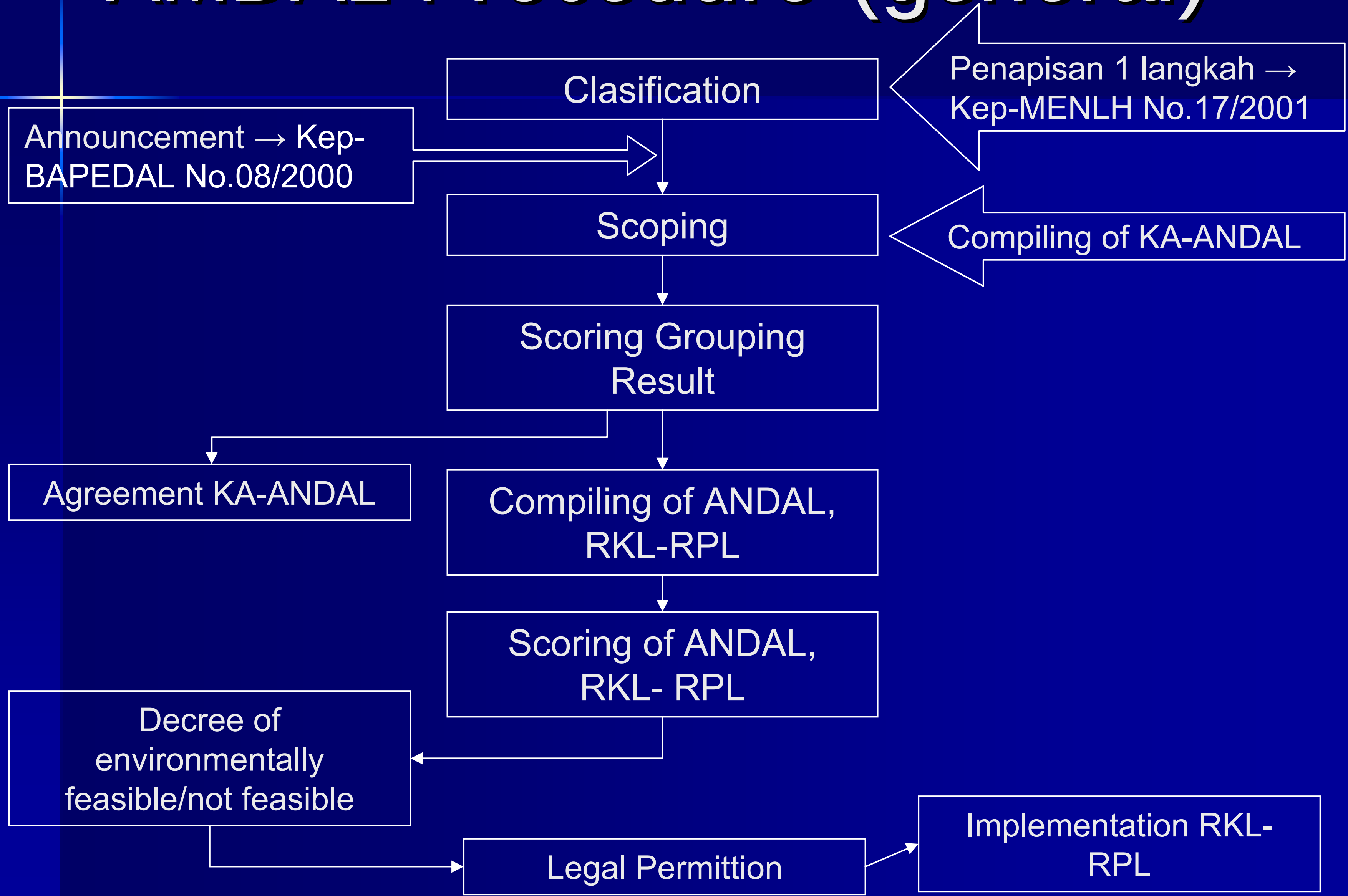
TOTAL Rp.1.414.549.645

AMDAL vs Externality (Valuation)

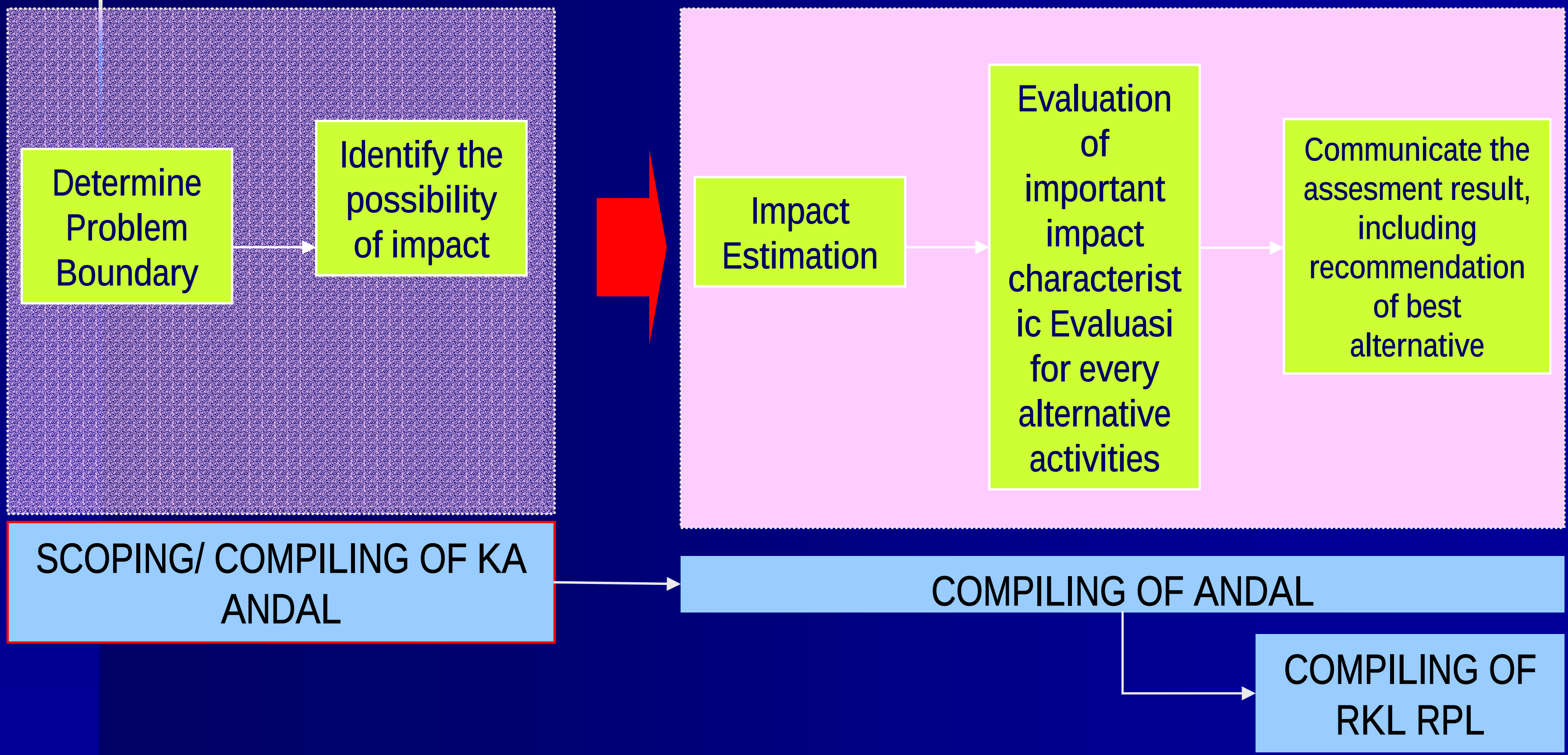
- Economy Valuation (operational phase, 25 years estimation):
  - Air quality degradation Rp. 113.475.000
  - Water quality degradation:
    - Oil spilled in depo (25 years) Rp. 751.658.400
    - Oil spilled in the sea (once in 25 years) Rp. 5.149.760.625/th

TOTAL	Rp. 6.014.894.025
GRAND TOTAL (K+O)	Rp. 7.429.443.670

AMDAL Procedure (general)



TYPICAL OF AMDAL PHASES



Barrow, 1997

Kep MenLH No 5 Th 1997

LOAN REQUIREMENTS

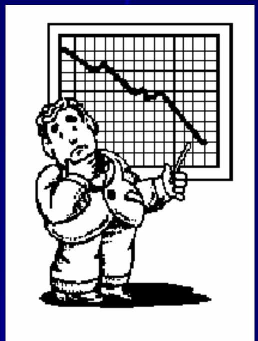
- Some banks requires AMDAL as loan requirement

  Ex: World Bank, ADB etc.

AMDAL AS PART OF PLANNING AND DECISION MAKING
(GOVERNMENT)

AMDAL should:

- Use as material for decision making on running business/activities- PP 27 Tahun 1999 Pasal 1



- Stated in legal permittion by state the requirements and obligations as determined in RKL RPL as a legal permit requirements- PP 27 Tahun 1999 Pasal 7 ayat (2)
- Use as obligatory requirement that must be completed to submit legal permit in running business or activities PP 27 Tahun 1999 Pasal 7 ayat (1)

source : PP 27 Tahun 1999

AMDAL & LEGAL PERMIT

PRA-DECENTRALIZATION

Site Legal Permit → **AMDAL** → **Business Legal Permit**

DECENTRALIZATION

AMDAL → **Site & Business Legal Permit**

AMDAL & LEGAL PERMIT

MENTERI NEGARA LINGKUNGAN HIDUP
REPUBLIK INDONESIA

Jakarta, 24 September 2003

Nomor : B-4718 /MENLH/09/2003
Lampiran : -
Perihal : AMDAL dan Ijin Lokasi

Kepada Yth.
Sdr. Bupati/Walikota
di
Seluruh Indonesia

Menindaklanjuti hasil evaluasi Pelaksanaan Kebijakan Desentralisasi Proses AMDAL yang dilaksanakan oleh Kementerian Lingkungan Hidup dan dalam rangka meningkatkan efektifitas pelaksanaan AMDAL sebagai alat perencanaan pengelolaan lingkungan di era otonomi daerah, perlu saya sampaikan beberapa hal penting berikut:

1. Pertemuan Persiapan *World Summit for Sustainable Development* (WSSD) yang diselenggarakan di Bali pada tahun 2002 secara tegas mengisyaratkan bahwa setidaknya 158 negara mengakui bahwa AMDAL merupakan alat perencanaan pengelolaan lingkungan hidup yang efektif. Hal ini disebabkan karena studi AMDAL dilaksanakan secara bersamaan dengan studi kelayakan lainnya sehingga merupakan bagian integratif dari studi kelayakan suatu rencana usaha dan atau kegiatan.

2. Berkaitan dengan angka 1 di atas dan memperhatikan ketentuan Pasal 7 ayat (1) Peraturan Pemerintah Nomor 27 Tahun 1999 tentang Analisis Mengenai Dampak Lingkungan Hidup serta sejalan dengan nuansa otonomi daerah dimana kewenangan mengeluarkan ijin lokasi bagi suatu rencana usaha dan atau kegiatan berada pada Bupati/Walikota, maka saya minta bantuan Saudara untuk menjadikan hasil studi AMDAL tersebut sebagai persyaratan dalam penerbitan ijin lokasi. Hal ini juga penting untuk menghindari terjadinya perbenturan kepentingan antara keputusan kelayakan lingkungan dengan penerbitan ijin lokasi.

Atas perhatian dan kerjasama Saudara diucapkan terima kasih.

Menteri Negara
Lingkungan Hidup,

Nabiel Makarim., MPA., MSM.

Tembusan Yth.:
1. Menteri Dalam Negeri
2. Kepala Badan Pertanahan Nasional
3. Para Gubernur seluruh Indonesia

2. Berkaitan dengan angka 1 di atas dan memperhatikan ketentuan Pasal 7 ayat (1) Peraturan Pemerintah Nomor 27 Tahun 1999 tentang Analisis Mengenai Dampak Lingkungan Hidup serta sejalan dengan nuansa otonomi daerah dimana kewenangan mengeluarkan ijin lokasi bagi suatu rencana usaha dan atau kegiatan berada pada Bupati/Walikota, maka saya minta bantuan Saudara untuk menjadikan hasil studi AMDAL tersebut sebagai persyaratan dalam penerbitan ijin lokasi. Hal ini juga penting untuk menghindari terjadinya perbenturan kepentingan antara keputusan kelayakan lingkungan dengan penerbitan ijin lokasi.

AMDAL POLICY

Increase the Capacity of AMDAL Implementor

AMDAL Appraiser Comittee

Kep Men LH No 41/2000 “Guidance on forming AMDAL Appraiser Committee in District Level”

Capacity Building for AMDAL Appraiser Committee

AMDAL Course Organizer

Acredetation for AMDAL Course Organizer

Discussing with BSN (National Certification Authority)

AMDAL Compiler

Certification for AMDAL Compiler personnel

Mis-understanding on AMDAL

- Four AMDAL key players: : Innitiator, consultant, community and government
- Opinion could given by: impacted community or stakeholders (local, national, international)
- Arguments among communities: VOTERS (VOTING group) and APPRAISER COMMUNITIES (ASESSMENT group) sometimes become fatal

Mis-Understanding b INNISIATOR

- Community always say NO → Not Always
- Our calculation is maximum → No
- Anouncement in the preliminary will increase land price → Profit from Announcement is bigger
- Decision is by the government, not by community → Community have rights to conserve the environment

Mis-Understanding by CONSULTANT

- Sophisticated Estimation required → Not Always (Relative Estimation also required)
- Must implemented by specialist → be generalis
- Simple explaination is hard to be done → alternative proposal required

Mis-Understanding by COMMUNITY

- Appraisal is not required if survey or estimation not sufficient → Sometimes estimation is not precise due to planning revision
- Appraisal is only an administration tool → Appraisal is a concensus communication tool
- Stoping the activity is the only way to conserve the environment → Pplanning Revision could be implemented

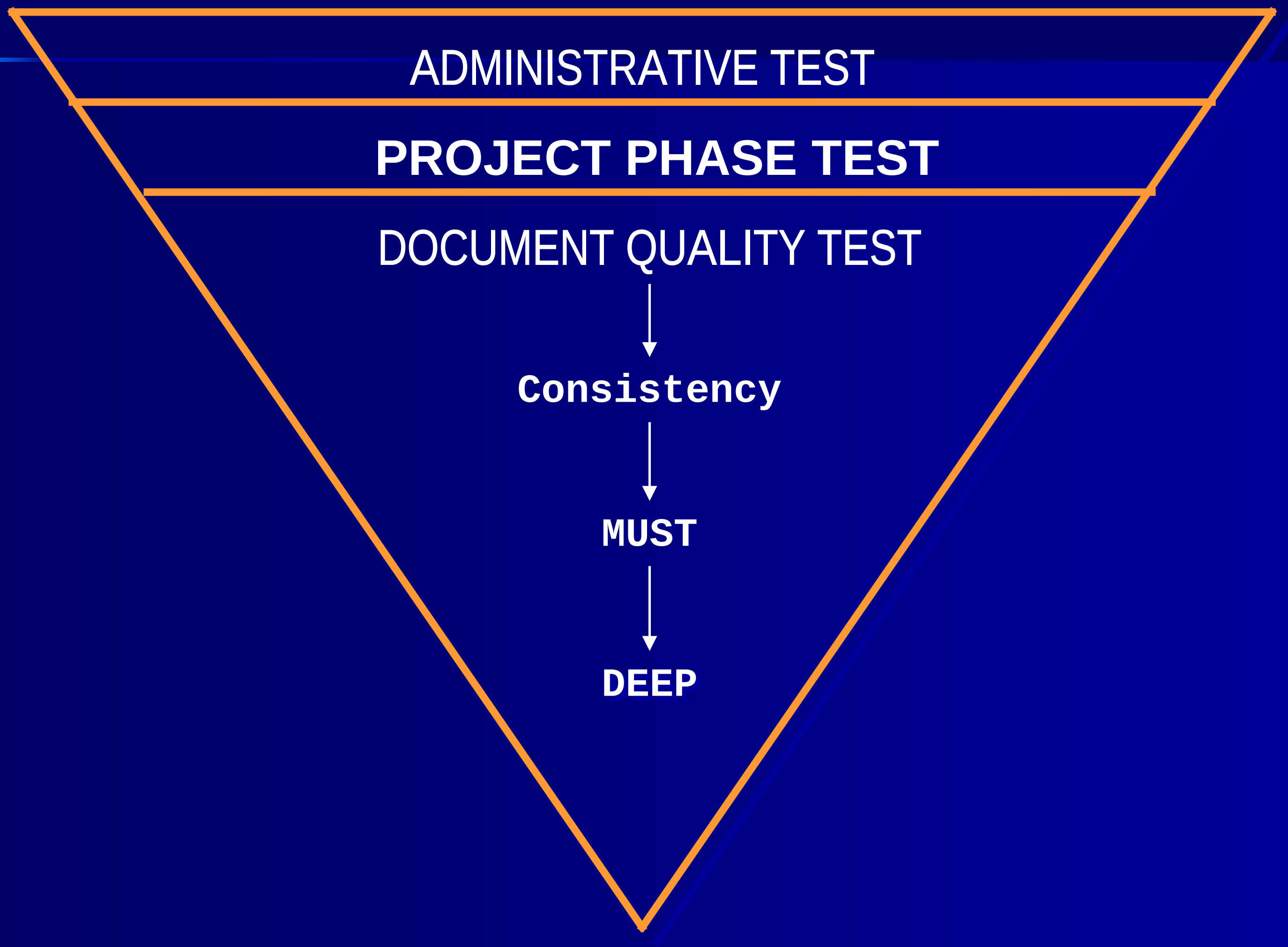
Mis-Understanding by GOVERNMENT

- Environment Conservation is only to comply with regulation → Appraisal have role to cover concerns not stated in the regulation
- Community always claim for their own (NIMBY syndrome) → Community is able to do the appraisal

Appraisal Criteria's:

- Neutral and transparant
- Focus on Environmental Conservation (avoid, minimaze and mitigate)
- Readable:
  - Not a yellowpages (thick)
  - Continuous pages
  - Paperless (CD-ROM, Internet-web)
- Scientific:
  - Quality of Data, *traceable*, logic (*no logical jump*), Uncertainly (Sensitivity Analysis), Extreme case
- Catch on local characteristic (not a stereo-type)

PENILAIAN DOKUMEN AMDAL



Source : Adiwibowo, 2002

TERIMA KASIH

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