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Converging Regulations for the Chemical Industries of ASEAN: Feasibility from a Political Perspective

Executive Summary

The ASEAN Economic Community (AEC) lays the foundations of regional economic integration in Southeast Asia. The goal of the AEC is to result in facilitating free flow of trade, services and investment in the region. Economic integration provided by the AEC will be a great boon to the chemical industry in Singapore, but challenges remain in the form of divergence in regulations and the different levels of development among ASEAN nations. The difficulties are further compounded by the ASEAN founding principle of non-interference (also nicknamed the “ASEAN Way”), which hamper the pace of much-needed reform. This does not mean that meaningful reform towards a full implementation of the AEC is impossible. By gleaning lessons from the birth pangs of the European Economic Community – predecessor of the European Union – and looking into present-day chemical industry regulatory trends coming out of the United Nations, the European Union and Asia at large, solutions can be found.

Introduction

The idea of the ASEAN Economic Community (AEC) was conceived in 2003. Meant to be one of the pillars of an ASEAN Community by 2020, the AEC stands tall alongside the other two pillars of the ASEAN Socio-Cultural Community and the ASEAN Political-Security Community. Slated for full implementation in 2015, the AEC is to establish economic integration in the region through the free flow of goods, services, labor and capital by breaking down the barriers to trade within the region. Already, one of the AEC’s goals of the reduction of tariffs on physical goods (save for a few sensitive goods) within the region has been realized,

with tariffs at zero or almost zero. This was accomplished starting with the ASEAN Free Trade Agreement, which began in 1993, and through the gradual implementation of trade liberalization over two decades.¹ The end result is a remarkable achievement as the formation of the new trade bloc did not happen at the expense of trade with nations outside of ASEAN,² and the slow pace of evolution in trade liberalization ensured that all member nations of the trade bloc stood to benefit at the pace befitting the unique circumstances which exist within individual nations.

The results of trade liberalization in physical goods show promise: by 2011, 25 percent of all trade of physical goods in ASEAN was intra-regional. ASEAN's most open economies of Singapore, Malaysia and Thailand led the growth in intra-regional trade, followed by the Vietnam, Cambodia, Laos and Brunei.³

Aside from the elimination of trade tariffs, the AEC promises the establishment of the common market by the alignment of regional regulations. In this context, this paper will solely focus on the regulatory affairs of the petrochemical industry in ASEAN, and how the chemical industry of Singapore can best prepare for regulatory convergence in the AEC – in particular, with its chief trading partners in Malaysia, Thailand and Indonesia.

Challenges for the AEC

Multiple challenges face the AEC from within and without. Despite the stated goal of implementation by 4Q 2015, many observers and business owners within and without of ASEAN are skeptical. Particularly among US-owned businesses operating in the region, only four percent

¹ Calvo-Pardo, Hector, Caroline Freund, and Emanuel Ornelas. "The ASEAN Free Trade Agreement: Impact on Trade Flows and External Trade Barriers." The London School of Economics and Political Science, May 2009. Web. 01 Oct. 2014.

² Ibid 1.

³ Hansakul, Syetam, and Willie Keng. "ASEAN Economic Community (AEC): A Potential Game Changer for ASEAN Countries." Ed. Maria Laura Lanzeni. Deutsche Bank, 14 June 2013. Web. 04 Oct. 2014.

of respondents surveyed by the US Chamber of Commerce think ASEAN will realize the AEC goals by 2015.⁴ 52 percent of respondents believe that ASEAN will not accomplish its AEC goals until 2020 or later. However, 53 percent continue to show interest in the AEC and have an ASEAN regional strategy based on AEC goals. Of the respondents who did not have a strategy based on AEC goals, “many commented that they either have their own global strategy or are unsure about the timeline and feasibility of ASEAN’s Economic Blueprint.”⁵ Sanchita Basu Das of the Institute of Southeast Asian Studies noted that, “it is highly unlikely that ASEAN can achieve its target of building an AEC by 2015.”⁶ Das continues, emphasizing that the AEC “needs to be seen as an on-going process for which ASEAN seems to have laid down all the right foundations.”⁷ The AEC’s target of 4Q 2015 is not to be considered an arbitrary date as the AEC’s implementation is similar to that of the ASEAN Free Trade Agreement: incremental and over a long period of time. Already, companies can benefit from the ongoing changes that head towards the stated goals of the AEC.

Despite the near-zero tariffs in intra-ASEAN trade that has enabled the free flow of goods, there exist non-tariff barriers to trade (NTB). Razeen Sally’s criticism of the effectiveness of FTAs in ASEAN is poignant:

It does not require reams of political science analysis to explain the weakness of these FTAs. The region’s diversity – countries at widely different stages of

⁴ US Chamber of Commerce. “ASEAN Business Outlook Survey 2015.” US Chamber of Commerce, 1 Sept. 2014. Web. 20 Oct. 2014.

⁵ Ibid 4.

⁶ Das, Sanchita Basu. “Achieving an ASEAN Economic Community by 2015?” *ASEAN Studies Centre*. Institute of Southeast Asian Studies. Web. 17 Oct. 2014.

⁷ Ibid 6.

development and differing levels of protection, competing producer interests, a history of intra-regional conflict and lack of a culture of cross-border cooperation, geopolitical divisions – preclude the emergence of strong regional institutions, hard policy coordination and deep integration, while leaving the door open to relatively weak and flexible regional institutions, soft cooperation and shallow integration.⁸

A close relationship between industry leaders and the ruling political class is a consistent feature of the political economy in ASEAN member states. In less-developed economies, this leads to a constant demand for protection for domestic industries. Conversely, the captains of industry in well-developed economies seek to promote free trade in the region.⁹ It should be noted that the previously mentioned relationship is the chief contributor to the rise of NTBs – which may include anything from institutional and regulatory reform (or lack thereof) to customs and port efficiency.¹⁰ Additionally, it is the gaps of development among ASEAN nations, which is the source of ASEAN's woes. Singapore is disproportionately ahead of the rest of the region, whereas the rest of the region struggles to keep pace in economic development and governance.

Challenges Facing the Singapore Chemical Industry

⁸ Sally, Razeen. "ASEAN FTAs: State of Play and Outlook for ASEAN's Regional and Global Integration." *The ASEAN Economic Community: A Work in Progress*. Singapore: ISEAS, 2013. 374-77. Print.

⁹ Nesadurai, Helen E.S. "Trade Policy in Southeast Asia: Politics, Domestic Interests and the Forging of New Accommodations." Ed. Richard Robison. *Routledge Handbook of Southeast Asian Politics*. London and New York: Routledge, 2012. 318-22. Print.

¹⁰ Austria, Myrna S. "Non-Tariff Barriers: A Challenge to Achieving the ASEAN Economic Community." *The ASEAN Economic Community: A Work in Progress*. Singapore: ISEAS, 2013. 35. Print.

The ASEAN trade environment poses various challenges to the Singapore chemical industry, and chief among them is the divergence and mismatch of regulations. The challenges of regulatory reform are oft cited as one of the main features of NTB to trade. For a manufacturer to export chemicals in global trade, the manufacturer has to go through with:

1. Chemical classification.
2. Restrictions for the classified chemical.
3. Licensing for import/export.
4. Labeling and packaging the chemical for export.¹¹

Introduction to GHS, and Classification and Labeling of Chemicals

The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) covers the vast majority of regulations concerning chemicals. Created by the United Nations, GHS “defines and classifies the hazards of chemical products, and communicates health and safety information on Safety Data Sheets (SDS).”¹² GHS was created to address the different systems of classification and labeling which individual countries possess. The different systems have proved cumbersome and expensive for governments and businesses alike: it is time-consuming and expensive for governments to enforce and regulate, expensive for businesses which seek compliance with multiple systems and potentially hazardous for confused workers who need to work safely with hazardous chemicals.

GHS aims to provide the following benefits:

¹¹ "Chemicals: International Trade Regulations." *Chemicals: International Trade Regulations*. Department for Business, Innovation & Skills, Export Control Organisation and Health and Safety Executive, 30 May 2013. Web. 12 Oct. 2014.

¹² "Globally Harmonized System (GHS)." *OSH Answers*. Canadian Centre for Occupational Health and Safety, 15 Sept. 2014. Web. 28 Oct. 2014.

- Promoting regulatory efficiency.
- Facilitating trade.
- Easing compliance.
- Reducing costs.
- Providing improved and consistent hazard information.
- Encouraging the safe transport, handling and use of chemicals.
- Promoting better emergency response to chemical incidents.
- Reducing the need for animal testing.¹³

GHS is a voluntary system created, modified and accepted through discussion and mutual consensus. This makes GHS, as a universal system of classification, a palatable system to absorb for nations with varying levels of effective governance. For countries with no pre-existing classification systems, adopting GHS makes the regulatory changes legally binding on affected industry sectors. For countries with pre-existing systems, components of GHS will be adopted and made compatible with existing regulatory frameworks in order to comply with GHS criteria.¹⁴ Once a nation has expressed the intention to implement GHS, it will be obligated to do so. Once GHS is officially implemented in a country's industries, its affected sectors have to comply with it.

Even though the formation of a national classification listing is not explicitly required by GHS, several nations and blocs like the European Union, Korea and Malaysia have opted to create national chemical inventory lists, which classifies chemicals in accordance to GHS classifications. The chemical inventories were set up in order to better facilitate common classifications of chemicals among manufacturers in their respective territories.

Challenges with GHS Classification

¹³ Ibid 12.

¹⁴ "A Guide to The Globally Harmonized System of Classification and Labelling of Chemicals (GHS)." *Occupational Safety & Health Administration (OSHA)*. United States Department of Labor. Web. 29 Oct. 2014.

Using the GHS differences between Singapore and Malaysia alone, the issues of GHS as a voluntary system begins to reveal itself. Beyond the regulatory minutiae of differences in keeping or discarding various hazard levels in chemicals, the format requirements of SDS labels are different enough to be a regulatory point of contention.

For instance, Malaysia provides the following formatting requirements for Malaysia-bound SDS labels:¹⁵

- Strictly use the exact wording in translated phrases in Bahasa provided by regulatory authorities.
- Label needs to have Bahasa and English at the same time.
- Font size not smaller than 7.
- Record of classification needed.

This differs with Singapore, Malaysia's biggest trading partner.¹⁶ Apart from label size requirements, which are fairly compatible with Malaysia's, Singapore's sole requirement in SDS format is that the label should be in English.¹⁷

Most of the differences over formatting may be superficial, but these differences will seem spurious to business owners who were told of the SDS of GHS being a universal classification and labeling system to ease the woes of regulatory compliance in global trade. The significant difference, however, lies in the requirement for the proof of formal documents which track the records of classification by the exporting company. Manufacturers in Singapore and Malaysia have to print different labels for export and their own use, and the transition to safety

¹⁵ Ng, Davin. *Regulatory Affairs Committee Meeting*. SCIC. Meeting notes. 11 Jul. 2014.

¹⁶ "Malaysia." *Country Profiles*. Observatory of Economic Complexity, Web. 29 Oct. 2014.
<<http://atlas.media.mit.edu/profile/country/mys/>>.

¹⁷ Singapore. SPRING Singapore. Standards. *SS586:2014 Part 3: Preparation of safety data sheets (SDS)*.

labels contributes to rising operating costs. However, GHS was primarily formulated to “[ensure] that information on physical hazards and toxicity from chemicals be available in order to enhance the protection of human health and the environment during the handling, transport and use of these chemicals.”¹⁸ Provision of the basis for regulatory harmonization for trade facilitation comes as a beneficial, if convenient “additional benefit” of GHS. Moreover, Malaysia’s requirement for the record of classification is a clause which goes above and beyond what is required by GHS, and increases the risk of leaking confidential business information.

The governments of ASEAN nations face the challenge of interpreting and implementing GHS in the way that the creators of GHS intended. For example, Malaysia has implemented GHS using EU guidelines. A member of the Singapore Chemical Industry Council Regulatory Affairs Committee (henceforth referred to as RA Committee member) expressed her reservations about Malaysia’s methods, commenting that the Malaysian government has “copied wholesale” from the EU and possesses classification requirements which lack the reference footnotes needed for full understanding.¹⁹

Challenges with Licensing for Import/Export and Restrictions of Controlled Chemicals

Before we venture into regulatory minutiae, the key challenge with obtaining import/export licenses with ASEAN member states outside of Singapore revolves around language. According to Article 34 of the ASEAN Charter, the official working language of ASEAN is English.²⁰ However, the generally low level of English proficiency in the region²¹

¹⁸ "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)." *About the GHS*. United Nations Economic Commission for Europe, n.d. Web. 21 Aug. 2014.

¹⁹ RA Committee Member 1. "Classifications and Substances of Concern." Personal interview. 28 Aug. 2014.

²⁰ "Chapter X: Administration and Procedure." *The ASEAN Charter*. Jakarta: Association of Southeast Asian Nations, 2008. 29. Dec. 2007. Web. 18 Sept. 2014.

works against the policy. Despite the official policy of English being the working language of ASEAN, the usage of English has not become standard for the vast majority of ASEAN nations outside of the realm of diplomatic relations. The language barrier contributes to a significant degree of challenge towards regulatory compliance. In an interview with another RA committee member, she raised Thailand's licensing regulations as an example.²² The SCIC committee member described the Thai licensing regulations to be exclusively available only in the Thai language, which led her to rely on her local distributor in Thailand to translate and interpret the licensing regulations.²³

The challenge with language barriers is not isolated to Thailand alone. A third RA committee member demonstrated this reality. In an interview with her, she presented several thick binders of translations of chemical regulations from across ASEAN, which were the product of the Regional Institute of Environmental Technology (RIET).²⁴ RA Committee Member 3 had also remarked that ASEAN's "interesting aspect" was in the almost universal language barriers between every ASEAN nation. Even though product stewards and regulatory specialists like RA Committee members 2 and 3 found satisfactory solutions by relying on private enterprise and business partners to help translate and interpret regulations from ASEAN languages into English, risks still exist. Chief among them is the potential for the leaking of trade secrets and best practices to competitors without the knowledge of product stewards'. Furthermore, there is no requirement of verification from the related government agencies when academic groups and business partners provide translations. These are murky areas, which hold

²¹ "EF Proficiency Index: Asia." *Overview / EF Proficiency Index*. N.p., n.d. Web. 29 Aug. 2014; Table 1.

²² RA Committee Member 2. "Challenges of the Trade of Chemicals in ASEAN." Personal interview. 21 Aug. 2014.

²³ Ibid 22.

²⁴ RA Committee Member 3. "ASEAN: Small but Not Simple." Personal interview. 12 Sep. 2014.

great potential for fraud and theft of intellectual property. Even though it is widely expected that English is a secondary language across the region and businesses ought to respect that, the various governments of ASEAN ought to provide trade regulations in English as a secondary language in order to facilitate trade.

Another significant challenge exists in the unique and separate lists of substances of concern, which are maintained by different ASEAN countries. RA Committee Member 1 highlighted the examples where Thailand possesses several lists of Substances of Concern, and Malaysia has a new scheme concerning chemicals.²⁵ Additionally, she also raised the concern where Malaysia has two separate lists and requirements of submission for classification in the two government agencies of the Department of Occupational Safety and Health (DOSH), and the Ministry of Natural Resources and the Environment (MOE).²⁶ This issue is not exclusive to Malaysia alone, with numerous ASEAN nations where separate government agencies jockeying for greater regulatory influence interpret and implement GHS in their own ways, hoping that over time, their preferred methods will prevail over the other agencies'. A fourth RA Committee member concurs with her observation that "different classes of chemicals are headed by different agencies", which typically results in divergent practices and procedures.²⁷

Singapore has bucked the regional trend in chemical regulatory implementation. The government of Singapore has recently published SS586: 2014, which has resulted in a unified interpretation and implementation of GHS classification and SDS labeling across all affected agencies. However, Singapore has declined to set up a classification listing while waiting for the

²⁵ Ibid 19.

²⁶ Ibid 24.

²⁷ RA Committee Member 4. "Chemical Regulations and Environmental Issues of ASEAN" Personal interview. 26

UN to produce a standardized regime.²⁸ While having an inventory list is separate from GHS requirements, Singapore's reticence lies mainly in the chemical industry's reluctance to expend a huge amount of effort into what is perceived to yield very little benefit.

Analysis

Having considered the regulatory challenges in ASEAN, which are very specifically posed to the Singapore chemical industry, several significant and common themes begin to reveal themselves. Firstly, the ASEAN principle of non-interference impedes progress in the resolution of challenges towards economic integration in the AEC. Because ASEAN was set up to be a platform of discussion for Southeast Asian nations where every member is an equal at the table, no member has the right to force another member into implementing any policy. As a body, which operates on full mutual consensus, it comes with benefits and shortcomings.

Positive aspects of mutual consensus:

- All parties are agreeable to a resolution.
- The resolution has complete legitimacy among all nations.

Negative aspects of mutual consensus:

- Takes a very long time to accomplish.
- May not be possible in some cases.

This emphasis on complete mutual consensus thus plays a part in putting a stop to any idealistic aspiration towards the sort of full economic integration that is typically seen in the European Union. Considering ASEAN's unique circumstances and disparities in development levels, not only is it diplomatically unpalatable to force a standard set of regulations across ASEAN, it is also technically unproductive and unfeasible to do so.

²⁸ Ibid 19.

RA Committee Member 2 noted in an interview that developing regulatory legislation to keep up UN classifications is especially challenging as “there is not a lot of expertise” available to facilitate and implement the required regulatory reforms.²⁹ RA Committee Members 1 and 4 concur; indicating that assistance from the Japanese Ministry of Economy, Trade and Industry (METI) plays an outsized role in the provision of expertise to ASEAN nations, which lack it.³⁰ It is not uncommon for many ASEAN governments to be ill equipped with the skills, knowledge and experience to ably maintain the systems which GHS classification demands of them.

Most importantly, the main hurdles, which impede progress of achieving the commitments in the AEC Blueprint, are due to weak regional institutions as ASEAN member states cautiously guard their sovereignty. To quote the preface of “The ASEAN Economic Community: A Work in Progress” published by The Institute of Southeast Asian Studies (ISEAS):

When national goals differ from regional ones, decisions of political leaders tend to favor national goals. Flexibilities designed to accommodate the different levels of development of member states seem to have been used to justify non-compliance with their commitments; yet, such non-compliance is not censured, as maintaining a unified position among member states becomes more important to their leaders. Interest groups and those opposing regional competition tend to succeed in preventing their national leaderships from enforcing AEC commitments.³¹

²⁹ Ibid 22.

³⁰ Ibid 22. Ibid 27.

³¹ Azis, Iwan J. "Preface." *The ASEAN Economic Community: A Work in Progress*. Singapore: ISEAS, 2013. Xi.

The above observation made by Iwan J. Azis, Head of the Office of Regional Economic Integration of the Asian Development Bank is particularly poignant in explaining the slow progress of realizing the commitments of AEC goals by 2015. Furthermore, Azis reflects the other chapter writers' views of the *Work in Progress* book in pointing out that "increased intra-ASEAN trade and investments over the years have been driven more by market forces than by regional agreements."³² If regional treaties and institutions are ineffective at promoting the free trade principles that are ultimately to the benefit of all ASEAN member states, different approaches have to be made by ASEAN leaders and the Secretariat. Pushing for strong, top-down centralized regional institutions may sound appealing to bureaucrats and academics, but that thinking relies too much on the EU model and ignores the diverse nature of Asian socio-economic and political realities.³³ The EU model may also prove counter-productive for ASEAN, where Razeen Sally describes the oft-ignored flaws as, "bureaucracy-heavy institutions, lack of accountability of elites, over-centralized, illiberal economic policies, and an unhealthy obsession with institutions and bureaucratic processes."³⁴ Market forces have proven to be more effective and impactful incentives for the promotion of free trade and are more compatible with the "ASEAN Way." In recognition that the problems associated with trade in Southeast Asia are most effectively solved by allowing the mechanisms of a market-based economy to operate without restrictions, so-called "free-market solutions" provide lucrative incentives for businesses to abide by policies which stem from free-market solutions.

Recommendations

³² Ibid 8.

³³ Ibid 8.

³⁴ Ibid 8.

The recommendations are mainly focused on the enhancement of trade facilitation through free-market solutions instead of centralized bureaucratic oversight. As indicated in the analysis above, ASEAN nations generally lack the expertise required to competently formulate and implement GHS classification regimes. The lack of expertise is further complicated by the lack of unified procedures for risk assessments. Furthermore, there is no sharing of information in classification lists and types, which can make the classification of new chemicals cumbersome and time-consuming across individual ASEAN nations. There is high demand for expertise and relevant training in order to train qualified persons with said expertise. Consequently, ASEAN has become a “booming market” for regulatory experts from outside of ASEAN, eager to take advantage of the skills vacuum. It will be prudent of ASEAN to devise schemes to regulate the behavior of new arrivals to protect manufacturers and governments alike. Recommendations flow from the above analysis:

Formation of a Single Window Anchor Agency for Classification and Inventory

Presently, manufacturers who wish to export their products to foreign nations within ASEAN either rely on their existing business contacts within the respective countries, engage consultants to assist in translations, or their colleagues in their multinational corporations (MNCs). All of the above are measures which are typically affordable only to wealthy MNCs, and this serves as an artificial barrier to entry for small-to-medium enterprises (SMEs), which find themselves locked out of this lucrative trade. In order to help facilitate intra-ASEAN trade for MNCs and SMEs alike, this ambitious policy recommendation calls for the ASEAN Secretariat to form an Anchor Agency.

The Anchor Agency will serve as a neutral body owing no allegiance to any nation. It is not its intended role to formulate regional regulations, or to impose regulations upon ASEAN

nations nor to enforce them. Its primary mission is to serve as a nerve center of coordination for all ASEAN nations in chemical classification, sharing of classification standards and placing listed chemicals in a shared regional inventory. It will also seek to collect the best practices offered by all ASEAN nations, and produce and distribute guidance documents in languages spoken and used by ASEAN nations. This is similar in philosophy with the proposal of the *Development of a Global Test Program*, delivered by Appel, Burgess and MacDougall at ChemCon Asia 2013.³⁵ Appel, Burgess and MacDougall noted the high costs of chemical testing that needs to be carried out repeatedly in several jurisdictions due to divergent testing standards, and proposed a global system of testing which serves to provide a globally standardized classification in accordance to Good Laboratory Practices (GLP). The proposed system is expected to significantly cut down on the costs of doing business and speed up the delivery of new and innovative products to the market.

By adopting the principles of the *Development of a Global Test Program*, the proposed ASEAN Anchor Agency should succeed as long as the Anchor Agency charges fees that are competitive with regulatory consultants in the region. The entry of such a player into the market of regulatory expertise should compel private firms to compete in prices and quality of service, and this should result in greater facilitation of global and regional trade for SMEs within the region. Furthermore, companies from the EU who wish to do business in ASEAN and have no presence in the region will benefit from having access to such an Anchor Agency. This recommendation is considered to be the most difficult to implement, but if successful, will make great strides in achieving AEC goals for the ASEAN chemical industries.

³⁵ Appel, Marko, Andy Burgess, and Leslie MacDougall. "Development of a Global Test Program." Session 16 - Horizontal Issues. Proc. of ChemCon Asia 2013, Korea, Seoul.

Adapting from EU-REACH: The Local Regulatory Specialist (LRS)

REACH, short for Registration, Evaluation, Authorization and Restriction of Chemicals, is a European Union regulation which covers the manufacture and use of chemical substances. While REACH is a very broad regulatory regime which covers many facets of the chemical industry in Europe, there is one feature of REACH which deserves close study for adaptation in ASEAN: the Only Representative.

According to Article 8(1) of REACH, section 2.1.2.5, an Only Representative (OR) is a person located within the EU. The OR is appointed by a natural or legal person established outside of the EU who or which produces chemical substances. The OR is to carry out the required registration of the substances that are imported into the EU, and to also assume liability and responsibility for the substances imported from non-EU manufacturers..³⁶ Furthermore, the OR has to have “sufficient background in the practical handling of substances and the information related to them” in order to be qualified as such. Even though this vital information is not required during the registration process of the OR, the OR is obligated to produce those credentials upon request of enforcement authorities.³⁷ This loophole understandably leads to a great deal of uncertainty and an equal amount of possibility for fraud and abuse. Chemical Watch has noted how some ORs may be characterized as unscrupulous consultants who may take part in predatory behavior in charging “exorbitant rates for the data they have to offer.”³⁸

In light of this, the proposed solution is to introduce ASEAN’s adaptation of the OR system, with the suggested name of the “Local Regulatory Specialist,” in a break with the OR

³⁶ "Guidance on Registration." REACH: 21. Web. 6 Oct. 2014.

³⁷ Ibid 36.

³⁸ Patel, Mamta. "'Gold-diggers', 'jackals' and Other Issues for REACH SIEFs."Global Business Briefing. Chemical Watch, Dec. 2008. Web. 06 Nov. 2014.

name to suggest its unique quality that is very much different from the EUs. The Local Regulatory Specialist, or LRS, is proposed to perform duties similar to that of the ORs. As native residents of their respective ASEAN nations who also wield considerable experience their local chemical industries, the individual LRS is able to leverage their understanding of the unique circumstances and data surrounding the industries they are connected to. Additionally, the LRS must demonstrate a satisfactory level of mastery of the English language as the lingua franca of international trade in order to facilitate trade within the region.

It is furthermore suggested that the ASEAN Secretariat accepts a light-touch role of oversight in the proposed LRS program, while accepting the input of the Federation of Asian Chemical Societies (FACS). With the input of FACS, the ASEAN Secretariat will be able to determine the appropriate levels of qualifications and experience which a prospective LRS ought to possess before being recognized as a LRS. This will help mitigate and overcome the shortcomings which plague the OR system in the EU, while facilitating greater ease of trade among ASEAN nations during the journey towards economic integration in the AEC.

Starting Small: Regulatory Convergence among Singapore and ASEAN-4

The European Coal and Steel Community (ECSC) was formed in 1952. Established by the Treaty of Paris in 1951, the 6 treaty signatories of Belgium, France, West Germany, Italy, the Netherlands and Luxembourg formed the ECSC. The ECSC was first proposed as a conflict prevention mechanism, following the diplomatic failures which led up to World War I³⁹ and the failure of the Treaty of Versailles which resulted in the outbreak of World War II.⁴⁰ Declared

³⁹ Schlesinger, Arthur M., Jr. "The Measure of Diplomacy." Foreign Affairs. Council on Foreign Relations, July 1994. Web. 03 Nov. 2014.

⁴⁰ Andelman, David. A Shattered Peace: Versailles 1919 and the Price We Pay Today. Hoboken, NJ: J. Wiley, 2008. Print.

with the aim to “make war not only unthinkable but materially impossible” through regional integration, the Treaty of Paris was designed to create a common market for coal and steel among the 6 nations in order to dissolve the competition for war-critical natural resources.⁴¹ Over time, the ECSC merged with the European Atomic Energy Community on 1967 to form the European Economic Community in accordance with the Treaty of Brussels.⁴² Following the formation of the European Economic Community, several European nations observed the economic benefits of being a part of the EEC and expressed interest their interest to join. The EEC grew in size, renamed the European Community since the Treaty of Maastricht on 1993.⁴³ Thanks to the Treaty of Maastricht, the EC became one of the key pillars of the European Union, and the rest is history.

ASEAN can learn several important lessons from the formation of ECSC. While ASEAN fortunately does not need to endure the horrifying experience equivalent to two World Wars, ASEAN has much to learn from the processes which the ECSC used to bring about greater economic integration.

The disparities of economic development among ASEAN nations is a significant stumbling block in the way of economic integration in the region. These levels are represented well in the Human Development Report 2014 by the Human Development Report Office of the United Nations (Table 2).⁴⁴ As indicated in Table 2, the ASEAN-4 nations of Indonesia, Malaysia, Philippines and Thailand are ranked highly compared to the ASEAN mean levels of

⁴¹ "The Schuman Declaration – 9 May 1950." How the EU Works. European Union, n.d. Web. 06 Nov. 2014.

⁴² "EU Treaties." EU Law. European Union, n.d. Web. 06 Nov. 2014.

⁴³ Ibid 42.

⁴⁴ Malik, Khalid. "Human Development Report 2014." Human Development Reports. United Nations Development Programme, 24 July 2014. Web. 6 Nov. 2014; Table 2.

human development. ASEAN-4 are given plenty of attention by the IMF and investors, as the ASEAN-4 are considered to be “highly-integrated group of countries.”⁴⁵ Given the high levels of economic development and governance relative to the rest of ASEAN, also known as the CMLV (Cambodia, Myanmar, Laos, Vietnam) nations, it is prudent for Singapore to join with the ASEAN-4 nations to embark upon a regionalist experiment similar to the ECSC.

The proposed pilot experiment calls for negotiations between Singapore and ASEAN-4 nations, which will then suggest convergence of trade regulations between two nations for chemicals. Not all ASEAN-4 nations need to agree to this pilot experiment, as long as at least one (or preferably two) of the ASEAN-4 agree to participate. This measure is geared towards smoothing over any differences the two (or more) nations may have over GHS labeling requirements, classification requirements, sharing of classification information and safeguarding of such information. In this way, Singapore and one or more of the ASEAN-4 nations will be able to demonstrate that regulatory convergence and economic integration of the chemical industries between neighboring nations is possible. By doing so without the need of an EU-style centralized bureaucracy to sacrifice their sovereignty and still abide by the “ASEAN Way” (to recap, the “ASEAN Way” refers to the principles of non-interference and abiding by mutual consensus among all parties in the region), the pilot experiment should demonstrate its success by generating greater economic growth for all parties involved. Once such a “proof of concept” is established, it is hoped for the pilot experiment to attract other ASEAN member nations to work towards improving levels of governance so that they may qualify to participate in the

⁴⁵ Isnawangsih, Agnes, Vladimir Klyuev, and Longmei Zhang. "The Big Split: Why Did Output Trajectories in the ASEAN-4 Diverge after the Global Financial Crisis?" IMF Working Paper (2013): 1. International Monetary Fund, Oct. 2013. Web. 6 Nov. 2014.

experiment. In doing so, ASEAN will be able to apply the lessons of the ECSC without sacrificing the much-cherished “ASEAN Way”.

Conclusion

Having gone through the above analysis and recommendations, the question has yet to be answered: are convergent regulations for the chemical industries in ASEAN politically feasible? There only remains a realistic and fair-minded answer: it is not impossible, but it will be achieved with great difficulty. Free Trade Agreements (FTAs) have proven themselves ineffective in preparing the region for the AEC. Even though the FTAs have reduced intra-regional tariffs to almost zero, non-trade barriers still exist within individual ASEAN member states for protectionist reasons.

The more the AEC is studied, and the more ASEAN governments are observed to be dragging their feet at implementing needed reforms through legislation which are not enforced and barely heeded. Indeed, those grand initiatives are best described as a “distraction... [where] grand designs for regional integration... invariably promise much but deliver little.”⁴⁶ There has been a media blitz in the most recent weeks, where newspapers from the Philippines,⁴⁷ Singapore,⁴⁸ Malaysia⁴⁹ and Thailand⁵⁰ were vigorously promoting the idea of a shared ASEAN

⁴⁶ Ibid 8.

⁴⁷ Sicut, Gerardo P. "Ready for ASEAN Economic Community 2015?" *Business*. The Philippine Star, 5 Nov. 2014. Web. 05 Nov. 2014.

⁴⁸ Ahmad-Noor, Farish. "A New Asean Community? Many Already Live It." *Opinion*. The Straits Times, 6 Nov. 2014. Web. 06 Nov. 2014.

⁴⁹ Randhawa, Sharanpal Singh. "Asean Economic Community in Place, Integration Process to Continue beyond 2015, Says Muhyiddin." *New Straits Times Online*. New Straits Times, 20 Oct. 2014. Web. 06 Nov. 2014.

⁵⁰ Jitcharoenkul, Prangthong. "Prayut Seeks to Bolster ASEAN Trade." *Foreign Affairs*. Bangkok Post, 5 Nov. 2014. Web. 6 Nov. 2014.

community. Unfortunately, a media blitz seeking to promote awareness of the AEC falls short when there has been little prior effort made to grant any sense of social or cultural awareness of being part of a regional tribe. It is a reflection of national leaders' treatment of instrumentality of ASEAN, where ASEAN is treated as a mere instrument for settling diplomatic, security and economic issues.

Notably, national leaders of ASEAN are pragmatists who have to answer to powerful business interests at home, treaty agreements notwithstanding. Instead of trying to apply more EU-style regional pressure on individual nations to introduce more legislation for convergent regulations, it will be far more productive to offer incentives towards regulatory convergence through free-market solutions which promises better business and trade for all parties involved.

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Tables and Appendices

Table 1: EF Proficiency Index Asia

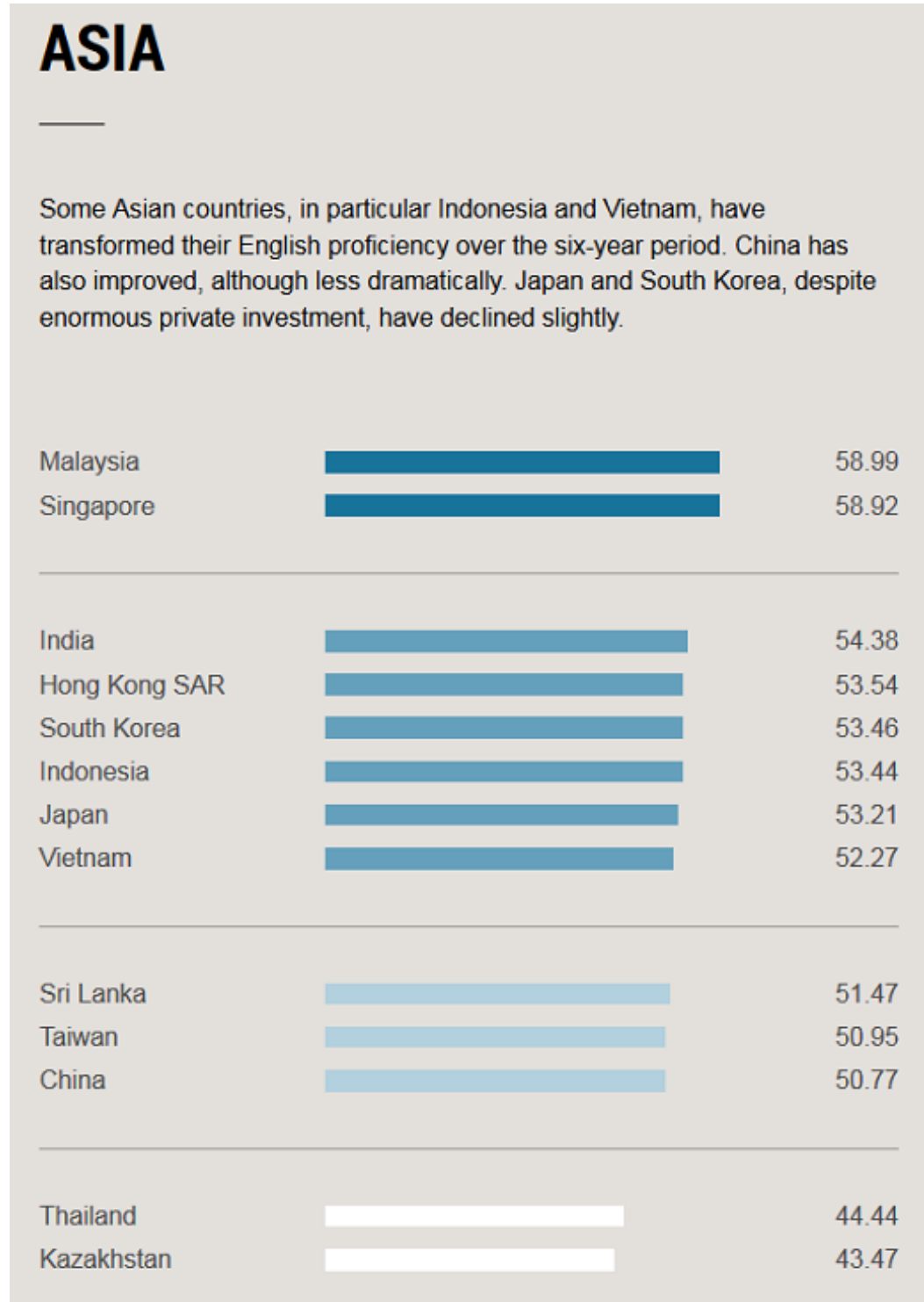


Table 2: UN Human Development Report 2014.

Country	HDI (Human Development Index) Rating	HDI (Human Development Index) Level
Singapore	0.901	Very high
Brunei	0.852	Very high
Malaysia	0.773	High
Thailand	0.772	High
Indonesia	0.684	Medium
ASEAN (Mean)	0.669	Medium
Philippines	0.660	Medium
Vietnam	0.638	Medium
Cambodia	0.584	Medium
Laos	0.569	Medium
Myanmar	0.524	Low