



DEVELOPMENT APPROVAL PROCESS FRAMEWORK FOR SUSTAINABLE PROPERTY DEVELOPMENT ON HILL LAND AREAS IN MALAYSIA



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Why does this happened???

Geo Disasters

Landslide tragedies on hill land rea in Malaysia :-

- 1985 - Taman Melawati, Jln G1
- 1993 - Highland Towers
- 1999 - Athenaeum Tower
- 2000 - Bukit Antarabangsa
- 2001 - Taman Hijau
- 2002 - Taman Melawati, Jln G1
- 2002 - Taman Hillview
- 2006 - Kpg. Pasir, Taman Zoo View
- 2007 - Taman Melawati, Jln H1 and H5
- 2008 – Bukit Antarabangsa
- 2011 – Hulu Langat
- 2011- Cameon Highland
- 2017- Georgetown
- 2018 – Tanjung Bungah

(source : Mineral and Geosciences Department, State of Selangor, 2018)



The reason for this research...



Khairul Nizam Bin Othman

October 2018

- Bukit Kukus , Pulau Pinang
- Road Construction Site
- 10 Death

Geo Disasters

Continues???

- Development Process System ✓
- Legislations ✓
- One Stop Centre ✓

Sustainability X

Oct 2017

- Tanjung Bungah , Pulau Pinang
- Affordable Housing Project
- OSC approval : May 2015
- (DOE disapproved)
- Work Commencing :Jun 2016
- 11 Death



PROBLEM STATEMENT

“Assistance of numerous legislations and standardise development process seems ineffective as sustainability of hill land development still at stake. It is shown by continuous geo-disaster events on hill land development that occurred until present. Therefore, there is a need to investigate the governance mechanism of property development for hill land development in the contexts of the development legislations and development process by prevailing the absence factors in ensure sustainable hill land development. Furthermore a comprehensive development mechanism and framework is needed to assist the decision making process for property development on hill land areas”

RESEARCH ISSUES

- 1** **Geodisaster events** on hill land areas still occurred until present
- 2** **Unplanned hill slope development** will create many problems specifically to the local resident, as well as for development, and maintenance aspects
- 3** **Governing of hill land development issues** : fragmented, indifferences of empowerment, inconsistent decision making, lack of proper guidelines and legislations and the competency of professional.
- 4** **Weaknesses in the implementation** and the intensity of the provision in development legislations
- 5** **The effectiveness of current** development and planning system and guidelines.

RESEARCH ISSUES

6

Public Concern on safety, land use planning, law and regulation, management, maintenance, accountability, funding and professionalism

7

Geological aspects have been neglected for hill land development

8

Absence of sustainable development indicator for hill land development

9

Development sustainability, safety, responsibility, enforcement and slope maintenance **reliability**

RESEARCH GAPS

Current gaps in property development on hill land areas

Hill land
Development



Sustainability

Development
Legislation



Adequacy
and
Effectiveness

Development
Process



Decision
Making



The gap that this research to fill in:

- Adequacy of development legislation
- Effectiveness of development process
- Hill land development safety and sustainability

Hill land development approval process mechanism that ensures hill land development sustainability

Hill land development safety, environmental preservation and sustainability

RESEARCH QUESTIONS

AIM

'To explore the consequences and effects of property development process and legislations towards sustainable property development on hill land areas and subsequently forming the development mechanism for sustainable property development on hill land areas'

RQ.1

What are issues and problems that existed in the property development on hill land areas ?

RQ.2

How adequate the current property development legislation in governing property development on hill land areas?

RQ.3

How effective the development process system for property development on hill land development?

RESEARCH OBJECTIVES

RO.1

To identify the issues and problems that existed in property development on hill land areas.

RO.2

To evaluate of the current development legislation provisions in ensuring sustainable property development on hill land area.

RO.3

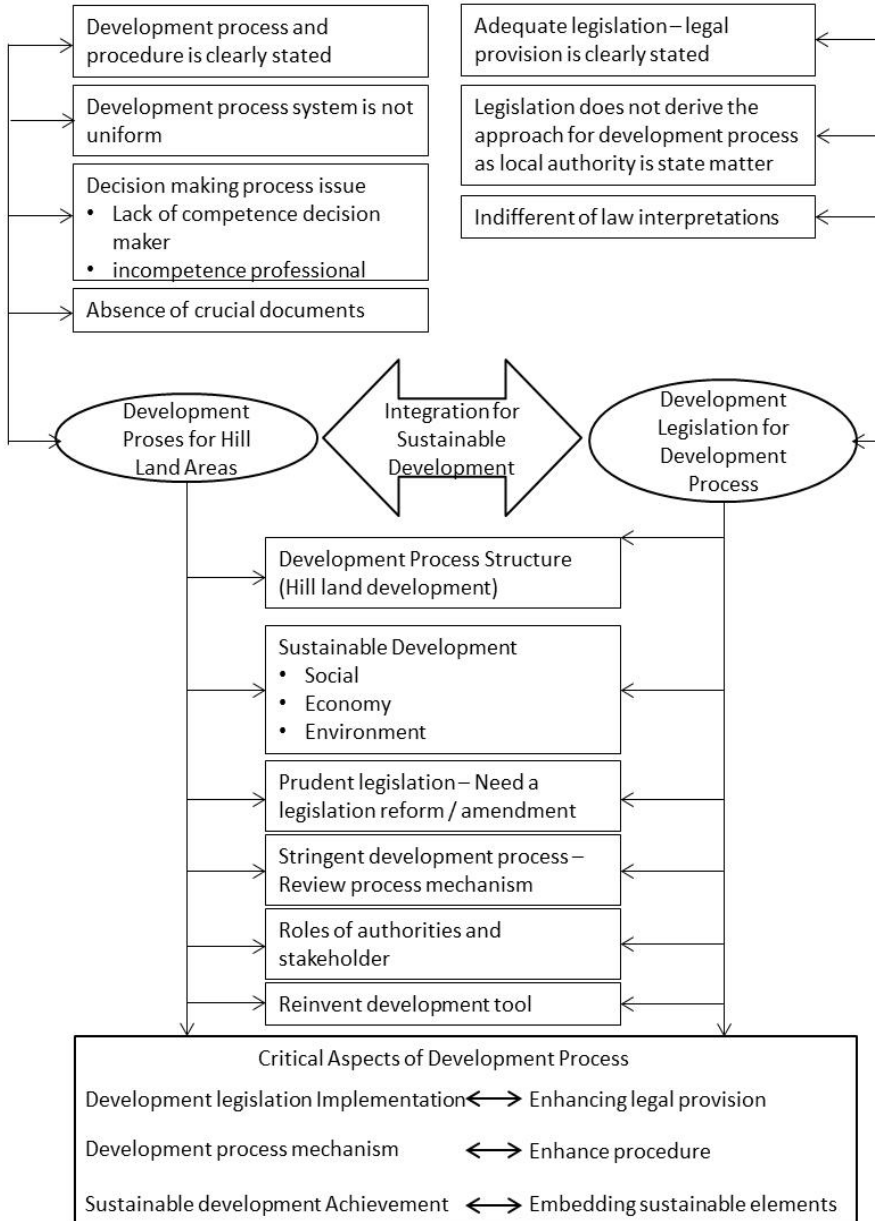
To examine the effectiveness of the development process approval in for property development on hill land areas.

RO.4

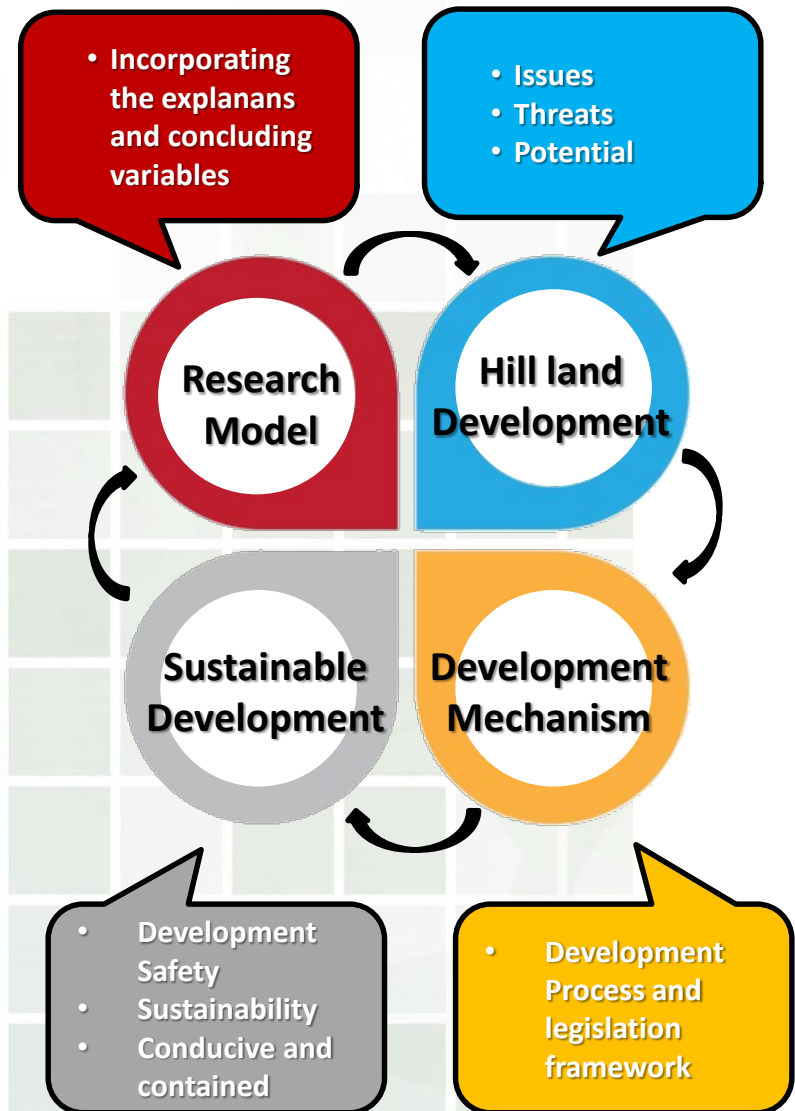
To develop a development approval process framework for sustainable property development on hill land areas

Literature review Summary

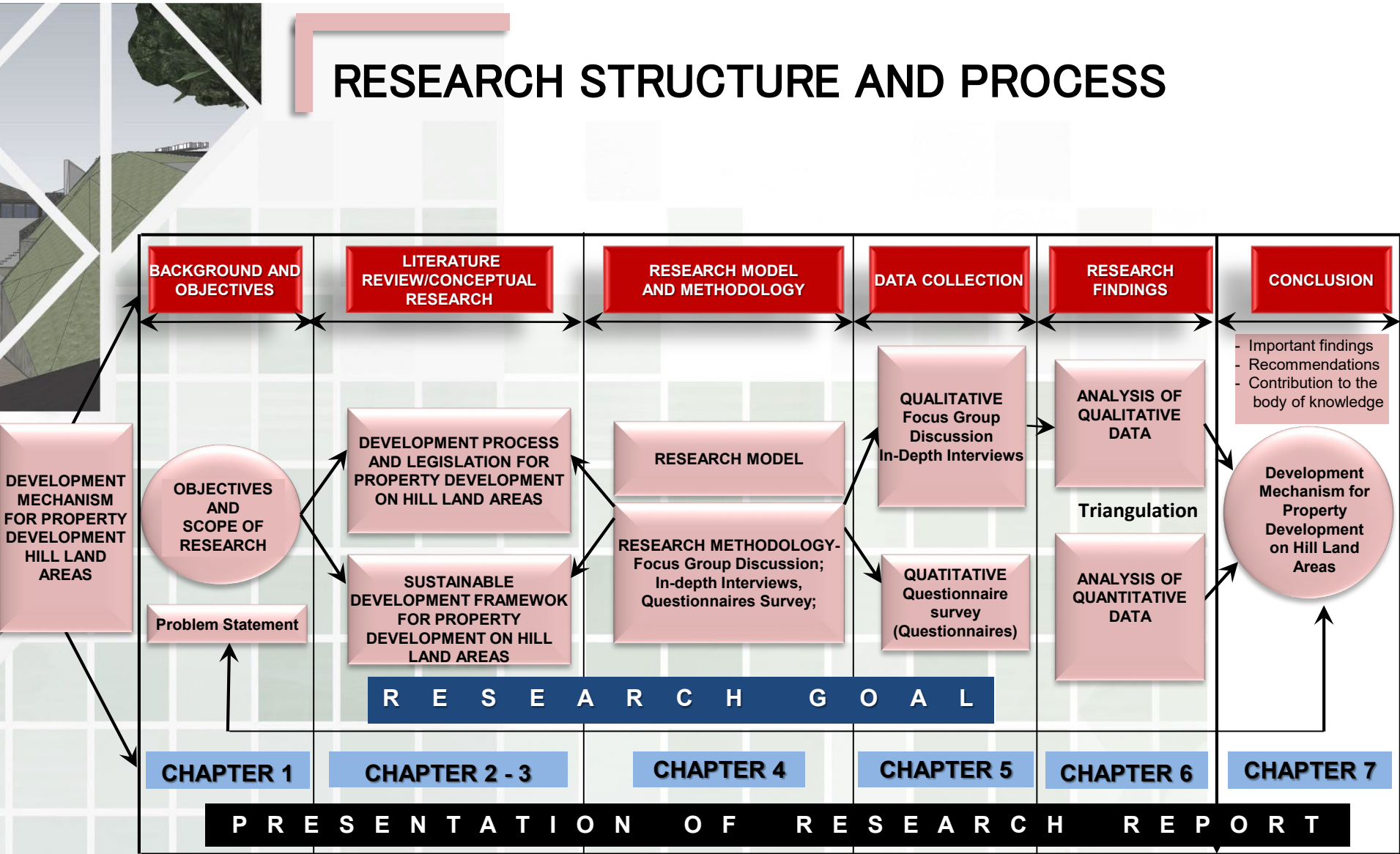
Literature Overview on Development Process and Legislation For Hill Land Development



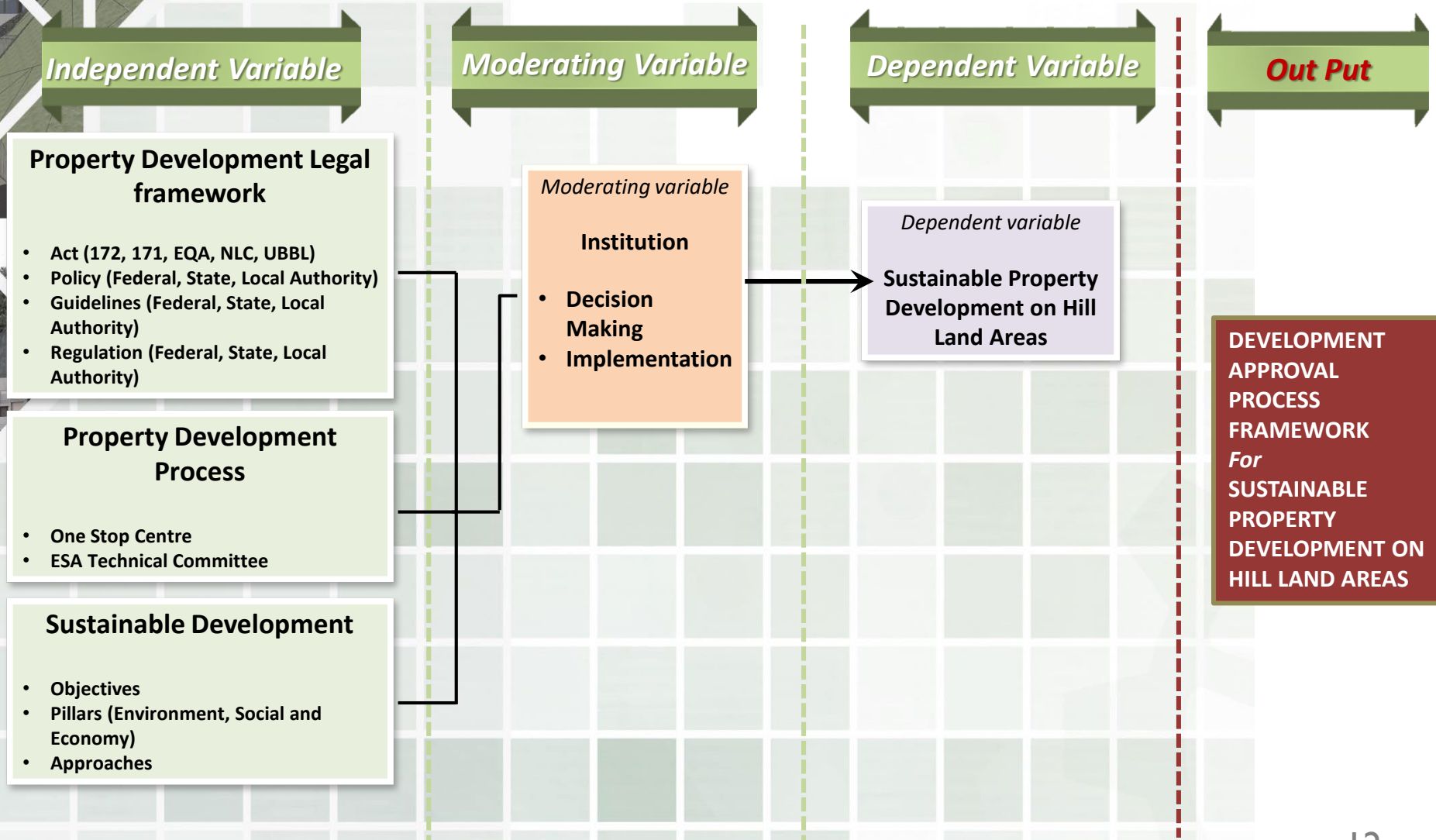
An overview how the literature review form the research model proposed in this study



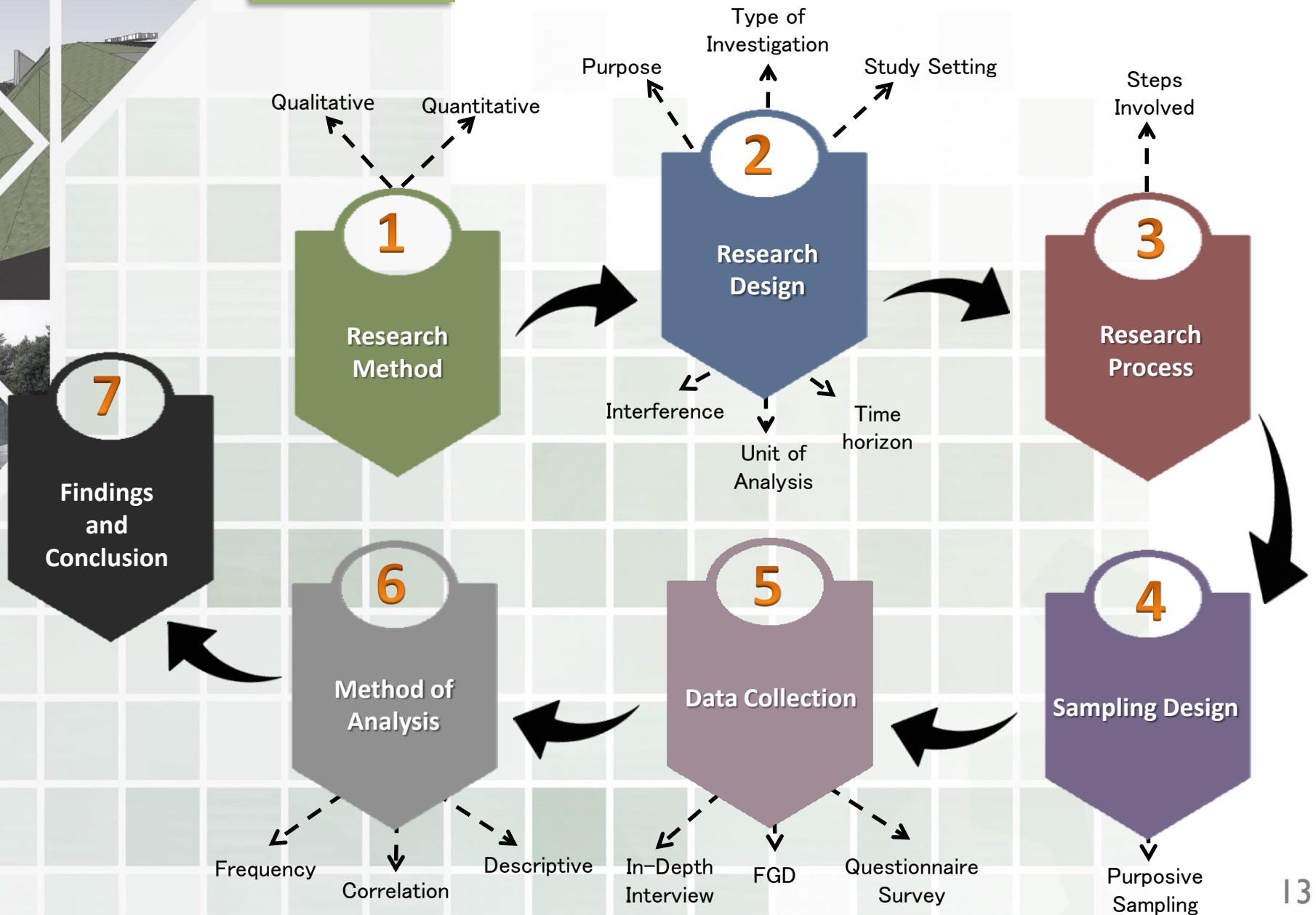
RESEARCH STRUCTURE AND PROCESS



CONCEPTUAL FRAMEWORK



RESEARCH DESIGN AND FIELD WORK



RESEARCH MATRIXS

Research Questions	Research Objectives	Method	Data	Outcomes
What are the issues and problems that existed in the property development on hill land areas?	To identify the issues and problems that existed in the property development on hill land areas.	Focus Group Discussion	FGD Findings	<ul style="list-style-type: none"> • Research Framework • Development process adequacy and effectiveness
		Qualitative Research: Perception Survey (In-depth Interview)	Interviews Data	<ul style="list-style-type: none"> • Result of critical issues for hill land areas and the development process
		Quantitative Research: Perception Survey (Instrument)	Questionnaires Data	
How adequate the current property development legislation in governing property development on hill land areas?	To evaluate adequacy of the current development legislation provisions in ensuring sustainable property development on hill land area.	Qualitative Research: Perception Survey (In-depth Interview)	Interviews Data	<ul style="list-style-type: none"> • Result of compliances of legislations • Comparative result • Result of consequences of development • Result of the decision making process
		Quantitative Research: Perception Survey (Instrument)	Questionnaires Data	
How effective the development process system for property development on hill land development?	To examine the effectiveness of the development process system in evaluating property development on hill land areas.	Quantitative Research: Perception Survey (Instrument)	Questionnaires Data	<ul style="list-style-type: none"> • Result of decision process mechanism effectiveness • Comparative result • Result of consequences of development • Result of the decision making process
		Qualitative Research: Perception Survey (In-depth Interview)	Interviews Data	
	To develop a development process framework for sustainable property development on hill land areas	Qualitative Research: Perception Survey (In-depth Interview)	Interviews Data	<ul style="list-style-type: none"> ▪ Result of Triangulation ▪ Validated Result ▪ Framework for improvement of the development process for hill land development ▪ Sustainable Property Development Indicators ▪ Sustainability measurement for hill land development
		Quantitative Research: Perception Survey (Instrument)	Questionnaires Data	
		Focus Group Discussion	FGD Findings	

RESEARCH METHODS AND ANALYSIS

Target respondents comprises of various government agencies involve in OSC and ESA Technical Committee in the State of Selangor

Data Collection Method	Nos. pf Respondent	% of response rate	Respondents Agencies	Method of data analysis
Focus Group Discussion (2013)	40	100	Various technical agencies	Transcribing / descriptive
In-depth Interviews (2/2015)	13	100	OSC + JKTKSAS	Nvivo 10 + Transcribing
Questionnaires survey (7/2017)	104 / 204	51	OSC + JKTKSAS	SPSS 16

RESEARCH FINDINGS

	Issues	Development Legislation	Development process	Sustainable Development
<p>QUNTITATIVE SURVEY ANALYSIS</p>	<ul style="list-style-type: none"> • Lack of development monitoring • Lack of competent personal i.e geotechnical engineers • Incompetent designer, consultants and labour • Lack of technical inputs in development process • Inconsistent and incompetent decision making 	<ul style="list-style-type: none"> • Legislation are adequate • Implementation and enforcement issues • Improvement for the provision • Impose owners responsibility / liability • Strata title Act 318A • Provision of development control for pre, during pot development • Embedding monitoring and enforcement aspects 	<ul style="list-style-type: none"> • Development process system is sufficient • Stringent requirement • Need for return period report • Emphasise on environmental and development safety • Controlled development-permits for low density development only • Important on geotechnical inputs • Need for risk and hazards map • Decision making committee effectiveness is doubtful • Need for special development process flow • Absence of geotechnical engineers in Local Authority • Report preparation favours to developer preferences rather than social needs 	<ul style="list-style-type: none"> • Currently, sustainable development achievement is moderate • Need a holistic development evaluation including macro and micro contexts. • Emphasise on topography preservation, green aspects and FOS. • Integrated development plan • Emphasise on sustainable development approaches. • Technical requirement emphasises • Prudent monitoring and maintenance • Collaboration between government and public • Sustainable development mean for safety • Marked as exclusive and expensive habitation • Development must comply with permitted conditions.

	Issues	Development Legislation	Development process	Sustainable Development
<p style="text-align: center;">QUNTITATIVE SURVEY ANALYSIS</p>	<ul style="list-style-type: none"> • Lack of clear urban limits • Environmental legislation- Single issue legislation, inconsistent • Indifference empowerment policy • Less emphasise on greenery and sustainable elements • Existence of many agencies- issues of decentralisation • Competition in governing the development of hill land areas • Landslide • Urban sprawl • Land degradation • Ecological system damages • Degradation quality of living • Loss of human life and damaging properties • Deforestation • Soil erosion and contamination • Broken water lines • Unsafe habitation for property owner • Fail to Comply planning guidelines • Fail Comply with engineering and geotechnical requirement • Comply with approved layout and design • Preserving environmental stability • Designing retaining structure design • Adapt with EIA • Incorporate public participation objection • Incorporate and awareness from public • Evaluate mitigation and preventive measure • Mould sustainable development elements • Maintain slope areas • Implement legislative provision and guideline extensively • Inform public on Development conditions • Outline responsibility and liability of incompetent stakeholders • Preserve biodiversity of hill land areas • Development proposal does not include comprehensive study Negligence and improper planning 	<ul style="list-style-type: none"> • Existence of many agencies- issues of decentralisation • Competition in governing the development of hill land areas • Weakness in evaluating the mitigation and preventive measure • Need a prudency decision making process and legislation • JTPKSAS and OSC is Efficiency • lack of sustainability indicator' • influenced by the change in political • review and improve delivery system' • revise hill land development process • investigate weaknesses in hill land development' • important of geotechnical aspect • gaps in development control mechanism includes incompetent personal, mitigating, legislation implementations and insufficient information made decision making vulnerable • Legislation is complied with :Development order, Planning and Guidelines; Engineering and geotechnical requirements • Suggestions : cross sectional proposed development, valuation, form a hill land development framework, develop a compliance mechanism, comprehensive legislation, hill land development need to be limited 	<ul style="list-style-type: none"> • development legislations purpose is to control and ensure sustainable development • Current legislations is adequate • failure to comply with the legislations • weaknesses in decision making • incompetent development process system • lack of enforcement, technical knowledge and experts' • incompetent management' • Legislative weaknesses including Decentralise legislations for development, Multilevel of legislation empowerment ,Multi agencies legislating the development process system, Insufficient legislations provisions • lack of sufficient information' • non-compliance to the legislation • lack of enforcement' • Three (3) tier government system issues including bureaucracy, indifferences in preferences, conflict of power, decentralise actions and implementation issues • legislation uniformity • Effect of incomppliance : Prone to development disaster, unnecessary liability to stakeholders, increase economic risk 	<ul style="list-style-type: none"> • sustainable development moderately achieved • unclear sustainable development indicators • Lack of technical reference for sustainable • Sustainable development meaning is 'too subjective' • Indicators should include geo hazard risk, safety and management of environmental sensitive area, development feasibility and safety measures • Need for comprehensive legislations and competent decision making • Review on special committee for development evaluation, adequate legislations, controlled development and proper maintenance system • Current development indicators is generally significant • maintain safety of hillside and preserve ecological system

IMPORTANT FINDINGS : TRIANGULATION

Property Development on Hill Land Areas Currently		Findings
1	The Effectiveness and Adequacy of Development Legislation For Hill Land Development Process	Adequate but need remedial actions
2	Issues and Problems of Hill Land Development	incompetent decision makers, incompliance and development tools
3	The Effectiveness of Hill Land Development Process: Practices And Dispute	Adequate but need remedial actions
4	Evaluation of Hill Land Development Process	Need for specific agency
5	Sustaining Sustainable Development For Hill Land Areas	Focus on micro and macro, maintenance, FOS etc

IMPORTANT FINDINGS : TRIANGULATION

Mechanism for Hill land Development Improvement		Findings
1	Sustainable Development Indicator For Hill Land Development	prominent guidance in developing hill land areas
2	Planning And Geotechnical Measure Framework	Emphasised on geotechnical inputs
3	Legal Framework For Property Development on Hill Land In Malaysia	Top down & Bottom up approach
4	Sustainable Hill Land Development Framework	integrations and interconnections of 4 development variables : legislation, development process, decision making and compliances
5	Development Mechanism for Hill Land Development	Holistic approach

DEVELOPMENT APPROVAL PROCESS FRAMEWORK FOR SUSTAINABLE PROPERTY DEVELOPMENT ON HILL LAND AREAS IN MALAYSIA

Recommendations

Hill land areas should not be permitted for any development with the current development mechanism

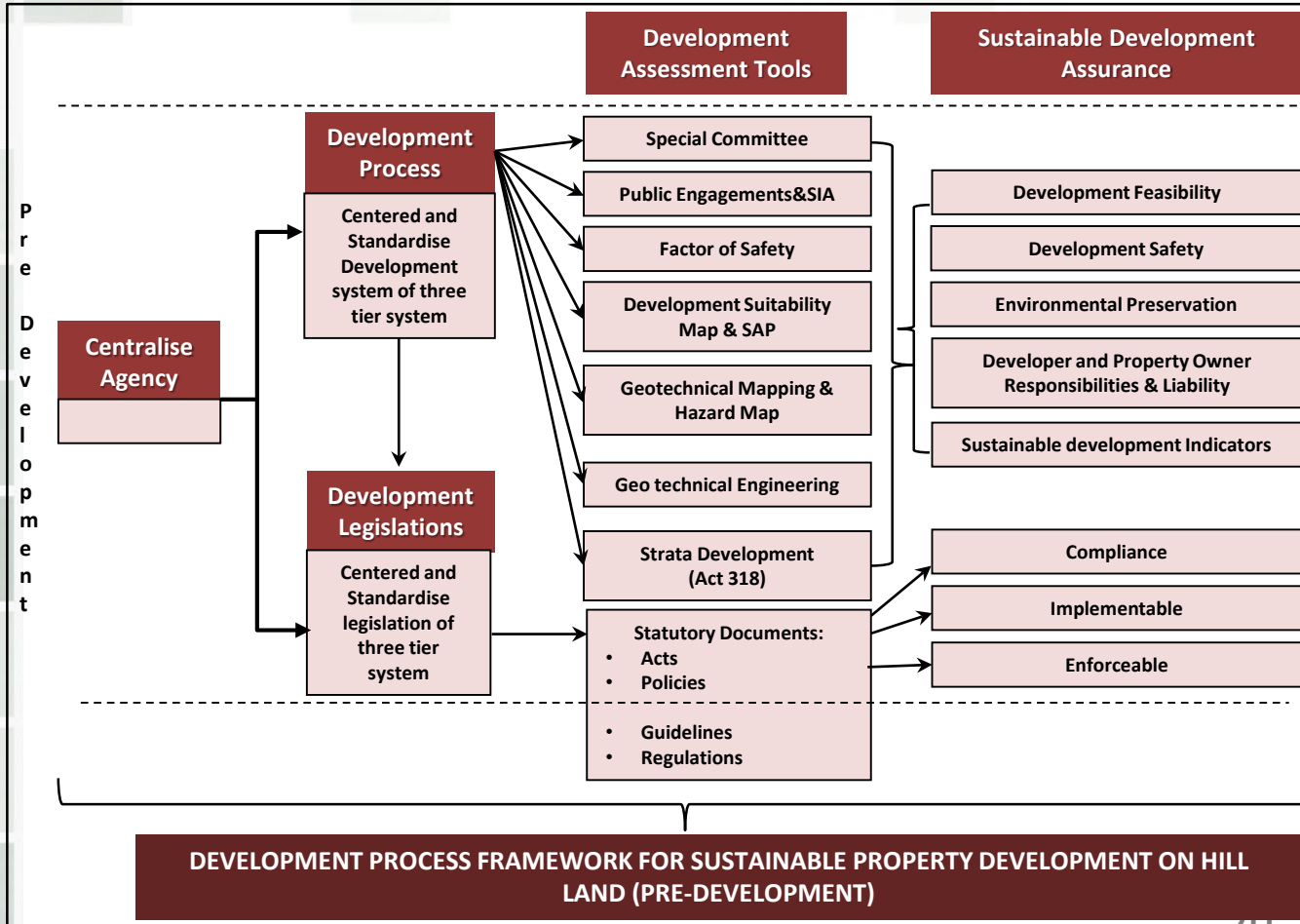
Hill land development should be govern by a centralise agency referring to Hong Kong Model (GEO and CEDD)

Special area plan (SAP) and Social Impact Assessment (SIA) should be compulsory for hill land development

Liability of property maintenance should be bound by the developer, owner and residents.

impose Strata Title Act (A 318) for all development on hill land areas.

Set up a Development Monitoring System (DMS)



SUGGESTIONS FOR FUTURE WORKS

1

Develop a monitoring framework for construction works during the development

2

Examine the crucial factors and mechanism towards stabilisation hill land development infrastructure and slope; and could further compare with other country practices i.e. Hong kong.

3

Examine the level of acceptance of developer as well as the effects and implications of the condition and allowances of permissible development

4

Examine the mitigation system and procedure extended from the disaster alarm system reviled from this research

5

Other measures and methods may also be adopted to enhance and strengthen the research methodology. The content analysis method can be explore as for facts and figures measurement.



CONCLUSIONS of the whole **RESEARCH**

Hill land areas should not be permitted for any development with the current development mechanism.

*The **Development Approval Process Framework For Sustainable Property Development on Hill Land Areas** is suggested to be implement as the new mechanism in governing and permitting development on hill land areas in Malaysia*



Thank You



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