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STREET VENDORS IN POST-REVOLUTION CAIRO:
Victims or Villains?

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Abstract

Since the 25th of January 2011 revolution in Egypt the phenomenon of informal street vendors has increased rapidly and continues to influence the everyday life of citizens. The negative impacts of this practice are numerous, and people continue to ask whether these vendors are victims or villains. This research investigates the phenomenon and addresses how to possibly resolve this issue and its consequences?

الملخص

منذ قيام ثورة الخامس والعشرون من يناير في مصر، أخذت ظاهرة الباعة الجائلين في الشوارع تتزايد وتنتشر، لتؤثر بذلك على الحياة اليومية للمواطنين تأثيرا سلبيا متعدد الجوانب. وتستمر تساؤلات الناس عن ما إذا كان هؤلاء الباعة جناة أم مجني عليهم. هذا البحث يتناول دراسة هذه الظاهرة والتحقيق فيها من خلال إلقاء الضوء على وجهات النظر المختلفة حول هذه القضية، ومحاولة إيجاد الحلول الممكنة لها، وللنتائج المترتبة على وجودها.

1   INTRODUCTION

In December 2010, riots in Tunisia were sparked by the desperation of a street vendor, Mohamed Bu'Azizi, who set himself on fire after his goods were impounded and he was humiliated by the authorities. This horrific event sparked a public outcry for democratic reform in Tunisia that spread throughout North Africa and the Middle East, precipitating the downfall of Presidents Ben Ali of Tunisia, Mubarak of Egypt, and Kaddafi of Libya. Since the dramatic event that rocked these nations, their political and economic structures have nearly collapsed, and those currently in power continue to struggle with rebuilding them.

In pre-revolution in Egypt, the phenomenon of street vendors was common and its existence fluctuated in quantity and location based on the intensity of police crack-down and the concurrent economic environment. Since the revolution the phenomenon flourished exponentially and is clearly visible on almost every street corner, impacting the everyday life of citizens. People continue to debate whether these vendors are victims or villains, and question how will democratic reforms solve street vendors' problems?

The main driver, or root cause, of informal street vending is simply the need for income, which has otherwise been rendered unattainable. The International Labour Organization's (ILO) defines the informal sector[1] as the production of goods and services with the primary objective of generating employment and incomes to the persons concerned. These activities operate within a small sector, with little division if any between labor and capital as factors of production. Labour relations in these activities are socially determined, rather than formalised with contracts and legal guarantees. They are sometimes supported by documentation only recognized within the informal economy.

Economic informality is established upon two parameters; the lack of legal business registration, taxation and licensing, and the operation on public property, or private property that is not legally appropriated for the practice. This study focuses on the illegal commercial exploitation of public space: squares, streets and station forecourts, and the mediation of the legal and policy frameworks of urban planning, land rights, roadway legislation and urban management to accommodate vending in public space. It is mostly in the informally appropriated public spaces that police crack-down, harassment and brutality are the common response of those in power, as was the case with those before them. The repression of street vending is not unique to North Africa. Totalitarian and democratic governments alike have been antagonistic to the sector. A wide range of laws and regulations make it difficult to work within the law. However, without alternative income, many are forced to resort to such practices. At the heart of this contest over public space is an unspoken belief that the 'untidy' poor and their 'anarchic' occupation of the street have no place in the global city, where the state and capitalist power are demonstrated through control of public space and the 'modernization project'. (Madanipour 2010, Brown et al 2010, Lyons & Msoka 2010)

This research analyses information gathered in September 2012 from: interviews with 26 key individuals of the formal sector including senior figures in national and international agencies, academics, national and municipal officials, politicians and activists; questionnaire-based interviews with 103 street vendors, drawing on a methodology developed in earlier fieldwork on similar practices in sub-Saharan Africa and Asia[2], and a review of relevant legislation and bylaws, newspaper and gray literature on events preceding and following the revolution, and publicly available statistics.

The research also examines the change in power relations at a unique moment in the history of Cairo. Post-conflict cities where the urban economy has to be rebuilt are perhaps an extreme example of the wider impacts of structural adjustments. Post-neoliberal reforms, which have been transforming the economy of Egypt since the

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[1] 15th International Conference of Labour Statisticians(ICLS), 1993

[2] Vendors were selected from four main market areas: Helwan (the area adjacent to the metro-station and its forecourt); Embaba (Embaba Tunnel and the slightly more up-market area of Ard El Gamiya); Demerdesh and Ramses (outside metro-stations, in front of public buildings and in near-by streets); and Tahrir (the square and near-by Abdel-Monem Riad micro-bus station).

late 1980's, have been met with a sharp reduction in formal jobs, and have led to a shift of middle and lower-income workers into micro-enterprises and informal work. Cairo, however, remains in conflict as the burgeoning growth of informal forms of livelihood are met with a new recognition and dynamic attributed to the power of public voice that carries authentic claims for economic inclusion. The front lines of policing and security of the vendors is an ongoing battle that fluctuates as those in power struggle with superficially remedying the symptoms while still unable to address the reality of the root cause. In the meantime, order and access to the public arena of the city is being lost.

2   MACRO-ECONOMIC AND LEGAL CONTEXT OF INFORMAL TRADE IN CAIRO

Since the mid-1990's the value added of manufacturing and agriculture, as a percentage of the GDP of Egypt, have steadily declined. Services have been the largest growing sector of the economy, particularly commerce [Figure 1]. Within the commercial sector, the increasing disparity between imports and exports has meant that retail distribution of imported goods continues to be a key livelihood opportunity [Figure 2]. Unemployment, which had dropped between 2006 and 2008, increased by nearly 50% from 2008 to 2011 and reached 12%. Consumer price inflation continues to rise faster than job opportunities. Accordingly, the Egyptian economy has been on an unsustainable trajectory of utilising the existing labour force since before the revolution.

Figure (1) Manufacturing and Agriculture, Value Added by Year (% contribution to GDP)
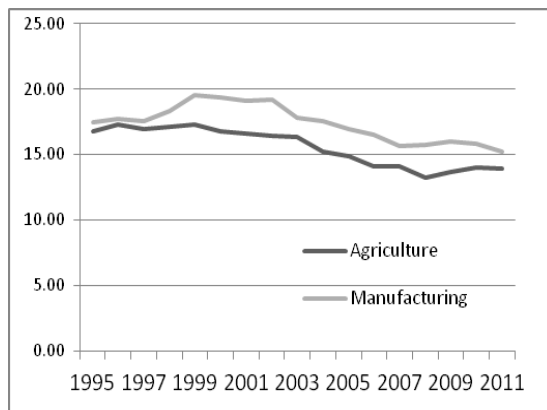
WB statistics (www.tradingeconomic.com, 25.10.12)

**Figure (2)** Imports and Exports 2000-2011, Egypt (million US$, all partners)
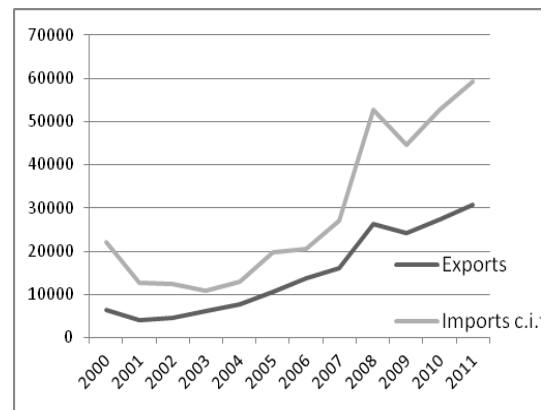
IMF Direction of Trade Statistics (5.10.12)

These trends, exaggerated by the recent political turmoil, clearly indicate structural macro-economic issues that cannot be rapidly corrected. Egypt is one of many countries whose workforce has responded to the job losses associated with structural adjustment programmes with significant growth in the number of small and micro-enterprises. (El-Mahdi & Rashed 2009) GDP growth and investment trends have been accompanied by declining employment in the productive sectors. The current growth in exports is largely capital-intensive while unemployment figures have risen.(ECES

2012) The decrease of manufacturing and formal service jobs in the overall economy is linked to global economic and trade policy and cannot be easily reversed at the local level. What needs to be addressed is the accommodation of viable livelihood strategies for the poor in the absence of other employment.

Writing in the Wall Street Journal last year (2011), Hernando de Soto summarized key findings from his analysis conducted in 2003 of Egypt's informal (what he called 'extra-legal') economy, which was presented to the Egyptian Cabinet in 2004, [Figure 3]:

Figure (3) Distribution of Employment in Egypt (De Soto, 2011)
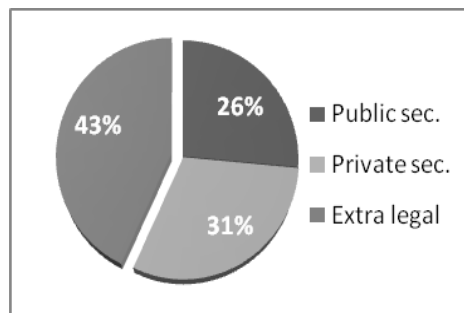
- *Egypt's underground economy was the nation's biggest employer. The legal private sector employed 6.8 million-people and the public sector employed 5.9 million, while 9.6 million people worked in the extralegal sector.*

- *As far as real estate is concerned, 92% of Egyptians hold their property without normal legal title.*

- We estimated the value of all these extralegal businesses and property, rural as well as urban, to be $248-billion—30 times greater than the market value of the companies registered on the Cairo Stock Exchange and 55-times greater than the value of foreign direct investment in Egypt since Napoleon invaded, including the financing of the Suez Canal and the Aswan Dam. (Those same extralegal assets would be worth more than $400-billion in today's dollars.)" (De Soto 2011)

The UNDP Egypt Human Development Report published in 2010 focused on the economic and social inclusion of the country's youth, identified street vending as the second-fastest growing occupation amongst this sector of the population (from 2000 to2007), following construction work. These occupations grew more than five percent per annum; adding more than 20,000 workers-per year. Although the report noted that the growth of street vending had slowed during the second half of the investigated period, it speculated that, as a long-term trend and along with some marginal farming occupations, street-vending is likely to grow whenever unemployment rises, absorbing frustrated job seekers. (UNDP 2010:160)

As with the national picture, it seems likely that unemployment in tourism and productive industries will take several years to address. In the meantime, self-generated livelihoods may indeed be the only short-term strategy to combat increasing poverty and deprivation. The macro-economic conditions in the country in

general, and in Cairo in particular, provide the necessary stimuli for the development of informal economic activity as identified by The Egyptian Center for Economic Studies in a 2012 study. (Abd el-Fattah 2012:3) This exceptionally relevant study of 180 employees and 90 employers in micro-businesses in Manshiyat Nasr, noted that trade stands out from both manufacturing and services in its incentives for informal engagement. Difficulties of finding alternative jobs among employees of informal trade were 80%, compared with 70% and 71% of employees in manufacturing and services respectively.

At the same time, the legal framework relevant to formal retail and trade is seen as a more complex barrier than in other sectors. 42.9% of employers attributed their preference for informal trade due to the bureaucratic and legal difficulties involved in formalisation; compared with 30.1% and 26.8% of employers in manufacturing and services respectively. (Abd el-Fattah 2012:11) This reinforces the understanding that the legal and economic factors driving people into informal vending are more influential for this group, in other words, street vendors are more likely than employees in informal services or manufacturing to have a realistic alternative livelihood.

3 INFORMAL TRADE AND URBAN PUBLIC SPACE

Like most developing and transitional countries Egypt continues to urbanize, with Cairo being the principal magnet for rural-urban migration. Of Egypt's nearly 90 million residents, it is estimated that 22 to 25 million live in Greater Cairo (up from an estimated 16 million in 2000). Estimates suggest that nearly half live in informal settlements, over a total area of about 94 square miles. In addition to the pressure on local labor markets from migration and population growth, there are some specific economic constraints. Post-revolution losses in foreign direct investment and the near collapse of tourism, particularly in Cairo, have further reduced employment opportunities in the metropolitan area. Urban development on agricultural land along the Nile is driving up real estate prices in that area while decreasing agriculture and work opportunities.

This requires the resolution of certain conflicting interests: The National Organisation for Urban Harmony, concerned with the preservation of historic Cairo and its urban forms and traditions, has highlighted the importance of physical solutions which reverse – and do not renew – damage to historic buildings and building fronts, without compromising the 'dignity' of public spaces. The value it places on this is evident also in the design of projects they espouse which set out to accommodate vending without compromising these principles.

Starting from that premise, it is a question of resolving congestion issues and re-appropriation of public space, rather than of demonizing vendors and clearing them. Forced evictions and relocation to sites not commercially viable for vendors to use, as has been done on several occasions, are dysfunctional solutions. The new locations are not based on the same strategic reasoning of the original locations selected by

vendors, primarily selected to capitalize on foot traffic. Relocation of vendors to designated locations in relatively deserted areas has ultimately led to their abandonment of the new venues and return to their old places. As a result, public funds are lost on the constructed deserted markets.

4   POLICY AND DEBATE OVER INFORMAL STREET-VENDING IN CAIRO

Senior figures in most agencies understand the macroeconomic conditions forcing the growth of street vending and accept that a sustainable solution for Cairo's streets should strategically accommodate the historically prevalent and increasing trend. However, implementation of such an understanding is yet to take place.

A study by the UNDP considers that developing informal markets is very important. The UNDP estimates that at least 48% of trading passes through informal means .The UN-Habitat considers that street vending provides employment for poor people, but the current government continues to handle the issue in the same manner of their predecessors. It places street vending as the cause of congestion, an untidy urban form, and increased security issues, rather than accepting that it is a symptom of the deeper rooted economic issues. At one stage there was a move to implement one-day markets in Giza (i.e. weekly markets), but this does not adequately provide the same financial returns for the vendors, and accordingly does nothing to address the issue.

The interviews conducted revealed ambivalence on the understanding of the dynamics of the street vendor issue, and on its mitigation. There was consensus on the fact that the informal economy is critically important to the livelihoods of the poor; and that the way forward lies in incorporating the informal economy within the formal. Although many view the negative impacts, such as the widespread encroachments it has made on public space, as creating significant obstacles to formalization. The proposed steps to formalization included; training and education, inclusive and visionary planning, and licensing.

Street vendors are frequently viewed as a major cause of traffic congestion. Although they do add to traffic congestion by consuming pedestrian sidewalks and often encroaching on to the street and parked cars, statistics show that they are not of the primary causes of congestion along highways and arterial routes. The Cairo Traffic Congestion Study Phase 1 (WB 2010:xii) noted the high frequency of vehicle breakdown, accidents, security checks, random microbus stops, over flowing bus stops and random pedestrian crossings as the key obstacles to free flow on arterial routes and highways. While certain notable spots on highways have more recently been taken over by vendors, this is localized, occurs in small numbers, and would be easy to control.

Press articles suggest that local opinion of residents and merchants within residential and commercial areas is not favourable to vendors. There are complaints about overcrowding of pedestrian and vehicle routes; blocking streets, harassments of females, violence, drug dealing, reduction in property values in neighbouring areas;

and about social status. "These vendors take to the street, and they drag everything down to their level .... They're there and in your way, and as a resident, you can't do anything about it." (Egypt Independent 2012a). There is also resentment from formal shop-keepers, although evidence suggests that some proportion of shop keepers are using street vendors to extend their contact with pedestrians and survive this form of competition. Key-informant interviews support this conclusion: "Tahrir is so bad! There is a sense of encroachment on space, as well as people", while another person says: "They (vendors) are colonizing more space everyday and crossing all boundaries, they ought to respect the space they are in, and actually they violate our privacy and humanity" (KI interviews).

Another public debate associates the increase in street vending with an increase in the harassment of women on the street. It should be noted in this connection that harassment of women in Cairo's streets is by no means new. Near the end of 2005 the Egyptian Centre for Women's Rights (ECWR) launched a campaign to tackle sexual harassment in streets and public places. To document the status they released a report in 2008, based on interviews with 1000 Egyptian and 109 foreign women, as well as with 1000 Egyptian men. Their sample suggested that 83% of Egyptian women and 98% of foreign women had experienced some form of harassment, while over 60% of the Egyptian men admitted to harassing women, mostly verbally (Rizzo 2012).

During the revolution, there was significantly less or even no harassment of women in Tahrir Square, although this would have been unthinkable only days before. Yet shortly afterwards harassment resumed. It is at least conceivable that this phenomenon may arise from the sense of economic and political disempowerment by young men. In turn this raises the question of whether a post-revolution society in which livelihood opportunities are respected and informal livelihoods incorporated rather than harassed and repressed, might lead to a reduction of sexual aggression and the renegotiation of a better gender contract.

To whom should public space provide a canvas? Who should determine the identity, content, use and control of public space? This debate is eloquently summarized by Sahar Attia[3] (2012) who argues that public space should be an organic expression of gradually changing social norms and attitudes. Our research suggests that there is a great deal of contestation within society over the control and role of space. Neighbours, near-by businesses, passers-by and vendors have differing perspectives on the question. People interested primarily in the socio-political value of Tahrir Square for example, have different objectives and demands. In turn this suggests that management proposals need to take into account a wide range of needs and consult fully with stake-holders. The dissatisfaction of neighbouring residents and businesses are flared by the rather militant attitude adopted by the Cairo and Giza governorates, as their approach seems to be that the provision of orderly solutions to the accommodation of vending can only come after a clean sweep of the streets. This is demonstrated in both aggressive action and aggressive public statement.

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[3] Professor of Urban Planning in Cairo University's Engineering School.

The policies proposed in the Governorate of Cairo are potentially very problematic in terms of their ability to provide sufficient livelihood opportunity for vendors and therefore in terms of their potential for sustainability. Stage One calls for one-day markets; however, the idea that people working close to the poverty line while working more than 70-hour a week [see below Sec 5] will be able to make ends meet on that basis is unrealistic. Stage Two involves the installation of municipal markets for registered vendors where they will not pose 'an obstacle.' This is dependent on the relocation of business to sufficiently pedestrian-rich areas, creating a significant planning challenge that would require stakeholder engagement to successfully accomplish.(Egypt Independent 2012a) While in the Giza governorate, the determined eviction of vendors by police resulted in outright clashes, injuries and fatalities. (Egypt Independent 2012b)

Concurrently, the adoption of zero-tolerance policing has led to contestation. The family of the 'slain vendor' reported in Al Ahram newspaper on October 16th, 2012 have refused to bury him before the police have given an undertaking to prosecute the officer involved in his death. Egyptian vendors are not unionized in any formal sense. Nevertheless, they do have some collective power to resist the state and in effect negotiate the terms on which they are, or are not, accommodated. Thus it is timely to discuss the future of street vending in Cairo, understand the nature of the phenomenon and its role in supporting the poor and their networks. Sustainable policies need to be devised, which allow the poor to survive this economic hiatus and allow them, and their children, to participate in the jobs created by macroeconomic policy in the country over the next few years.

5   PROFILE OF VENDORS

The vendors interviewed for this study were generally male (only 10 females interviewed among 103 respondents), and all female respondents were in Embaba, although a few were observed vending in each of the other market areas.

Very few respondents were under 18. The largest group was aged 19-34 (53%). Over a third percent were aged 35-54 and only nine percent of respondents were over 55. Two-thirds were married (63%) and one-third single (33%). Divorce or separation existed in only 3 cases among respondents, while one female was a widow, and had been forced into vending by widowhood.

Education levels witnessed interesting findings as 28 respondents (27%) were in education for more than 14 years, moreover 6 of them were university degree holders, where 2 of them got masters degree, the first in international law, and the second in commerce. On the other hand 39 respondents were illiterate (can neither read nor write), where those mostly are migrants governorates especially the Upper Egypt neglected and poor governorates. The rest of respondents were 17 respondents had less than six years of education, but can read and write, while only 7

had the six years of education (primary level education), beside 12 respondent (12%) entered secondary schools, got education for 12 years.

Despite the small size of their businesses, 80 percent of respondents were the main earners in their household and a considerable majority were the sole earners (72%). They have dependents outside their household too. 37 of the vendors were born outside of Cairo (first-generation migrants), of which 22 sent remittances to the rural areas. Cairo-born vendors also have financial responsibilities to relatives outside the city, with 29% sending remittances to relatives in rural areas.

The Decision of Vending: are there Realistic Alternatives?
Vendors believe that there are no viable livelihood alternatives for them. 21 percent of the 103 informal vendors interviewed had previously worked a sales job. 41 percent had previously been employed; working for private and public enterprises, which had shut down, and a few had lost their businesses as a direct result of the turmoil such as one merchant whose warehouse had burned down. All claimed to have been involuntarily dismissed from their previous job. 28.2% were previously unemployed and nearly 8 percent were students. A very small fraction had been farmers (2%). Overall this suggests that, as is common in many countries, informal street vending provides jobs on a large scale for people vulnerable to a weak job market, and has done so for a long time. (Lyons and Brown 2010, 2011; UNDP 2010)

The Management of Public Space
Although the details vary from one market locality to another, the management systems of vending sites have a lot in common. There is a direct relationship between individual vendors, the municipality and the police. A few vendors are licensed but they are a minority. The overwhelming majority are vulnerable to enforcement or extortion. Vendors reported that most extortion is carried out by low-ranking police officers because the more senior people change every three years, so they don't have a chance to build up complicated bribery networks, but the low-ranking officers don't change, which is the level at which most bribery takes place.

An important element of the management of the space utilized by the vendors is the relationships among vendors on the site. There are two patterns: 1. A vendor starts individually, after working long enough he becomes a boss and calls relatives to come and join, which increase his wealth and power; 2. Vendors arrive as a group, one of which among them is the boss. The group supports him working under his supervision. These are often people from Upper Egypt who come as big families. Vendor interviews suggest that migrants have a stronger tendency to use this system. Cairo natives, on the other hand, are generally deprived of this support system; "people in Cairo don't know each other." (Vendor: Ahmed Ramadan)

Neighbourhood bonds can also form a basis for strong networks and social organisation among vendors. For example, vendors in one of the market areas surveyed in Embaba voluntarily move their trading area out of the way of commuters during the morning rush hour. During those times, they sell only to people who have gone out of their way to shop. They also pay a weekly fee to their elected leader, who

negotiates with police on behalf of the group as a whole. Similar collaborations for maintaining the flow of traffic, avoiding conflict with neighbours and police, are evidenced in Helwan. Vendors there argue that there are unwritten laws which govern their behaviour and that newcomers quickly learn and are able to abide by them. Vendors from every site reported that dispute resolution is also carried out among vendors by their leaders. Additionally, much of the responsibility for cleaning and organising is undertaken by the vendors themselves, or by occasionally paying someone or by tipping municipal cleaners.

These examples suggest that vendors are capable of drawing on a range of shared interests and negotiating with local shareholders. Through this dialogue, they are able to develop their own management structures and to negotiate the use of space and the right of way. The hierarchal structure of leaders of the vendor groups can be utilized as representatives for dialogue with broader scale planning groups to tackle the perceived and real negative impacts of street vending.

Increasing Number of Vendors?
The number of newcomers to informal street vending sites in this study shows a clear increase over time. Figure 4 summarizes the trend, showing the number of vendors beginning to trade in their current market area since one respondent's arrival in 1967. It is evident from the chart that the percentage of new arrivals has progressively increased over the years, and more significantly in 2011 and 2012. Nonetheless, the new arrivals remain a relatively small proportion of respondents. However the investigation was primarily conducted in already well-established market areas; except Tahrir. Newcomers to the profession of street vending are spread along many streets throughout the city.

Growth trends were generally similar across all four markets studied, although there were some local variations as shown on Figure 5. The common pattern of certain years/periods exhibiting higher influx of new vendors reflects the direct response to more global economic conditions existent in the country at the time. With each surge, it appears that a new location would appear or be informally appropriated by the vendors.

Vendors were split on whether their vending areas had attracted many new vendors since the revolution. All 103 respondents answered this question. The majority, (59%), said "many" had come. In contrast, eight percent had noticed "few" and 30 percent responded "none." Four others noted that "[new vendors had] tried but failed", or that there had been only a temporary influx that later left the area.

Vending and the State
The revolution has had a profound impact on the policing environment for street vending. Table 1 summarizes vendor experiences of policing and order problems; before and after the revolution. The general pattern of policing is consistent. Police impingement on vending activities has radically decreased since the revolution. For example, 76 percent of vendors said that they had experienced police harassment before the revolution, but only 33 percent following the revolution. Of course we

must remember that the 76 percent may well have accumulated over a longer period, but nevertheless the consistent answers with regard to police actions against vendors must be taken seriously and all those highlighted with an asterisk are significant at 5%. In qualitative questions it was also repeatedly stated that the police made far less frequent appearances on the street since the revolution.

The picture with civil order conflicts, more related to neighbourhood residents or other street vendors seems to have remained the same or increased, although violence has been reported to have drastically been reduced. Violence had been experienced by 21 percent prior to the revolution, and dropped to only eight percent post, despite the greater crowding among vendors and the reduced police presence.

There is however mounting evidence that the tide is turning and that municipal authorities are aiming to regain control of public space. The focus so far has been on key public spaces: Tahrir Square in Cairo and Embaba market in Giza. The vendors are well aware of the significance of this drive, both short-term and long-term.

Figure (4) Vendors by year of arrival in current vending area
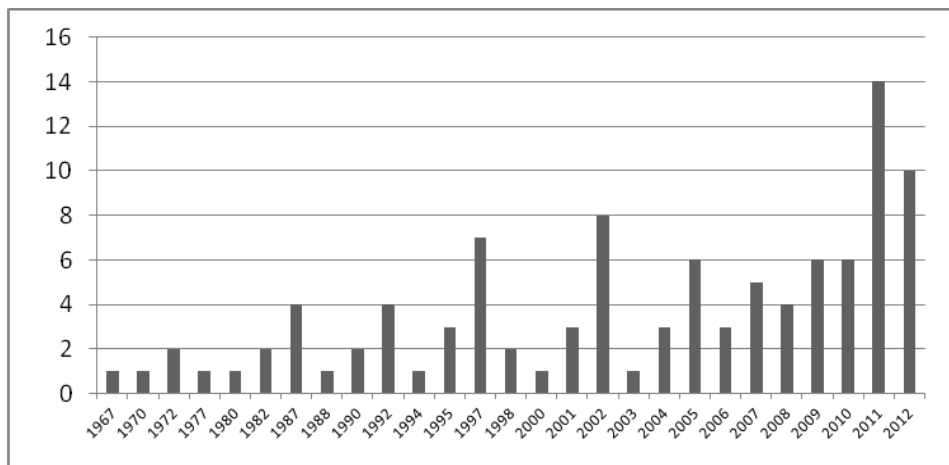
Extracted from vendor interviews 17-25 Sep, 2012

Figure (5) Vendors by market and year of entry (n)
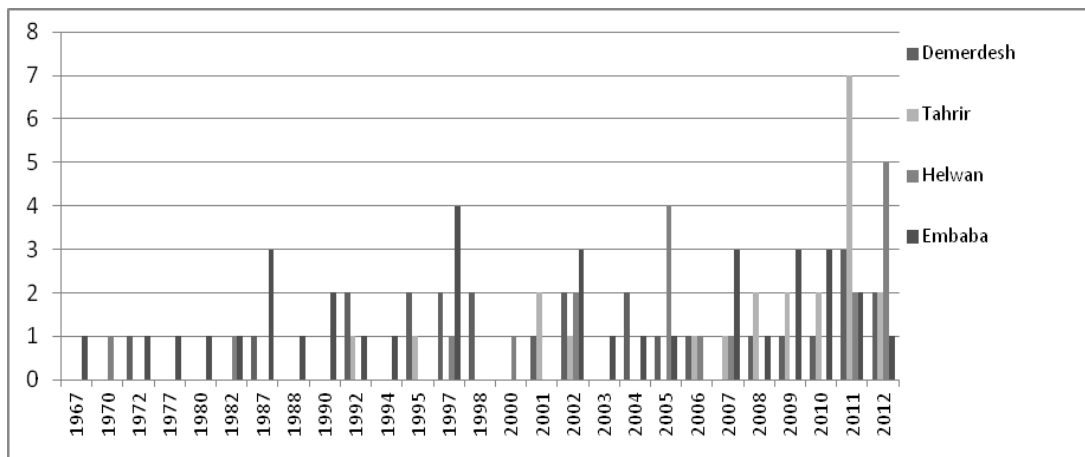
Extracted from vendor interviews 17-25 Sep, 2012

Table (1) Order before and after the revolution

	Pre		Post	
Police	%	n	%	n
Harassment*	76%	72	33%	31
Confiscations*	65%	62	9%	9
Fines*	57%	54	15%	14
Evictions*	54%	51	28%	27
prosecutions	14%	13	1%	1
relocations	100%	95	1%	1
Civil order (non-police actions)				
Harassment	4%	4	6%	6
confiscations	5%	5	1%	1
violence	21%	20	8%	8
thefts	5%	5	9%	9

N (100%) =95

Extracted from vendor interviews 17-25 Sep, 2012

6   CONCLUSIONS

The study set out to investigate the influence of Egypt's revolution on the informal urban economy and street vending. Focusing on Cairo, the research followed key debates around street vending, identified its importance to the country's economy and the drivers for its growth, analyzed the profiles of vendors and their businesses, and analyzed the impacts of revolution on business, attitudes and prospects. As in many other countries, in Egypt the growth of informal livelihoods in general and street-vending in particular is not a response to changing policing patterns or idiosyncratic livelihood decisions, but rather a direct outcome of macro-economic trends and policy. Understanding it is therefore pivotal to understanding the opportunities and constraints governing the livelihoods of the poor.

Key findings emerging from this study are as follows:

Macro-Economic
a) In Egypt, the industries of manufacturing and agriculture are growing more slowly than GDP,
b) Commerce, particularly the import sector, is growing faster than GDP;
c) Since the revolution, tourism has suffered and the country has experienced capital flight;
d) Unemployment remains widespread and growing particularly among those with poor educational attainments; and
e) Distribution of food and imported consumer goods is a growth sector.

Role of Street Vending
a) Most informal street-vendors are the main earners of their household, most of which are also the sole earners;
b) Most remit money to their families in rural areas;

c) Street vendors work long hours and some remain very poor;
d) Most vendors have no other employment options;
e) Most have low educational attainments; however some university graduates and post graduates have been interviewed in this research.

Dynamic of Street Vending
a) Many street vendors have been in business in the same area since well before the revolution;
b) Newcomers tend to gather in one place and are likely working with relatives in the same area. The majority depend on friends, family, or other contacts, for access to space;
c) Access to space is mediated through some form of patronage. Only 20 percent had simply settled in their spot;
d) Contest over space is largely managed informally among traders; and
e) Chiefs or bosses collect money from vendors, regulate disputes and mediate conflicts.

The continual organic growth of informal street vending clearly has several negative implications on the city, nation and economy. The consumption of public space and reduced public provision for the necessary functions and flow of the people will inevitably impact everyone's livelihood. Efforts to mitigate the phenomenon within the context of national transition to address the core issue of a suffering economy are necessary. Police harassment has considerably reduced since the revolution, but is coming back in more visible, particularly in landmark areas such as Tahrir. In the meantime harassment from civil sources appears to have increased, indicating discontent amongst stakeholders and residents. Understanding how street vending can be managed productively will help move forward these key issues of debate:

a) The sharing of public space among pedestrians, vehicle traffic and commercial exploitation;
b) The management and maintenance of historic spaces and buildings;
c) Public respect and behavior, particularly gender relations in public space, which appear to have significantly deteriorated again; and perhaps most critically
d) The new relationship between the police and the public, between monitors of the laws on public space and those who infringe them.

The eradication of informal street vending is not an achievable feat, particularly in light of the ongoing circumstances in the nation which will take years, if not decades to improve to the point where such practices will not be resorted to. In the short and medium term, sustainable planning and solutions which center on encompassing formal and informal development and working them together into a collaborated form would be the most practical approach. The models of collective management and collaboration that exist among the street vendors is the key element with which authorities need to engage. Through utilizing the representative structure among vendors, organization could be expanded and formalized as a medium for the management of public space. The strong home-town bonds among the families and migrants among the vendors develops a strong group ethos, which may explain the

drop in violence among them after the revolution, in spite of increased numbers and decreased police presence. It is this ethos that the authorities need to learn from when dealing with the phenomenon of informal street vending.

7 RECOMMENDATIONS

Further investigation and research is necessary to develop sustainable solutions to this taunting issue. Institutional research, doctoral thesis and master's thesis could provide channels of solution development. The following are some recommendations:

1. Establish a national initiative for setting up a national street vendor's policy
2. Background research on international approaches to tackling street vending
   a. National policies.
      For an example see India's National Policy on Urban Street Vendors; the 2004 draft is a better read than the 2009 draft.http://www.nasvinet.org/userfiles/file/National%20Policy-2004.pdf
   b. Legal review to explore laws and regulations affecting street-vending. This should identify sections that make street vending illegal and sections that are impossible for street vendors to comply with. The following areas of legislation are relevant:
      - Constitutional rights
      - Roadway/Highway laws: sections prohibiting obstruction of the roadway
      - Urban planning laws: sections governing land use, open space, and public space
      - Business legislation: registration, licensing, accounting and tax requirements
      - Municipal laws: sections governing maintenance of public order, local policing, market management, fee collection, licensing kiosks, powers of eviction, hygiene, etc.
      - Police powers for eviction and prosecution
   c. Economic contribution of informal economy and street vending; use of macro-economic statistics combined with labor force surveys to provide estimates
   d. Censuses of street vendor
      - For general resources see; http://wiego.org/wiego/wiego-briefs#technical
      - For specific notes on planning a street vendor census see;
      - http://wiego.org/sites/wiego.org/files/publications/files/Roever_WIEGO_TB2.pdf
3. Exploring different design approaches such as;
   a. Working in Warwick. Durban, South Africa (book – available from www.wiego.org)
   b. Inclusive Urban Planning, India (under production)
   c. Universities student design studio
4. Develop a pilot project with Municipal and University support, with the objectives of:
   a. Establishing a small contained locality for the pilot;
   b. Identifying key local street vendors organizations or representatives who can lead the initiative, and invite street vendors to form an organization;
   c. Supporting street vendors in taking their own census;

d. Design proposals for improved street organization;
5. Set up a cross-agencies advisory group that includes:
   a. Representatives from key ministries,
   b. Local government officers,
   c. Parliament members,
   d. University representatives (particularly from urban planning and economics)
   e. NGO representatives from organizations working with street vendors
   f. Street vendor representatives
6. Encourage development of Syndicate or Association representing street vendors.

Acknowledgements

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STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) WORLDWIDE:
Different Perspectives and One Aim

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Abstract

Strategic Environmental Assessment (SEA) has been recognised as an useful aid in integrating environmental considerations into strategic planning to improve the environmental performance of policies, plans and programmes making. Despite of the application of its principles around the world, it is appreciated that there cannot be one SEA model that can fit all planning processes and systems. Each planning system, with its own legal, administrative and procedural frameworks, has to establish its own SEA system that takes into account national and local policies, government machinery, planning legislation. This paper seeks to provide an assessment review of SEA application in 10 selected countries worldwide. Five countries were selected from developed counties which are considered as pioneers in environmental assessment. The other countries were developing countries, with relatively similar contexts to the country of case study, which recently have an increasing attention to environmental issues. These have been selected to present countries where SEAs have been routinely applied for some considerable time, in order to gain some understanding of how SEA is applied in different contexts. This assists in exploring differences in SEA practices in different systems in order to capitalise on international experience due to limited resources covering this. This is feasibly important for countries, in particular, developing countries in setting up or update their SEA systems.

Keywords

الملخص

مما لا شك فيه أن هناك شبه إجماع دولي علي أن التقييم البيئي الاستراتيجي (SEA) يعد عاملا مساعدا ومتكاملا مفيد في إدماج الاعتبارات البيئية في التخطيط الاستراتيجي لتحسين الأداء البيئي للسياسات والخطط والبرامج. وعلى الرغم من تطبيق مبادئ SEA في جميع أنحاء العالم، إلا أنه لا يمكن أن يكون هناك نموذج واحد لهذا التطبيق يتناسب مع أنظمة وإجراءات التخطيط المختلفة. فكل نظام تخطيطي، له الأطر القانونية والإدارية والإجرائية الخاصة بها، التي تجعل له خصوصية في تأسيس نظام SEA خاص به معتمدا علي اعتبارات السياسات الوطنية والمحلية، الأجهزة الحكومية، والتشريعات التخطيطية. تسعى هذه الورقة البحثية إلى تقييم تطبيق SEA في ١٠ بلدان مختارة حول العالم. وقد تم اختيار خمس دول من الدول المتقدمة التي تعتبر رائدة في التقييم البيئي. وخمس دول أخرى من البلدان النامية، مع سياقات مماثلة نسبيا للبلاد محل الدراسة وخاصة الدول التي أصبح لها مؤخرا اهتماما متزايدا بالقضايا البيئية. وقد تم اختيار البلدان التي طبقت التقييمات البيئية بشكل روتيني لبعض الوقت بهدف الحصول على فهم أعمق لكيفية تطبيق SEA في سياقات مختلفة. وهذا يساعد في استكشاف الاختلافات في ممارسات SEA في أنظمة مختلفة من أجل الاستفادة من الخبرات الدولية نظرا لمحدودية الأدبيات التي تغطي هذا المجال مما يساعد علي صياغة أو تطوير نظم التقييم البيئي الاستراتيجي في البلدان النامية.

1   INTRODUCTION

SEA is not just a developing theory but has been adopted in many countries. SEA has received increasing attention, and it has developed rapidly, both, in terms of theory and practice (Fischer, 2007). (SEA) is gaining widespread recognition as a tool for promoting the sustainable development of the environment through policy, plan and programme decision-making processes, assisting the decision-making process by supporting the design of more sustainable policies and strategies (Fischer, 2003). Sadler and Verheem (1996, p.27) define SEA as: *"a systematic process for evaluating the environmental consequences of a proposed policy, plan or programme (PPP) initiative in order to ensure they are fully included and appropriately addressed at the earliest appropriate stage of decision-making".*

The need for SEA did not derive only from project EIA insufficiencies. Advocates of SEA insist on its capacity to promote more sound and environmentally sensitive and integrated policies and plans, on the role that SEA can play in the promotion of sustainable development principles and practices and by enabling a better context for the consideration of impacts (Fischer, 2007; Dalal-Clayton and Sadler, 2005; Partidario, 2000).

The development and consequent adoption of SEA procedures have gained momentum in recent years as we have witnessed a growing body of literature addressing SEA principles (e.g. Fischer, 2007; Noble, 2000; Partidario, 2000), methodology (e.g. Noble and Storey, 2001; Brown and Therivel, 2000), and performance evaluation (e.g. Jones et al., 2005; Fischer, 2002).

Conceptually, current SEA practice can be distinguished in terms of the area of application, as follows (Jones et al., 2005):
- Formal EIA-based (SEA is modelled closely on or applied under and in accordance with the requirements of EIA legislation
- Policy-SEA (procedures have some or all of the features or characteristics of SEA and have the same overall purpose).

This paper provides for a systematic international comparative review and analysis of SEA systems in 10 countries from their legal, administrative and procedural frameworks. In this context, both the above mentioned categories of SEA are covered. Only systems in which SEA had been formally and/or routinely applied for least a few years were included. This comparative analysis is conducted, using a set of generic criteria that are developed in the next section.

2   COMPARISON CRITERIA METHODOLOGY

The framework used for comparing the 10 SEA systems has been developed from legislation, guidance, documents, books, and journal articles. Sources include Partidario (1996), Therivel and Partidario (1996, 2000), Sadler (1996, 1998), Verheem and Tonk (2000), Fischer (2002, 2007), Therivel (2004), Jones et al. (2005), Wood (2002), and Chaker et al. (2006). Criteria used for comparing are based on

professional SEA literature's suggestions on what constitutes an SEA system legally, administratively and procedurally.

In this context, three sets of criteria were distinguished as summarised in Table 1.
1. Legal criteria, such as legal basis, administrative levels, tiering and integration with planning process; and
2. Administrative criteria, such as SEA initiator, conductor, reviewer and inspector; and
3. Procedural criteria, such as screening, scoping, impact assessment, mitigation, report, review, public participation and consultation, and finally monitoring.

Table (1) Comparative analysis criteria

Level	Elements	Criteria
Legal	**Legal basis**	1) What is the legal basis for SEA?
	Administrative level	2) What are the administrative levels which SEA is applied for?
	Tiering specification	3) What are the decision making levels which SEA is applied for?
	Integration with planning process	4) What is the integration mode which is implemented?
Administrative	**SEA initiator**	5) Who is responsible for initiating SEA?
	SEA conductor	6) Who is responsible for conducting SEA?
	SEA reviewer	7) Who is responsible for reviewing SEA?
	SEA inspector	8) Who is responsible for inspecting SEA?
Procedural	**Screening**	9) How is screening set up?
	Scoping	10) How is scoping determined?
	Impacts assessment	11) How are impacts assessed?
	Mitigation	12) How are mitigation measures mitigated?
	SEA report	13) How is the SEA report prepared and submitted?
	Review	14) How is the SEA report reviewed?
	Consultation & Public participation	15) How are consultation and public participation undertaken?
	Monitoring	16) How is the SEA process monitored?

3   CURRENT SEA SYSTEMS

This section presents a brief information of 10 SEA systems in use around the world. The systems under review are from Canada, China, Hong Kong, Lebanon, the Netherlands, New Zealand, South Africa, Taiwan, the UK, and the USA. The 10 countries were selected to cover a wide range of different planning contexts and SEA traditions and experiences. Please note that the countries are shown in alphabetical order, and do not reflect any preference of effectiveness.

Five SEA cases have been selected from SEA systems in developed countries with extensive experience of environmental assessment, and are considered as pioneers SEA. The *UK* was an obvious choice here. It has been a leader in applying a form of SEA to its strong but discretionary planning procedures. The *Netherlands* was included because it is generally acknowledged to have a developed system of environmental controls, including EIA system. The author believed that it was essential that the paper covered a different range of geographical locations, so the inclusion of non-European countries was considerable important. The *US* possesses the original EA system and, as with so much else in the environmental policy field, examination of American SEA experience offers a pointer to the future elsewhere. The *Canadian* federal EA system was established on an informal basis in 1973, and provided the model for the Netherlands EIA system. Canada was also the first country to implement the SEA of cabinet proposals. *New Zealand* has a long-established EIA system and its Resource Management Act (RMA) has been widely admired. Because the RMA implicitly requires SEA, New Zealand's integrated SEA procedure was a natural choice. All these countries are among the first to have applied SEA and they have been considered as benchmarks in this field.

The other five cases selected were from developing countries, with relatively similar contexts to the country of case study, which exhibit increasing concern for environmental assessment. *Hong Kong* is a densely populated burgeoning region which has made provision for SEA within its planning system and was an obvious Asian representative. *South Africa* is a developed federal country; it has made provision for SEA within its planning system and was chosen as the African representative in this thesis. *Taiwan* is a newly industrialized country located on the Pacific Rim of Southeast Asia. It has recently officially adopted SEA and is remains as yet in an early stage in the development of its system. It was therefore important to examine the way in which SEA had been implemented in this country in order to how it has been influenced by international experience in adopting and integrating SEA into planning system. Similarly, *China*, with the rapidity and scale of development, has earned its economic growth to some extent at the cost of environmental quality.

Subsequently, China has been paying much greater attention to improving environmental quality, thus it has recently adopted SEA to provide a high level of environmental protection. Finally, it was decided to include the *Lebanon* as a representative of Middle Eastern countries. Lebanon is among the pioneers in the Middle East to launch the development of a national SEA system that caters to the particularities of the Lebanese planning, regulatory and institutional context.

4 A COMPARATIVE ASSESSMENT OF SEA APPLICATION

This section consists of a snapshot assessment of SEA practice in the chosen countries comparing their respective legal, administrative, and procedural frameworks. The focus of the assessment was to explore differences in SEA practice that can be used to distinguish various alternatives that may be available to countries wishing to adopt SEA for the first time or to review and amend existing arrangements. The data for each individual country was compiled from a range of literature sources including documents and official publications from government bodies, NGOs, academic literature, and internet sources identified from computer based-search.

4.1 Legal framework

This section presents the findings of the overall comparison and review of SEA systems against the SEA legal criteria (see Table 2).

4.1.1 Legal basis

Adequate legal provisions are important for ensuring SEA is applied in a consistent manner, giving certainty to the actors involved in both SEA and PPP processes. A formal basis for SEA can help to ensure that SEA is applied to full range of strategies, and is practised to certain standards (Therivel and Partidario, 1996). All the countries reviewed had some forms of legal provisions for SEA but the nature of this legislation varied. The evaluation has shown that SEA is implementing through one of the following:

- Provisions integrated with EIA legislation, this is the case in most countries reviewed (as in China, Hong Kong, Lebanon, Netherlands, Taiwan and United States). For example, in China, the SEA provisions are included into the 2002 EIA Act (Lam et al., 2009). In Netherlands, EIA Decree (1987 amended is 1994 and 1999) includes a statutory SEA requirement (Dalal-Clayton and Sadler, 2005). In the case of Lebanon and USA cases, SEA provisions were included within the environmental protection law which also includes provisions for EIA (Chaker et al., 2006b; Bass, 2005 respectively).
- Exclusive provisions for SEA which are separate from EIA legislation. Examples of this type of legislation include the 1991/99/2004 Cabinet Directive on the Environmental Assessment of Policy, Plan and Programme Proposals in Canada which makes exclusive provisions for SEA (Noble, 2009), and the Environmental Assessment of Plans and Programmes Regulations 2004 in the UK (Zhou and Sheate, 2009).
- Provisions integrated with other sectoral legislation. For instance, in New Zealand, the Resources Management Act (RMA) provides a strong legislative framework for SEA, although the RMA was not intended to legislate for SEA (SEA is not mentioned by name in the RMA), it is recommended that environmental concerns were adequately considered in decision-making process (Dixon, 2005). Similarly, environmental assessment of PPPs is included in the National Environmental Management Act in South Africa (Retief, 2007).

Table (2) Review of SEA legislation framework in selected countries

Country	Legal basis	Administrative level *National* *Regional* *Local*	SEA tiering *Policy* *Plan* *Programme*	Integration with planning process
Canada	Exclusive provisions for SEA are made under the Cabinet Directive	National and regional	Full tiering is required (PPPs)	In principle, there should be enough early application of SEA to address deliberation on purposes and alternatives
China	SEA provisions are included under EIA Law 2002	National, Regional and local	Plans is solely required to undertake SEA	Integration is required
Hong Kong	Inclusive provisions under EIA Ordinance as amended in 2002	National and regional	SEA is required for all tiers	SEA closely linked to territorial, strategic and regional planning
Lebanon	SEA provisions are included under the Law of Environmental protection 2002	National	SEA is limited to plans and programmes	Integration is required
Netherlands	SEA provisions are included under EIA Decree of 1987 (amended in 1994 and 1999)	National, regional and local	Required for plans and programmes	Early integration is identified in SEA guidance
New Zealand	Resources Management Act 1991 and its amendments include provisions for assessment of PPPs	National, regional and local	RMA requires any policy or plan to undertake an EA	Integration is required for in RMA proposals preparation process

Table (2) *continued*

Country	Legal basis	Administrative level *National Regional Local*	SEA tiering *Policy Plan Programme*	Integration with planning process
South Africa	National Environmental Management Act makes procedures similar to SEA, and requires any PPP to investigate and assess significant impacts	National and regional	There is an effective PPP in place, covered by SEA	Not legally required, level and extent of integration is not specified in guidance
Taiwan	SEA provisions are included under EIA Act 1994	National, regional and local	Full tiering is required (PPPs)	Integration is required
UK	Exclusive provisions through the Environmental Assessment of Plans and Programmes Regulations 2004	Regional and local plans	SEA is not mandatory at higher policy level; It is required for plans and programmes	Early integration is identified in SEA guidance
USA	SEA provisions are included under the National Environmental Policy Act of 1969 and its amendments	National	There is an effective PPP in place, covered by SEA	Integration is considered and highly developed

Source: Au and Lam, 2005; Bass et al., 2001; Bass, 2005 ; Buuren and Nooteboom, 2009; CEAA, 2004; CEAA, 2007; Chaker et al., 2006a; Chaker et al., 2006b; Dalal-Clayton and Sadler, 2005; DEAT, 2004a; DEAT, 2004b; Dixon, 2005; El-Jourbagy and Harty, 2005; EPA, 2003; EPD, 1998; EPD, 2006; EPD, 2009; FACITC, 2006; Fischer, 2007; Jones et al., 2005; Lam et al., 2009; Liou and Yu, 2004; Liou et al., 2006; Memon, 2005; Noble, 2009; ODPM, 2005; Retief, 2007; RMA, 1991; RMAA, 2003; RMAA,2005; Rossouw and Retief, 2005; Thissen and Heijden, 2005; UNDP, 2004; Zhou and Sheate, 2009.

4.1.2 Administrative level

With respect to whether SEA is applied within a full planning hierarchy, the comparison indicates that there is a great variability in the coverage of planning levels, which require SEA prior to decision-making. Most countries consider the national level as the priority level for SEA intervention with the exception of UK, where SEA required for Regional Spatial Strategies and Local Development Documents only (Zhou and Sheate, 2009). Among the countries which apply SEA at national level, China, Netherlands, New Zealand and Taiwan require SEA implementation within a full hierarchy of planning levels including regional and local plans (Dalal-Clayton and Sadler, 2005; Chaker et al., 2006a; RMAA, 2003; Liou et al., 2006 respectively), whereas SEA provisions in Canada, Hong Kong and South Africa only require SEA implementation for strategic actions at regional level (Chaker et al., 2006a).

4.1.3 SEA tiering

With respect to whether SEA is applied within a tiered system of environmental assessment, Table 3 indicates that there is great variability in the tiers of strategic decisions requiring SEA prior to decision-making. More than half of the systems reviewed perform SEA for the three main tiers of strategic action, namely PPPs (Canada, Hong Kong, South Africa, Taiwan and USA). In Canada, a detailed SEA is required when the proposal for a policy, plan or program is submitted to an individual Minister or to Cabinet for approval (CEAA, 2007).

Similarly, in Hong Kong and Taiwan, SEA is being fitted to a full hierarchical assessment system (Chaker, 2006a; Dalal-Clayton and Sadler, 2005; Liou et al., 2006). In addition, SEA is applied in the USA within a full-tiered system of environmental assessment (Dalal-Clayton and Sadler, 2005), where the National Environment Policy Act (NEPA) encourages agencies to tier their environmental studies to avoid repetition of issues and to focus on those that are appropriate for decision making at each level of planning. In South Africa, the National Environmental Management Act 1998 and it amendments include provisions for assessment procedures for PPPs (DEAT, 2004a).

Some countries require assessments for at least two tiers of strategic decisions (i.e., any combination of PPPs) (e.g., Netherlands, New Zealand and UK). For instance, Netherlands and UK formally established their SEA system only for plans and programmes (Dalal-Clayton and Sadler, 2005). In New Zealand, the RMA does not refer specifically to SEA but rather requires that any policy or plan must undergo an EA (RMAA, 2003).

In this comparative study, China is the only country in the sample to require SEA solely for strategic plans. The Chinese SEA legislation is integrated within the EIA Law (Chapter 2 of the EIA law exclusively makes provision for EA implementation for strategic plans) (Zhou and Sheate, 2009).

4.1.4 Integrating with planning process

An essential aim of SEA can be described as the integration of environmental considerations into decision making processes from the earliest possible stages onwards (Sadler and Verheem, 1996). As mentioned before, ideally SEA should be carried out simultaneously, as a form of 'dialogue' with PPP making, so that it is able to bring maximum influence to effect the process. Integration of this kind helps SEA to achieve its aims. With this respect, almost all SEA systems studied stipulate enough early integration of SEA, so as to encourage deliberation on purposes and alternatives. The exception is South Africa, where integration is not legally required (Rossouw and Retief, 2005).

Although few details are provided on the approach or way of integration, UNCEC & RECCEE (2006) identifies that there are three ways of achieving process integration. The first type of integration is that SEA is a completely separate tool from strategic action preparation. The second one is that SEA is partially integrated into strategic action preparation with limited chances of information exchange or sharing. The third one is that SEA is fully integrated into strategic preparation, in this context SEA and strategic action preparation, decision making and adoption are integrated at the outset, each contributing to shaping each other (EC, 2005).

4.2 Administrative framework

This section presents the findings of the overall comparison and review of SEA systems against SEA administrative criteria (see Table 3).

4.2.1   SEA initiator

The identification of an administrative body to initiate the SEA process provides direction and accountability for the process. The comparative assessment identifies that the responsibility of initiating SEA is a role of the proponent authority that produces and/or adopts the policy, programme or plan, in most of countries studied practise, with the exception of Canada and Hong Kong. In Hong Kong, the Environmental Protection Department (EPD) is the competent authority which is responsible for environmental issues, initiates SEA for strategic PPPs (EPD, 2009). Furthermore, in the Canadian SEA system, a formal SEA is officially initiated by the Minister of the Environment with the help from the Canadian Environmental Assessment Agency (Zhou and Sheate, 2009).

4.2.2   SEA conductor

This is the institution responsible for conducting and overseeing the SEA process. Most of the countries reviewed require the proponent authority to conduct the SEA themselves (e.g. Canada, China, Hong Kong, Lebanon, Netherlands, UK and USA). In Canada, it is the individual minister's responsibility for ensuring that the environmental consequences of their policies, plan and programs are considered consistent with the government's broad environmental objectives and sustainable

development goals (CEAA, 2004). Similarly, in the UK, it is the responsibility of the proponent authorities to initiate and conduct SEAs for their plans and programmes. For instance, if a local authority drafted a local transport plan, then it is the responsibility of that local authority to carry out the SEA application individually or invite a professional consultant to undertake the task on their behalf (Zhou and Sheate, 2009).

In contrast, in New Zealand and Taiwan, SEA is carried out by the component authorities (the Ministry of Environment and the Environmental Protection Administration, respectively) (Memon, 2005; Liou and Yu, 2004). In South Africa, an independent committee undertakes this task. Article 4 of the National Environmental Management Act states that environmental impact assessments, or other specified tasks performed in connection with an application for an environmental authorisation, may only be performed by a pre-qualified environmental assessment practitioner registered in accordance with the procedures to be established (DEAT, 2004a).

4.2.3   SEA reviewer

With respect to the issue of who has the authority to review an SEA or environmental report, the component authority is required to review the SEA findings in China, Lebanon, Netherlands and Taiwan. For example, the Lebanese Ministry of Environment is responsible for reviewing SEAs (Chaker et al., 2006b). In Taiwan, the component authority reviews and decides whether or not the SEA report meets requirements and how it will be taken forward. (Liou et al, 2006). Reviewers could also include a specialist independent body as elaborated in some countries such as, Hong Kong, New Zealand, South Africa and USA. In Hong Kong and USA, the Advisory Council for Environment (ACE) and the Council on Environmental Quality (CEQ) respectively review and endorse the SEA report (Au and Lam, 2005; Bass, 2005).

In contrast, the Canadian Cabinet Directive and its Guidelines only state that SEAs should be forwarded for departmental evaluation and review officers; the authority or organisation that is responsible for SEA examination and approval is not designated. It is stated that the Sustainable Development Division of the Department has the responsibility to review the results of a Preliminary Scan (Screening) template and the final SEA documents (FACITC, 2006).

4.2.4   SEA inspector

With respect to the issue of who has the authority to inspect the compliance with SEA results in the implementation of strategic proposals, the component authority (in China, Hong Kong, Lebanon, Netherlands, South Africa, Taiwan and USA) is required to ensure and inspect that the SEA outcomes are taken into account when implementing the development proposals.

In Canada, the Commissioner for the Environment and Sustainable Development is responsible for checking on the implementation SEA results (CEAA, 2004). While in

the UK, the implementation of PPPs is subject to review by a Planning Inspector where SEA will be scrutinised (ODPM, 2005). Finally, in New Zealand, enforcement is only takes place in an indirect way by an independent agency, namely through funding decisions by Land Transport New Zealand Agency (Fischer, 2007).

Table (3) Review of SEA administration framework in selected countries

Country	SEA initiator	SEA conductor	SEA reviewer	SEA inspector
Canada	Ministry of Environment	Proponent department and agency	Inter-departmental review is required by the Sustainable Development division of the proponent department	Commissioner for the Environment and Sustainable Development is responsible for checking on implementation SEA results
China	Proponent authority as a part of planning process	Proponent authority with the help from licensed professional environmental assessment consultants	Review team from State Environmental Protection Administration (SEPA), including representatives of relevant departments and experts	SEPA
Hong Kong	Environmental Protection Department (EPD)	Proponent authority	Advisory Council for Environment decides whether or not the SEA report meets requirements	EPD
Lebanon	Proponent authority	Proponent authority	Ministry of Environment	Ministry of Environment
Netherlands	Proponent authority	Proponent authority with an advice from an independent expert committee (EIA Commission)	Left to competent authority to decide	Ministry of Environment
New Zealand	Proponent authority	Ministry of Environment	Board of Inquiry within Ministry of Environment	Indirect way by an independent agency, namely through funding decisions

Table (3) *Continued*

Country	SEA initiator	SEA conductor	SEA reviewer	SEA inspector
South Africa	Proponent authority	A pre-qualified environmental assessment practitioner registered in accordance with specific procedures	External specialist reviewer	Environmental inspector
Taiwan	Proponent authority	Competent authority, namely Environmental Protection Administration (EPA)	Review committee within EPA	EPA
UK	Performed by proponent as part of the planning process	Proponent authority individually or invite professional consultant to undertake SEA on their behalf	A quality assurance checklist is provided	Independent examination by the planning inspectorate
USA	Proponent authority	Proponent authority	Council on Environmental Quality	Environmental Protection Agency

Source: Compiled by the author from: (Au and Lam, 2005; Bass et al., 2001; Bass, 2005 ; Buuren and Nooteboom, 2009; CEAA, 2004; CEAA, 2007; Chaker et al., 2006a; Chaker et al., 2006b; Dalal-Clayton and Sadler, 2005; DEAT, 2004a; DEAT, 2004b; Dixon, 2005; El-Jourbagy and Harty, 2005; EPA, 2003; EPD, 1998; EPD, 2006; EPD, 2009; FACITC, 2006; Fischer, 2007; Jones et al., 2005; Lam et al., 2009; Liou and Yu, 2004; Liou et al., 2006; Memon, 2005; Noble, 2009; ODPM, 2005; Retief, 2007; RMA, 1991; RMAA, 2003; RMAA,2005; Rossouw and Retief, 2005; Thissen and Heijden, 2005; UNDP, 2004; Zhou and Sheate, 2009).

4.3 Procedural framework

This section presents the findings of the overall comparison and review of SEA systems against SEA procedural criteria (see Table 4).

4.3.1 Screening

Screening is needed in order to decide whether an SEA should be conducted or not (Therivel, 2004). It is often defined in the SEA legal requirements or associated guidelines, and it is the starting point in all the SEA systems reviewed. The types and

tiers of strategic decision which should be subject to an assessment prior to decision-making are identified through one of the following:

(i) **A Screening list** identifying which strategic initiatives should be subject to SEA (as in China, Lebanon, Netherlands, South Africa, Taiwan and UK). For example, in the UK, certain categories of programmes and plans (agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning and land use) which are likely to have significant environmental effects are identified and are required to undertake an SEA (ODPM, 2005). Similarly in Taiwan, the scope of SEA is defined by a mandatory screening list which requires that SEA be applied to designated PPPs with potential adverse significant environmental impacts. The list includes 11 plans/programs in nine policy themes as listed in Table 5.

(ii) **Set of inclusive criteria** (as in Canada, Hong Kong and New Zealand). For example, in the Canadian SEA system, two basic criteria (political condition and physical condition) are set to evaluate whether a given PPP proposal needs SEA or not. The first criterion is "the proposal will be submitted to an individual Minister or Cabinet for approval". The second criterion is "implementation of the proposal may result in important environmental impacts, either positive or negative" (CEAA, 2004). Consequently, those proposals approved by authorities whose administration level is lower than minister or cabinet level and those proposals that physically may not result in important environmental impacts do not need to apply SEA.

In like manner, the Hong Kong EIA Ordinance requires EA to be conducted for major development PPP proposals of more than 20 hectares or involving more than 100,000 people (Au and Lam, 2005). In New Zealand, screening is more comprehensive as the RMA, as amended in 2003, states that an evaluation "must be carried out" for any proposed plan, policy statement or regulation, in addition to including where any changes or variations are intended (RMAA, 2003).

(iii) **Case-by-case** (as in USA), where SEA is determined on a case by case basis. First, an agency will see if a major action is already addressed under existing NEPA coverage. For instance, the action may already be encompassed under an Environmental Assessment (EA) or an Environmental Impact Statement (EIS). If the action is covered under a NEPA document, then the preparer should review the action to see if there are any substantial changes or new information. If no, then a supplemental Environmental Impact Statement (EIS) should be prepared (El-Jourbagy and Harty, 2005; Bass et al., 2001). An EIS is a detailed written statement concerning the environmental impacts of the proposed action and any adverse environmental effects which cannot be avoided.

Table (4) Review of SEA process framework in selected countries

Country	Screening	Scoping	Impacts assessment	Mitigation
Canada	SEA is determined and is expected when: ✓A proposal is submitted to an individual Minister or Cabinet for approval ✓Implementing the proposal may result in important environmental effects, positive and negative	The Directive states that 'the level of effort in conducting the analysis should be commensurate with the level of anticipated environmental effects' Proponents have discretion for determining how they conduct SEAs	Guiding policies subject to SEA and residual potential impacts should be analysed and described. Guidelines refer to indirect, cumulative impacts; environmental effects include impacts on health	Guidelines advocate specific consideration of mitigation measures
China	Based on a screening list of strategies	No provisions for scoping, but performed according to guidance prepared by SEPA	Predictive technique and methods are limited	Mitigation is required
Hong Kong	All PPP proposals submitted to the Executive Council According to set exclusion or inclusion criteria	Mainly based on consultation; All issues which have a bearing on sustain-able development concerns must be assessed	Methodologies stipulated in the EIA Ordinance Technical fit for particular SEA	All known unacceptable impacts must be mitigated
Lebanon	Screening is generic based on a screening list	Scoping is optional but guidelines provide advisory details for scoping	Required; reality remains to be seen	Mitigation strategy for impacts is required
Nether-lands	Screening list	An independent expert committee is consulted	Impacts are assessed against environment baseline data	Inclusion suggested
New Zealand	Screening is more comprehensive; all PPPs required to undertake SEA	Specified in the Resource Management Act	Occurs within plan making, impacts should be tested against environment-al objectives	Occurs in implementation of plans via resource consent process
South Africa	Performed on a voluntary basis: screening list	Scoping is considered a key process elements	PPPs should be assessed against sustainability frameworks	Guidance document propose development of mitigation strategy
Taiwan	Mandatory list (limited)	No provisions for scoping, but performed according to SEA guidelines	Impacts are assessed against environment baseline data	Feasible mitigation options
UK	Based on Screening list	Specified in the Environmental Assessment Regulations 2004	Impacts of plans must be identified, described and evaluated but assessment against environmental criteria; not compulsory	Mitigation measures to prevent, reduce and offset significant environmental effects of plan must be described in environmental report
USA	SEA is determined on a case by case basis	Regulations provide good framework for scoping	Impacts should be assessed against environment baseline data	Mitigation measures to solve environ-mental problems built into plans early in process

Table (4) Continued

Country	SEA Report	Review	Consultation & participation	Monitoring
Canada	No separate SEA report is required; findings should be included in the relevant decision document However, proponent agencies need to prepare a public statement on environmental	Inter-departmental review; no formal quality assurance procedure specified	Sources of information on public concerns include: ✓Responsible authorities provide opportunities for public participation ✓Outside experts and organisations	Guidelines specify broad requirements for monitoring
China	Environmental report is provided by the assessment team	External review is required	Public is encouraged to participate	Required in guidelines
Hong Kong	SEAs recorded in reports available for public inspection on government website	Advisory Council for Environment (ACE) reviews and endorses SEA report	Consultation with ACE, reports available for public inspection on government website	Mechanisms must be set up to monitor effects of development and to follow up SEA recommendations
Lebanon	Separate SEA report	Ministry of Environment reviews SEA report	Public access is allowed	Monitoring is required but limited details
Nether-lands	Separate SEA report	Left to competent authority to decide	Public involved during scoping and review	General requirements; sometimes to be shifted to project level
New Zealand	There is no environmental report available but report prepared by council staff	Board of inquiry reviews and endorses SEA report	Strong emphasis on consultation and public participation in RMA	Monitoring of policies required explicitly by the RMA
South Africa	Separate SEA report	SEA outcomes are subjected to independent review	Long tradition of participation and consultation	Provisions are stipulated in law
Taiwan	Separate SEA report	The EPA decides on SEA report	Public involvement is required in regulations	Lack of provisions
UK	Report should include baseline, predicted impacts, preferred alternative, mitigation and monitoring	A quality assurance checklist is provided for use by all those involved in SEA	Environmental report should be made available to the public and is posted online prior to the adoption of the proposal	Monitoring is required; objectives are clearly addressed in regulations
USA	Environmental impact statement must be prepared	EISs are well established and distributed widely public	Consultation and public participation are integral to the use of PEISs	Monitoring programme is required in NEPA

Source: Au and Lam, 2005; Bass et al., 2001; Bass, 2005 ; Buuren and Nooteboom, 2009; CEAA, 2004; CEAA, 2007; Chaker et al., 2006a; Chaker et al., 2006b; Dalal-Clayton and Sadler, 2005; DEAT, 2004a; DEAT, 2004b; Dixon, 2005; El-Jourbagy and Harty, 2005; EPA, 2003; EPD, 1998; EPD, 2006; EPD, 2009; FACITC, 2006; Fischer, 2007; Jones et al., 2005; Lam et al., 2009; Liou and Yu, 2004; Liou et al., 2006; Memon, 2005; Noble, 2009; ODPM, 2005; Retief, 2007; RMA, 1991; RMAA, 2003; RMAA,2005; Rossouw and Retief, 2005; Thissen and Heijden, 2005; UNDP, 2004; Zhou and Sheate, 2009.

Table (5) SEA mandatory screening list in Taiwan

Policy	Plan/programme
Industrial	Location of industrial parks
Mineral development	Development and supply of sand/rock
Water resources development	Water resources development and planning
Land use	• Development of golf courses • Transformation of land for agricultural uses and conservation for non-agricultural uses • Reducing the reserving areas for quality and quantity of water supplies
Energy	Energy structure
Livestock	Pig raising
Transportation	Railroad and highway infrastructure
Waste management	Household waste management
Radioactive nuclear waste management	Management re-treatment of the nuclear waste generated by nuclear power plants

Source: EPA, 2003

4.3.2 Scoping

Scoping determines the likely extent and level of detail for the assessment and the information to be included in the SEA and the environmental report (Therivel and Partidario, 1996). Although scoping is not legally required in China and Taiwan, the SEA guidelines in China suggests that scoping is a key stage in the SEA process and provide the responsible agency with what should be identified in this stage, unlike the Taiwanese SEA guidelines which do not stipulate provisions with regards to conducting scoping process. Generally, the scoping stage and determining the content of the SEA is provided through one of the following:

(i) ***Specific provisions in legislation*** (as in New Zealand, the UK and the USA). For example, the Resource Management Act (RMA) 1991 in New Zealand specifies in Schedule 4 the matters that must be considered when preparing an assessment of effects on the environment (Box 1) (RMA, 1991). By the same token in the UK, SEA legislation identifies the key issues and the level of detail to be addressed in SEA. Then the assessment can focus on the main environmental aspects and set the framework for developing targets (Regulations 2004, article12).

(ii) ***Guidance form*** (as in Canada, China, Lebanon and South Africa). While The Canadian Cabinet Directive, for instance, generally states SEA should consider the scope and nature of likely environmental effects, the guidelines detail and determine which information will be needed for SEA. This situation is similar in China, Lebanon and South Africa, where SEA guidelines provide a set of advisory

details whereby the responsible agency has discretion for determining how they conduct SEA scoping (Zhou and Sheate, 2009; UNDP, 2004; DEAT, 2004b respectively).

(iii) **Advice by a third party** (as in Hong Kong and the Netherlands), where consultation with the competent authority or an independent expert committee clearly plays a role in providing good framework for the scoping stage and in determining the extent and level of detail for the assessment to be included in the SEA (EPD, 2006; Dalal-Clayton and Sadler, 2005; Chaker, 2006a respectively).

Box (1) Scoping provisions in New Zealand SEA system

Resource Management Act 1991
Schedule 4 (section 1)

Matters that should be included in an assessment of effects on the environment
Subject to the provisions of any policy statement or plan, an assessment of effects on the environment should include:
1. a description of the proposal;
2. where it is likely that an activity will result in any significant adverse effect on the environment, a description of any possible alternative locations or methods for undertaking the activity;
3. an assessment of the actual or potential effect on the environment of the proposed activity;
4. where the activity includes the use of hazardous substances and installations, an assessment of any risks to the environment which are likely to arise from such use;
5. where the activity includes the discharge of any contaminant, a description of:
   - the nature of the discharge and the sensitivity of the proposed receiving environment to adverse effects; and
   - any possible alternative methods of discharge, including discharge into any other receiving environment:
6. a description of the mitigation measures (safeguards and contingency plans where relevant) to be undertaken to help prevent or reduce the actual or potential effect;
7. identification of the persons affected by the proposal, the consultation undertaken, if any, and any response to the views of any person consulted;
8. where the scale or significance of the activity's effect are such that monitoring is required, a description of how, once the proposal is approved, effects will be monitored and by whom.

Source: RMA, 1991

4.3.3   Impact assessment

Strategic actions have wider ranging and less predictable outcomes than individual development. It has therefore been acknowledge, since early studies on SEA, that the assessment of the possible effects of strategic proposals will be characterised by a high level of uncertainty. Nevertheless, a SEA process would be useless without a significant assessment of the likely effects of strategic proposals (Jones et al., 2005).

Although many different methods of assessing significance are evident, two broad approaches can be identified (Sheate, 2001; Partidario, 1996). The first approach follows the EIA model by which proposals can be assessed against empirical data to predict the likely difference that certain actions would make to a baseline

environment (as practised in China, Hong Kong, Lebanon, Netherlands, South Africa, Taiwan and USA). In contrast, in Canada, New Zealand and UK, an approach akin to the policy model is used, which requires proposal to be tested against environmental objectives, to see whether or not they are likely to contribute to, or work against, the achievement of those objectives.

4.3.4 Mitigation

The proposing of mitigation measures is seen as good practice as it increase the chances of improvement being made to the environmental performance of the proposed strategy during the political decision making process (Therivel, 2004). Although all countries stipulate clear requirements for mitigation measures, few details are provided on how to set up a sequence for properly selecting mitigation measures. For this issue, the first concern is what approach should be considered in mitigation.

In this context, the UK SEA system sets up a sequence for properly selecting mitigation measures: adverse environmental effects should be prevented first; if it is not possible then efforts to reduce their magnitude and significance should be proposed; and finally if neither of the first two are possible, measures that can offset effects should be set out (the SEA Directive Annex I). The Canadian, Lebanese and South African SEA systems do not include prevention as a potential mitigation measure, but they suggest that mitigation should consider opportunities that can enhance potential environmental benefits (CEAA, 2004; UNDP, 2004; DEAT, 2004a respectively). In China, measures that can prevent or reduce effects should be considered and documented in SEA reports (Zhou and Sheate, 2009). Thus, based on this experience, approaches for mitigation could be:

- Avoiding the implementation of the action *(either completely or in certain areas which are considered to be most sensitive to the action),*
- Reducing or minimising the negative impacts*, or*
- Enhancing the positive impacts *at the expense of negative ones.*

4.3.5   SEA report

The preparation of a report and a clear and concise summary are core elements of SEA (Brown and Therivel, 2000). The SEA report documents the findings relating to the proposed strategic action's predicted impacts on the environment. It provides the basis for stakeholder consultation and eventual evaluation of SEA efficiency in influencing strategic decision-making (Therivel, 2004). All systems except New Zealand require some forms of documentation of SEA findings. In New Zealand, neither a distinguishable environmental section in strategies nor separate environmental report is required (Fischer, 2007). In Canada too, the Cabinet Directive states that "a separate environmental impact report is not required" (the Cabinet Directive, p.7), but in these cases of the SEA report should be included as a chapter of the report of the proposed strategic proposal or be completely integrate within the discussion of the proposal.

Other SEA systems reviewed require the responsible agency to submit a separate report which includes SEA findings and all relevant aspects. For example, in the USA system, an Environmental Impact Statement (EIS) must be prepared. An EIS is a "detailed written statement concerning the environmental impacts of the proposed action" (El-Jourbagy and Harty, 2005). The relevant regulations in UK does not state whether the SEA report should be integrated within a proposal plan report or be a completely separate report. But in practice, UK adopts the latter report form (Zhou and Sheate, 2009).

The content of the SEA report is often described by guidelines, which stipulate a set of contents that formal SEA reports should generally cover. For instance, the Lebanese SEA guideline determines the minimum requirements for SEA report as shown below in Box 2. In contrast, in Canadian SEA system, the responsible agency should determine the content and extent of the public statement according to the circumstances of each case. (the Cabinet Directive, p.7).

Box (2) The minimum requirements for SEA report in Lebanon

1. Cover Page
   The cover page must include the following:
   • This report was prepared by [Name of Proponent & Outsourced Consultant if relevant]
   • Date
2. Executive Summary
3. The Proposed Plan or Program
4. Assessment of Baseline Conditions
4.1. State of the Environment & Natural Resources
   4.2. Influence of the Socio-Economic Situation on the Environment
   4.3. Feedback from Concerned Public Institutions & Results of Public Participation
5. Possible Alternatives for the Proposed Plan or Program
6. Assessment of Impacts
7. Coherence of the Selected Plan or Program with Legal, Institutional & Planning
   Frameworks
   7.1. Consistency of the Plan or Program Subcomponents
   7.2. Compatibility with the Legal, Institutional & Planning Frameworks, & Other Related
        Initiatives
   7.3. Evaluation of Institutional Capacities
8. Selection & Justification of the "Most Suitable Strategic Option"
9. Environmental Management Plan
10. Integration of SEA Findings in the Proposed Plan or Program
11. Technical Appendices
12. Administrative Appendices

Source: UNDP, 2004

4.3.6   Review

The review step is a means for controlling the quality of the presented information, which will constitute eventually the basis for decision-making, and pre-determine thereby the suitability, practical feasibility and sustainability of the resulting strategic action (Andre et al., 2004). However, an external and transparent review stage by the competent authority or independent body, with publicly available findings, is evident and clear in most systems evaluated (see Section 4.3.2) with the exception of Canada. The Canadian Cabinet Directive and its Guidelines only state that the SEA

should be forwarded to departmental evaluation and review officers so that future evaluations of the policy, plan or program initiative can incorporate the outcome of the analysis into the evaluation framework (the Cabinet Directive p.8).

4.3.7 Consultation and public participation

Consultation and public participation can help to generate a sense of ownership of the development among stakeholders; can improve decision-makers' understanding of issues including planning procedures and environmental impacts; and can increase the transparency of the strategy preparation process (Heiland, 2005). With respect to the studied sample, all systems have introduced various mechanisms to involve the public, as appropriate. Approaches of participation can classified as below:

(i) **To inform the public**: this includes public relations without any possibility for the public to give statements or to take influence on the decision-making process as practised China. Article 5 of the Chinese EIA Law states that *"the state encourages relevant organisations, experts and the public to participate into EAs"*. However, this encouragement is a mere formality from the perspective of practice. The most recent guideline merely suggests some possible public participation methods rather than establishing a genuine mechanism through which the public can be properly informed and then are really able to participate in SEAs, make contributions, influence the decision making and help environmental protection (Zhou and Sheate, 2009).

(ii) **To involve the public**: this offers the opportunity to the public to express its opinions in an active manner. This involvement usually happens after completing the report (as practiced in Canada, Hong Kong, South Africa, and Taiwan). For Example, the Canadian Directive states that departments and agencies shall prepare a public statement of environmental effects when a detailed assessment of environmental effects has been conducted through a SEA (CEAA, 2004). The Canadian guidelines point out that through clearly understanding the concerns of the public the quality and credibility of strategic action proposals can be strengthened; also it provides various methods which can facilitate collecting information from the public. In Hong Kong, the applicant shall, as soon as reasonably practicable after he has been notified that an environmental impact assessment report meets the requirements of the environmental impact assessment study brief, make the report available for public inspection (EPD, 1998). Similarly in South Africa, NEMA stipulates that there should be an adequate and appropriate opportunity for public participation in decisions that may affect the environment (DEAT, 2004a).

(iii) **To cooperate with the public**: this refers to a decision-making process between equal partners and includes the possibility for jointly developed solutions (as in Netherlands, New Zealand, UK and USA). For example, the Dutch SEA system requires public involvement during the scoping stage and it is extended prior to decision making to include the SEA report. This will assure stakeholders and the public that environmental factors have been appropriately considered when

decisions are made (Thissen and Heijden, 2005; Buuren and Nooteboom, 2009). Similarly, New Zealand has a tradition of transparent and cooperative planning. Consultation and public participation are important elements of public decision making processes (Fischer, 2007). Regarding to UK system, SEA does not clearly determine the exact time when the public is allowed to participate, "early opportunity" or "early stage" public participation are recommended. Apart from the recommended early opportunity for public input at ;east, the draft plan of proposed strategic action and its environmental report should be made available to the public (Regulations 2004, article 16/4), also there is a requirement that the opportunities for the public to participate should be effective (Regulations 2004, article 13/3).

4.3.8 Monitoring

Monitoring the implementation of the policy, plan or programme is envisaged as a key stage in SEA process. The information gathered as a result of monitoring enables the responsible authority to track the environmental effects of the PPP, gauge the effectiveness of mitigation measures, identify unforeseen effects and manage any uncertainty encountered in the assessment process. Although few details are provided on the approach or objective of monitoring, the review identified that different approaches to monitoring could be (Therivel, 2004; Therivel and Partidario, 1996):

- **Identifying new adverse effects and their management** *(track unpredicted effects and manage them)*, which is the most important objective identified in literature. For example, the UK system clearly addresses the objective of monitoring which is to identify unforeseen adverse effects at an early stage to be able to undertake appropriate remedial action (Regulations 2004, article, 17/1). In the South African SEA, NEMA states that adequate provision should be made for the ongoing management and monitoring of the impacts of the activity on the environment throughout the life cycle of the activity (DEAT, 2004a).

- **Achievement of PPPs objectives** *(to ensure that the objectives of the proposed action will be obtained)*, for example, RMA in New Zealand requires every local authority to monitor the efficiency and effectiveness of policies, rules, or other methods in its policy statement or its plan (RMAA, 2003).

- **Verification of predicted impacts and success of mitigation measures** *(to certify whether negative impacts are being addressed and being reduced)*, such as, the EIA ordinance in Hong Kong requires checking of the implementation and completion of mitigation measures to be undertaken by qualified personnel (EPD, 1998)

In some cases, the requirement for monitoring are only very broadly set out, as in the Canadian SEA system which addresses the objective of monitoring, as "to ensure sustainable development" (CEAA, 2004). This means that the monitoring should include all the listed objectives.

5 CONCLUSIONS

The international review of the existing SEA systems indicates SEA is no longer just theoretically feasible but is also practically feasible and has been applied in many countries. Generally, the idea of an assessment at the strategic level was well accepted, and practical SEA examples can be found in the western developed countries which have relatively higher environmental awareness and priority, and well-established planning systems.

Based on the preceding findings, the paper reemphasises that there cannot be one SEA model that can fit all planning processes and planning systems. SEA can take different forms, depending on, for example, the sector (e.g. land use, transport, energy, water and waste), and the administrative level (e.g. national, regional and local) to which it is applied. While certain key elements will be reflected in every SEA system, others will differ, reflecting different planning and assessment practices and requirements, as well as the political and cultural traditions of the organisations responsible for PPPs and associated SEA. Each planning system has to establish its own SEA system and process.

In this paper, 10 systems from throughout the world, where SEAs had been routinely applied for some considerable time were introduced and reviewed. Although SEAs are regulated with different perspectives, there is one aim that is to ensure that strategic actions that have significant environmental impacts are weighed duly and deliberately. This paper suggested that SEA should be conceptualised as a framework, with core elements that are tailor-made according to legal, administrative and procedural circumstances, whatever the decision making system in place. It is believed that in this way SEA may better satisfy its acknowledged aims and benefits, which help achieve sustainable development by changing the way decisions are made.

The work presented in this paper provides useful example and experience to capitalise on international SEA experience. This is particularly essential for countries that are in the process of regulating of updating their SEA frameworks. What works in one country may not work in another, particularly where the political, legal and administrative frameworks are different. Finally, SEA should have the same high-level objectives wherever it is operated, even though the mechanisms through which it is delivered varies greatly.

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