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### Redesigning the Structure of Republic Indonesian Defense System; An Analysis of Systems Thinking

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Abstract. The phenomenon of Shrinking Defense Capabilities is only the tip of the iceberg of Indonesian Defense System's problem. The root of the problem that lies beneath and outside is keep untouched. This journal is the part of the efforts to reveal the phenomenon's structure that binding as a system. The present structure is a cause of that phenomenon and the basis of the current organization responsible for Republic Indonesia Defense sector. With the Systems thinking analysis, the research has revealed the structure that become the problem cause and give a holistic solution trough redesigning new structure based on two theories namely the Strategic-Operational Management with Vision Dissemination of Prof. Dr. Jürgen Strohhecker and the Defense System Generic Dr. Ir. Muhammad Tasrif, M.Eng and Ir. Ade Muhammad, M.Han. The logical consequences would also changing of formation of Indonesian Defense Organization.

**Keywords:** Design, Redesigning, Defense System, System, Defense, Holistic

#### 1. Introduction

This journal started from with the basic understanding of the function. The function defines as the capability that has to be possessed by something to perform specific role. In defense, function has several basic capabilities such as weapon, transportation, telecommunication, logistic and medical. Meanwhile this function could be possessed by a "player" such as ministry of defense or department of foreign affairs or unified combatant command. The roles of defense that could be perform are various, from the defense diplomacy, the humanitarian role to

the counter terrorism role. The hierarchy of functions can be described as follows; role consist of functions, function consist of capabilities and capability consist of structures.

After understanding role and function, also their relationship, the capability of Republic Indonesian Defense is the next to find. In 2009 Defense Audit by TNI-Dephan revealed that the Indonesian Defense just possessed only 35% of its unrealized capability. This is interesting to be investigating and this journal about to reveal the structures that cause this phenomenon.

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#### 2. Background

What is the structure that has created this phenomenon? What is the ideal structure to achieve the intended capabilities?

In this journal the current RI Defense System is benchmarked with the US Defense System, which was chosen because of their complete features, to reveal the problem structures and its implications to the organization. This benchmarking in addition to theories has produced some ideas on how to redesign the structure of RI Defense System.

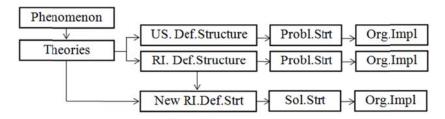


Figure 1. Logical Framework

The research would like to use two analytical namely the Systems thinking and Benchmarking.

The theories to refer to are; the Defense System Generic that was developed by Dr.Ir. Muhammad Tasrif, M.Eng and Ir. Ade Muhammad, M.Han based on previous experimental systems thinking models and research findings of Ade Muhammad's Thesis research (Muhammad;2010), the Strategic-Operational Management with

Vision Dissemination by Prof. Dr. Jürgen Strohhecker.

Figure 2 below, shows the Defense System Generic which consist of the ideal loop, undermining loop, internal constraint, and environmental related problems. The ideal loop creates an intended consequence namely operation to mitigate threats which can worsen a condition and to create gap that need to be remedied by the desired operation.

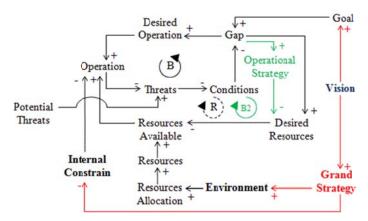


Figure 2. Defence System Generic (source: Muhammad,2010)

The gap will then create unintended consequences requiring resources available resources could affect The authorized officer or the operation. commander-in-charge in an operation launches an operational strategy (green arrow and text)to modify the desired resources. But this attempt fails because the rooted problems cannot be controlled by the defense capabilities, i.e resources available come from resources which derive from resources allocation created by the

environment. The other problem is the internal constraint which lies too deep inside that cannot be reached. These two roots of problem should be settled using a grand strategy in a holistic way, hence, a strong vision is necessary. The vision is also communicated in the operation with specific goals to attain.

Figure 3 below shows that there are two management domains, the strategic domain and the operational domain. The strategic

management domain usually gives the operational management domain a policy to be implemented and the operational would one commence the operation under the policy guidelines. In the operational management domain there are actions to be manifested into actual operation to mitigate gap. This will create a single loop learning (black arrows). This single loop learning is guided by specific goals whose aim is to minimize gap.

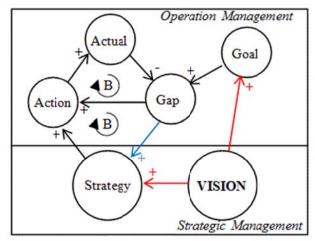


Figure 3. The Stategic-Operational Management with Vision Dissemination (source: Prof. Jurgen Strohhecker)

There is also a need to control the gap and to evaluate in the strategic management domain. It means creating double loop learning (blue arrows). Another need is to find the right orientation of strategy by implementing the vision. The vision is formulated as a grand strategy in the management domain to strategic communicated and translated into Goals in the operational management domain. Other theories are the Architecture Democratic's Constitution (Hendarmin; 2007) and the phenomena of Subjective Civilian Control (Huntington;1957).

#### 3. Analysis

# 3.1. Benchmarking of US Defense Structure

Benchmarking of the US Defense structure: Each point in the structure US Defense Structure is represented by the actual organizational body, both in strategic management domain or operation management domain.

The US Strategic Operational Management was initiated b President Obama's vision (assisted by National Security Council) on "Better Unconventional Warfare". The Pentagon then formulated the "Low Intensity Warfare Strategy" to be executed in a Unified Command. The Unified Command (in this context is the US. Central Command) then launched the Operation of Counter Insurgency (especially in Iraq and Afghanistan) to mitigate the Gap of US Casualties and Ineffective Operations. The Gap also monitored, controlled evaluated by Pentagon as the strategic authority. This cycle is shown in Figure 4 below.

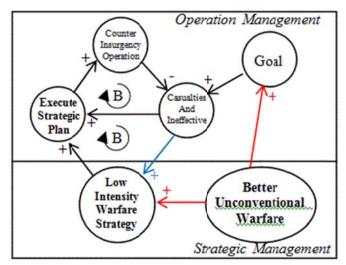


Figure 4. US-Strategic-Operational Management

Next benchmarking is between US Defense System and the Defense System Generic to reveal the root of the problems in their defense system. US has the problems in the environment, namely politics and macroeconomics. In politics, there are two main problems, i.e international reluctance to cooperate with US in the global war on terrorism agenda and the national public skepticism; which means that US public is skeptical to US Government's war agenda, especially in Iraq.

This is shown in the figure 5 below;

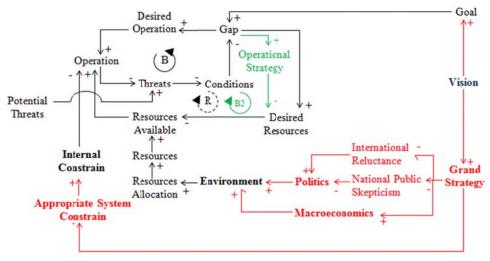


Figure 5. US Defense System with Problem

International reluctance is also shown in the next chart from BBC polling confirming the phenomenon.

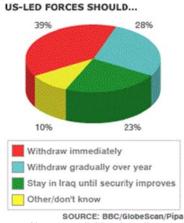


Chart 1. BBC Global Pooling

The national skepticism emerged after US public realized the facts that there were soldier permanently injured in Iraq due the Improvised Explosive Device ambushed campaign. This number is higher than the number in Afghanistan. The details of US Casualties in Iraqi Freedom Operation from data 2009 are as follows:

Total death: **4,377** Killed in action: 3,478 Non-Hostile: 899

Wounded in Action-Return to Duty: 17,723 Wounded in Action- Not Return to Duty: 13,910 The details of US Casualties of Enduring Freedom Operation from data 2009 are as follows:

Total death: **959**Killed in action: 689
Non Hostile: 270

Wounded in Action-Return to Duty: 2,018 Wounded in Action- Not Return to Duty:

2,811 (less than Iraq case)

Meanwhile with regard to the macroeconomics, it is clear that in the 2008 US economy collapsed due to mortgage crisis. This has influenced the US military expenditure.

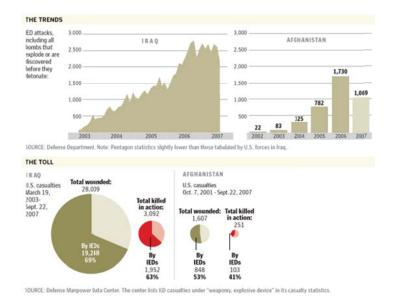


Chart 2. IED attack

The existing appropriate system constraint is that the system is not suitable for the newest challenges especially in the Middle East theatre. The Improvised Explosive Device has been the major cause of 65% of US casualties in Iraq and Afghanistan. Most of

the explosions of IED occurred when US military was patrolling with its standard issues Hummers vehicle. The chart 2 depicts the data of IED attacks to US troops in Iraq and Afghanistan.

On the fields, the operation commanders-incharge have tried to solve this problem by adding protection in their Hummers vehicles, seems inadequate due to more and more lethal IED ambush.

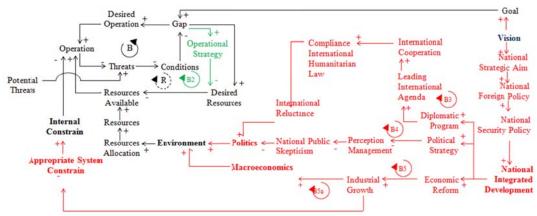


Figure 6. US Defence System with Solution

This has caused the panic and fear both in the fields and in US domestic, people were afraid that their families could be injured or killed. The following figure 6, shows the solutions for US defense system problems.

Vision become the basis in the formulation of the new national strategic aims which will be used in the development of the new national foreign policy and the new national security policy. These national policies will become the basis in deciding the national integrated development consist of 3 integrated holistic issues, namely diplomatic program, political strategy, and economic reform. The diplomatic program will decide global agenda which will generate more international cooperation initiatives. In order to do soUS military will have to comply with the international humanitarian law. This will mitigate international reluctanceto cooperate further with US. Political strategy is marked with the launching of the perception management, that influences the perception of US public opinion about US National Policy regarding to the global war on terrorism in Iraq and Afghanistan. The next issue is the economic reform with several economic stimuli, US would hope that their industry have a higher growth. This is very good for their macroeconomic condition.

This also correlates with the Pentagon efforts to synchronize appropriate system constraints, especially to the purchase a new system of transportation that is more immune to current and future threats, such as IED ambush or new threats devices such **Explosive** Formed Penetrator. AMRAAP I and II are already underway and now the examination of the smaller **AMRAAP** (M-ATV) has just been concluded and all of these handled by the Pentagon. These contracts are the strategic solution for the midterm and long-term solutions. Before interpreting implications of the structure to the organization, there are two indicators that have to be considered.

The first indicator is the constitution model. US constitutional model has a resemblance "standard" Architecture to the Democratic's Constitution (Hendarmin; 2007) and this implicates to the second indicator which is of national security perception that includes of joint efforts of military, immigration, intelligence, customs, the Department of Foreign Affairs, the Department of Home affairs (within which there is the function of local security and order performed by the police) etc. please refer to figure 7 and figure 8 below.

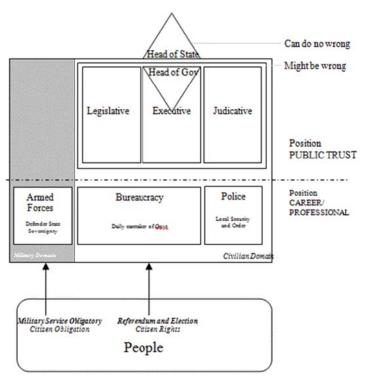


Figure 7. Democratic Architecture Constitution Scheme (source:Hendarmin Ranadireksa, 2007)

## National Security

Joint Efforts of:

Armed Forces, Intelligence, Customs, Immigration, Foreign Dept, Home Affairs Dept (which there is the function of local security and order performed by police)

Figure 8. US National Security Perception

The interpretation of a complete US. Defense Organization is based from previous system thinking structures, Huntington; 1957, Ranadireksa; 2007,

Clausewitz; 1874 and the website of US Defense Defense, which then could be drawn as below.

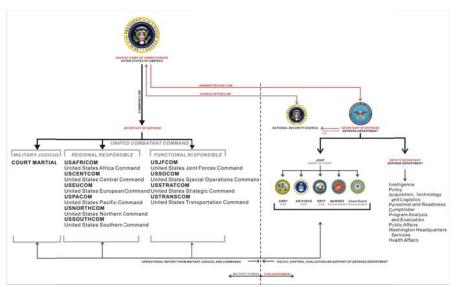


Figure 9. US Defense Organization (source: Muhammad;2010)

The picture features separated functions between military domain and civil domain. The civil domain functions as stock and constant nature, the Pentagon (US DoD) divides into civil department to develop and military chief of staff the branches to prepare their basic unit. They would obey to the national laws. The military domain functions as flow and temporary nature, divided into a unified combatant and a court martial. They obey to the command and the war including of International Humanitarian Law.

## 3.2. Benchmarking of RI Defense Structure

This is also to answer the 1<sup>st</sup> question on what is the structure that creates this

phenomenon. This research is based on Law of UU 34/2004, Presidential Regulation no.7/2008, Defense Minister Regulation no 3/2009, State Defense Strategy 2007, Interviews Primary Data's and RI DoD Strategic Products. In addition to secondary data's from books and internet. From the findings on Indonesian Defense System, Systems Thinking Interpretation of RI Defense System using the model of Visual Dissemination by Jürgen Strohhecker there are facts showing that a Strategy formulated at the Department of Defense to be formulated to TNI Headquarters in the Operational Management domain. See Figure 10.

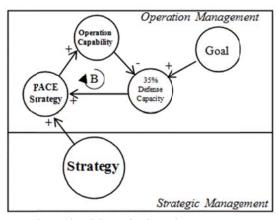


Figure 10. Ri-Strategic- Operation Management

In the Operational Management, there is a single balanced loop starting with Plan, Actuate, Control, Evaluate the Strategy → Operation Capability → 35% Defense Capacity → Then back to Plan, Actuate, Control, Evaluate the Strategy. Figure 11 illustrates the Republic of Indonesia's system constraint.

Defense System with four branches of constraints, the politics with subjective civilian control phenomenon and foreign politics with embargo problem. The environment that also includes Indonesian Macro economics condition. Then the internal constrain as a result of integration

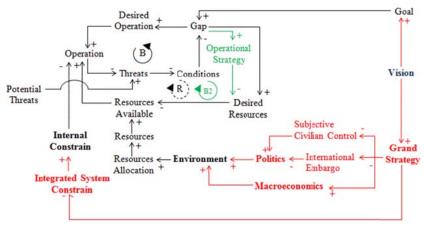


Figure 11. RI Defense System with Problem

Subjective civilian control is a phenomenon that civilian that takes control by undertaking cooptation or subduing the Military to back up civilian shallow political aim or political power, although it is forbidden by law.

Figure 12 below shows that the action is taken by implementing bureaucratic reform expected to reduce problems of the accountability and transparency bureaucracy

and the bureaucracy is expected to comply positively with the bureaucratic reform. This will create an intended balanced feedback loop. However, the bureaucracy solely is not enough, because there is a reinforcing Executive Political Control dominating or controlling bureaucracy. This will be opposite of the spirit of the Bureaucratic Reform, namely to the mitigate Problem of Bureaucracy.

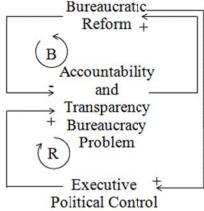


Figure 12. RI Subjective Civilian Control

The next constraint is Indonesia's macro economy. Strong defense would result in

strong economy. Even though Indonesia's macro economy proven to survive the global

economic crisis in 2007-8, Indonesia's GDP/capita is still small, i.p. only US \$ 3,900, compared to other ASEAN Countries, such as Thailand, Malaysia and Singapore with US\$ 8,700, US \$ 15,700 and US\$ 52,000 respectively. This macroeconomics problem of Indonesia can also be seen by comparing of export value. Indonesia's export in 2008 was only US\$ 141 billion, while Malaysia's, Thailand's Singapore's was respectively, US\$ 195.7 billion, US\$ 174.9 billion, US \$ 235.8 billion. Indonesian export emphasizes on the raw natural resources especially unrenewable natural resources, while others rely heavily on value added or industrial exports and services.

Such macroeconomics condition leads to a problem of limited defense funding. There are two alternatives to solve that problem. The first alternative is to raise the percentage of military expenditure, in the Indonesian case raising it only by 0.8 % of GDP. The second one is to raise GDP, which will increase the military expenditure despite the small percentage. Another political problem is embargo. Embargo phenomenon to Indonesian military import happened 1999 imposed by EU and US under the Leahy's

Law following Santa Cruz incidents in East Timor as the pinnacle of Indonesian problem with Human Rights violation. This embargo quickly crippled the capability of TNI and contributed to the limitation of TNI's Operation. Even though US already has already ended the 6 year embargo on Indonesia, the problem is there is no guarantees that embargo will not reoccur in the future.

The next fundamental problem is internal integrated constraint namely system constrain. It means that the RI Defense system does not possess standard weapon, transportation, telecommunication, logistics and medical systems. This could create severe logistic and maintenance problem in operations. From the systems thinking analysis, the implications to the defense organization could be determine with correlation theories of democratic constitution and its implication to the national security perception of RI. RI constitution is different from the universal architecture of constitution. One of the distinctions within RI's Constitution is the sector where POLRI holds responsibility for national security and TNI is responsible for the national defense.

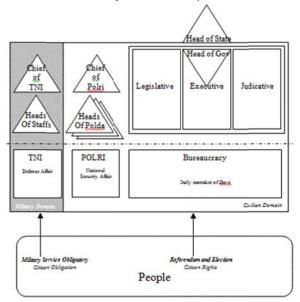


Figure 13. RI's Architecture Constitution Scheme of RI now (source: Hendarmin Ranadireksa;2007)

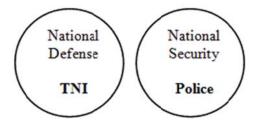


Figure 14. RI National Security Perception

The organization of TNI is the military domain; while the Department of Defense is the civilian domain. The DoD gives the funding and policies to TNI but there is no mechanism of control by DoD in their implementation. This is because the TNI is under the direct control of Indonesian Presidential.

The feature of TNI is combines the command of combat and administrative functions under the Panglima of TNI. The administrative function holds such as the Chief of Staff of all branch also held the Command function of his Combat Units. The pyramidal structure is suitable for that feature.

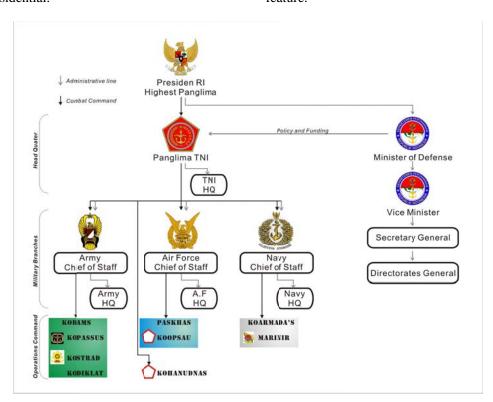


Figure 15. RI's Defense Organization (source: Muhammad,2010)

#### 3.3. RI Model Solution

The Systems Thinking Interpretation of new RI Defense System using the model of Visual Dissemination by Jürgen Strohhecker could be seen in Figure 3.11 showing that in the Strategic Management, A Strategic Vision has been added and 2 consequences

have been added to the Strategy and National Goals.

The Vision is based on the principles of Terrain from Sun Tzu's Art of War. Indonesian major terrain is maritime, then the suitable Vision of Indonesian defense is naturally the Maritime Defense Vision. This

Vision is the product of the National Security Council and has been declared by the President of RI. The vision in this thesis is merely a recommended vision to be considered.

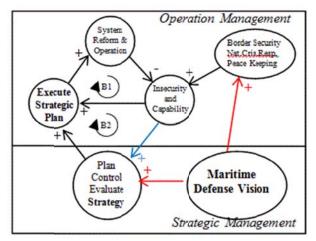


Figure 16. RI New Strategic-Operational Management

The Maritime Defense Vision consists of:

- Small Effective Efficient Defense
- Maritime Superiority Defense
- Integrated Defense

The Maritime Defense Vision is formulating as the Grand Strategy through Planning, Controlling and Evaluating in the Department of Defense. The executor or actuator of the Strategic Plan is in the Operation management domain. The cycle starts with Execute Strategic Plan → the System Reform and Operation → the

and Defense National Security Gap Capability Gap → back to the Execute Strategic Plan creates Balanced Loop. This indicates that the Execution of the Strategic Plan in the Unified Command will create System Reform and Operation to mitigate National Security Gap and Defense Capability Gap which from Gap will drive the Execute Strategic Plan at the Unified Command Head Quarters to make a better System Reform and Operation. This will especially solve field tactical problems within a short term.

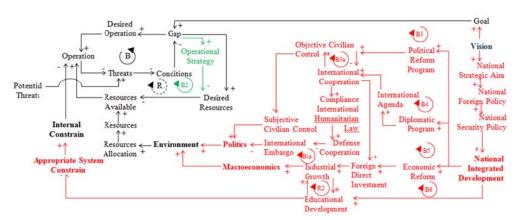


Figure 17. RI.New Defense System with Solution

The National Security Gap and Defense Capability Gap will contribute to Control and Evaluation at the Department of Defense in Strategic Management domain then after Evaluating, then create new Plan is created to be executed by the Operation Management domain. This will solve the strategic problem in medium and long terms. The cycles of the B2 starting with The Plan, Control, and Evaluate Strategy  $\rightarrow$  the Execute Strategy Plan  $\rightarrow$  the System Reform and Operation  $\rightarrow$  the National Security Gap and Defense Capability Gap  $\rightarrow$  back to the The Plan, Control, and Evaluate Strategy creates  $2^{nd}$  Balancing Loop.

The advantage of having double balanced loop to have short, medium and long term consideration to remedy the situation. In the momentary solution the Unified Command HQ could exercise tactical solutions regarding obstacles, while in the overall solution the Department of Defense, together with the Joint Chief of Staff and the civil Secretary General, will formulate a strategic solution.

Then the B1 cycle starting from The National Security Stability → the Strategy → the Desired Operation → the Operation → the Threats → back to the National Security Stability. This means that The National Security Stability requires a Strategy to create the Desired Operation. This Operation in actual will mitigate

Threats that endangered the National Security Stability. This is the main feedback loop or B1.

Then the cycle of B3 start from The National Security Stability → the National Integrated Development → the Political Reform Program → the Objective Civilian Control → the Subjective Civilian Control  $\rightarrow$  the Operation  $\rightarrow$  the Threats  $\rightarrow$  back to The National Security Stability. This is the balanced feedback loop 3. This means that The National Security Stability will be conducive for National Integrated Development to create a Political Reform Program. This includes introduction of objective civilian control that could mitigate the subjective civilian control which disturbs the Operation to mitigate the threats that endangered national security stability.

The next figure 17 shows the System Thinking Interpretation of Civilian Subjective Control of Samuel P. Huntington. The solution to change subjective into objective control is to make a negative link from Accountability and Transparency of Bureaucracy to the Executive Political Control.

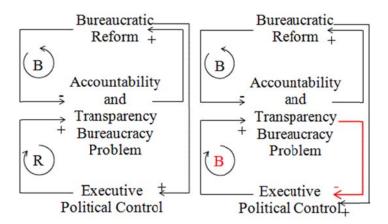


Figure 18. RI. Subjective Civilian Control vs Objective Civilian Control Huntington (source: Muhammad,2010)

It means the Bureaucracy now have the ability under the reform to rejected the command of Executive Political Control that not suitable with the law and in the same time the Politics side, have some kind of rules to limit its involvement in the Bureaucracy. For illustration, the British Royal Armed Forces could reject the Battle

Order that violates the International Humanitarian Laws. Their Field Commandant is accompanied by a lawyer to determine if the target of operation is legal or not legal to be attacked by military forces. In administration, the Minister of Defense cannot make an intervention in the career of civil servants at his Department because

there career is regulate by existing law. The Minister only provides them with a Political Policy based on the budget he has from the Parliament, but cannot the internal arrangements at his Department. The structural function should be the Minister as a Variable and the Department as a Constant.

The Objective Civilian Control could receive help and assistance from International Cooperation to strengthen the democracy and the Objective Civilian Control also triggers other fields of International Cooperation this will create a balance loop 3a (B3a). The Vision will strengthen National Security Stability and start the main feedback loop 4 or B4. This is intended to mitigate the environmental obstacles with regard Politics, International Embargo and Macroeconomy. The B4 cycle start from The National Security Stability → the National Integrated Development → the Diplomatic Campaign → the International Agenda → the International Cooperation – the Compliance to IHL → the Defense Cooperation  $\rightarrow$  the Operation  $\rightarrow$  the Threats → back to The National Security Stability. This is the balanced feedback loop 4.

This explains that the provision of conducive environment for national security stability will need specific arrangement for national integrated development to create a diplomatic campaign, and then this will followed with international agendas and from there to make better international cooperation, which will lead to compliance to IHL by Indonesia defense. This point will make better and closer defense cooperation to mitigate the embargo problem as an obstacle for the operation to mitigate threats endangering national security stability. Objective civilian control also contributes to international cooperation to be more appealing to invite Foreign Direct Investments to come. This is because good bureaucracy will create better certainty of law and in the end make investment easier.

The B4a cycle start from National Security Stability → the National Integrated Development → the Diplomatic Campaign → the International Agenda → The

International Cooperation → the Foreign Direct Investment → the Industrial Growth → the Macro Economy → the Environment  $\rightarrow$  the Operation  $\rightarrow$  the Threats  $\rightarrow$  back to The National Security Stability. This creates another balanced feedback loop. National integrated development creates diplomatic campaign, will be participate in international agenda and then make better international cooperation. Because the Bureaucracy is better it will become easier to invite Foreign Direct Investment. This will trigger the industrial growth which is very good for the macroeconomy as the environment of the Operation to mitigate the threats that endanger to national security stability.

The Vision will strengthen national security stability and start the outer balanced feedback loop 5 or B5. This is intended to mitigate environment obstacles of the environment. especially for macroeconomy. The B5 cycle start from The National Security Stability → the National Integrated Development → the Economic Development → the Foreign Direct Investment → the Industrial Growth → the Macro Economy → the Environment → the Operation → the Threats → back to The National Security Stability. This creates Balanced feedback loop 5. National integrated development will creates the Economic Development, which will lead to better International Cooperation (B4a) Foreign Direct Investment have must be invited to finance industrial growth which is constructive for macroeconomy as the environment of operation to mitigate threats endangering national security stability.

Then there is positive mutualism of educational development and industrial growth and vice versa, creating another reinforced feedback loops R2. It means that industrial growth could be sustained by educational development in terms of human resources and research, then educational development could be sustained by funding and projects for industrial research and development. With this holistic solution, it is hopefully that internal, external, short, medium term and long term problems can be solved systematically. But this restructuring

process needs to be understood that at the same time reorganization would be needed to match the basic structure of solution. If not, the new solution structure cannot be used due as there is no compatible and suitable organization to imply the changes.

To interpret Defense Organization in a holistic point of view, there are 3 basic elements to be acquired;

 a) The system thinking model structure (based on Strategic – Operation Management, with Vision

- Dissemination and Defense System Generic)
- b) The architecture of constitution
- c) The implication of national security concept

The 1<sup>st</sup> aspect is already known in the previous system thinking analysis. The 2<sup>nd</sup> aspect is shown below, namely that in order to operate the new defense system, first RI has to change her architecture of constitution first into universal architecture of democratic constitution.

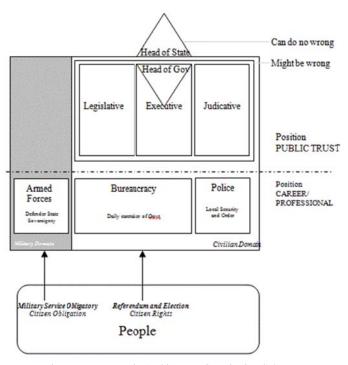


Figure 7. Democratic Architecture Constitution Scheme (source:Hendarmin Ranadireksa, 2007)

The 3<sup>rd</sup> aspect is the implication of national security concept resulted from the new configuration of constitution that complies to Scheme Architecture Democratic Constitution. See Figure below. Which

explains that national security is the sum of several aspects, from military, intelligence to the Home Affairs Dept. This is become Universal understanding.

## National Security

Joint Efforts of:

Armed Forces, Intelligence, Customs, Immigration, Foreign Dept, Home Affairs Dept (which there is the function of local security and order performed by police)

Figure 19. RI New National Security Perception

Interpretation on basic integrated RI's new defense organizational chart is based on Huntington; 1957, Ranadireksa; 2007,

Clausewitz; 1874 and US Defense website and is shown in the next figure 20 below.

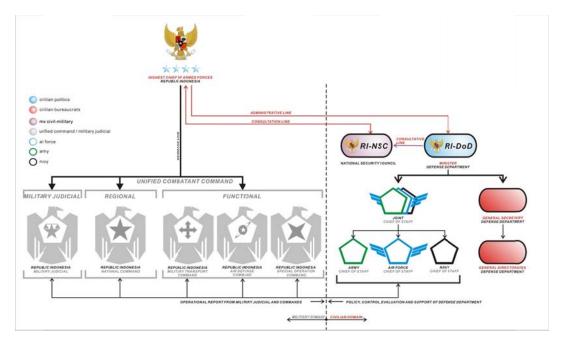


Figure 20. RI New Defense Organization (source: Muhammad, 2010)

This is the new organizational chart of RI defense system that suitable with the system thinking structure of RI new Strategic – Operational Management and RI new defense system. This new defense system organizations features the wide span management (Purpura;1989) and organization style and clear civilian-military domain (Ranadireksa;2007), which is very common in the military position in democratic countries.

The organizations anatomy of RI new Defense System;

1. President as the Highest Commander
The President will be assisted by 3 bodies
of defense, the Department of Defense,
the Command and Military Judicial and
the National Security Council. The
President is the Highest Commander in
the sense of the Head of State
(Hendarmin 2004) not as Head of
Government. The President have the
right to use the Command in case of state
in emergency upon the President
Declaration of Emergency (after

consulting with the Parliament and the National Security Council).

#### 2. The Department of Defense

The DoD is Headed by the Minister of Defense, a political position. The main function of the Department of Defense is to administer strategic management and to obtain-be responsible for defense funding from the Parliament. The DoD will provide the Unified Command and Military Judicial with their needs and strategic policy, in addition to plan, control and evaluation of their performance.

#### 2a. The Secretary General

This is the top position of civilian civil servants in the DoD. The job is to manage the Directorate Generals of DoD. Mainly the Secretary General will prepare military needs using available funding, in addition to formulate the mid-long term solution to defense problem.

# 2b. The Joint Chief of Staff This is the top position of military public servants at DoD. The job is to manage the Chief of Staffs at

Military Branches. Mainly Joint Chief of Staff will prepare the military basic units of each branch.

#### 3. The Commands.

These are the military user in Operation Management, directly under the Highest Chief. The Commands are divided into two groups:

#### 3a. The Unified Command

When all branches join forces, they form a Unified Command and will be responsible for specific area. This is the core of military function. The Commandant of Unified Command could be from any of the branches as long as he / she has quality and capability to be a Commandant of Unified Command. The Unified Combatant could be an ad hoc or permanent Command, depend on the needs of the State. The academic theory on this originate from Von Clausewits Theory Order of Battle.

- 3b. The Specialized Commands

  These are the Commands of specific functions that must exist permanently in the defense system.
  - The Transport Command
     This Command is responsible for sea-air-land transportation of military personnel, weapon and system anywhere and anytime.
  - The Space Command
     This Command is responsible for aerospace surveillance to support air superiority. This Command can scramble the fighter to the

- nearest threats position to intercept. Another function of the Space Command is to control military telecommunications and surveillances satellites.
- The Special Operation Command This Command is responsible for Special Forces outside jurisdiction of the Unified Command. The Special Operation Command is also the home Peacekeeping for Operation of the Republic of Indonesia and the heavy user of the Special Forces from all military branches.

#### 4. The Military Judicial

It is directly operated under the Highest Commander independent from the interest of the Unified Command Commander or Specialized Command Commander and the Joint Chief of Staff. It is responsible for criminal acts in the operation and violation of the National Military Law.

5. The National Security Council
This is a hybrid institution that has the function to assist the Highest Commander in making decisions. The Council consist of the Joint Chief of Staff, the Head of Intelligence, the Minister of Foreign affairs, the Secretary of States and other appointed expert staff.

B) Benchmarking the New Defense System Organization with Present Defense System Organization

Toble 1	Danahmarking	the Present and	Now Defence	Cretom
rable r.	Benchmarking	the Present and	New Defense	System

Components	Present Def.Syst	New Def.Syst	Notes
President	As the Head of Government	As the Head of State	
Minister of DoD	-Policy and Budget -DoD civil institution	Administrative and Strategic P-CE	Present reality: a civilian Inst., but all strategic posts are occupied by military personnel
		-DoD hybrid institution	F
Secretary General of DoD	-Appointed by the Pres	-Independent Career	Present : the Secretary General is a military personnel
	-Top of Civil-Mil	-Top of Civil	F
	Bureaucrats	Bureaucrats	New: Career regulate by law

Continue (Table 1. Benchmarking the Present and New Defense System)
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Components	Present Def.Syst	New Def.Syst	Notes
Directorate	-Mostly by Military	-Civilian personnel	New: besides job of administration, also
General of DoD	Personnel - 5 years of Orientation	-Administrative core and strategic thinkers	formulate the strategic trends, doctrines , systems development and defense R&D
	at most	- medium-long term orientation	
Joint Chief of Staff	-Military Personnel	-Military personnel	New:focus on the coordination Chief of Staffs of military branch into integrated
Suii	-Held by Panglima TNI	-Top of military Bureaucrats	administration
	-Top of all military	-Focus on Mil.Buraucracy	
Unified Command	-Komando Mandala (ad hoc)	-Ad Hoc and Permanent depend	Present: the Permanent Operation only held by each branch separately. Kodam by Army CoS, Koarmada by Navy CoS,
	-no Unified Command	-Integration of all branches	Koopsau by AF CoS
		-the Commander could be from any of branch	
Chiefs of Staff	-Military Personnel	-Military Personnel	New:focus on the preparation of the
	-Command & Administrative	- Administrative	basic units of their branches
Military Transport	-Separated under Kolinlamil of each	-Integrated Command, from all branch transport system	Present: Except the fleet of Navy in the Unified Command
	branch	-the Commander could be from any of branches	
Special Operation	- not Integrated	-Integrated Special Forces, from all branch Special Forces	Presents: Special Forces are separated in each branch and respond to the
Command		-the Commander could be from any of branches	command of their own CoS
		-Peace Keeping center of ops	
Military Judicial	-Under the HQ of TNI -in case of Human	-Independent Operation, just answer to the President	Present : possibility of vested interest from TNI and the use of top down
	Rights violation the trial will be held in the Connect-city Courts	- the Commandant from any branch and expert on Law	mechanism abolished the case/s
		-Member of Military Judge Advocate Generals could be appointed from Civilian who has been given special military ranks	
Nat. Security Council	- not Present	-Hybrid Institution	Present: Law no 34/2004 instruction but
Council		-Assist and Advice President on National Security	not yet realized

# C) SWOT analysis of the new organization of RI Defense System:

#### Strength

- Suitable with the system thinking structures of RI new Strategic – Operation Management and RI new Defense system.
- Providing the overall solution to Strategic-Operation problems.
- The full career possibility to the Staff path career and Combat path career
- An empirically robust system.

#### Weaknesses

- Lack of understanding and knowledge from the Parliament members as the law maker.
- Requiring holistically approaches, including political reforms and when appropriate constitutional amendment.

- Unprepared mentality of TNI high ranking officers and politician.
- The National Police position in national security.

#### **Opportunity**

- Democratic Era.
- International Agenda on Democratization, willingness to help.
- Strengthen on Civil Society.

#### **Threats**

- The Old paradigm of military domination.
- Unwillingness of the politicians (in the scenario might be collaborating with the high ranking military officer).
- Democracy fail and back to the authoritarian system.
- D) The Implications of the Benchmarking Analysis

Table 2. Implication of the Benchmarking Analysis

Issues	Present Def. Syst.	New Def. Syst.	Notes
Generals position	-the Panglima (****) highest rank Adm- Command	Administration  -Joint Chief of Staff (****)	Present: Command is the lower than Administration
	-the Chief of Staff (****) Adm- Command	-Chief of Staff (****)	New: Full General could be attained in the Command career
	-the PangKostrad/Kopassus	Command	
	/Armada/Koopsau	Unified Command (****)	
	(***)Command	Specialized Command (****)	
	-the Kodam (**)Command	Military Judicial (****)	
Integration	Not integrated in the systems	Fully integrated system in the Command	New: an Integrated System designed by DoD
Military Domain	TNI	-the Command and Military Judicial	
		-half part of the DoD under Joint Chief of Staff	

Continue (Table 2. Implication of the Benchmarking Analysis)

Issues	Present Def. Syst.	New Def. Syst.	Notes
Mission	-See end notes	-To win Sea – Air – Land Battle	
		-to Safeguarding the Democracy	
		- Defend NationalTerritory	
Operation area	TNI	The Command and Military Judicial	
PACE	TNI	-P-CE: Department of Defense	Planning, Actuating, Controlling, Evaluating
		-A: the Command and Military Judicial	
Strategic area	Department of Defense	Department of Defense	Present: DoD is not in control of the implementation of the Defense Strategy
Vision	(long and complex)	Maritime Defense Vision	New: Emphasis on strategic competitive advantage

#### 4. Conclusion and Recommendation

#### 4.1. Problem of RI Defense System

In RI current model there is a problem in controlling gap and resources, hence the Dephan - TNI creates a strategy to overcome that and to gaining control of the "unseen" Nevertheless, the situation. reinforcing loop of the problem which is beyond the control of Dephan - TNI still exist to create an "out of control" situation and matches in the archetype no 2 of out of control (Wolstenholme; 2003). The current contributes constitution also to the fundamental flaws of the defense system due to the implication of separated functions national security by the Police and national defense by the military.

# **4.2.** Holistically solution fr RI Defense System

In the new RI model there wills be a control of the problem, starting with the State Vision, which could create much wider, interrelated and holistic problem solving to the root of defense sector problem. In order to do so, the Constitution has to be reforme referring to Democratic Constitution Scheme (Ranadireksa;2007). implication of the wider national security could be the best atmosphere for the new system to work better than the previously narrow understanding of national security by the Police.

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#### References

Anderson, V., and Johnson, L. (1997). System Thinking Basics; From Concept to causal loops, MA USA, Pegassus Communications, inc, ISBN-13: 9781883823122

Article Tuesday, September 15, 2009, Kenaikan Anggaran Pertahanan 2010 Fokus ke Alutsista, http://www.mediaindonesia.com/read/2009/09/09/95730/17/1/Kenaikan-Anggaran-Pertahanan-Fokus-ke-Alutsista.[accessed 15 October 2009].

Article. (2007). More Attacks, Mounting Casualties,

http://www.washingtonpost.com/wp-dyn/content/graphic/2007/09/28/GR2007092 802161.html, [accessed 20 October 2009].

Article (2005), US Removes Six-Year Arms Embargo Against Indonesia, http://www.etan.org/et2005/november/21/26 arms.htm,

http://www.armscontrol.org/act/2006\_01-02/JANFEB-Indonesia , [accessed 25 November 2009].

Article (2007), Most people 'want Iraq pullout,

http://news.bbc.co.uk/2/hi/middle\_east/6981 553.stm, [accessed 25 November 2009].

Brooks, M. LaFleur. (2008). Exploring Medical Language: A Student-Directed Approach, 7th Edition. St. Louis, Missouri, USA: Mosby Elsevier, ISBN-13: 978-0323073080

BBC World Service Poll. (2007).World View of US Role Goes From Bad to Worse, http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/2 3\_01\_07\_us\_poll.pdf, [accessed 20 October 2009].

Capra, F. (1996). The web of life: a new scientific understanding of living systems (1st Anchor Books ed). New York: Anchor Books, ISBN-13: 978-0385476768

Clearly, L. R and McConville, T.[Editor]. (2006), *Managing Defence in a Democracy*, Routledge-Taylor and Francis Group, ISBN 9780415408875.

Conboy, K. (2003). *Kopassus – Inside Indonesia's Special Forces*, Jakarta: Equinox Publishing, ISBN-13: 978-9799589880.

Clausewitz, C. V. (1874 and reprinting 1909). translated by Col. J.J. GRAHAM, *On War*, London, Penguin books, free ISBN.

Chairman Ben S. Bernanke speech At the Morehouse College, Atlanta, Georgia (2009). Four Questions about the Financial Crisis.

http://www.federalreserve.gov/newsevents/s peech/bernanke20090414a.htm, [accessed 15 October 2009].

Casualty of War in Iraq and Afghanistan (2009).

http://www.defense.gov/NEWS/casualty.pdf , [accessed 20 October 2009] .

Departement of Defense (2005), *Dictionary* of Military and Associated Terms. Washington, US Department of Defense, free ISBN.

Definition of National Security, Encarta Dictionary,

http://encarta.msn.com/encnet/features/dictionary/DictionaryResults.aspx?search=national+security, [accessed 11 October 2009].

Daniel Aronson . (1996). Overview of System Thinking, http://www.thinking.net/Systems\_Thinking/OverviewSTarticle.pdf , [accessed 14 October 2009].

Datta, F. U. (2009). Pembinaan Teritorial sebagai Instrumen Strategis Pemberdayaan Wilayah Pertahanan Negara yang Efektif, Efisien dan Berkelanjutan. http://kodam-

udayana.mil.id/seminar/pdf/makalah13.pdf , [accessed 12 October 2009].

Hillen, J and J. Korb, Lawrence (2000), Future Visions for U.S. Defense Policy: Four Alternatives Presented as Presidential Speeches, USA, A Council Policy Initiative, Council on Foreign Relations Press, ISBN 0876092113

Huntington, S. P. (1957). The Soldier and the State: The Theory and Politics of Civil-Military Relations, Belknap Press, ISBN-13: 978-0674817364.

IMF. (2008). World Economic Outlook (WEO): Crisis and Recovery http://www.imf.org/external/pubs/ft/weo/200 9/01/pdf/exesum.pdf. [accessed 15 October 2009].

Kim, D.H. (1999). *Introduction to System Thinking*, Pegassus Communications, inc, MA USA, ISBN-13: 978-1883823344.

Manunta, G.(2000), 'Defining Security', Diogenes Paper No. 1, Cranfield Security Centre.

Muhammad, A. (2010). Redesigning the Structure of Republic Indonesian Defense System, [Thesis]. Bandung Institute of Technology.

MOD UK (2003), Defence White Paper2003, http://www.mod.uk/NR/rdonlyres/051AF365-0A97-4550-99C0-4D87D7C95DED/0/cm6041I\_whitepaper2003.pdf, [accessed 12 October 2009].

Purpura, P.P. (1989). *Modern Security and Loss Prevention Management* 2nd edition – Boston:butterworth-Heinemann, ISBN-13: 978-0409900361.

Ranadireksa, H. (2007). *Architecture of Democratic's Constitution*, Jakarta, Fokus Media, ISBN 9789793519753.

Strohhecker, J. (2004). Simulation Based Experiments for Testing the Balanced Scorecard's Built-in Performance Improvement Theory, in: The System Dynamics Society (Hrsg.): Proceedings of

the 22nd International Conference, Oxford, UK, 2004.

Senge, P.M. (1990). The Fifth Discipline: The Art and Practice of the Learning Organization. New York: Doubleday Currency, ISBN-13: 978-0553456349.

Steerman, J.D. (2000). *Business Dynamics*, Lexington, MA, Ian/McGrawHill, ISBN-13: 978-0072389159.

THE PRESIDENCY: Again, the Credibility Gap? (2009) http://www.time.com/time/magazine/article/0,9171,876891,00.html. [accessed 20 October 2009].

US Homeland Security, http://www.whitehouse.gov/issues/homeland -security/. [accessed 25 November 2009].

Wismojo, S. (2004). Sains, Teknologi, Masyarakat dan Pembangunan, Program Pascasarjana Studi Pembangunan ITB, ISBN: 9799574641.

Wolstenholme, E.F. (2003). Cognitus, Towards the definitions and use of core set of archetypal structures in system dynamics, System Dynamics Review Vol. 19, No. 1, (Spring 2003): 7–26 Received October 2001 Published online in Wiley InterScience 27 January 2003 Accepted June 2002 (www.interscience.wiley.com). DOI: 10.1002/sdr.259

William Burr and Michael L. Evans. (2001). FORD, KISSINGER AND THE INDONESIAN INVASION, 1975-76, http://www2.gwu.edu/~nsarchiv/NSAEBB/N SAEBB62/,

http://www.yale.edu/gsp/east\_timor/03-263\_Ch\_09.pdf. [accessed 12 October 2009].