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Filling in the Marginal Lands: 
Population Deconcentration in Southeast Asia, 1960s-2000s

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ABSTRACT

During and shortly after the colonial period, in their writings on Southeast Asia a number of geographers and social scientists – including Dumont (1935), Gourou (1936 and 1953), Robequain (1946 and 1958), Dobby (1960), Geertz (1963), Burling (1965), Fisher (1966) and Spencer (1966) – emphasized the disequilibrium in population distribution throughout most of the region, pointing out the high densities in several lowland areas and the generally low densities in marginal uplands. Most suggested that this represented a serious problem to “development programmes”, several adding that the best solution laid in the redistribution of so-called surplus population from the lowlands towards borderlands, this strategy also serving to better integrate these areas and the minority peoples inhabiting most of them. According to nearly all of these authors, this “internal colonization of empty spaces” (Robequain) could be achieved chiefly through agricultural expansion. Since the end of the colonial era, nearly all countries in the region have actually implemented such policies of population redistribution, the Philippines and Indonesia having begun much earlier. Our study measures to what extent these have resulted in actual population deconcentration. Based on population statistics for ~1960, ~1985 and ~2005, which we have mapped and statistically assessed (Hoover index and Lorenz curve), it shows that significant population deconcentration has occurred in all countries except Laos.
POPULATION REDISTRIBUTION IN SOUTHEAST ASIA IN HISTORICAL PERSPECTIVE

“A state mainly concerned with appropriation and control will find sedentary agriculture preferable to pastoralism or shifting agriculture”

(Scott 1998: 338).

Throughout history, in most if not all major regions of the world, nation building as well as empire building have entailed population displacements. More often than not, these have been carried out under state supervision and taken the form of frontier development, involving the settling of sedentary farmers. In East Asia, for example in China, it has been applied to huge portions of the eventual national territory, generally at the expense of non-Han people (Lattimore 1940). Frontier development associated with agricultural settlers was also present in the conquest of Hokkaido by the Japanese (Walker 2001), where ethnic minorities were either pushed aside or forcibly integrated into the national realm.

In previous publications, we demonstrated how such a reliance on the peasantry as the territorial spearhead of the state, here also by encroachment on lands generally utilized by ethnic minorities, has been applied in several countries of Southeast Asia, notably Malaysia, Vietnam and Indonesia (De Koninck, 1986, 2000 and 2006). In one publication in particular, after having examined “agricultural expansion as a tool of population redistribution” (De Koninck and Déry, 1997), we announced our ambitious intention to try and address the issue on a pan regional basis, while relying even more on long term diachronic mapping. This is what we are doing in the present article.

In other words, in Southeast Asia itself (Fig. 1), population redistribution has a long history, whether or not it involved a reliance on “central peasants” to marginalise, dilute or integrate minority groups. Even prior to the colonial period, policies to favour the extension of settled lands were actively pursued in several states particularly Thailand and Vietnam. In the latter case, the very history of state formation was closely linked to territorial expansion of Viet settlement. Set in motion during the Xth century, the Nam Tien, the long march to the south, continued until the XVIIIth, by which time the Mekong delta had been reached and its gradual integration within the Viet realm had begun (Déry, 2004). Much more recently, Thai policies of population territorial expansion facilitated by large scale drainage works sponsored by the king, first in the Chao Phraya basin and then well beyond, date from the XIXth century (Winichakul, 1994).

More significant, during the colonial period, in several countries the authorities laid down policies favouring the colonisation of territorial margins under their control. These were mostly implemented during the later part of the period, essentially the first half of the XXth century. In the Philippines, by then an American colony, the official objective consisted in reducing population pressure in Luzon and in the Visayas, by promoting the displacement of agricultural populations towards the large southern island of Mindanao (Pelzer, 1945).

1 This paper was presented at the Asian Borderlands Conference, held at the Asia Research Institute in October 2012. The authors wish to thank the Cornell University Kroch Library personnel and particularly Mr Gregory Green for his kind help and advice with their search for population statistics. The paper has since been revised, while some of the tables and figures that it contains have been used in a paper entitled “Population growth and environmental degradation in Southeast Asia: What are the links?” and due to appear in a book edited by Philip Hirsch. This book is itself entitled Handbook of the Environment in Southeast Asia and is expected to be published in 2016 by Routledge in London.

2 We are conscious that the work remains embryonic and that we will eventually need to update our statistics as well as their graphic and cartographic representation, a daunting task.

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In fact, as often throughout history and in several regions of the world, a major goal – if not the major one – actually pursued has been of a geopolitical nature: the idea being to rely on the peasantry as the territorial spearhead of the state in order to better integrate marginal lands into the national realm (De Koninck, 1986, 1993).

Thus in 1905, the Dutch launched a Colonisatie programme, by recruiting peasants from Java, by far the most heavily and densely populated island within their colonial domain, and enticing them to migrate to the so-called outer islands, in particular Sumatra. That population redistribution policy actually followed the one which, a century earlier, had led to the enlisting of Javanese to work as labourers on the plantations located near Medan, on Sumatra’s northeast coast, the Oostkust (Stoler, 1995), some 1400 km away from Java.

The French also attempted to relieve population pressure in the Vietnamese lowlands, or so they claimed, by recruiting Kinh settlers during the 1920s and 1930s and installing them in small numbers and with limited success in the Central highlands, until then predominantly inhabited by indigenous minorities (Hardy 2003, p. 83-85).

As for the British, shortly before granting independence to Malaya in 1957, they initiated a large plantation development programme in the heart of the peninsula’s mountainous and forested interior. Until then very lightly populated, that region had harboured Communist insurgents which had given a tough time to the British during the Emergency. The latter officially lasted from 1948 to 1960, but by 1957 the colonial government had nearly regained full control over the area (Barber 1971). To such an extent that the new independent government was able to promote actively the expansion of its internal agricultural frontier, henceforth led the Federal Land Development Agency (FELDA) (De Koninck, 1981).

Throughout the last decades of the colonial period, a good number of European observers\(^3\), colonial officers as well as academic scholars, emphasized what they perceived as the precarious nature of peasant livelihoods, frequently using the words “overpopulation” and “lack of land resources”. Several of these observers, for example Robequain (1946 and 1958), were adamant on the need to accelerate the colonisation of the marginal and borderland areas, in order to reduce population pressure and poverty in the lowlands while boosting agricultural production, particularly of cash crops.

**CONTEMPORARY POPULATION REDISTRIBUTION AND DECONCENTRATION IN SOUTHEAST ASIA**

Since then, i.e. since the late 1950s and early 1960s, population displacement as well as relocation, redistribution and deconcentration were intensified in most of the region’s countries, including quite spectacularly in the island City-State of Singapore (De Koninck *et al.*, 2008). But more fundamentally, it is within the region’s large river basins that such policies were implemented, displaced populations being primarily peasants and targeted areas predominantly located in peripheral and borderland areas. In addition, just like during the colonial era, state authorities concerned continuously insisted on the so-called demographic emptiness of these areas, hiding clumsily their obvious intention to better control them as well as the indigenous people which generally inhabited them. We have already analyzed the objectives and major stages of these population redistribution campaigns (De

\(^3\) Burling, 1965; Dobby, 1950; Dumont, 1935; Fisher, 1966; Geertz, 1963; Gourou, 1936, 1953; Robequain, 1946; Robequain, 1958; Spencer, 1966.
Koninck and Dery, 1997), pointing out the need for a better assessment of the resulting land use and demographic changes, in each country as well as throughout southeast Asia.

The big question then, crucial for a proper assessment of so-called land development policies, remains: can land based demographic statistics, in particular those available from national censuses, allow for such an assessment of population redistribution campaigns, which, as we could already perceive, seemed to result in population deconcentration?

**HOW TO MEASURE POPULATION REDISTRIBUTION AND DECONCENTRATION?**

Since the end of the colonial era, national censuses have been carried out throughout Southeast Asia at very different intervals. Concerning the eight major countries – Burma, Thailand, Cambodia, Laos, Vietnam, Malaysia, the Philippines and Indonesia⁴ – we can say that the quality of the data yielded by the different national censuses varies considerably, this being largely although not exclusively related to the economic resources made available for the task. Thus, data made available from the Filipino, Thai and Malaysian censuses seem much more reliable than those from the censuses of Laos and Cambodia and even more Burma. As for Vietnam and huge Indonesia, one must admit that over recent decades the quality of their census data has been improving noticeably.

This being said, numerous problems remain, particularly when population distribution among the respective countries are measured and compared across time and space. Major problems include, firstly, the different years at which censuses are carried out among the region’s countries; neither are the dates identical nor are the intervals between the censuses everywhere a decade long (Table 1). In several countries, it was a long time after WWII before a census could be carried out, as many as 40 years in Laos! In some, inter census intervals have fluctuated. In Vietnam, the first census after WWII took place in 1960 and it only concerned the North. The following one, countrywide this time, was only completed in 1979⁵. Fortunately, since then the much more common interval of one decade has been maintained (1989, 1999 and 2009). In Burma, following the 1953-54 census, nearly 20 years elapsed before the next one was completed. A decade later, in 1983 a new one administered but the next one happened only in 2007, with only a small portion of its contents being made available to the public. In Cambodia, after the 1962 census, the authorities were only able to complete the next census 36 years later, in 1998. Such inconsistencies are largely attributable to the vagaries of history and particularly to the colonial as well as post colonial wars that have plagued Vietnam, Laos and Cambodia, the three countries that emerged from the former French colonial

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⁴ Even if data concerning the three other countries in the region, namely Singapore, Brunei and East Timor, are not analysed in this paper, they are taken into account in figures 1 and 2.

⁵ According to Monnier (1981), “Deux recensements avaient auparavant été effectués (le 1er mars 1960 et le 1er avril 1974) sur le territoire de la République démocratique du Vietnam, ou Nord Vietnam, et un dénombrement de la population avait eu lieu le 6 février 1976 dans les provinces situées au sud du 17e parallèle, opération liée à l’établissement des listes électorales en vue des élections générales d’avril 1976. Plus anciennement, des dénombrements de la population de l’Annam, du Tonkin et de la Cochinchine avaient été effectués par l’administration coloniale française [...] Seuls, les recensements de mars 1960 et d’octobre 1979 ont fait l’objet d’une opération de contrôle ...” (p. 612). This can be translated as follows. “On 1st March 1960 and 1st April 1974, censuses were carried out on the territory of Democratic Republic of Vietnam, or North Vietnam, and an additional population count completed on 6 February 1976 in the provinces located south of the 17th parallel, in conjunction with the establishment of voting lists for the general elections of April 1976. In former days, population counts were performed by the French colonial authorities in Annam, Tonkin and Cochinchina [...]. Only the censuses of March 1960 and October 1979 have been controlled” (p. 612).
domain of Indochina. This means that for those three countries, along with Burma – itself burdened since 1962 by an obscurantist military government which has only recently begun to release some of its hold over political power and territorial control – any interpretative analysis of the evolution of demographic change has to rely at least partially on statistics that do not directly emanate from official censuses. We have thus had to rely on a number of other sources, local, national and international, as testified by the lists we provide here alongside our maps as well as in our bibliography.

Table 1: Dates of censuses carried out in eight Southeast Asian countries since the end of WWII

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<th>Country</th>
<th>Dates</th>
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Secondly, the respective administrative grids are hardly comparable as the respective countries’ divisions and sub-divisions, such as provinces, states, districts, sub-districts and communes, come in all sizes and shapes. From one country to another, administrative units do vary tremendously in sizes, with, for example, each Indonesian or Malaysian province being equivalent to several Vietnamese or Filipino provinces; or with the 320,000 km² Indonesian province of Papua being nearly as extensive as Malaysia as a whole, while the 120,000 km² Malaysian state of Sarawak is equivalent to two thirds of Cambodia, etc.

Thirdly, census as well as inter census data are not always made available at a level more detailed than that of districts, which in some countries, such as Malaysia and Indonesia, are often as extensive as or even more extensive than provinces in countries such as the Thailand, Vietnam and the Philippines whose administrative grid appears such tighter.

Fourthly and finally, over recent decades most countries in the region have been redrawing their administrative grid, refining it, either by regrouping some units and even more by reducing their size while multiplying them, Vietnam having become quite good at it (De Koninck et al., 1996; De Koninck et al., 2005). This renders more difficult the cartographic representation and interpretation of census data, particularly on a diachronic basis (De Koninck et al., 2003).

In order to measure and illustrate the evolution of population distribution in the region, we had to make do with the statistical data available and to make a number of choices concerning not only tabulations – not represented here – but also statistical and cartographic representations. This was the case with, as illustrated in several figure titles, with dates such as circa 1960 (about 1960), circa 1980, etc. In handling a large corpus of demographic data, we had to calculate averages and means and establish random distributions. In short we had to rely on complex statistical operations which cannot be explained in detail here but which will be the objet of a separate publication.
The method used here to represent population distribution cartographically is rather classical (Fig. 2A and 2B). Notwithstanding their scale, that of the whole of Southeast Asia, these maps do allow for the illustration of several of the more striking characteristics of the redistribution and deconcentration that the region’s population has been the object of during the period examined (c. 1960-c. 2005). Three of these should be singled out.

The first is the strong overall increase in the region’s total population. Between 1961 and 2005, it grew from ~204 to ~506 millions persons, having been multiplied by a 2.5 factor, which corresponds to a 2.1 average annual rate of growth.

The second corresponds to the significant demographic densification of these areas that were already very densely populated in the early 1960s, such as the Indonesian island of Java and the Red River delta in Vietnam.

The third consists in the very noticeable demographic filling in of several other regions, including the whole of the Mekong River delta, Northeast Thailand, the Indonesian island of Sumatra and, as mentioned earlier, the island of Mindanao in the Philippines.

A different type of cartographic representation can bring out other striking forms of evolution. This consists in the cartography of population evolution by administrative unit, such as provinces or districts (Fig. 3A and 3B). Here, two major categories of changes can be identified.

1) During the 1960s to 1980s period (Fig. 3A), in the large island of Borneo, where overall demographic growth was strong, the Indonesian provinces of West and Central Kalimantan stand out. The same can be said of the province of Riau, on the western flank of Sumatra, and the northern portions of Sulawesi and Mindanao islands. The latter has obviously remained a predominant migrant destination within the Philippines, both from Luzon and the Visayas. Equivalent population growth is also apparent in the case of Pahang state in south central Peninsular Malaysia and on the Central Plateaus as well as in several Northern and mountainous provinces of Vietnam. The processes of deconcentration that these changes illustrate are in fact attributable to a number of factors, including planned land pioneering and population relocation at times of war, particularly in Vietnam during the American war⁶.

2) During the following two decades (early 1980s to early 2000s, Fig. 3B), additional regions were predominantly targeted by population redistribution. These include the Malaysian state of Sabah, located in northeast Borneo, which had already been the object of strong population increases during the preceding time period (Fig. 3A), as well as most peripheral provinces of Cambodia. As for regions that remained prime migratory targets, they include the Vietnamese Central Highlands and the Indonesian island of Riau.

But how can more detailed and more rigorous illustration and interpretation of these population redistributions and filling in processes be achieved? How can what geographers have termed population deconcentration be measured in Southeast Asia? That’s precisely what we determined to do by relying on two statistical and graphic indicators, the Lorenz curve and the Hoover index.

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⁶ We refrain here from entering into a detailed explanation of the various migrations programmes, including the specific motives behind them, as this was done in some of our previous publications, including De Koninck and Déry, 1997 and De Koninck, 2006.
STATISTICAL INDICATORS OF POPULATION DECONCENTRATION

The two indicators chosen here have been widely used by geographers to measure population deconcentration in industrial countries, particularly with reference to urban population. The resulting studies have predominantly been aimed at the measurement of urban spread and of the growth of medium size and peripheral cities versus central and metropolitan ones. For a time such studies had become widespread in the United States, Great-Britain and Germany.

In our case, the objective is to focus on the population deconcentration process at the scale of individual Southeast Asian countries. Put differently we intend to measure to what extent deconcentration from the core regions has been occurring in favour of peripheral lands and margins. Put even more differently and more simply: has the population of peripheral areas, which include borderland areas, particularly in mainland Southeast Asia, grown faster than that of the core regions?

It should be reminded here that deconcentration has been achieved and continues to be in a context where strong urban growth is also taking place in all the countries concerned, including in demographic terms (Fig. 4), particularly in core areas: already more urbanized, these are urbanizing faster as is occurring throughout most of the world. This implies that overall deconcentration at the respective national scales is in fact achieved notwithstanding the urban growth which already tends to favour the core or central regions. This renders even more significant the deconcentration process.

THE ELOQUENCE OF THE INDICATORS

The two indicators utilized, the Lorenz curve and the Hoover index, clearly indicate to what extent deconcentration has been systematic in all countries except Laos (Fig. 5, 6, 7, 8 and 9). In fact while in all other countries, state authorities have attempted to favour migrations, towards peripheral and borderland areas, of lowland populations ethnically closer to them and likely to be more supportive politically, in Laos the opposite has occurred, at least until recently. The Lao government has favoured population concentration, by forcing a number of communities living in upland border areas, where most of them were relying on slash and burn cultivation, to move down into the Mekong valley where they can be the object of more efficient social integration policy (Goudineau, 1997).

Not only is the Laos exceptionality confirmed by measurements through the Lorenz curve (Fig. 5A and 5B) and the Hoover index (Fig. 8 and 9), several other particularities and related significant features are brought out, such as the following.

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7 See for example Champion (1987); Gordon (1979); Hoover (1941); Kontuly et al. (1986); Long and Nucci (1997), Morrill (1978), Vining and Strauss (1977).

8 As mentioned earlier, we are focussing on Southeast Asia’s eight major countries which together account for some 98% of the region’s overall territory and for an equivalent proportion of its total population. This said, the territories of Singapore, Brunei and East Timor (officially independent since 2002) are in fact represented in all the maps and their populations taken into account in figures 2 and 3.
1) Unsurprisingly, Indonesia is shown to have had the strongest degree of population concentration not only in the early 1960s but still in the early 2000s (Fig. 5A and 5B). However and so far this could not really be revealed or at least made clear by the sole diachronic cartographic representation (Fig. 2 and 3), it is also in Indonesia that deconcentration has been the most acute during the over forty-year period examined (Fig. 7, 8 et 9). This means that in the region’s largest country, transmigration policies, applied with particular determination from the 1960s until the early 2000s, have in association with spontaneous migrations significantly impacted the national population distribution pattern and did achieve at least partially the goal of filling in demographically some of the peripheral areas while reducing the rate of growth of population density in Java.

3) Vietnam is another country where contemporary population deconcentration has been pursued vigorously by the government, particularly after the 1975 reunification and even more after the launch of the Doi Moi (renewal) policies in 1986. The implementation of these policies has had a very clear impact on population redistribution and deconcentration (Fig. 6, 8 and 9).

4) Over the nearly half century long period examined, Thailand and perhaps even more Malaysia are among the other countries that have applied successfully population deconcentration policies (Fig. 8 and 9).

5) In the Philippines, although, as mentioned earlier and as amply documented population deconcentration was clearly achieved from the 1910 to the 1970s, since then it seems to have levelled off (Fig. 7).

6) In the two remaining countries, Burma and Cambodia, population redistribution and deconcentration processes appear less clear (Fig. 8 and 9). Thus, in Burma, after a period of actual concentration, from the early 1960s to the early 1980s, the process seems to have reversed with deconcentration having since begun. In Cambodia, the apparent deconcentration achieved during the 1960s-1980s period – which includes the Khmers Rouges reign of terror (1975-1979) which led to an attempt to move large numbers of people towards borderland areas – seems to have levelled off. But in total, deconcentration did occur and, recent evidence points to an acceleration in the filling in of borderland areas, through agricultural expansion, particularly in Ratanakiri and Mondulkiri provinces located along the Vietnamese border.

7) Overall, the statistical indicators used confirm that nearly the entire region has been involved in population redistribution and deconcentration towards peripheral and borderland areas. And there is evidence that, just like Cambodia, Laos, so far the sole exception, has recently been involved in renewed population deconcentration, as upland areas along the Chinese border are being targeted for large scale development of rubber plantations.

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9 On these figures, perfect equality refers to the situation – necessarily hypothetical – where the population of a given country is distributed equally throughout the national territory.
Fig. 1 Southeast Asia

Source: De Koninck, 2005
Fig. 2 Southeast Asia. Population distribution. c. 1960 and c. 2005

Fig. 3 Southeast Asia. Evolution of population distribution by province or district. From early 1960s to early 1980s and early 2000s

Fig. 4 Southeast Asia. Urban and rural population by country. 1955-2005
Left Y axis = Population in millions – Right Y axis = Population in %

Source: UNPOP, 2010
Fig. 5 Southeast Asia. Population distribution for eight countries, as measured by Lorenz curve. c. 1960 and c. 2000
Fig. 6 Vietnam. Evolution of population distribution, as measured by Lorenz curve.  
1965, 1985 and 2004

Fig 7 Indonesia. Evolution of population distribution, as measured by Lorenz curve.  
1961, 1985 and 2005
Fig. 8 Southeast Asia. Evolution of population distribution in eight countries and for the whole region, as measured by Hoover Index. c. 1960, c. 1980 and c. 2000 (columns)
Fig. 9 Southeast Asia. Evolution of population distribution in eight countries and for the whole region, as measured by Hoover Index. c. 1960, c. 1980 and c. 2000 (curves)
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