An East Asian Community? - Regional and Global Dynamics: What Do the Numbers Say?

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Abstract: The idea of developing an East Asian Economic Caucus or East Asian Community (EAC), first hatched in the late 1980s by the then Malaysian Prime Minster Mahathir Mohamed is yet to be realised. Until last year, the task of building an EAC through trade and investment remained elusive, hampered by a number of issues, however, at the fifth summit of the Asian Plus Three (APT), a vision for such a community was articulated. The APT leaders agreed that East Asia moves "from a region of nations to a bona fide regional community with shared challenges, common aspirations, and a parallel destiny", underlying motivation for this stance being, a need for establishing a regional identity in view of the other existing regional arrangements, such as the European Union (EU), and North American nations. The obstacles in building an EAC are briefly outlined. Consequently, the paper elaborates upon the exploratory data analysis results achieved through clustering EA as well as other countries based on the World Bank and ASEAN Financial and Macroeconomic Surveillance Unit indicators to see how the numbers stack up with regards to the EAC building progress, its impact at individual country, regional and global levels as today's society is becoming more familiar with quantitative measures, perhaps making one wonder if this is a reflection of the digital era we live in. The SOM country cluster results that are similar to that of the UN groupings based on millennium development goals (MDGs) are investigated by studying the SOM cluster profiles.

Introduction

The idea of developing an "East Asian Economic Caucus", first hatched in the late 1980s by the then Malaysian Prime Minster Mahathir Mohamed (Asian Economic News 2003) is yet to be realised. Up until November 2004 the task of building an East Asian Community (EAC) through trade and investment remained elusive, hampered by a number of obstacles. In sorting themselves out of the obstacles the East Asian (EA) countries involved lost the momentum and drive needed to form a strong alliance within the region. Nonetheless, since 2004 there has been some progress in this regard. Analysts see the latest developments involving China, India and the pacific nations, Australia and New Zealand, as promising (Blanchard 2002; Soesastro 2003, Teo 2003, 2005).

The United States and EA countries are seen to be equally responsible in impeding the EAC forming process. The Malaysian premier's initial proposal to create an EAC drew a sharp opposition from the first Bush administration which also ensured that Japanese and Korean foreign ministers rejected the EAC initiative (Shorrock 2002). Later, in August 1997, Japan astounded the international policy community by announcing its proposal to create a US $ 100 billion Asian Monitory Fund (AMF) in order to stabilise the exchange rates from any currency crisis within the region. The Japan's attempt was again thwarted by the United States (US), this time through China and the International Monitory Fund. Consequently we all witnessed 1997 economy crisis and the EAC building stalemate situation continued to prevail until last year.

It is interesting note that the current situation places the EA countries as well among the world's few nations that lack any regional identity. The reasons for this are found to be complex and historical. Han (in Shorrock 2002) pointed out that in addition to the overwhelming US influence, Japan's violent attempts to dominate the area in the 1930s and 1940s as well contributed to the current critical scenario, i.e., lack of any cooperative mechanisms within the region. Drysdale (2003) and Soesastro (2001) reintegrated the fact by looking into the history of North and East Asian countries that lacked any integration whatsoever owing to their size, power and deep scepticism within these individual countries. Soesastro (2003) observed of ASEAN`s latest inclination towards developing bilateral initiatives, instead of opting for region-wide negotiations. Literature in this field clearly reveals the events and reactions that have taken place since the Malaysian premier's first announcement for a regional grouping in East Asia, elaboration of which is beyond the scope of this paper. However, two major ASEAN and related summits of recent past (2001 and 2004) are briefly outlined to give some background on the need for a regional identity, following which the performance of EA countries concerned at regional and global arena are elaborated upon.

ASEAN Plus Three (2001)

At the fifth summit of the ASEAN Plus Three (APT) held in 2001, a vision for a strong grouping in the East Asia region was once again articulated. The APT leaders agreed that East Asia moves "from a region of nations to a bona fide regional community with shared challenges, common aspirations, and a parallel destiny" (Soesastro 2003:1). The underlying motivations for this stance were:

1. to establish a regional (institutional) identity in view of the other existing and imminent similar arrangements, such as the European Union (EU), and North American.
2. a need to strengthen its views and raise a common voice on regional and global developmental issues, and
3. to promote peace and prosperity within the region through cooperation in view of its own internal dynamics.

Trade, investment and finance have been the driving forces in building an EAC. However, this has not been as an easy task. Of the many obstacles in building a strong regional community in East Asia, the following have been the three main identified ones by many analysts:

1. great diversities and huge gaps in the levels of economic development,
2. lack of a multilateral mechanism for cooperation in the Northeast Asia and
3. politico-security problems within the region

(Japan Center for International Exchange 2003; Shorrock 2002; Soesastro 2003; Teo 2005).

Asian and Pacific Integration (2004)

Three years later, in November 2004 ASEAN countries met in Vientiane, Laos at their 10th summit with high optimism. Since this summit the task of Asian integration and community building is seen as a viable task with China taking a centre role in accelerating the process also supported by India. The ASEAN's ground breaking summit and back-to-back high level meetings with its Asian-Pacific partners China, Japan, South Korea, India, Australia and New Zealand, have led to decisive measures in building a favourable future for EAC. The summit is described as a major turning point at which ASEAN leaders formalised their intention to bind themselves more closely to the two giants within the region, China and India (Teo 2005). The six main initiatives formalised at this summit in building an EAC are elaborated in the next section, following which the World Bank indicators are analysed to see how the numbers stack up. Selected indicators are analysed to see the progress, advantages and drawbacks these EA countries have experienced in establishing a regional identity they over the years. The paper also compares the status of other well established regional communities against that of this region, based on the World Bank's economic indicators and two other pressing

issues (from the environmental and Millennium Development Goals or MDG) to give a comprehensive comparison in this regard.

New ASEAN Initiatives (2004)

Teo (2005) described the new developments of ASEAN Vientiane Summit (of 2004) as significant. Furthermore, stated that China's influence would be a key factor in the years to follow especially, towards the progress of East Asian economic integration. At the summit ASEAN countries signed Free Trade Agreements (FTAs) among them and between that of from the Pacific to act on the following,

1. to speed up ASEAN's own economic linkages in setting up an ASEAN Economic Community (AEC),
2. to narrow the wealth gap between the original ASEAN five (Indonesia, Malaysia, the Philippines, Singapore and Thailand) and Brunei, and the four new ASEAN countries (Vietnam, Cambodia, Laos, and Myanmar)
3. the official induction of India into ASEAN's economic integration process,
4. to begin FTA negotiations with Japan and South Korea to increase the trade flows between the two countries and ASEAN.
5. to extend invitations to Australia and New Zealand in preparation of initiating FTA negotiations with the two pacific nations, which is seen as a significant move. Despite Australia's earlier refusal to sign the ASEAN Treaty of Amity and Cooperation (TAC) the two heads of state have agreed for this with the possibilities of joining ASEAN in an Asian regional political and economic grouping.
6. to adopt a concept for a larger Asian economic bloc with a big boost. The Philippines president called for ASEAN to push forward its efforts in integrating the group by 2020 or earlier with China, Japan, South Korea and India.

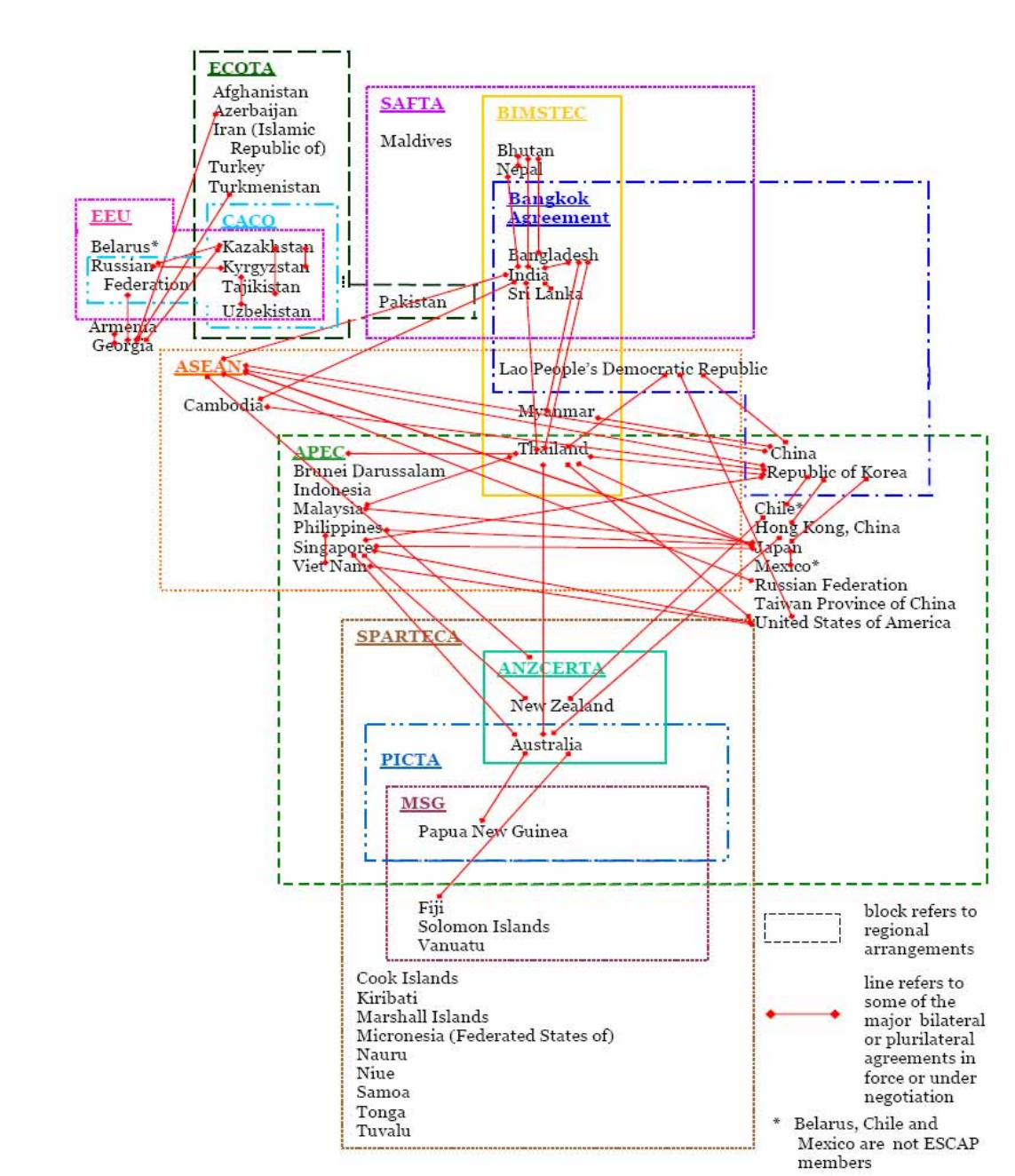


Figure 1: Regional trade agreements in the Asia Pacific region. Source: (United Nations Economic and Social Commission for Asia and the Pacific 2005:6)

With significant progress being made on the initiatives stated above, ASEAN countries are considered to be performing well in seeing themselves as a strong entity in itself for future negotiations with the other established and emerging entities, such as US, the European Union (EU) Latin American, the Middle East and African. There have been crucial developments in transforming the APT framework into an East Asian Summit (EAS) with the possibilities of more countries from the Pacific, such as Australia and New Zealand, joining in (see figures 1 - 3 for current and possible regional negotiations in the Asia Pacific region).

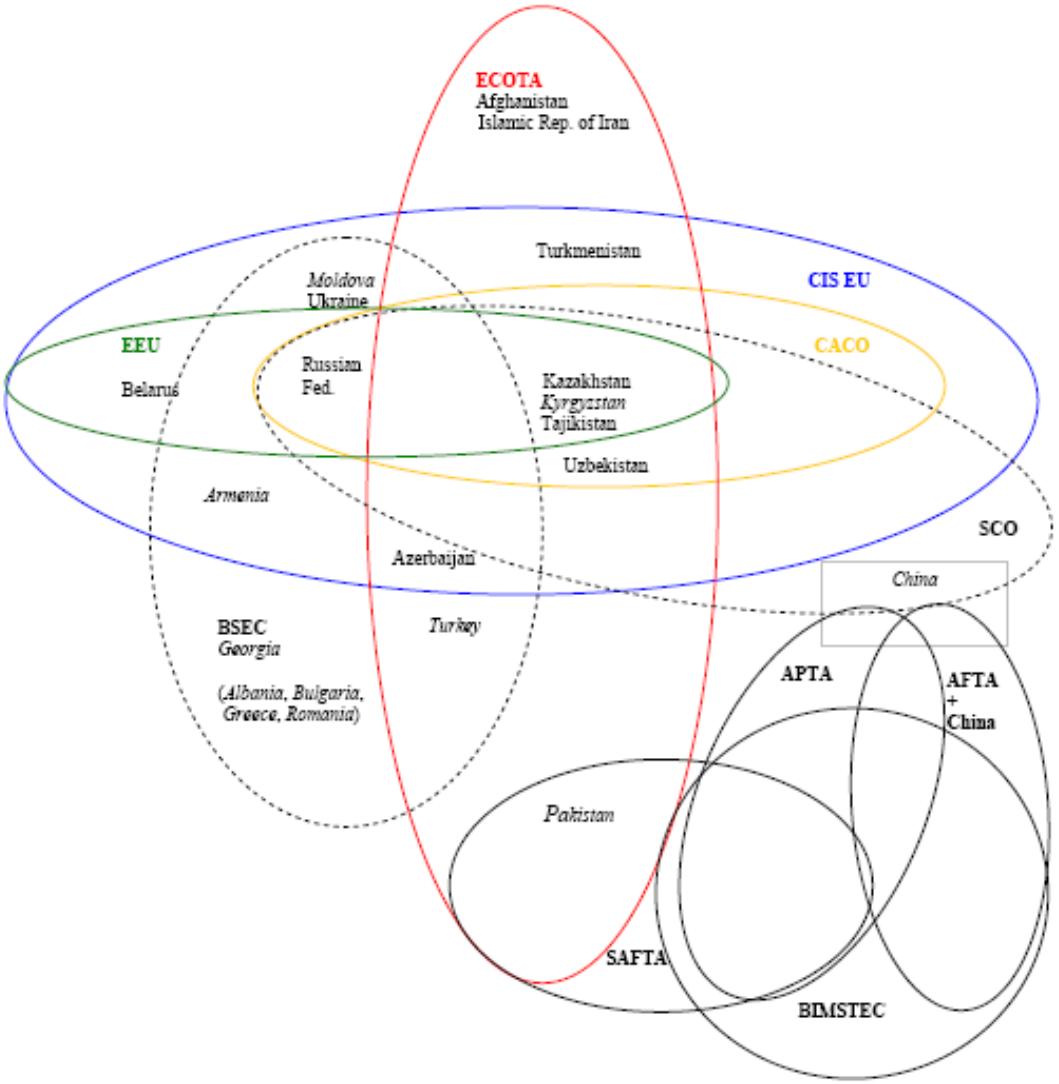


Figure 2: Regional trade agreements in the commonwealth independent states. Source: (United Nations Economic and Social Commission for Asia and the Pacific 2005:18)

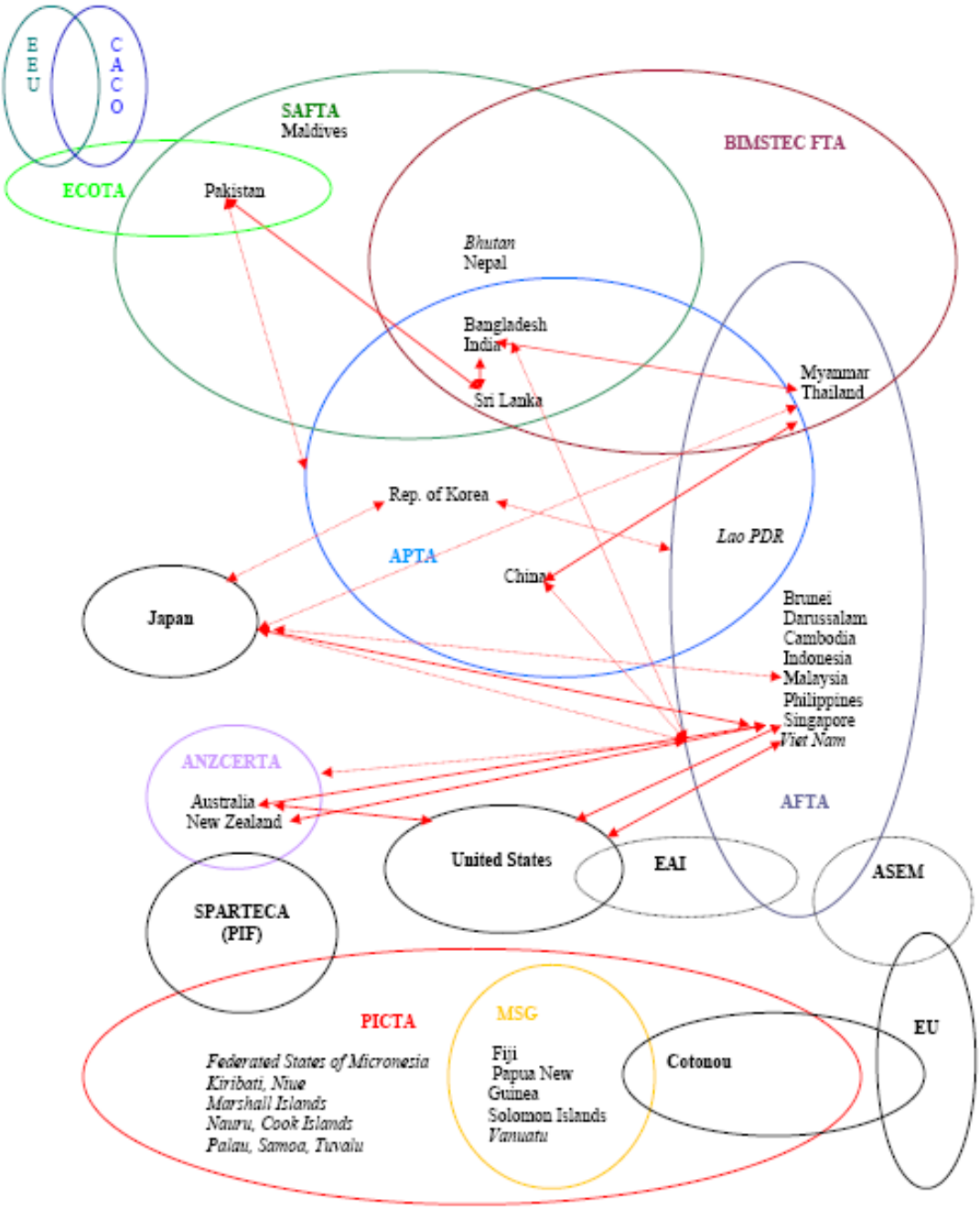


Figure 3: Possible RTAs within the Asia Pacific region. Source: (United Nations Economic and Social Commission for Asia and the Pacific 2005:19)

Meanwhile, the following commonwealth independent states (CIS) as well have been working on signing bilateral FTAs to promote regionalism in the central Asia (figure 4).

Table 2. Bilateral FTAs between CIS countries as of mid-2004

	Arm	Aze	Bel	Geo	Kaz	Kyr	Mol	Rus	Taj	Tur	Ukr	Uzb
Armenia				applied		applied	applied	applied	applied		applied	
Azerbaijan				applied			applied	signed			signed	
Belarus							applied	applied			signed	
Georgia	applied	applied			applied		signed	applied		applied	applied	signed
Kazakhstan				applied		applied	applied	signed	signed		signed	
Kyrgyzstan	applied				applied		applied	applied			applied	applied
Moldova	applied	applied	applied	signed	applied	applied		applied		applied	applied	applied
Russian Federation	applied	signed	applied	applied	signed	applied	applied		signed	signed	signed	signed
Tajikistan	applied				signed			signed				
Turkmenistan				applied			applied	signed			signed	
Ukraine	applied	signed	signed	applied	signed	applied	applied	signed		signed		
Uzbekistan				signed		applied	applied	signed				

Source: TACIS (2001), updated by the UNECE secretariat.

Figure 4; Source; In United Nations Economic and Social Commission for Asia and the Pacific (2005:23)

What Do the Numbers Say?

Data from the World Bank tables and ASEAN's Financial and Macroeconomic Surveillance Unit reports are analysed individually and collectively, in order to investigate the progress within ASEAN and other EA counties. Conventional statistical methods, such as 2 D graphs and an artificial neural network (ANN) based multidimensional explorative data analysis methodologies are used to see how these countries have performed during this period. The latter is performed by clustering the countries based on the data from the above stated tables and reports. The following are the observations made from the analyses.

Within the ASEAN countries the wealth gap found between its old members (Indonesia, Malaysia, the Philippines, Singapore and Thailand) and Brunei, and the four new ones (Vietnam, Cambodia, Laos, and Myanmar) is seen to be considerably wide and this can be observed in their GDP growth and per capita values (see figures 4 & 5). Thailand's 1997 currency crisis, its impact in 1998 on the whole region as well could be seen in the GDP growth rate graph of all ASEAN countries (see figure 5).

The World Bank data on GDP annual average growth (AAG) 1980-1990 and 1990-2000 along with their components, such as Agriculture, Industry, Manufacture, Services, for

the same year periods were analysed to study the country groupings. Self-organising map (SOM) techniques within the connectionist paradigms of ANNs were used for this.

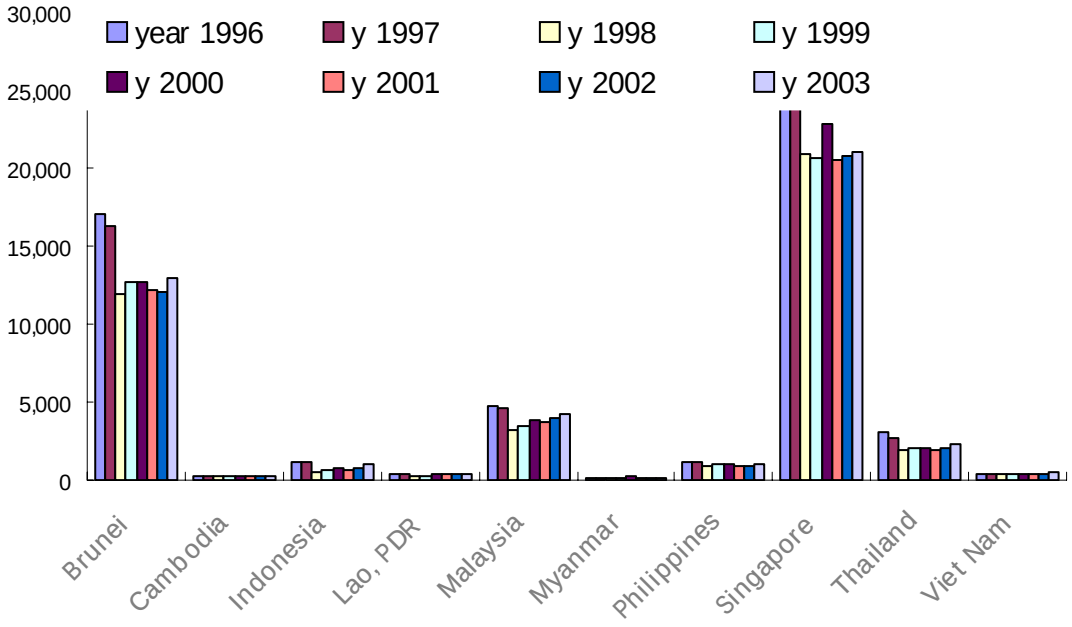


Figure 5: GDP per capita of ASEAN counties. Source: ASEAN Finance and Macroeconomic Surveillance Unit (FMSU) Database

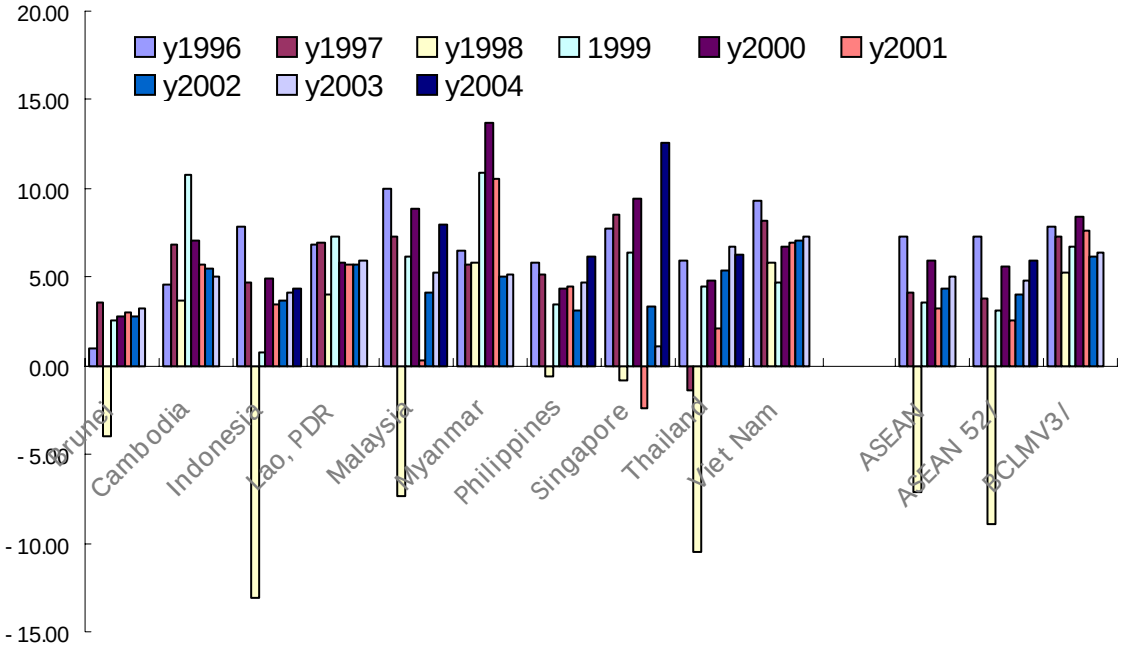


Figure 6: GDP per capita of ASEAN counties. Source: ASEAN Finance and Macroeconomic Surveillance Unit (FMSU) Database

A SOM is a feed forward artificial neural network with an unsupervised algorithmic training developed from late 20th century's understandings of the human brain cortex cell functioning (Kohonen 1997). Since its introduction, the algorithm has been applied to analysing multidimensional datasets across a wide spectrum of disciplines producing significant success. SOMs are excellent tools for explorative data analysis that can be used for projecting complex disparate datasets onto low dimensional displays while preserving any useful information within the raw data (Simula and et al. 1999).

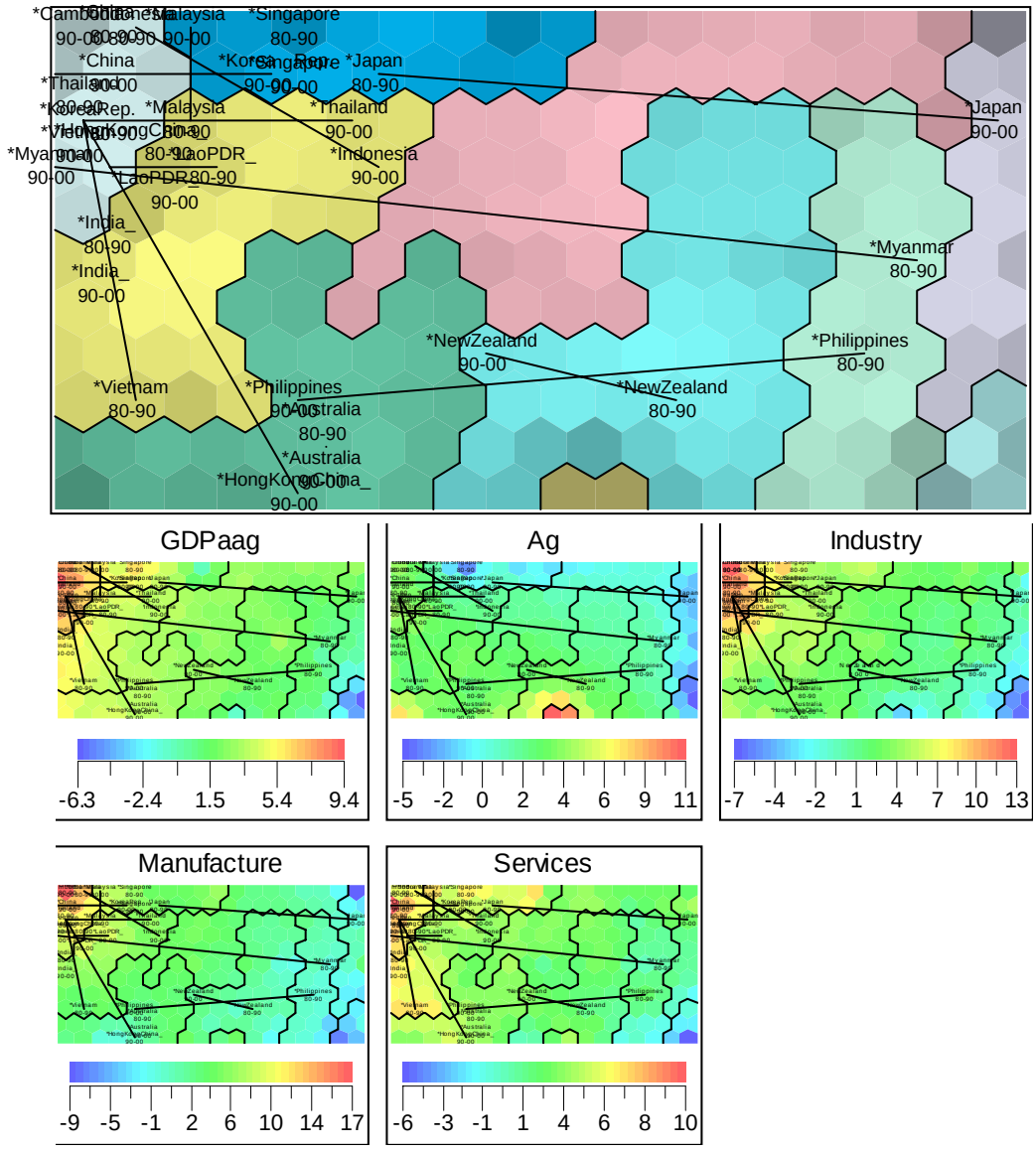


Figure 7 a: SOM and components of GDP annual average growth 1980-1990 and 1990-2000 along with their components, such as Agriculture, Industry, Manufacture, Services with ASEAN countries

By studying the SOM clustering and their components implicit knowledge within the disparate data sets even from multiple sources, could be visualised in the form of novel patterns, such as structures, trends and correlations, found to be impossible otherwise. Viscovery, commercial data depiction software is used to create SOM displays of the multidimensional data on EA and the other countries to see their performance, individually and within their own region. SOM components from Viscovery planes are analysed to learn about the correlations within the attributes analysed, such as GDP, population, and others. The following are the observations made from a SOM (figure 7 a & b) created with GDP annual average growth data (AAG) during 1980/90 and 1990/2000 timeframes from the World Bank tables:

1) ASEAN countries Vietnam, the Philippines, Hong Kong, Thailand and Myanmar show significant increase in GDP AAG for 1990/2000, non agriculture based whereas, Japan show a decrease.
2) Singapore, India, China, Lao PDR and Malaysia seem to show high GDP AAG for both time periods analysed
3) New Zealand's growth appears to be agriculture based.
4) As far as EU countries are concerned except for Ireland Turkey and Poland the rest do not show any significant progress in the two time periods analysed.

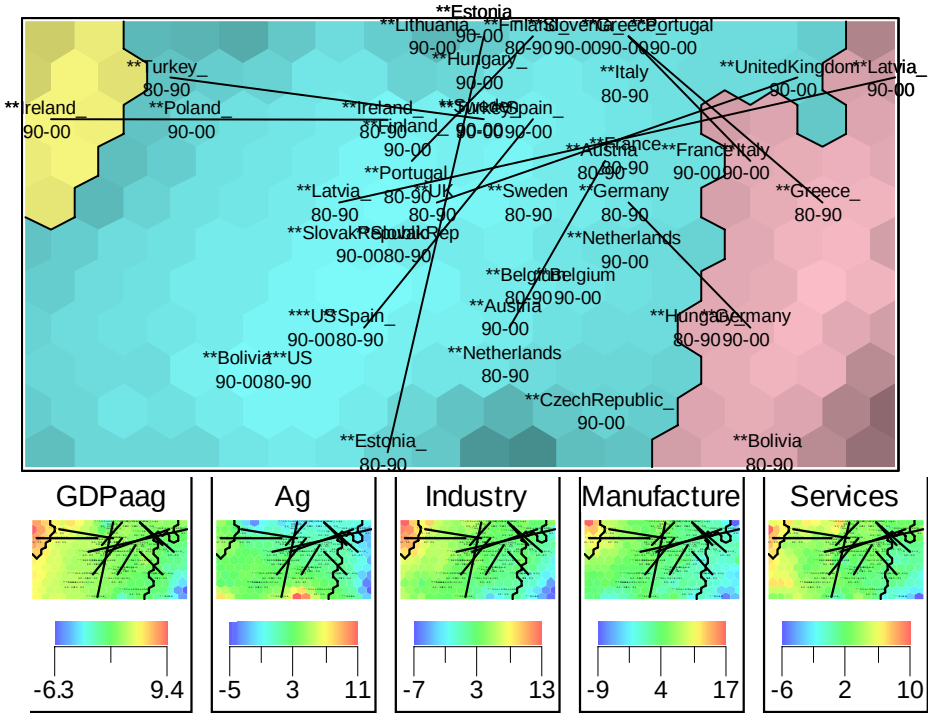


Figure 7 b: SOM and components of GDP annual average growth during 1980-90 and 1990/2000 along with their components, such as Agriculture, Industry, Manufacture, Services with EU countries

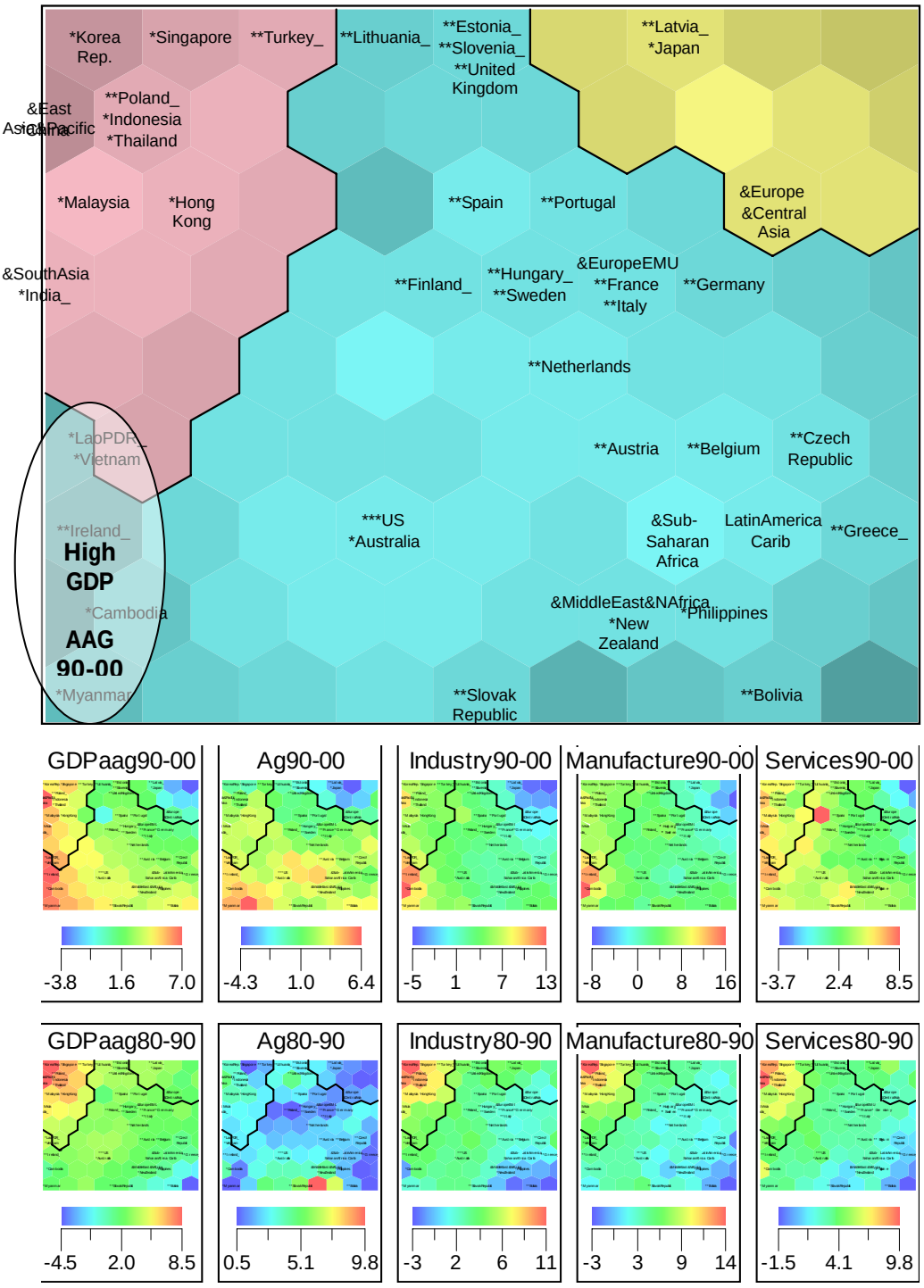


Figure 8 a & b: SOM national GDP AAG during 1980-90 and 1990/2000 along with their components, such as Agriculture, Industry, Manufacture, Services with EU countries

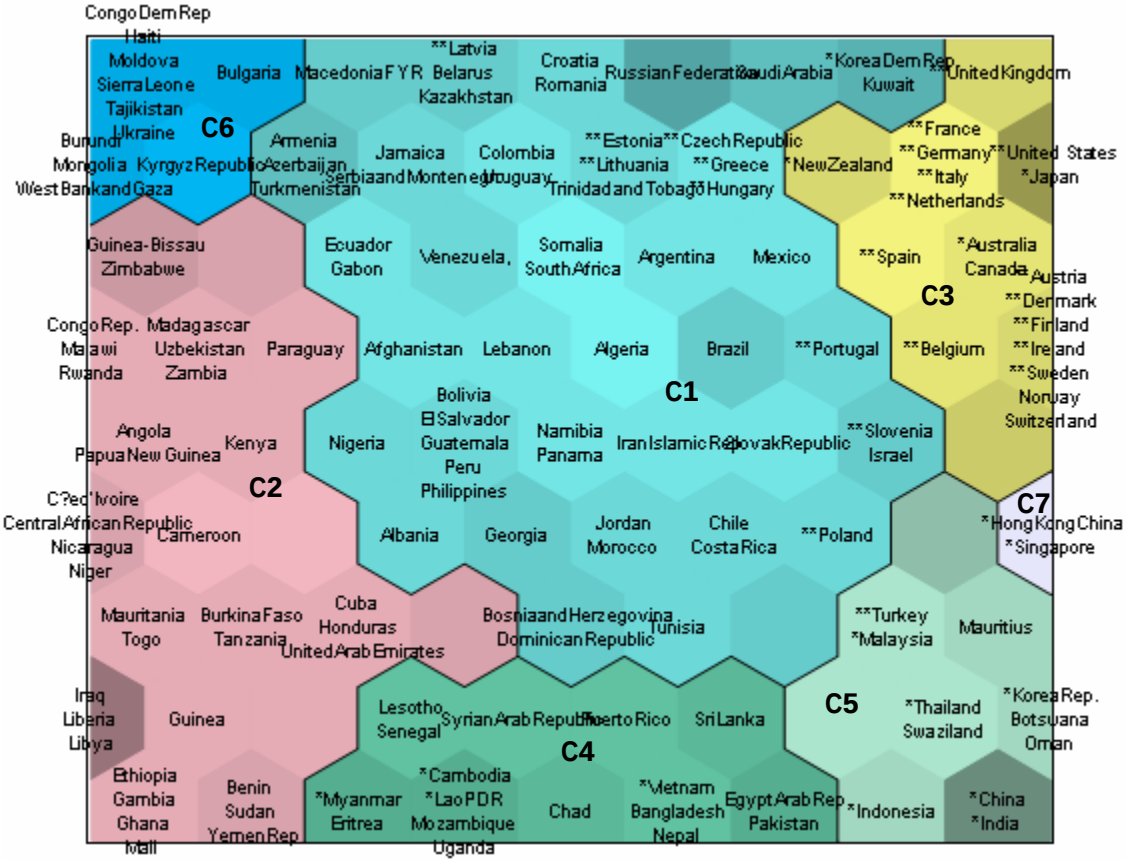


Figure 9 a; SOM of country population, surface area, population density, GNI, GNI per capita, GDP, PPP, PPP per capita and national GDP AAG for 1980-1990 & 1990-2000.

EA countries, Lao PDR, Viet Nam, Cambodia and Myanmar show high GDP AAG along with EU's Ireland for 1990-2000 (figures 8 a & b). However, when GDP AAG was analysed with country population, surface area, GNI and PPP figures, EA countries get clustered together in the right bottom corner (C5), and developed countries on the top right (C3) (see figures 9 a). Different SOM country clustering (figure 9 a) and their details (figures 9 b – e) can be summarised as follows:

1) The EA countries (*) could be seen in clusters C1, C3, C4, C5 and C6, whereas EU countries (**) are seen in clusters C1 and C3 with Turkey in C5 which may become a member of EU in the near future. This shows the wide gaps, in size, population and economy within the EA countries. The details

of the two sets of clusters can be seen in the SOM cluster profile graphs (figures 9 d & e).

2) Singapore and Hong Kong are in the one node cluster C7 owing to similarities in their population density and economic status. However based on the other factors analysed, the two countries share similar values to that of clusters C3 and C7 (i.e., developed counties). The GDP AAG of developed countries for the two time periods are more dependent on non agriculture based factors.

3) Within cluster C5 China and India are seen in one node owing to their population

4) Central Asian and a few EU countries (namely, Estonia, Lithuania, Czech Republic, Greece, Hungary, Portugal, Slovenia, and Poland) are grouped together in cluster C1.

5) Most of the African counties are grouped in cluster C1 , however, a few are grouped in C2 and C4 (figure 10)

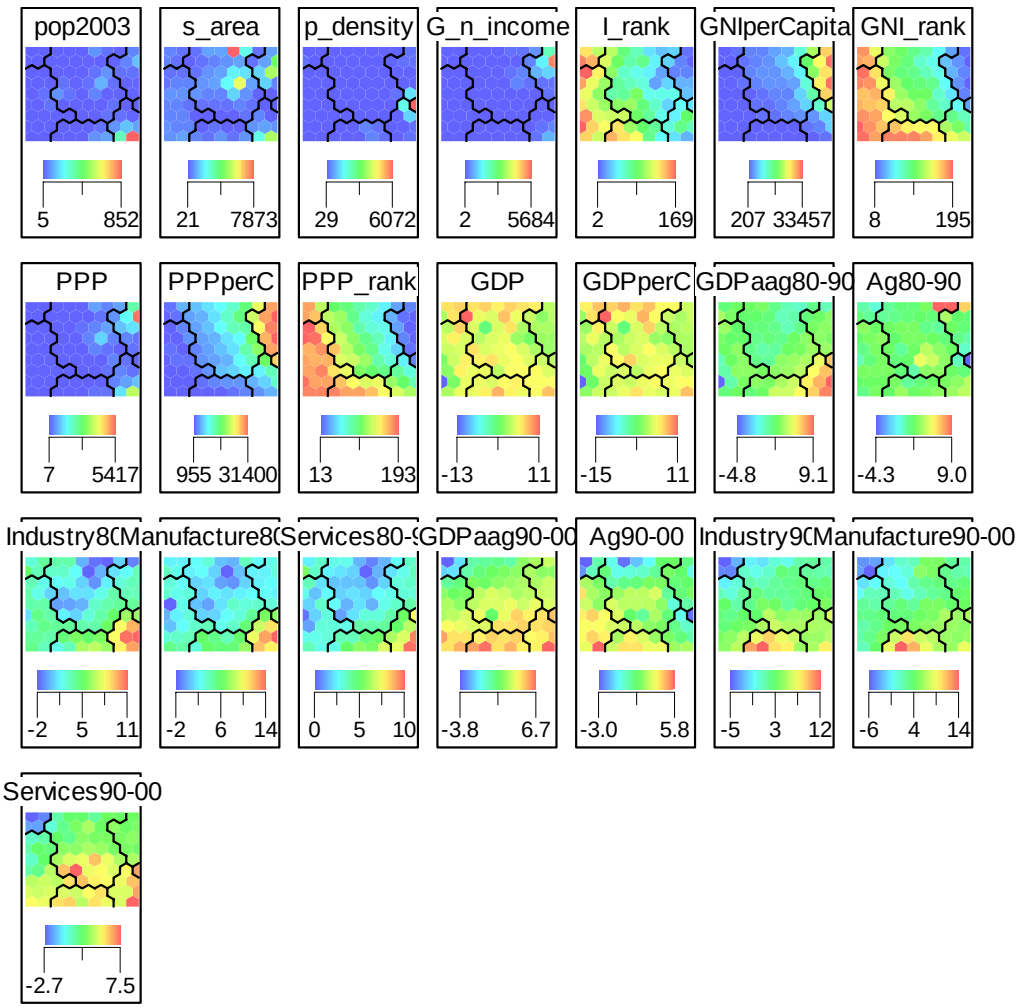


Figure 9 b: Components of figure 9 a SOM - country population, surface area, population density, GNI, GNI per capita, GDP, PPP, PPP per capita and national GDP AAG 1980-1990 and 1990-2000

C 1: Macedonia FYR, **Latvia Belarus Kazakhstan, Croatia Romania, Russian Federation, Saudi Arabia, *Korea Dem Rep. Kuwait, Armenia Azerbaijan Turkmenistan, Jamaica Serbia and Montenegro, Colombia Uruguay, **Estonia **Lithuania Trinidad and Tobago, **Czech Republic **Greece **Hungary, Ecuador Gabon, Venezuela,, Somalia South Africa, Argentina, Mexico, Afghanistan, Lebanon, Algeria, Brazil, **Portugal, Nigeria, Bolivia El Salvador Guatemala Peru Philippines, Namibia Panama, Iran Islamic Rep., Slovak Republic, **Slovenia Israel, Albania, Georgia, Jordan Morocco, Chile Costa Rica, **Poland, Bosnia and Herzegovina Dominican Republic, Tunisia

C 2: Guinea-Bissau Zimbabwe, Congo Rep. Malawi Rwanda, Madagascar Uzbekistan Zambia, Paraguay, Angola Papua New Guinea, Kenya, C'ed'Ivoire Central African Republic Nicaragua Niger, Cameroon, Mauritania Togo, Burkina Faso Tanzania, Cuba Honduras United Arab Emirates, Iraq Liberia Libya, Guinea, Ethiopia Gambia Ghana Mali, Benin Sudan Yemen Rep

C 3: **United Kingdom, *New Zealand, **France **Germany **Italy **Netherlands, **United States *Japan, **Spain, *Australia Canada, **Belgium, **Austria **Denmark **Finland **Ireland **Sweden Norway Switzerland

C 4: Lesotho Senegal, Syrian Arab Republic, Puerto Rico, Sri Lanka, *Myanmar Eritrea, *Cambodia *Lao PDR Mozambique Uganda, Chad, *Vietnam Bangladesh Nepal, Egypt Arab Rep. Pakistan

C 5: **Turkey *Malaysia, Mauritius, *Thailand Swaziland, *Korea Rep. Botswana Oman, *Indonesia, *China *India

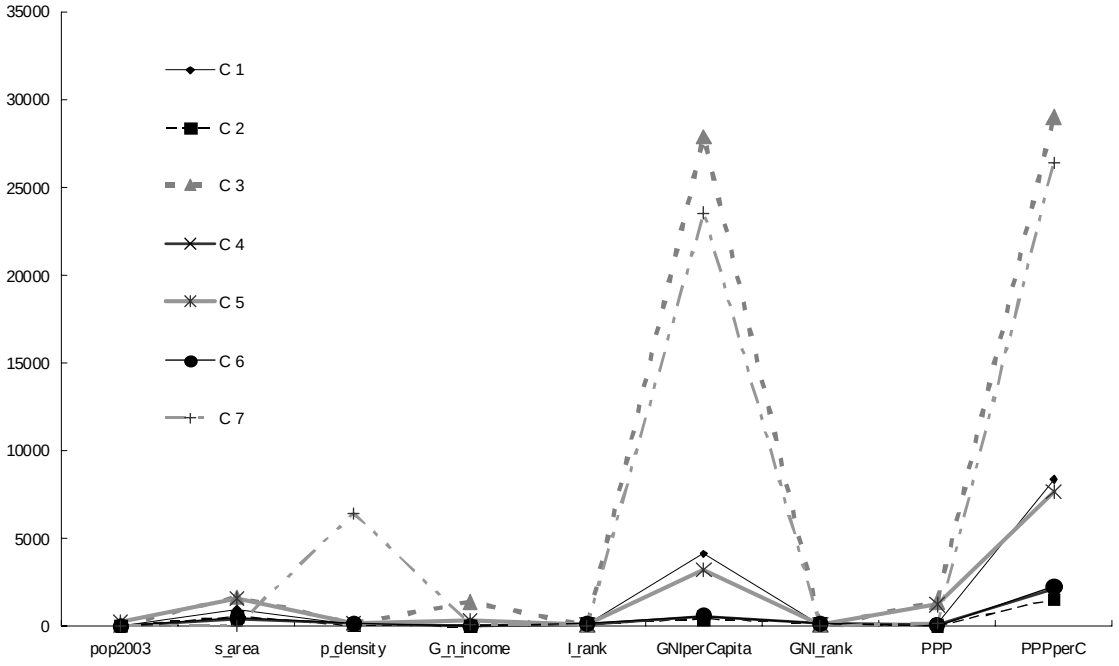
C 6: Congo Dem Rep Haiti Moldova Sierra Leone Tajikistan Ukraine, Bulgaria, Burundi Mongolia West Bank and Gaza, Kyrgyz Republic

C 7: *Hong Kong China *Singapore

Figure 9 c: Table showing the different SOM clusters (figure 9 a) and the countries within them.

It is interesting to see that the UN grouping and that of SOM analysis using MDG indicators used in this paper (figure 10) are similar. Both the groupings reflect the natural regionalism without any such data on location being included. However, SOM

clustering shows further classification within the African and EA countries. The marked differences within EA countries discussed earlier are also depicted in the SOM clustering.



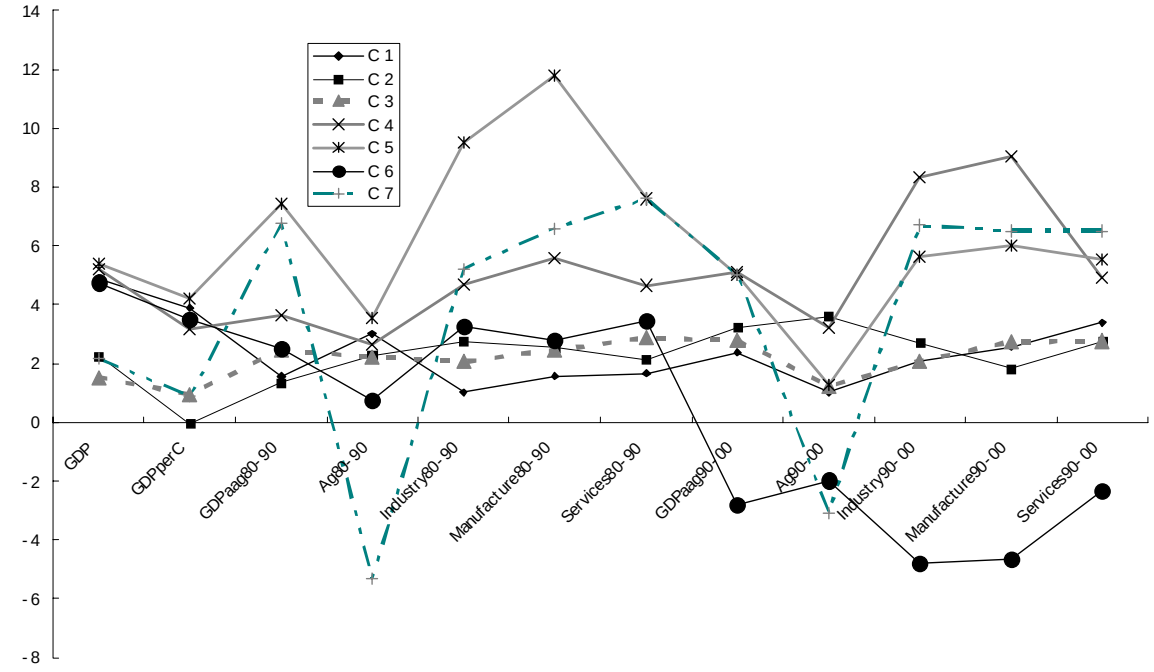


Figure 9 d & e: Graphs showing SOM cluster profiles (figure 9 a).

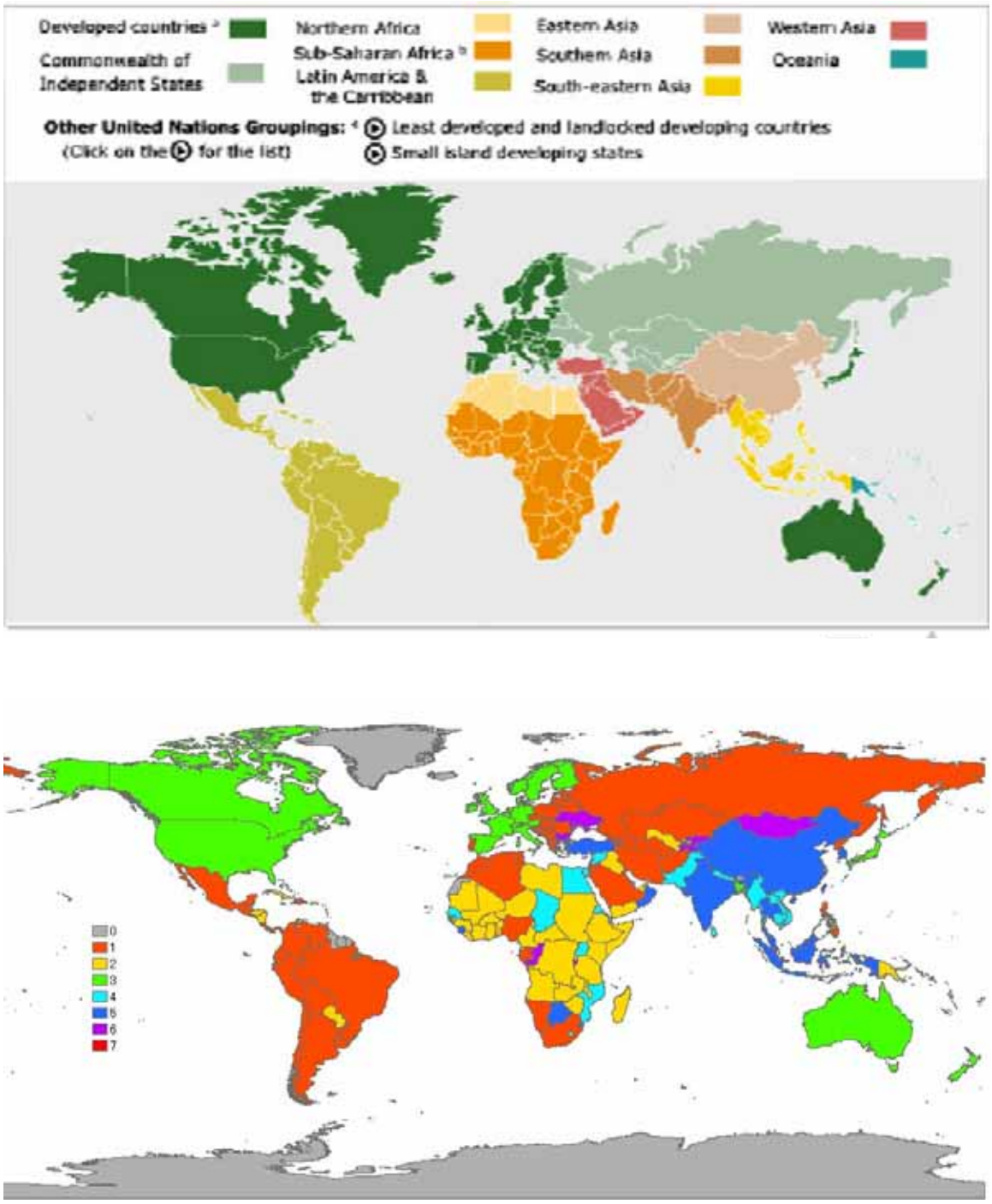


Figure 10: Country grouping of MDG indicators and that of SOM using national GDP, GNI, population related data.

Source: http://unstats.un.org/unsd/mi/mi_worldmillennium_new.asp

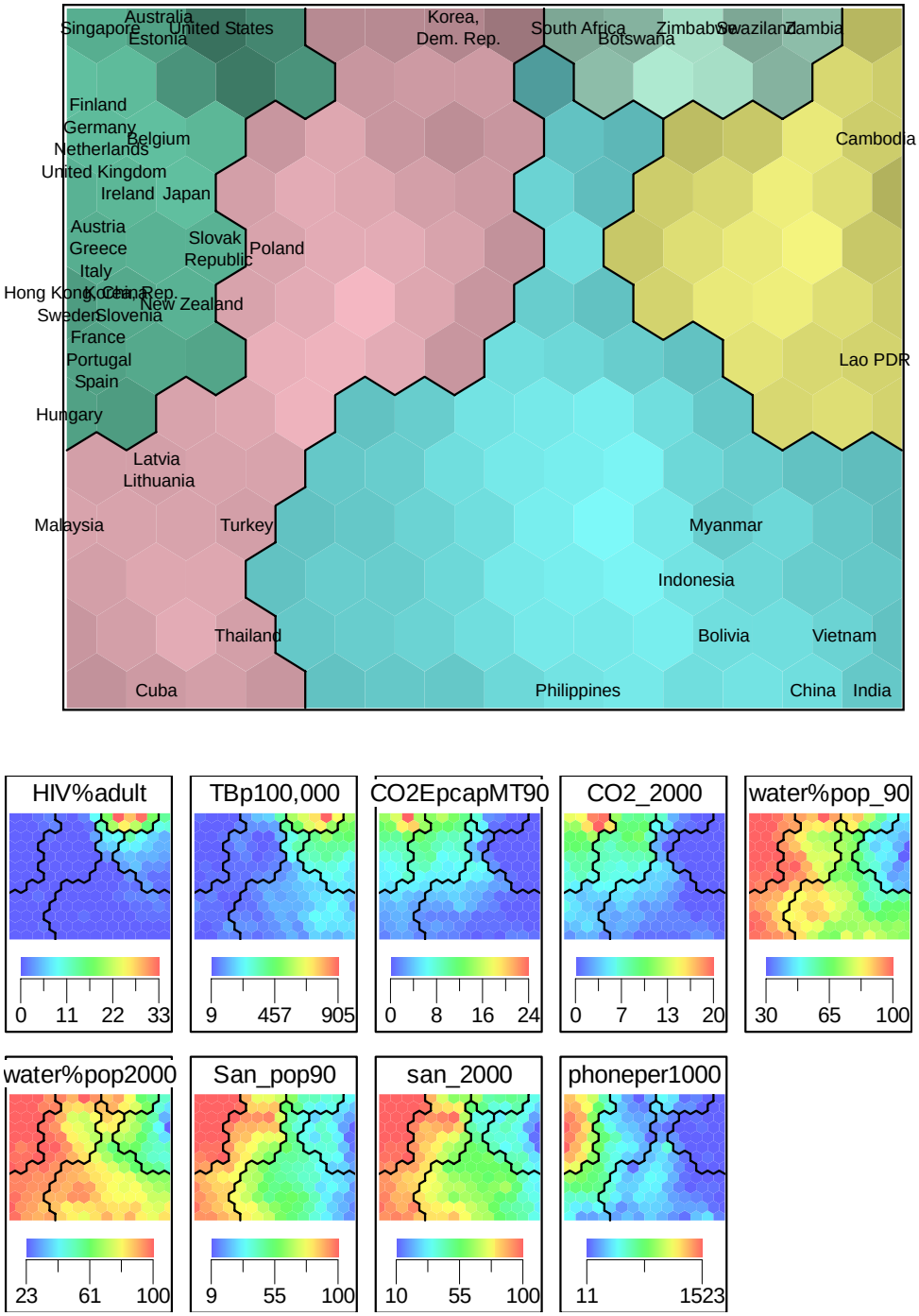
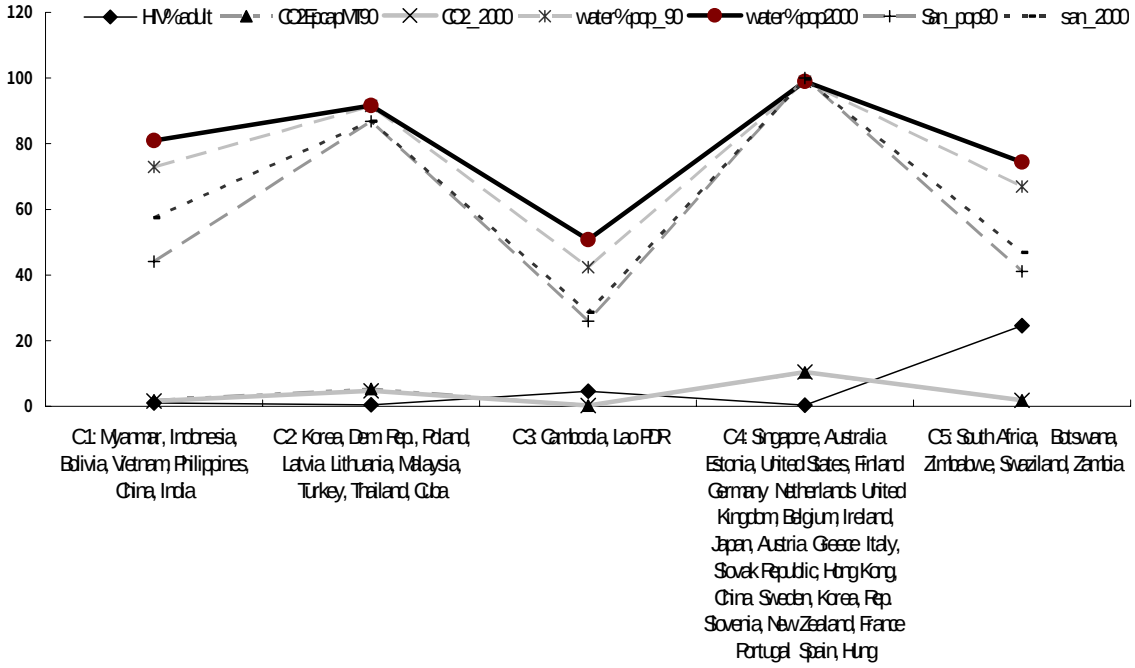


Figure 11 a & b: SOM and components of environmental indicators, HIV prevalence % of adults 2003, tuberculosis 2003 (1 in 1000), CO_2 emission 1990 and 2000, improved

water 1990 and 2002, Improved sanitary in 1990 and 2002, unemployment and phone per 1000.



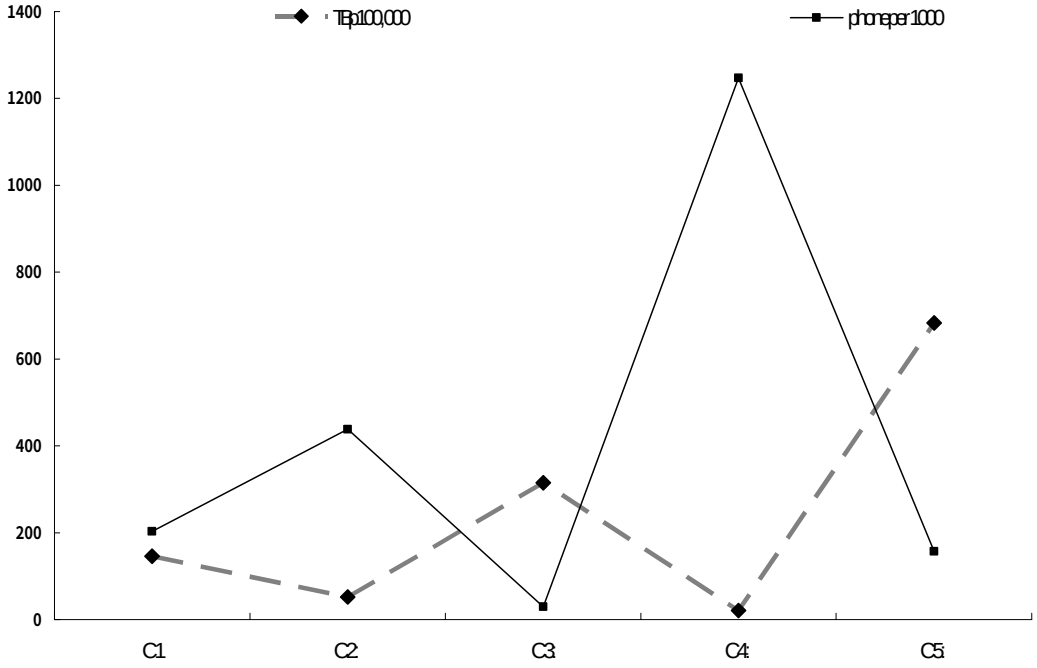


Figure 11 c & d: Graphs showing SOM cluster average environmental indicators

SOM analysis results on environmental issues using MDG world development indicators (figures 11 a - c) clearly show the wide gaps between the developed, developing and the world's other impoverished countries. The significant gaps within EA countries as well could be seen clearly on the SOM (figures 11 c & d) and the 2D graphs of SOM cluster profile. In the SOM, cluster 4 consists of Singapore, Australia Estonia, United States, Finland Germany Netherlands United Kingdom, Belgium, Ireland, Japan, Austria Greece Italy, Slovak Republic, Hong Kong, China Sweden, Korea, Rep. Slovenia, New Zealand, France Portugal Spain, Hungary with the highest values for access to an improved water source, sanitation facilities (% of population), fixed-line and mobile phone subscribers (per 1,000) as well as low figures for HIV prevalence (% of adults) and the incidence of tuberculosis (per 100,000 people). Except for Latvia and Lithuania all other EU along with Japan are in this cluster. Please note cluster 4 also shows high CO_2 emission (per capita metric ton). Of the EA countries Cambodia, Lao PDR in cluster 3, lie close to African countries with same worst values for environmental MDG indicators except for HIV prevalence. African countries in cluster 5 show the worst figures for the variables analysed. Cluster 2 countries, Korea, Dem. Rep., Poland, Latvia Lithuania, Malaysia, Turkey, Thailand and Cuba with the second best values as well has the second highest values for CO_2 emission. Cluster 2 countries Myanmar, Indonesia, Bolivia, Vietnam, Philippines, China and India are in between clusters 2 and 3.

SOM results of science and technology MDG indicators (figure 11 a & b) show the country standings on the international stage. Cluster 1 consisting of China Unites States and Japan (figures 11 c & d) exhibits the highest values for all indicators analysed except for technicians for research and development (per million people 1996-2002). The highest value for technicians is shown by Cluster 2 countries Italy, Finland, Slovenia, Belgium, Czech Republic, Sweden, Austria, Netherlands, Spain, France, Germany, Korea Rep., United Kingdom, Singapore and Ireland. The cluster 2 counties exhibit the second highest values for all other indicators and the highest for non resident patent applications.

Given that status on issues relating to forming an EA community and its implications at regional and global scales, the next section takes a closer look at the economic growth within EA.

Looking at the intra trade within EA, ASEAN/AFTA has the highest percentage from 1980 to 2003 with a steady growth (figure 13). This could be considered as a

favourable sign in moving forward as a strong regional entity. Figure 14 on export growth of EA, South East, newly industrialised economies and China, shows that the EA growth has implications not just on the countries within the region but the ones surrounding it, such as the South Asian Association for Regional Cooperation (SAARC)/SAFTA.

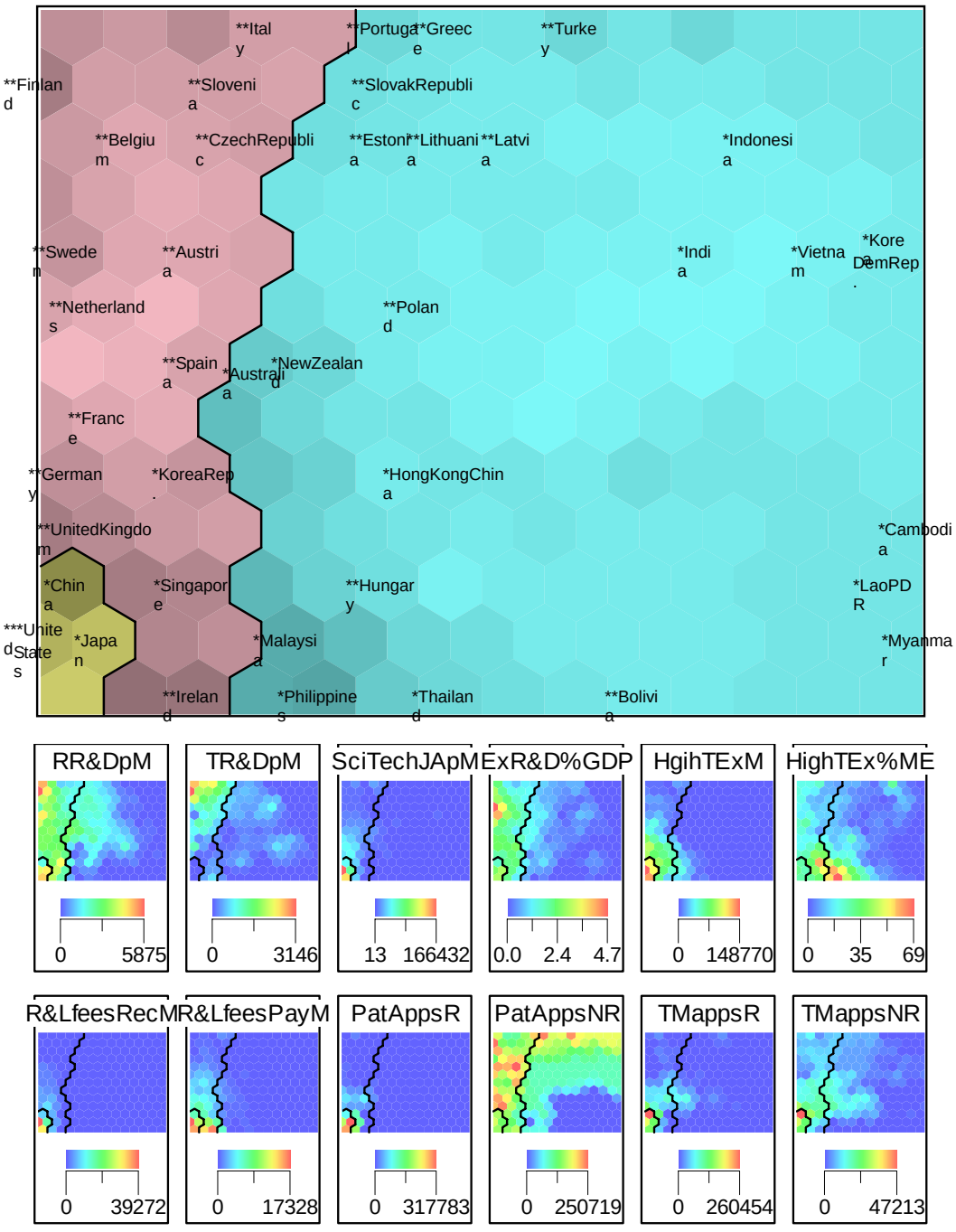


Figure 12 a & b: SOM of country data on researchers in research and development (R&D-per million people (pmp), technicians in R&D- pmp, scientific and technical

journal articles-pmp, expenditure for R&D-% GDP, high technology exports-millions, royalty and license fees receipts, payments in millions, patent applications filed and trademark applications filed by residents and non residents in 2002

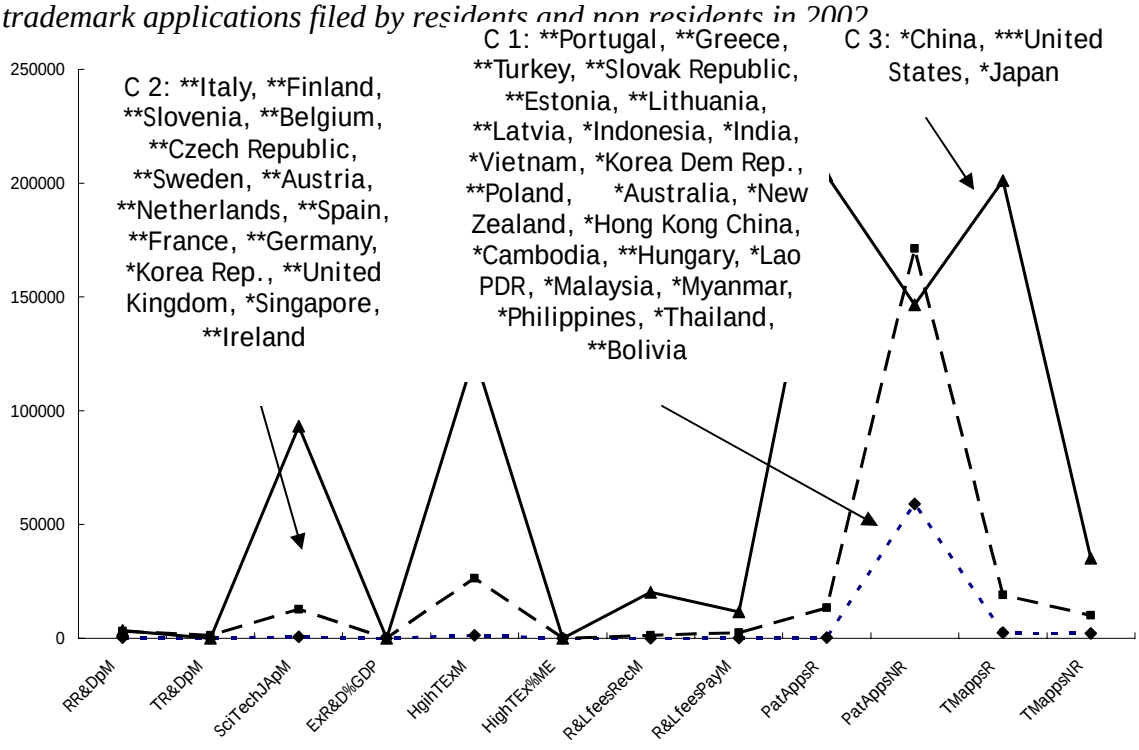


Figure 12 c: Graphs showing SOM cluster details of MDG indicators of science and technology.

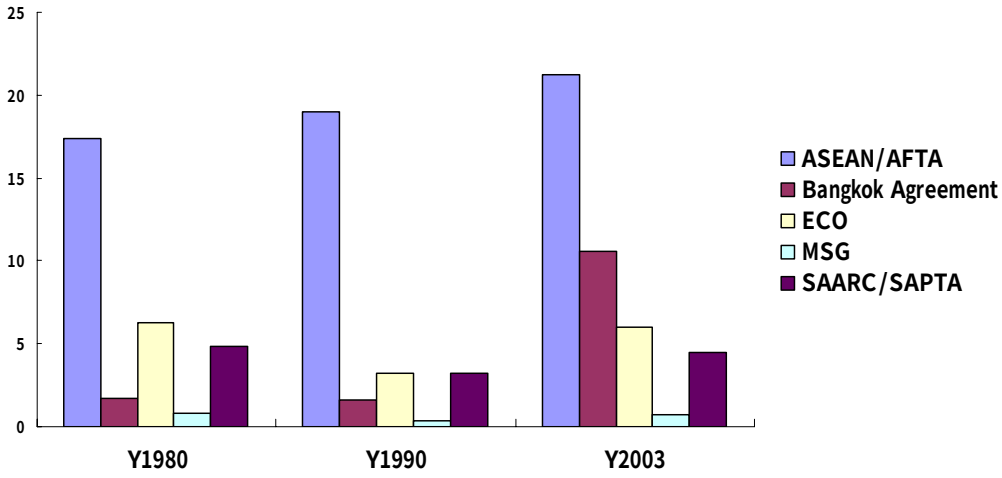


Figure 13: Intra-trade of trade groups as a percentage of total exports of each trade grouping. Source: UNCTAD Handbook of Statistics 2004 in (United Nations Economic and Social Commission for Asia and the Pacific 2005)

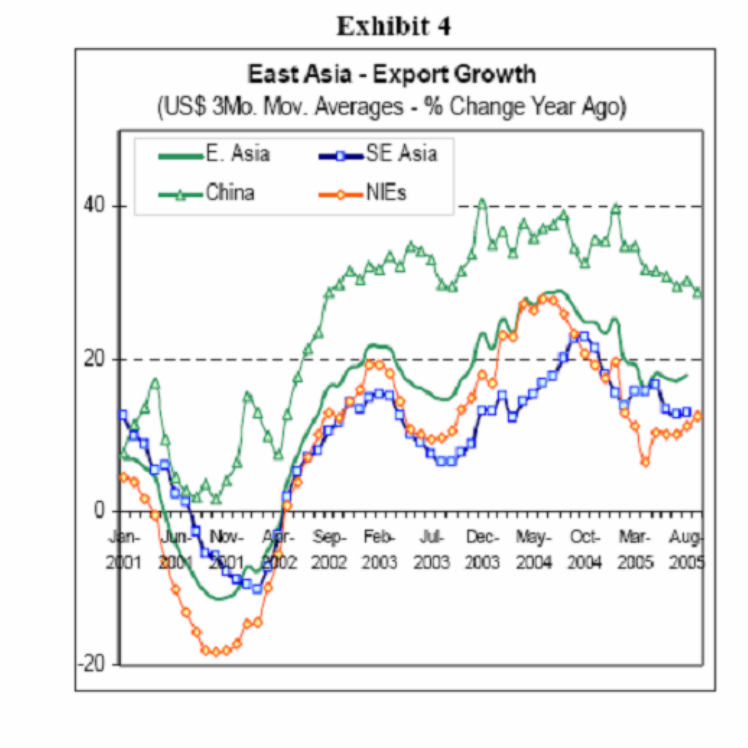


Figure 14 a: EA country export growth.
Source:http://siteresources.worldbank.org/INTEAPHALFYEARLYUPDATE/Resources/EAP-Brief-final.pdf

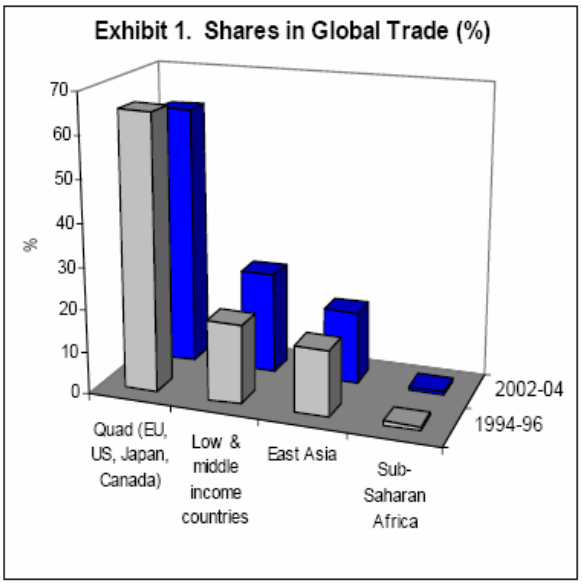


Figure 14 b: Shares in global trade
http://siteresources.worldbank.org/INTEAPHALFYEARLYUPDATE/Resources/EAP-Brief-final.pdf

Finally, looking at the shares in global trade (%) for 2002-2004, EU, US, Japan and Canada contribute for over 60 %, low & middle income countries 25 %, EA less than 15%. Low & middle and EA shares have increased during 2002-2004 period when compared with that of 1994-1996. This could be considered as a favourable sign however, EA has a long way to go in reaping the actual benefits of regionalism within the region.

Conclusion

In summary, it could be stated that the EA countries could not only avert any future economy crisis within the region (i.e., 1997), but benefit from forming a strong alliance, the numbers as well confirm this. Due to their geographical positioning these countries are destined to share each others' failure and success. The country clustering of SOM of the World Bank indicators are similar to the UN country groupings of MDG indicators. In the SOM clustering, EU countries are grouped in C1 and C3 even with dissimilar GDP AAG whereas, EA countries spread across C1-C6 showing extensive dissimilarities among them. This shows that countries with a regional arrangement are able to sustain each other's instability in terms of economic growth. In this context, as a community with common aspirations aimed at improving coordinated efforts within the region, EA countries could also establish a significantly better stature by increasing their leverage against the other well established and emerging regional economies, such as the EU, North American, South American and the Caribbean. Failure to do so will cause further weakening of the economically less stable countries, for example Cambodia and Laos, could be forced slip into the status of African countries and it could in turn affect the stronger economies within the EA. For instance, 1997 Thailand's currency crisis eventually caused for negative GDP growth rates in the whole region. Currently, EA is in between the low & middle income and African economies, more close to the former in the global trade shares. Hence, based on the manner numbers stack up, forming an EAC including Asia's two major emerging economies (China and India) does not seem to be an option but a major impetus for counterbalancing the power exerted by the other established and emerging regional arrangements, especially in this era of increasing global interaction never seen before in human civilisation.

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References

Asian Economic News (2003). 'ASEAN-plus-3' should be called E. Asia Economic Group. 2005. http://www.atimes.com/asia-crisis/DC14Db02.html.

Blanchard, J.-M. F. (2002). Brighter prospects for East Asian cooperation, Online Asia Times. http://www.atimes.com/asia-crisis/DC14Db02.html.

Drysdale, P. (2003). Japan and East Asia: Economic Prospects and Challenges. http://www.globalmovements.monash.edu.au/globe/articles/peterdrysdale.pdf http://www.globalmovements.monash.edu.au/events/ak.html#Drysdale.

Japan Center for International Exchange (2003). *ASEAN-Japan Cooperation in East Asia Community Building Joint Statement on East Asian Community Building*. Kisarazu Workshop.

Kohonen, T. (1997). Kohonen Tuevo *Justification of Neural Modelling*, Berlin; New York : Springer.

Shorrock, T. (2002). East Asian community remains elusive, Online Asia Times 5 February 2002. http://www.atimes.com/china/DB05Ad02.html.

Simula, O., J. Vesanto, et al. (1999). Analysis and modeling of complex systems using the self-organizing map. *Studies in Fuzziness and Soft Computing Neuro-Fuzzy Techniques for Intelligent Information Systems*. N. Kasabov and R. Kosma. Germany, Physica-Verlag**:** 3-22.

Soesastro, H. (2001). Whither ASEAN Plus 3? *PECC Trade Forum June12-13, 2001 Bangkok, Thailand*: 17. http://www.pecc.org/publications/papers/trade-papers/2_PAE/7-soesastro.pdf.

Soesastro, H. (2003). Building an East Asian community through trade and investment integration, CSIS publications. http://www.csis.or.id/publications_paper_view.asp?id=26&tab=0 and http://www.csis.or.id/paper_view.asp?tab=0&code=wpe067.

Teo, E. (2005). New challenges for building an East Asian community, The Jamestown Foundation. 2005. http://www.asianresearch.org/articles/2493.html.

United Nations Economic and Social Commission for Asia and the Pacific (2005) *Experiences with Regionalism and Bilateralism in Asia and the Pacific with Focus on Central Asia*. International Conference on Strengthening Regional Cooperation for Managing Globalization, Moscow 23.