Management of Nontraditional Security: A New Approach

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Abstract- Nontraditional Security (NS) threats have been addressed and emphasized by the United Nations (UN), United States (US), European Union (EU), andthe Association of Southeast Asian Nations (ASEAN).However, in terms of responding to NS threats, only a few internationally collective measures have been implemented. This isfor many reasons, including the strict adherence to the principle of noninterference into other nations' domestic affairs. Therefore, while looking for international cooperation, every nation/country and its organizational bodies must be proactive in the Management of NS (MNS) for sustainable development. This paper introduces a new approachto MNS at the national, subnational, and corporate level.

Keywords:Safety, Security,Sustainability,Nontraditional Security, Management of Nontraditional Security

I. INTRODUCTION

Security: The concept of security is always structured around people and their safety. Security can be understood as the highest level of safety for the involved subjects or actors, including thestate, government, organization, enterprise, community, family, and individual. Barry Buzan et al[1]indicated that "the security of human collectives is affected by factors in five major sectors: military, political, economic, societal and environment". Barry Buzan also discussed in detail "the notion of individual security—that security in traditional sense can be understood as a "top–down approach", which is associated with protection of the state from physical or ideological subversion". The UNDP's 1994 Human Development Report [2]statedthat "the concept of security has for too long been interpreted narrowly as security of territory from external aggression, or as protection of national interests,…forgotten were the legitimate concerns of ordinary people who sought security in their daily lives. For many of them, security symbolized protection from threat of disease, hunger, unemployment, crime, social conflicts, political repression and environmental hazards".

By synthesizing thevarious concepts and definitions of security in most published books and dictionaries in different languages, it is possible to conclude that security means survival, safety, stability, and sustainable development for people. The opposite of security is insecurity, involving fear, danger, risk, threat, crisis, and loss. Today, in many parts of the world, hundreds of millions of people do not have security due to facing multiple threats such as disease, famine, water scarcity, environmental pollution, unemployment, inequality, natural disasters, manmade disasters, social conflicts, military conflicts, terrorism, and crime. This complex situation sparks many questions about the roles and responsibilities of those actors who are in charge orhave the power to securitize and manage "comprehensive security", in both traditional and nontraditional ways.

Traditional Security (TS) and Nontraditional Security (NS): According to most research, traditional security (TS)refers to the management of national security. Ayoob Mohammad [3] argues that "Security–Insecurity is

defined in relation to vulnerabilities, both internal and external, that threaten or have potential to bring down or weaken state structures, both territorial and institutional, and governing regimes". The Vietnam Law on National Security [4]explains that "National Security is the stability and sustainable development of socialism and the Socialist Republic of Vietnam, and the inviolableness of independence, sovereignty, unification, and the territory of the Fatherland". The Security Act of South Korea[5]has been enforced since 1948, with the avowed purpose "to secure the security of the State and the subsistence and freedom of nationals, by regulating any anticipated activities compromising the safety of the State". By considering the concepts and definitions of national security of the European Union (EU) states and Association of Southeast Asian Nations (ASEAN) members, it is possible to conclude that the concept of traditional security is the expression of national security based on a "state-centered approach".The authors have designed Table 1 to explain the basic similarities and differences between TS and NTS according to five criteria: Concept, Main Aim, Main Actors in Management, Main Tools, and Direct Impacts.

Table 1. Comparison between Traditional Security and Nontraditional Security

	Traditional Security (TS)	Nontraditional Security (NS)	Similarity TS–NS	New Points of NS
1. Basic Concept	TS is National Security. "State-centered Approach" "Hard Security"	NTS is the Security of State, Humans (communities), and Enterprises. "People-Centered Approach" "Soft Security"	Inter-Related Relationship "Two Sides of a Coin"	NTS is a new concept started in the era of globalization
2. Main Aim	Protect State, Sovereignty, and Territory against Military Threats	Ensure Safety, Stability, and Sustainable Development of State, Humans, Enterprises	Inter-Related Relationship	Humans and Enterprises recognize the aim to manage their security.
3. Main Actor, Subjects in Management	State	State, Humans, Enterprises	Inter-Related Relationship	Humans and Enterprises have legal rights to protect themselves.
4. Main Tools	Laws and Policies Army and Weapons Police and Arms	Laws, Policies, and Resources of State Power and Resources of Humans Power and Resources of Enterprises	Interrelated Relationship	Humans and Enterprises have soft power and resources to manage.
5. Direct Impacts	Survival of Governing Party Political Regime Sovereignty	Stability of State Survival and Happiness of Humans Safety and Development of Enterprises	Interrelated Relationship	Impacts can be scalable, national and transnational.

The concept of nontraditional security (NS) considers threat and insecurity as they directly impact on human survival and happiness, and the safety and development of enterprises not only in a country but also in other neighboring countries. In many cases, the insecurity caused by NS threats like terrorism, pandemics, or air pollution can harm the stability of not only one nation, but also other countries in the region and the world. Among the root causes of the Arab Spring, which first started in Libya in 2011 [6], were unemployment, corruption, and inequality caused by economic mismanagement. The World Financial Crisis of 2008 started from the mismanagement that caused the financial insecurity of the Lehman Brothers, and that continued to affect global economies for nearly 10 years [7]. The root cause of the Mexico Gulf oil leak in 2010, the biggest oil-leak disaster in history, was the mismanagement of technological security when main valves and alarms did not work. The chemical blast in Tianjin, China, which in 2015 killed 173 people and injured hundreds more, had the root causes of illegal storage of hazardous chemicals and inadequate monitoring technology. The Vietnam marine-life disaster in 2016, known as the Formosa disaster, which threatened human life and resulted ina massive number of fish deaths and sea pollution in four central coastal provinces, was caused primarily by the Formosa Steel Complex (FHS, Taiwan) that discharged toxic industrial waste into the sea through their underwater drainage pipes. These and many other expensive lessons have pushed all states, leaders, and professionals to pay special attention to NS threats. Aworthwhile focusfor governments is to politicize and recognize the very important role of enterprises as nonstate actors and subjects in NS management.

II. RELATED LITERATURE

Review of Current Approaches to Nontraditional Security Studies: In any sector, management is about coping with complexity and competitiveness. Management of NS, or NS management activity, is the process in which responsible organizations and/or authorized people make decisions—from policy formulation to strategic planning and implementation—to ensure the safety, stability, and sustainable development of the subjects/actors and/or referent objects. As discussed above, NS needs to be managed by specific subjects or actors to achieve the set objectives of NS within an organizational boundary and a time frame. The objects of NS management include all factors that may affect the NS of a subject or actor.At the international level, the Security Council has primary responsibility for the maintenance of international peace and security. At the regional level, within the EU or ASEAN, the concept of NS management is new, and it will take time for EU membersor ASEAN member states to develop a mechanism and framework for the joint management of NS issues and threats. ASEAN governments have basically made joint efforts in drafting and adopting some policies to cope with the main NS threats from transnational crime and terrorism. However, JornDosch[8] commented that "we should not blind ourselves to the fact that all currently existing institutional agreements within the area of NS are of a nonbinding nature". "Eye in the sky" and other initiatives, such as coast guarding, antiterrorism measures, and approaches to the management of environmental security, such as the haze problem, are being held up by sovereignty issues (ASEAN members usually avoid the word "joint" when referring to cross-border cooperation and use the term "coordinated activities"), and controversies over the establishment of enforcement agencies, and more generally a lack of policy implementation. From interviewing state officials, JornDosch pointed out that, at the operational level in ASEAN, it is still not clear as to how they can effectively and efficiently address NS challenges in a coordinated fashion.

As a new branch of management science or a new area of security studies, MNS is now at the first stage of its development from theory to practice. Caballero-Anthony and Cook [9] have introduced a normative framework for a comprehensive understanding of the decision-making process in MNS, and for the evaluation of the success or failure of a given NS policy response. The eight characteristics identified by the United Nations (UN) are elaborated in this framework, including: participation by both men and women; the rule of law; transparency; responsiveness; consensus-oriented; equity and inclusiveness; effectiveness and efficiency; and accountability. This basic tool is important for the evaluation of the NS policies of the governments in general, but it is inadequate to assess the MNS at the national and subnational levels (ministry, city, provincial, district, commune), and at the organizational level.

The United Nations Department of Safety and Security (UNDSS) has developed a risk-based approach named Security Risk Management (SRM) for using as the UN Security Management System's (UNSMS) tool to identify, analyze and manage safety and security risks to UN personnel, assets and operations. "This approach was first established in 2004 and last updated in 2016. Importantly, the UNSMS is risk-based, not threat-based. While threats are assessed as part of the process, decisions are taken based on the assessment of risk" [10]. UNDSS is constantly reviewing and finding measures and procedures to offer safe working conditions for UN personnel. UNDSS wants to ensure that a full array of security options is available to address security concern and security risks, including crisis management; contingency measures; relocations; evacuation; medical support; mass casualty preparedness; protection operation; monitoring system; psychological response plans; physical security; use of personal protective equipment; tracking; travel advisories… The UNDSS's SRM approach reflects the activities and the scope of MNS for the human security of UN personnel during UN operations in different locations/countries. Large organizations and Multi-National Corporations (MNSs) that have business operations in risky locations can learn something from this approach for MNS to protect the security of the personnel, assets and business.

Health security is always on the top agenda of UN and World Health Organization (WHO) as it is an important pillar of human security within the scope of NS. WHO representatives and 250 participants and observers from 52 countries gathered in "the high-level meeting on advancing global health security: from commitments to actions" [11] have highlighted the roles of all stake-holders including Non-Governmental Organizations (NGOs), UN agencies, communities, organizations, enterprises in preparedness and response to the risks and threats. They have also emphasized the need to finalize a strategic framework that consists of different approaches to manage global health security, including all-hazards approach based on prioritized risks; investment-in-prevention approach; international and regional collaboration approach; whole-society-engagement approach; and broader multi-sectorial approaches… The main assessment tool used by WHO in this approach is Joint External Evaluation (JEE). Based on WHO practices, Gigi Gronwallet al [12] have introduced "One Health Security" approach to build capacity to counter the infectious disease threats passed between animals and humans. One Health approach is defined as the "collaborative effort of multiple disciplines– working locally, nationally, and globally– to attain optimal health for people, animals and the environment" through policy, research, education, and practice. One Health Security approach requires the integration of professionals of expertise in security, law enforcement, and intelligence to join the veterinary, agricultural, environmental, and human health experts to cope with challenges. They have also argued that a multidisciplinary and multi-sectorial approach is necessary to prevent disease threats; detect them as early as possible; and, in the case of deliberate threats, find who is responsible for letting risk become crisis or insecurity. To illustrate the One Health Security approach, in their article they described 2 project areas that

exemplified One Health Security that were presented at a workshop in January 2014: the US government and private industry efforts to reduce vulnerabilities to foreign animal diseases, especially foot-and-mouth disease; and Anti-Bio Threat, an EU project to counter deliberate threats to agriculture by raising awareness and implementing prevention and response to policies and practices.

Environmental security is another important pillar of human security, but until today many countries did not have an official definition by law. Without an official definition, it is hard for any authority or organization to apply any approach to the management of environmental security. The United Nations Environment Program and the World Health Organization do not have definitions for environmental security and the United Nations Development Program only referred to it briefly in its 1994 annual report on human development on page 28: "Environmental threats countries are facing are a combination of the degradation of local ecosystems and that of the global system. These comprise threats to environmental security.". The programmatic definition for the US Department of Defense Directive Number 4715.1 February 24, 1996 is: “The environmental security program enhances readiness by institutionalizing the Department of Defense's environmental, safety, and occupational health awareness, making it an integral part of the Department's daily activities. Environmental Security is comprised of restoration, compliance, conservation, pollution prevention, environmental security technology, and international activities”. Russian Federation [13] defined: "Environmental security is protection of natural environment and vital interests of citizens, society, the state from internal and external impacts, adverse processes and trends in development that threaten human health, biodiversity and sustainable functioning of ecosystems, and survival of humankind”. Vietnam [14] has defined: “Environmental security refers to the assurance about none of significant threats posed by environmental events and trends to the political and social stability as well as the economic growth in the country”. Blake D. Ratner et al [15] have introduced an approach to management of environmental security with 4 dimensions:

Ecosystem goods & services fundamentally underpin human well-being and human security;

Conflict that affects the viability or sustainability of investments in environmental protection, and their outcomes – regardless of its source;

Ecosystem degradation, resource competition or inequitable distribution of benefits that can increase vulnerability and conflict risk;

Environmental cooperation can increase capacity for conflict management, prevention and recovery.

This approach or framework is good for understanding the general linkage between ecosystems and human well-being and security, and also for identifying state’s policy on investment with priorities to reduce vulnerabilities and to build capacity for response and adaptation to environmental threats and the impacts of climate change. However, this approach is not adequate for the authorities, leaders and managers of an organization to assess the achievements and failures in managing environmental security in a concrete location for a period of time in the past in order to learn lessons for better management in the future.

Water securityis essential for human survival and development. Henry J.F Penn et al [16] have synthesized theories including FAO’s four dimensions of food security, and used their approach with four dimensions to explore the nature of water security challenges in rural Alaska: availability, access, utility, and stability of water resources:

The availability of water resources (i.e., source of water supply including drinking water from tap, fresh water, ground water, underground water, rain water);

Access to water resources (i.e., distribution and affordability);
Utility of water resources (i.e., water resources sufficient to households and livelihood needs);
Stability of the preceding 3 factors over time. Stability, the fourth dimension, reflects the necessity of thinking about water security as a process rather than as an outcome or state condition, one that can have important temporal features such as seasonal variation.

This four-dimension approach is good for exploring the situation of water security challenges faced by the households, but it is not adequate to have an in-depth assessment of the level of water security or water insecurity, and the assessment of the management of water security and find who would be responsible for the mismanagement if any.

Food security is extremely important for the human's safety and human health security. As defined by the 2009 Declaration of the World Summit on Food Security: "Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food, which meets their dietary needs and food preferences for an active and healthy life.". Based on this definition, four dimensions of food security were introduced: food availability; access to food; food utilization; and stability. This approach has been used by many experts as the analytical framework for food security studies, and even by Henry J.F Pennet al [16] for water security study. The FAO Prevalence of Undernourishment (PoU) estimates the proportion of individuals in a country that is likely to have had access to amounts of food that are sufficient to conduct an active and healthy life. However, many FAO experts have found that "these estimates give no sense of the severity of hunger – they make no distinction between someone with Dietary Energy Consumption (DEC) slightly below the Daily Energy Requirement (DER) and someone whose DEC is 30% below. Also, the PoU is a measure of chronic food insecurity, but hunger and food insecurity can also be cyclical or seasonal (the annual 'soudure' in the West African Sahel) or transitory (food crises like the Somalia famine of 2011)" [17]. In order to produce more accurate measures of food insecurity, FAO Statistics Division's experts [18] have applied a harmonized version of a Food Insecurity Experience Scale (FIES) at the global level. With the measurement scales from low level of food insecurity to high level of food insecurity, the assessment can be conducted in a timely and cost-effective manner using a questionnaire composed of a limited number of questions, administered through personal or phone interviews for quickly analyzable results. This approach provides the basis for a true worldwide monitoring of the state of food insecurity that allows internationally comparable results across countries.

III. METHODOLOGY

Developing a New Approach to MNS at the national, subnational, and corporate level: Basically, any act of governance or management must be assessed on an annual or periodical basis to determine the results and performance of the management's subjects/actors in each institution and organization. In most countries, through state laws and transparency regulations, all the organizational bodies of the state have to deliver annual assessment reports on their performance. For enterprises, shareholders often require the members of the management board (MB) and directors' board (DB) to report on their performance, including the decisions that have been made and their effectiveness and efficiency. For public administration, it is common to use tools to assess the number of polices, their implementation, budgets, the benefits for citizens, time, cost, and efficiency. In business

administration, it is common for managers and shareholders to use profit andother factors that influence the company's competitiveness to assess the management's effectiveness and efficiency.

As a new branch of management science, MNS is now at the first stage of its development from theory to practice. Caballero-Anthony and Cook [19] have introduced a normative framework for a comprehensive understanding of the decision-making process in MNS, and for the evaluation of the success or failure of a given NS policy response. The eight characteristics identified by the United Nations (UN) are elaborated in the framework, including: participation by both men and women; the rule of law; transparency; responsiveness; consensus-oriented; equity and inclusiveness; effectiveness and efficiency; and accountability. This basic tool is importantfor the evaluation of the NS policies of governments in general, but it is inadequate to assess the MNS atthe institutional level (ministry, city, provincial, district, commune) and at the corporate level.

By reviewing the current approaches to NS studies, it can be concluded that approaches are diversified and each approach is often developed and applied for one area of NS studies. So far, there has not yet a comprehensive or multi-purpose approach for MNS. WHO's approach is appropriate for the collaboration in management of global health security at international level. UNDSS's RSM approach is mainly designed for the management and protection of human security for UN personnel. And FAO's FIES approach is adequate for measurement and monitoring the state of food insecurity at the global level and national level.

Since 2015, for three years of research, the authors have designed, developed and tested the "MNS Basic Equation" as the theoretical framework for the analysis and/or combined qualitative and quantitative assessment of the MNS at national, subnational and corporate level and in most areas of NS:

MNS of a Subject = (Safety + Stability + Sustainability) − (Cost & Result of Risk Management + Cost & Result of Crisis Management + Cost & Result of Crisis Recovery Management)

MNS (or S in short) = (S1 + S2 + S3) – (C1 + C2 + C3)

S = 3S − 3C *

* 3S,2S,3C,2C do not hold the mathematical meaning of multiplication but rather verbal notation.

This basic MNS equation can also called the "3S&3C Equation" for easy reference. This equation is designed and tested based on the financial principle that, as the result of a management process, any security value must be considered in relation to the loss and the cost of the investment paid for the related activities to get the result. S1, S2, and S3 are the factors that represent the final results or achievements of any MNS activity during a period of time, while C1, C2, and C3 are the factors that reflect MNS activities and the associated cost. For a simple and basic assessment of MNS, a short form of this equation,that is, 2S&2C or S = (S1+S2) − (C1+C2),can be used for various purposes.

IV. RESULTS AND DISCUSSION

To assess the MNS of a subject, it would be objective and appropriate to use this equation to design the questionnaire to let management actorsand/or referent objects answer, express opinions, and rate the results, success or failure, and the main progress of an organization or enterprise in coping with a threat in an area of NS and at an administration level. Among 250 cases of application testing,there is a case study of the assessment of MNS for the health security of low-income people in a citythat can be used to easily illustrate the application of this equation.

Table 2:Aggregateaverage score from 538 evaluators

	3S			3C		
	S1	S2	S3	C1	C2	C3
Average score	5.86	6.43	6.59	7.32	8.26	6.81
Total score	18.88			22.39		
S score	-3.51					

S1 stands for the safety or the level of safety of the referent object,reflecting the first aim of any MNS of any subject/actor. For this case study, the authors' team has used a 1.0–10.0 assessment scale(1.0 for a low level to 10.0 for a high level of safety) to interview 538 low-income people in the city, in order to learn how they felt about their health's safety during 2018. About 90% of the participants assessed it at levels 5.0–6.0,indicating that they felt unsafe as many of them were affected by pandemics like dengue and bird flu that the city authority could not help prevent, when their income was not sufficient to pay for vaccines and medicines. The average score across 538 interviews was 5.86 for S1. This means that most of the interviewers rated their health security at a low level.

S2 represents the level of stability of the health of the referent object. Many interviewees said that their health was not stable,so they had to use medicine and often felt tired because of pandemics and polluted air and water. The average score of S2was 6.43.

S3 reflects the sustainability of the referent object in the context of an NS environment. Most interviewees felt that their health was affected by diseases and a polluted environment. The average score for the level of sustainability of S3was 6.59.

For (S1+S2+S3), the total score was 18.88.

For C1, C2, and C3, the assessment scale is opposite to that of S1, S2, and S3. For C1, a score of 1 point is very good, meaning that only a low cost is required for the risk to be managed well to ensure safety (S1). A score of 6.0–10.0 points suggests weakness in risk management.

C1 shows the effectiveness and efficiency of risk management in terms of activities, time, cost, and results. This factor is the most decisive for ensuring safety (S1). Most interviewees answered that they had to pay higher costs for their and their children's health protection, but the result was negative—their investment in preventing risks to their health was not efficient, and the healthcare authority did not perform well with tax money. The average score for C1was 7.32. This means that the MNS of the authority in charge of the health security of this city was not effective and efficient.

C2 reflects the cost of crisis management and the loss of human lives and/or assets and properties when the risk or threat occurred and caused a crisis. In 2018, in this city, a dengue crisis occurred and caused the deaths of about 17 people and the hospitalization of hundreds of others. Most interviewees were upset with the poor prevention measures takenby the authority as well as its slow response to the crisis. The average score for C2was 8.26.

C3 stands for the cost to be paid for recovery or rehabilitation activities after a crisis or disaster. Once losses and deaths occur, the cost of recovery cannot be easily calculated by just financial methods. For most cases, when it comes to the C3factor for health security or any NS situation, this reflects mismanagement and failures in MNS. If C2occurs, it negatively influencesC3. In this case study, the interviewees assessed C3 at a 6.81.

For (C1+C2+C3), the total score was 22.39

For case studies such as this, assessing the MNS of a city authority (the subject/actor of MNS) for the health security of low-income people (the referent objects) by using the basic equation, experts in the healthcare sector can design more detailed questions to acquiresoft data and combine them with hard data to provide a reasonable assessment of the role and management of the authority in performing their duty in a specific period of time. In this case study, the total 3S score of 18.88was subtractedfrom the total 3C score of 22.39, giving a final result of −3.51. This means that the city authority in charge of health-security protection did not fulfil their duty in this MNS area in 2018. The authority needs to study the root causes for this failure, and improve their public service in the next year to avoid further negative consequences.

At the corporate level, our continuous testing of thisMNS assessment approach during 2015-2018has showed various benefits. First, it helps the shareholders, MB and DB, to review risk-management activities in the past year that contributed to the business performance in terms of profit, safety, stability, and sustainable development. Second, it helps the MB and DB make better forecasts for both the business plan and risk-management plan. Third, it can help the company find innovative solutions to prevent the risks that may happen and become crises that could destroy the company's value, brand-name, and sustainability. Fourth, it helps the company better fulfil its CSR and contribute to the whole course of the country's MNS. Fifth, it helps investigation bodies determine the main reasons for negative performance throughexploring the data and discovering the root causes.

To enable the application of this theoretical framework at the corporate level, during 2015–2018 the authors' team helped about 300 institutions and 250 production companies in Vietnam to use this equation and design questionnaire to collect both hard and soft data for MNS assessment, with the aim of learning and applying new approachesfor MNS in each area. The resultshave been very positive, as most CEOs and managers have appreciated this new approach to MNS management and assessment that has increased their responsibility and awareness of MNS in relation to the survival and sustainable development of the company. 27 construction companies have decided to change their risk-management practices by using the MNS approach to cover risk-management activities and to avoid crisis (C2 in the equation). This change has helped to reduce the number of injuries and deathsin their construction sites.

V. CONCLUSIONS

Worldwide,rapid development of technologies and changesin human behaviors are significant. Alongside factors such as climate change and manmade disasters, the competitiveness and greed of many human and business groups have raised many complex NS issues and threats, such as terrorism, separatism, migration, cybercrime, transborder crime, human trafficking, corruption, inequality, business mismanagement, economic mismanagement, individual insecurity, water insecurity, food insecurity, environmental insecurity, and energy insecurity. In this context, MNS at the national, subnational and corporate level is a very important and decisive factor in combating these NS risks and threats.

As a concept, MNS is new for most nations, organizations, and corporations, and more research and advocacymust be done and made public to enhancethe awareness and action of policy-makers and business owners. Further research and innovative tools, methods, and solutions for MNS are also needed at all levels for the sake of national security, human security, enterprise security, and for the peace, security, and sustainable development of the world.

Conflicts of Interest:The authors declare no conflict of interest.

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