

Cybersecurity challenging situation in ASEAN countries

Cyberterrorism, cybercrime and cyber frauds are generally connected to technologic development, as showed in 20th Century globalization. There is a natural connection between the technology development and diffusion and cybercrime, as discussed by many analysts (we can quote, as an example, RAND publications).¹ Some developing countries had a fast technology increase in the last decades and a contemporary increase of cyber related crimes. ASEAN and its economic community: ASEAN Economic Community (AEC), are an interesting case study to observe dealing with economic development/technologic development/increase of cybercrime from 2010 to present. AEC gives opportunity to have a larger market for developing and selling production, but also broader general technologic environment to operate even with cyber frauds. I will try to examine cyber risk situation connected with economic development in the some important AEC countries: Indonesia, Philippines, Myanmar, Thailand and Singapore.

Indonesia is one of the most influent countries in ASEAN and AEC, its economy GDP rose by 5.02 percent last year (2016)², compared with 4.88 percent in 2015, as reported by the Central Statistics Agency (BPS).³ In general in the last 17 years (after 1997-1998 regional economic crisis) Indonesia has had a GDP growth between 3,6% and 6,3%, but energetic policies and sustainability policies had problems in following the pace of the increment.⁴ A general cybersecurity assessment show a clear, dramatic and exponential increase of attack in 2015 and 2016. Cyberattacks have especially spread among middle classes (urban) families devices causing extraordinary losses even for market and consumption. The threat increases to the point that government considered establishing a new << much-needed national cyber agency>>⁵ in February, to be implemented in National Security framework. The Agency has been finally established by a Presidential Regulation in May.⁶

Rodrigo Duterte's Philippines had an oscillating GDP value from 2000. GDP growth amounted to an impressive 7,6% in 2010 and 7,1% in 2013 while was just 1,1% in 2009. The new President, elected around one year ago saw a positive 6,9% of GPD increase in his first year (2016), while information technology has spread all over the islands (especially in the Northern area). The financial sector is one of the more influenced by IT explosion in Philippines. The Business Project Management (BPM) industry has employed around 1.3 million people and generated US\$25 million in 2016.⁷

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- 1 See Lynn E. Davis, *Globalization's Security Implications*, in "Issue Paper" 2003, Santa Monica, RAND, accessed on-line at: https://www.rand.org/content/dam/rand/pubs/issue_papers/2005/IP245.pdf on 17 August 2017.
 - 2 For GDP growth situation see: <https://tradingeconomics.com> accessed on-line on 09 September 2017.
 - 3 See Grace D. Amianti, *Indonesian economic growth accelerates to 5.02%*, in "The Jakarta Post" 29 August 2017, accessed on-line at: <http://www.thejakartapost.com/news/2017/02/06/indonesian-economic-growth-accelerates-to-5-02.html> on 29 August 2017.
 - 4 See Ertugurul Yildirim, Deniz Sukruoglu, Alper Aslan, *Energy consumption and economic growth in the next 11 countries: The bootstrapped autoregressive metric causality approach*, in "Energy Economics", *Volume 44*, July 2014, pp.14-21.
 - 5 See Prashanth Parameswaran, *Is Indonesia ready for a new Cyber Agency?*, in "The Diplomat" 11 February 2017, accessed on-line at: <http://thediplomat.com/2017/02/is-indonesia-ready-for-new-cyber-agency/> on 29 August 2017..
 - 6 See Vishwanath Patil, *Indonesia Sets Up National Cyber Defence Agency*, in "Defense World.net" 2 June 2017, accessed online at: http://www.defenseworld.net/news/19461/Indonesia_Sets_Up_National_Cyber_Defence_Agency#.WabptPNJbMw on 29 August 2017.
 - 7 See Yna C. Quiambao, *Philippines - Information and Communications Technology*, in "Export.gov", accessed on-line at: <https://www.export.gov/article?id=Philippines-Information-and-Communications-Technology> .

Even in this second case cyberattacks caused huge damages in financial and commercial sector, with a loss of revenues of US\$ millions. Despite the number of attacks Philippines firm don't yet have an organized network of cybersecurity and aren't yet prepared to face the threat.⁸

Myanmar is exiting right now a period of military government lasting since 1962 and the country is contemporarily passing to a capitalist market, it's a new comer in the market economy, interested particularly in tourism. Burmese GDP growth has had a noticeable growth from 2000 onward. If we think that worse growth has been in 2011 with an abundant 5,6% we cannot be impressed by 13,7% in 2000 and 13,8% in 2003. Even in this case IT have grown parallels to the economy and with an impressive rhythm. Cyber-attacks in this country became important in number in 2005, but since that date have increased dramatically creating a really complex situation. Myanmar government is trying to contrast situation using the new anti-terrorism Law, but has not yet implemented a specific anti-cyber threat response.

Arriving to Thailand, where 1997-1998 economic crises blew out, we can notice a really unstable situation, we had negative peaks in 2009, 2011 and 2014 and a growth that is around 6,8% but never over 7,2%. Bangkok saw a IT spread less explosive than previous examples basically for two factors: Thailand economic development has been less certain compared to the other states situation examined and there is an impressive gap of technologies between more touristic areas (as cities, coasts and northern part of the country and the rest. In Thailand cybercrime was still at an embryonic state until second quarter of 2017.⁹ Even if cyber threat growth is huge Thailand is still 72nd country in the world for number of users attacked.

At the end Singapore: the international HUB traditionally has had an economic development comparable to the Western States. That paradigm of development caused a slower and more sustainable IT introduction. In Singapore cyberattacks are generally directed to financial market and financial firms, or to gather information from them, like the two occurred in October 2016 to Starhub's broadband, or are demonstrative attacks like in 2013.¹⁰ Even if Singapore's authorities needed to improve cybersecurity agencies and devices they had to start from an already consistent background due to a consolidated economy, giving opportunity to a better, more generalized and, in a certain sense, more consistent response.

Analysis, assessments and forecasts

Having examined ASEAN case we can conclude that cyber-threat, and a broad general risk connected with misuse of the internet is generally connected with fast technologic development but even with an inhomogeneous distribution of resources. States have to face this situation pursuing an appropriate cybersecurity protection project. A strong cyber-security policy is made by Indonesia and Singapore but it definitely has to be implemented regulated in the whole ASEAN, which is interconnected, especially in an economic sense.

A second and important point to examine is the web access, that, in many cases in ASEAN has been granted to a huge part of population as an "induced need". The use of the internet by not prepared part of population could take to a misuse that is vulnerable to cyber threat, as evidenced in some cases described (Thailand and Philippines). In general this highlight the need of a better education to the cyber risk associated to the economic development in highly developing areas.

8 See, Editor, *Many PH firms unprepared for cyber attacks* – SGV, in "Rappler" 17 March 2017, accessed on-line at: <https://www.rappler.com/business/164503-global-information-security-survey-2017> , on 01 September 2017.

9 See Staff, *Kaspersky report nearly 62,000 cyberattacks in Thailand in second quarter of 2017*, in "Thaitech", accessed on-line at: <https://www.tech.thaivisa.com/kaspersky-report-nearly-62000-cyber-attacks-thailand-second-quarter-2017/23490/> on 3 September 2017.

10 See Staff, *'Anonymous' hack Singapore newspaper's website*, in "BBC" 1 November 2013, accessed on-line at <http://www.bbc.com/news/technology-24768053> , on 9 September 2017.