

Motive and Conflict in the Disaster
Recovery Process of Housing
Reconstruction in Sri Lanka after the
2004 Indian Ocean Tsunami



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Background

Long-term Disaster Recovery

e.g. Infrastructure and housing reconstruction

accumulated results of several phases including planning, design and construction in which various actors' decision are involved

For achieving the goals

Maintain consistency in decisions by various actors in several phases

Guiding Principles for Decisions



Difficulties in carrying principles into practice

Complexity of Decision in Recovery

Dynamic and fast-moving situation after disaster (Blaikie 2009)

Respective perceptions of actors (Ebrahim 2003; Bankoff & Hilhorst 2009; Werker 2010; Boshier 2011)

On Risk priority, Recovery Objectives, Accountability in practice
by Gov., NGO, and people

Influence by expectation of other's decision (Chamlee-Wright and Storr 2010)

Rebuilding strategy influenced by expectation of Gov.'s intent & capacity

Interpreted as interactive decision-making among actors

Different objectives in emergency relief by local and external actors (Coles and Zhuang 2011)

Respective payoff in housing reconstruction by actors (Keraminiyage 2011)

still remained at conceptual level

Research Objective

Identify the causes of discordance

between consented principles for long-term recovery and actual decisions of recovery actors

in terms of motive and its conflict in interactive decision-making process

taking example of housing reconstruction in Sri Lanka

after the 2004 Indian Ocean Tsunami



4 Eastern Coast of Sri Lanka after tsunami
(Source: resilienturbanism.org / Credit: Shyanaka Dananjaya)



Housing Reconstruction by Japanese Red Cross
(Source: www.ifrc.org)

Case Introduction

The 2004 Indian Ocean Tsunami

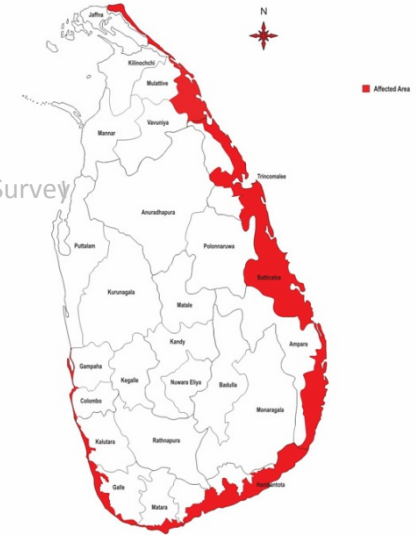
Magnitude 9.2, Wave heights up to 30m (26 Dec. 2004)

→ 230,210 deaths (Indonesia 167,799, Sri Lanka 35,322..) US Geological Survey

Impact in Housing field of Sri Lanka

26% population lived within a mile from coasts

→ 98,480 houses destroyed (1/3 of total loss in assets)



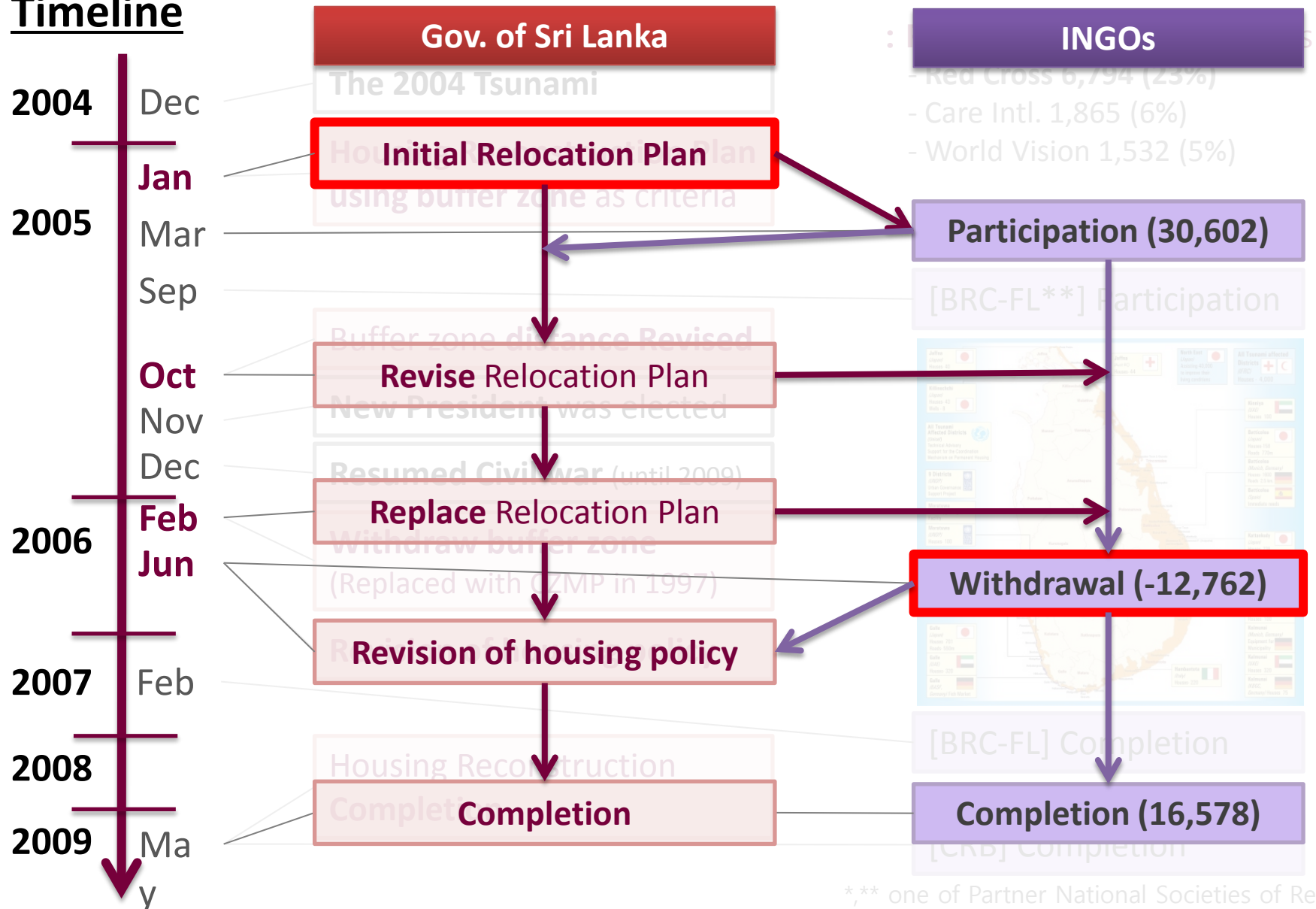
Plan for Relocation: 30,602 houses by INGOs-driven



→ Outcome: 16,578 houses are constructed as originally planned

Timeline of Housing Reconstruction

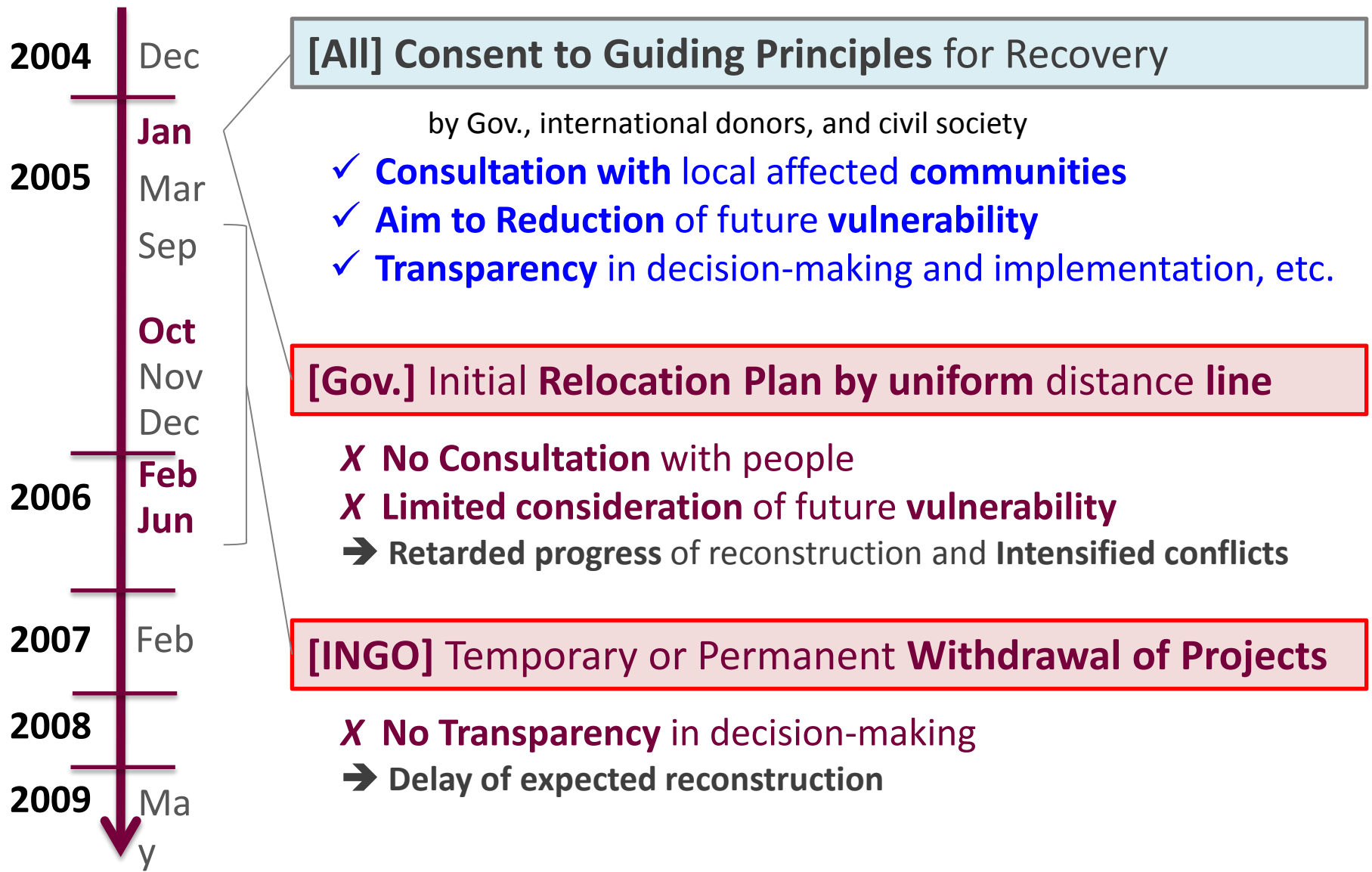
Timeline



*,** one of Partner National Societies of Red Cross

Consented Principles and Actual Decisions

Key Decisions resulted Poor Outcomes



Analysis Process

Define Key Decisions in Recovery Process

led to limited recovery outcomes in a long-term view

For Each Decision

Define Motives and Its Priority

By review on practitioners' report, academic studies, media reports
inferred by literatures on corresponding decision as well as
context and other decisions of the time

Evaluate Preference of possible options

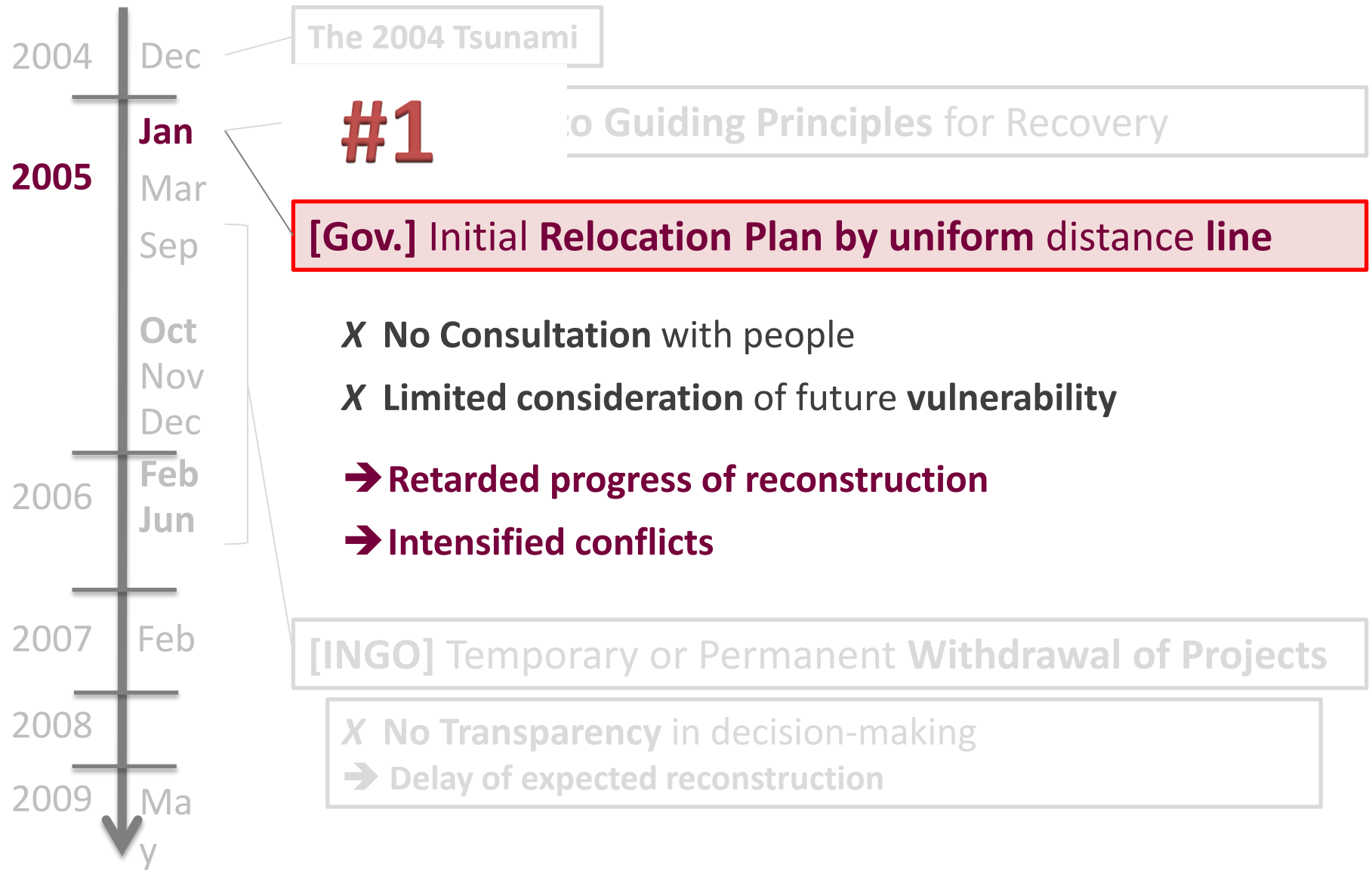
based on the priority of motives and considering elements of the time

Analyze Interactive decision-making

using Game theoretic approach

Identify the cause of decision in terms of motive and interaction

Key Decisions in Recovery Process: #1



#1. Relocation plan by Uniform line: 1) Motives in Gov.'s Decision

Motives

Considering Factors

Related Context

Vulnerability
Reduction

Risk exposure reduction



- **No experience & manuals of massive relocation**
- **Repeated failure in coasts regulation**
- Centralized DM system restricts local opinion

Effective
Resource
Utilization

Secure budget by aids



- **Insufficient budget** for housing
(over 2 times of annually constructed houses)

→ *High dependence on INGOs' decision*

Match
Expectation
of **P**eople

Show situation control



- **Political conflict situation** (strong enough to change recovery coordination bodies)
- Political influence in resource allocation

Possible
Decisions

Actual decision



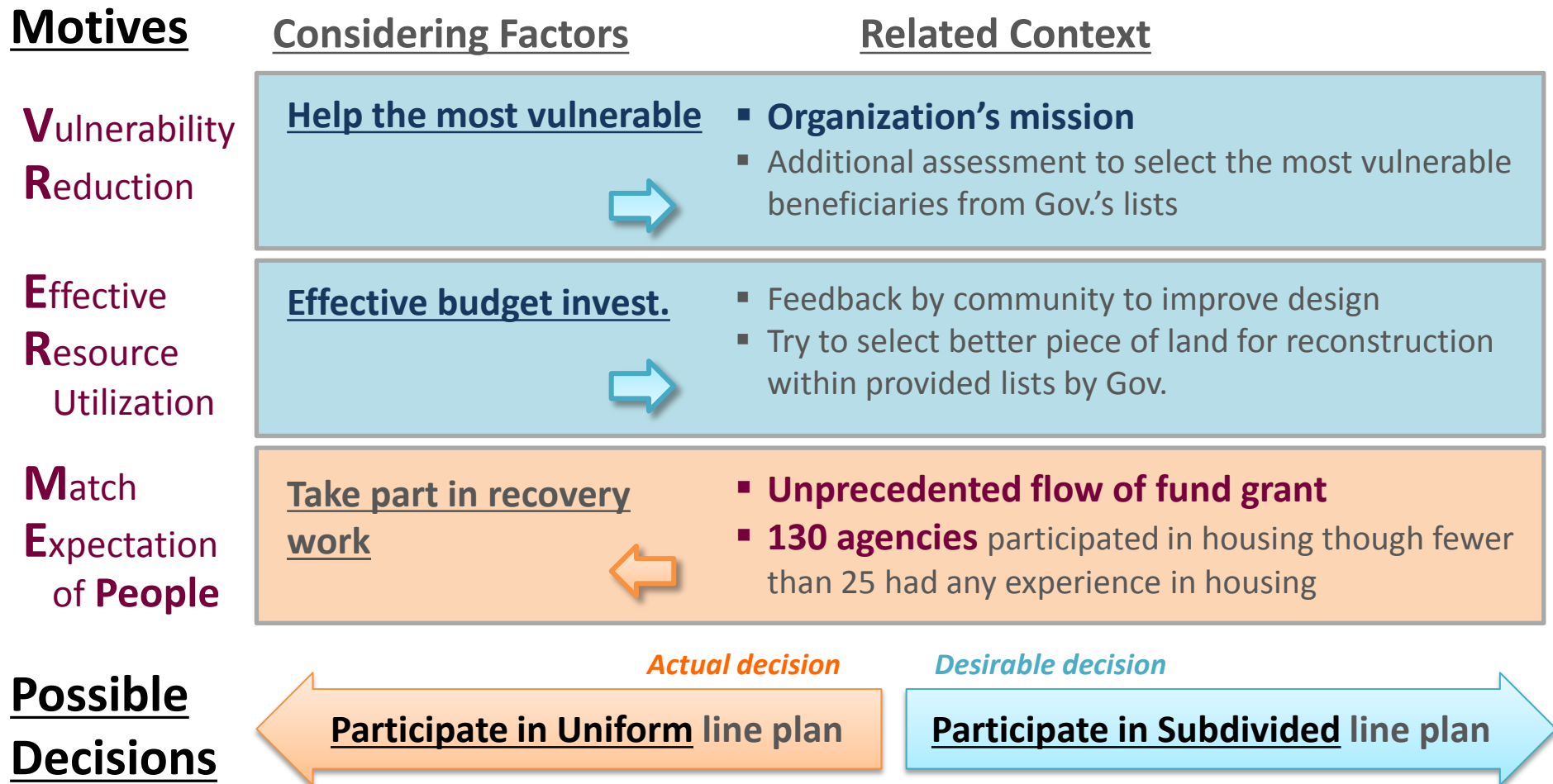
Desirable decision



**Cause of
Decision**

- 1) Limited knowledge on massive recovery
- 2) Need for quick planning

#1. Relocation plan by Uniform line: 2) Motives in INGO's Decision



Unlike Gov., INGO preferred 'Subdivided line Relocation' in terms of vulnerability reduction and effectiveness of budget

#1. Relocation plan by Uniform line: 3) Interactive Decision-Making

Motive

Vulnerability Reduction

← Risk exposure reduction

→ Help the most vulnerable

Effective Resource Utilization

→ Secure budget by aids

→ Effective budget invest.

Match Expectation of People or Donor

← Show situation control

← Take part in recovery work

Priority of motives

ME > VR > ER

ME > VR > ER

Preference of Decision Sets

<u>Decisions</u>		<u>Preference Raking</u>	
Gov.	INGO	Gov.	INGO
Uniform Line Plan	Participate	A	B
Uniform Line Plan	Not Participate	C	C
Subdivided Line Plan	Participate	B	A
Subdivided Line Plan	Not Participate	D	C

A (most preferred) / D (least preferred)

#1. Relocation plan by Uniform line: 3) Interactive Decision-Making

Motive

Vulnerability Reduction

← Risk exposure reduction

→ Help the most vulnerable

Effective Resource Utilization

→ Secure budget by aids

→ Effective budget invest.

Match Expectation of People or Donor

← Show situation control

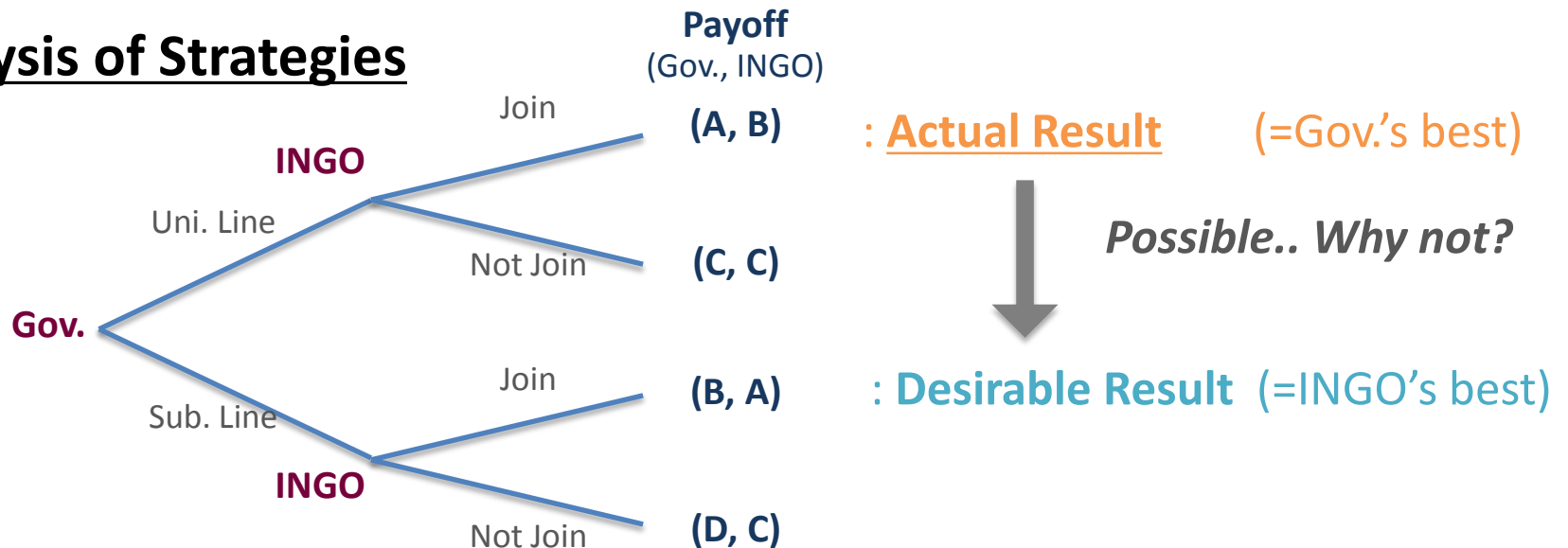
← Take part in recovery work

Priority of motives

ME > VR > ER

ME > VR > ER

Analysis of Strategies



INGO could make Gov. minimize relocation by 'Credible Threat'

#1. Relocation plan by Uniform line: 3) Interactive Decision-Making

Why INGO couldn't make 'Credible Threat' even in a good position?

Exceed the capacity of coordination by INGOs expanded to housing

Limited capacity of housing field coordination / **130 agencies** participate in housing



By unprecedented flow of fund grant

Unusually high proportion of Private donors

Some INGOs start to participate in uniform line plan (as trigger)

for opportunity of fund-raising or feeling obliged to engage in housing, etc.



Increase of disadvantage from non-participation (payoff change)

Relative disadvantage to motive to 'Match Expectation of Donors' for all other INGOs

INGO's threat with participation became incredible for Gov.

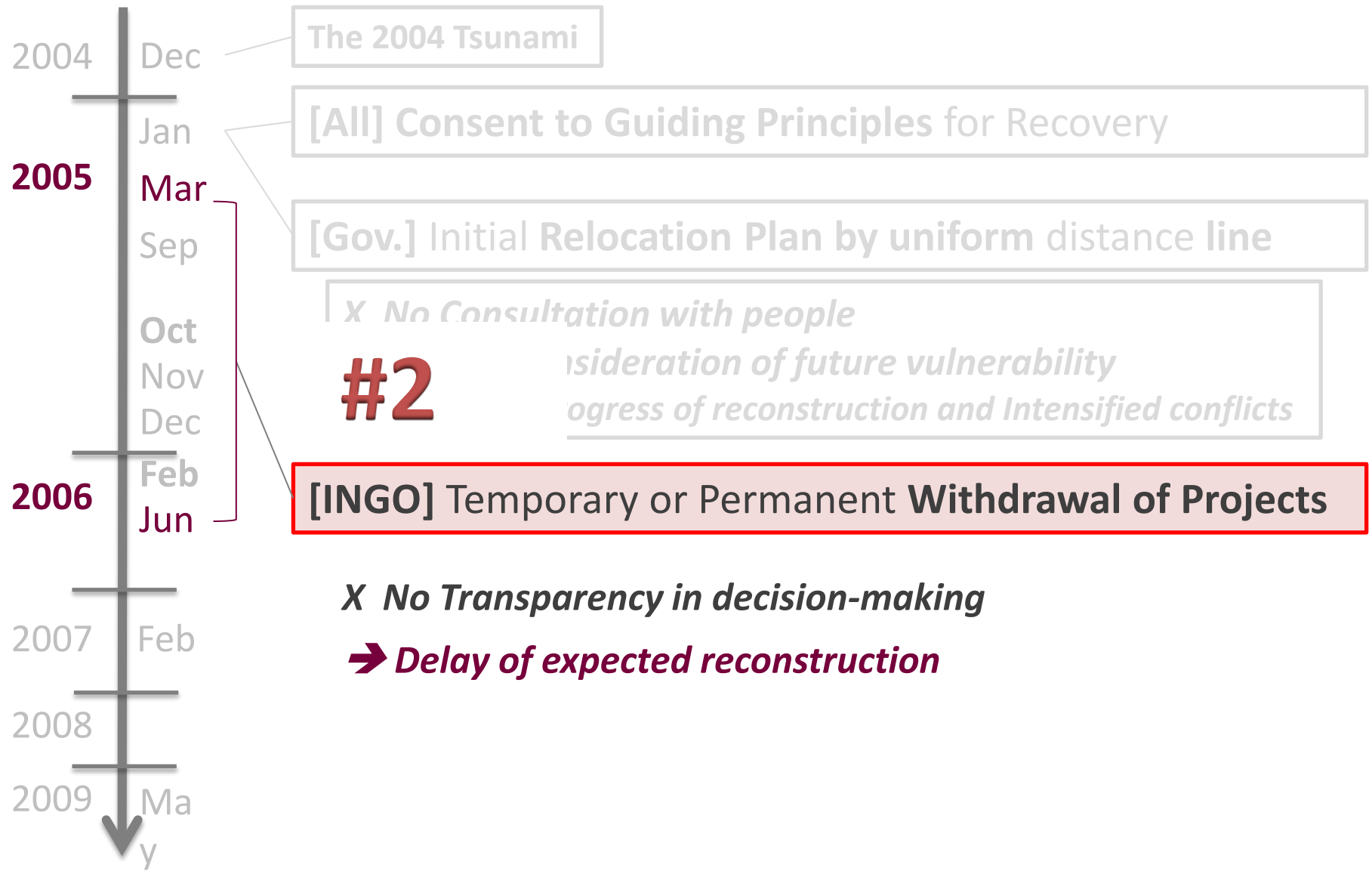


Competitive Participation of INGOs

e.g. unnecessary soil test just for showing activity to Gov. to get relocation site

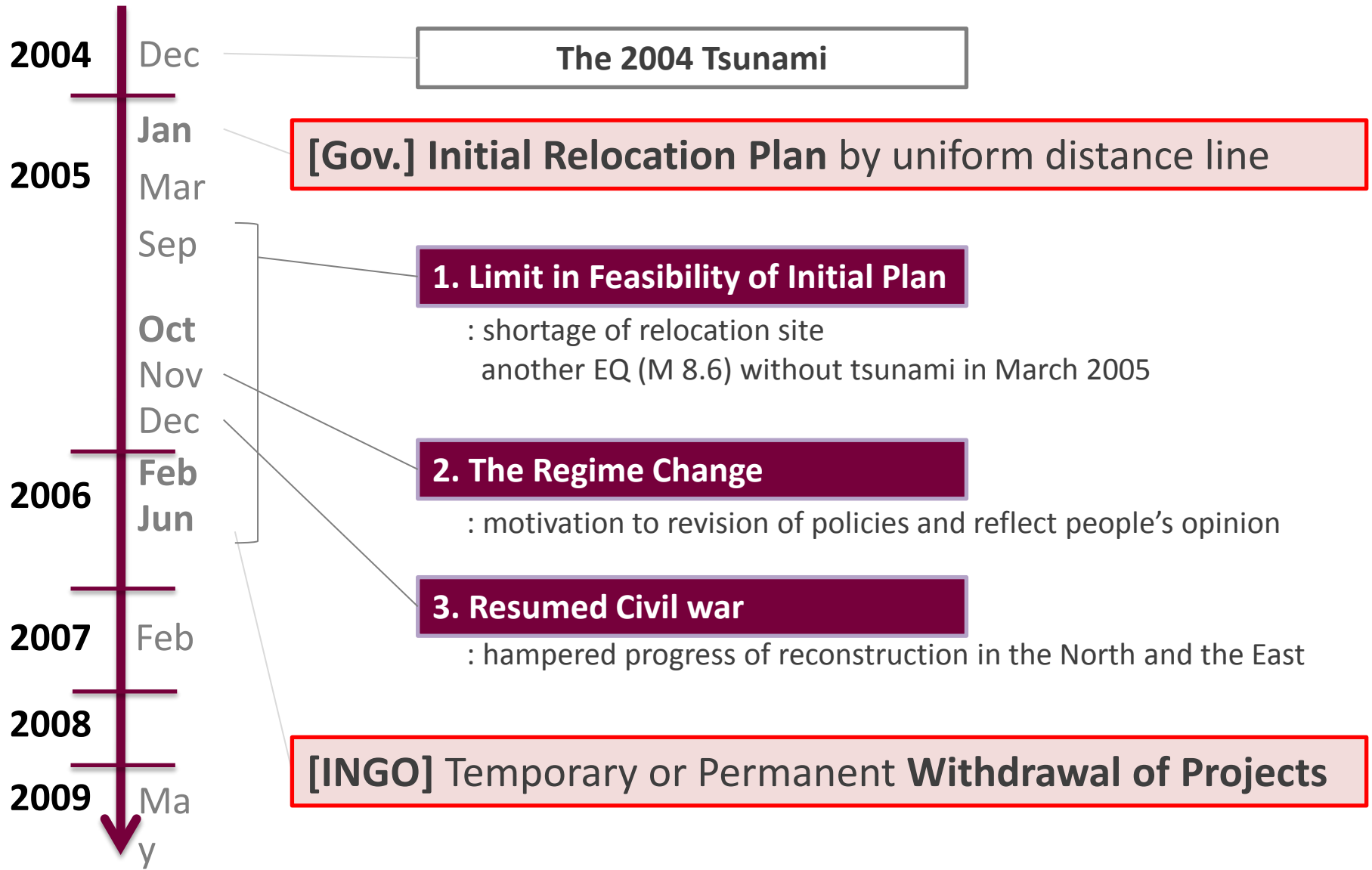
Dominating position of Gov. in cooperation

Key Decisions in Recovery Process: #2

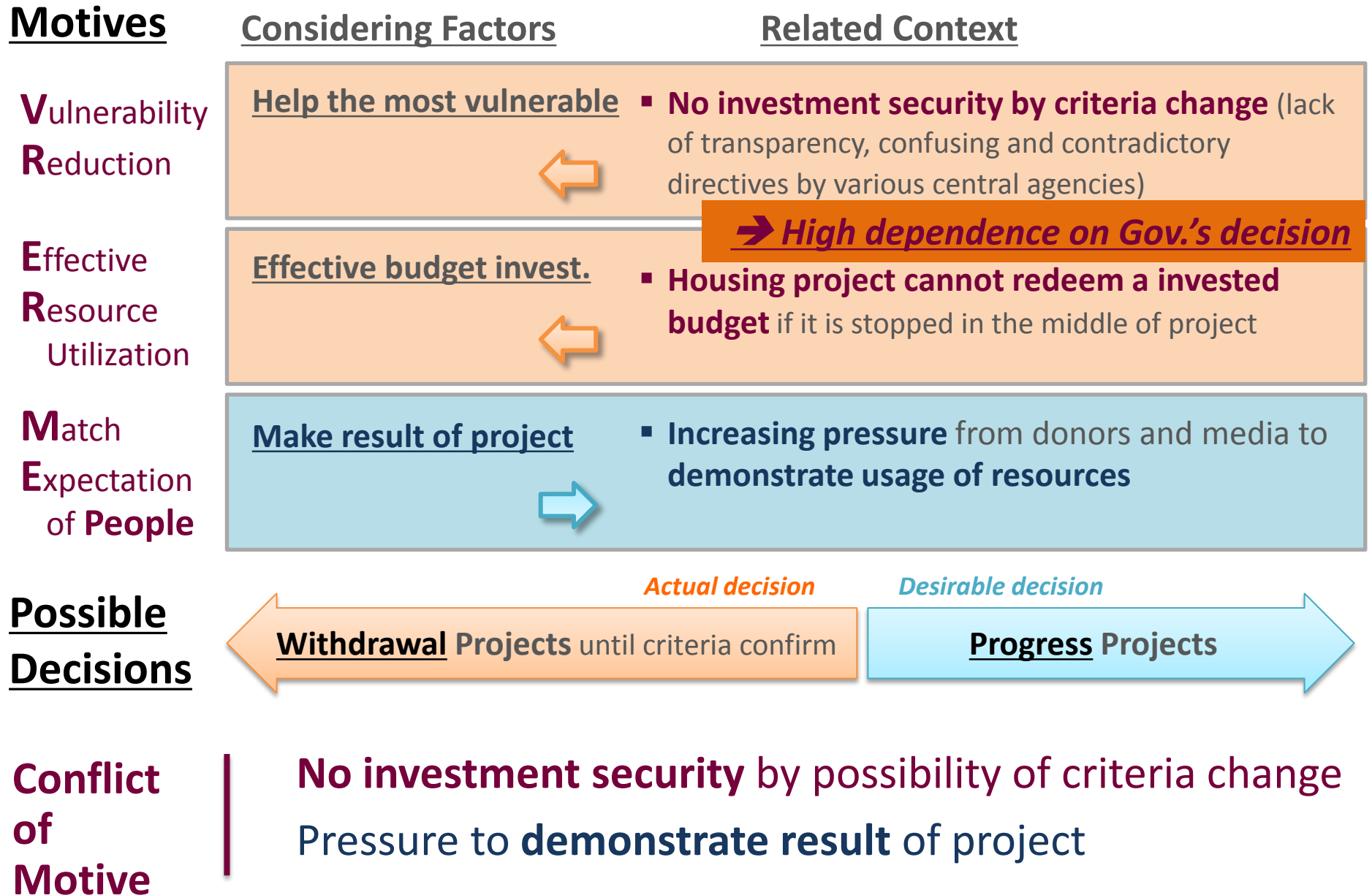


#2. INGO's Project Withdrawal

Change in Context between Two decisions



#2. Project withdrawal: 1) Motives in INGO's Decision



#2. Project withdrawal: 2) Motives in Gov.'s Decision

Motives

Considering Factors

Related Context

Vulnerability Reduction

Reduce socio-economic vulnerability



- **Revealed problems from initial plan**
- Detailed assessment of tsunami impacts

Effective Resource Utilization

Keep budget from aids



- **Promote reconstruction** (Gov. suffered from budget constraint even to provide infrastructure at relocation site)

Match Expectation of People

Quick progress of reconstruction



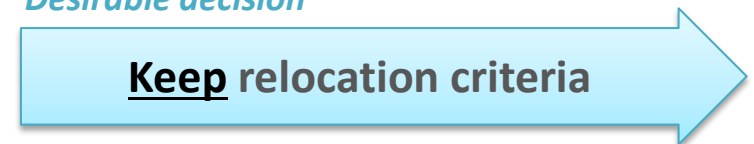
- **Slow progress of donor-driven reconstruction** (Among 65,000 pledge for houses, only 12,000 houses had been completed by 2006)

Possible Decisions

Actual decision



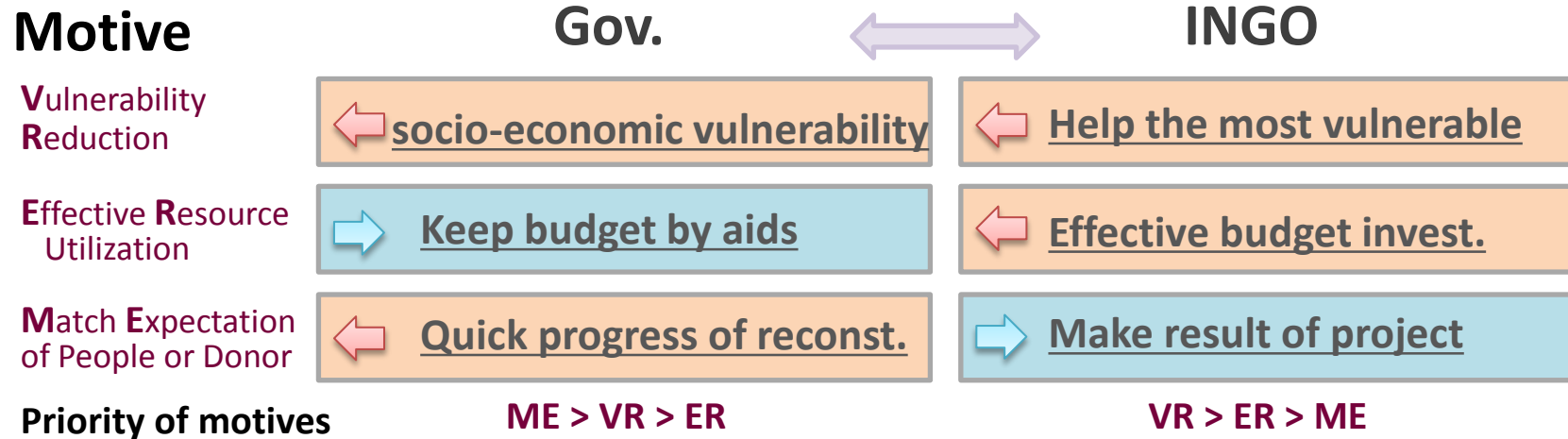
Desirable decision



Conflict of Motive

Revealed problems from initial plan (shortage of land)
Pressure to promote reconstruction

#2. Project withdrawal: 3) Interactive Decision-Making



Preference of Decision Sets

<u>Decisions</u>		<u>Preference Raking</u>	
Gov.	INGO	Gov.	INGO
Keep Criteria	Progress Project	A	B
Keep Criteria	Withdrawal Project	D	A
Revise Criteria	Progress Project	C	D
Revise Criteria	Withdrawal Project	B	C

A (most preferred) / D (least preferred)

#2. Project withdrawal: 3) Interactive Decision-Making

Motive

Vulnerability Reduction

← socio-economic vulnerability

← Help the most vulnerable

Effective Resource Utilization

→ Keep budget by aids

← Effective budget invest.

Match Expectation of People or Donor

← Quick progress of reconst.

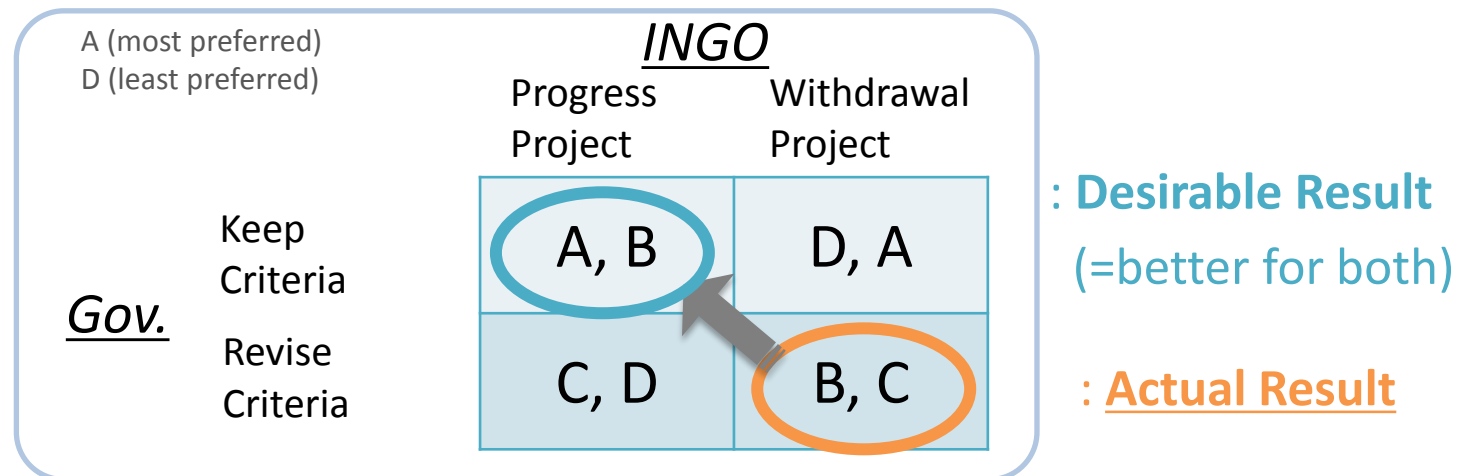
→ Make result of project

Priority of motives

ME > VR > ER

VR > ER > ME

Analysis of Strategies



Both actors can achieve **win-win by information sharing on decision**

#2. Project withdrawal: 3) Interactive Decision-Making

Why Gov. and INGO couldn't share information for win-win ?

Dominating position of Gov. in cooperation (from Decision #1)

↓ **Limited role of INGO** in relocation planning
e.g. Selection of Beneficiaries list and Relocation Site

Gov.'s loss of Motive to share info on revision of criteria with INGOs

Shortage of suitable land for relocation

As a result of Previous Inadequate Plan

↓ Revision of criteria without consultation with INGOs

↓ Delay of progress by increasing temporary withdrawal

↓ Gov.' threat to take away land from delayed projects

↓ INGO's loss of Motive to share info on withdrawal with Gov.

Discordant decisions with consented principles for recovery are analyzed with respective motives and interaction of actors

Conflict of Motives

Conflict of multiple motives became the root cause of discordance
Priority of motives and its considered elements **change over time**

Interactive Decision-making

For practical change of decision, **interactive decision making process** with related actors should **be considered due to interdependency**

In Housing reconstruction of Sri Lanka after 2004 Tsunami, The cause of two discordant decisions are identified

#1. Inadequate Relocation planning

Gov.'s uniform line relocation plan was caused by **Gov.'s lack of recovery planning capacity and political purpose and regulation failure experience**. At the same time, it was because **INGOs who could stop Gov. from starting inadequate plan lost the chance by INGOs participation without proper coordination**.

#2. INGOs Project Withdrawal

INGO's project withdrawal was caused by response to **Gov.'s change of relocation criteria** to cope with limited initial plan. But the number of **withdrawal was amplified by Gov.'s dominant position in cooperation that discouraged motive to share information on decision**.