1. CONCEPT AND DATA OF THE ATLAS

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The Socio-Economic Atlas of Myanmar emerged through many years of trusted cooperation between German and Myanmar colleagues. The work involved experts from academics, government and planning practice from the natural and social sciences including diverse disciplines such as physical and human geography, architecture and landscape planning, civil engineering and zoology.

The Atlas aims to present and evaluate key spatial developments in the current transformation process of Myanmar. The focus is on social-economic developments and their uneven manifestation in the states and regions of the country. These development processes are observed in relationship to administrative structures and their dependence on the characteristics of the landscape, natural resources and existing infrastructure. The meticulous spatial analyses aim to increase the state of knowledge about Myanmar both within the country and abroad, and to support decision-making on spatial development policy. In order to ensure wide accessibility the Socio-Economic Atlas is published in print and as an open-access document.

In international publications and media reports it is often said that little is known about Myanmar. Although this may appear true from an outside perspective, it requires qualification if not revision when the situation within the country is considered. In Myanmar there is a significant body of scarcely tapped knowledge that has attracted very little international attention. In the universities and administrations, especially on the local and regional levels, there is a great deal of knowledge – historical, regional, ecological and social – about Myanmar, its sub-regions and local, ethnic and religious communities. Numerous PhD and Master theses (albeit of varying quality, originality and depth of analysis) represent a notable body of knowledge, even if it is scattered over local libraries and hard to access, particularly as some of the work is written in the Myanmar language. Many unpublished investigations, reports and research papers have been bound by the institutes concerned and are not generally known of or catalogued. Furthermore, there is an enormous body of reflected, usually unwritten knowledge and experience. This large pool of different forms of knowledge is practically unknown or is not regarded as a serious resource, especially abroad but also domestically where it has not been systematically compiled and is not discussed among experts and decision-makers. Academic exchange with Myanmar colleagues makes clear that in the concrete social context of Myanmar apparently ‘objective’ knowledge is very differently assessed, weighted and judged from different ‘internal’ perspectives. The use of mixed teams of authors for the joint analyses and interpretations of the Atlas was a targeted attempt to take this into account.

References to the numerous basic publications in the academic literature on Myanmar are provided here with no further detailed discussion. The historical and political processes of the last two decades are the focus of the in-depth analyses by Carey (1997), Steinberg (2001), Thant Myint-U (2001, 2011), Kyaw Yin Hlaing/Taylor/Tin Maung Maung Than (2005), Charney (2009), Taylor (2009), Steinberg (2010), Than Tun (2010), Holliday (2011), Aung-

The reports focus on the central challenges related to the transformation process and possible development approaches. They largely agree on the development characteristics and problems of the country but vary in their policy recommendations, development approaches and proposed solutions.

The major challenges for the country can be summarised as follows. To date the rich potential of the landscape and natural resources has only been partially tapped. Agriculture provides employment and thus the economic basis for a large proportion of the population. The many political and economic reforms passed after 1988 and particularly after 2010 aim to improve countrywide infrastructure, promote the private sector and attract direct foreign investment. They promote decentralisation of the administration and institutional transformation, the eradication of price controls and subsidies, the modernisation of the tax and customs system, the diversification of the export sector, the improvement of import and export procedures, and the restructuring of wages and prices. They also provide increased freedom of choice for farmers in terms of the crops they cultivate and the processing, transport and trading of those products (MNPED 1995: 33, Mya Than/Tan 1990). However, these measures have not yet overcome state capitalism to a significant extent.

The greatest obstacles to the mobilisation of direct foreign investment are related to the ongoing problems of macro-economic stability, extensive bureaucracy, widespread infrastructural deficits, economic diversification, the ensuring of long-term guarantees, a lack of openness of the financial sector to foreign competition, and restrictions on the transfer of foreign capital and profits. However, the privatisation measures of recent years have led to the emergence of numerous manufacturing, trading and services companies that supplement the large, efficient, state-owned enterprises with their export trade. In addition to growing numbers of companies involved in textile, garment and food production there are more and more service enterprises (especially in the tourism sector). Foreign investment is particularly over-concentrated in the metropolitan areas of Yangon and Mandalay.

THEMATIC FOCUSES OF THE ATLAS

Against the background of the far-reaching socio-economic changes of recent years and the frequently heard call for decision-making to correct inequalities in regional development, the Socio-Economic Atlas focuses on the analysis and evaluation of current regional differences in geographical conditions, infrastructure and socio-economic development. Neither historical developments nor Myanmar’s international relationships – for instance within the ASEAN or with neighbouring countries – have been included so as to keep the subject manageable.

Considerable conceptual input was drawn from the existing thematic atlases of neighbouring countries. Thus the Atlas of Cambodia (SCW 2006) focuses on natural resources and issues of poverty, while the impressive thematic atlases of Vietnam (Vu/Taillard 1993), Laos (Bounthavy/Taillard 2000 and Messerli et
and Thailand (Kermel-Torrès 2004) concentrate particularly on socio-economic developments.

For Myanmar itself, the Ministry of Forestry in cooperation with the Department of Geography of the University of Yangon has produced topographic maps displaying the states and divisions of the country (MoF 2004). Insights into resources and agriculture are provided by the Atlas of the Mineral Regions of the ESCAP Region, which analyses the geology and mineral resources of Myanmar (UN 1996), and the Agricultural Atlas of the Union of Myanmar (FAO 2005). Numerous thematic maps of Myanmar are included in the KTAM Report (1953) and the comprehensive fundamental work produced by Hla Tun Aung (2003). Overviews of infrastructure and socio-economic developments are found in the maps included in the regional study by Storz (1967). However, none of these maps are georeferenced and many are either too generalised or not up-to-date.

A number of possible maps could not be produced because of a lack of reliable, consistent or plausible data:

- Thus despite the enormous relevance of questions of ethnicity, especially in the process of national reconciliation (for in-depth analysis see Skidmore 2005, James 2006, Gravers 2007, Ganesan/Kyaw Yin Hlaing 2007, Kipgen 2015), it was not possible to include a map of the regional distribution of ethnic or ethnolinguistic population groups. There are a number of spatial representations of the distribution of ethnic or ethnolinguistic groups, at least of the groups most dominant in the individual areas (e.g. Smith 1993, Smith/Allsebrook 1994: 51, Lintner 1994: 77, Steinberg 2001: xvii, Gravers 2007: xx, South 2008: xii, Gravers/Ytzen 2014: 156). However, there is a lack of detailed regional data and no spatially differentiated cartographical representation of the great ethnic/ethnolinguistic diversity of Myanmar. The most accurate mapping to date is the large-scale key map by Moseley/Asher (1994: Map 49), but even here, for example, only four of the many ethnic and ethnolinguistic groups found in Chin State (Min Naing 2000) have been recorded. In the absence of more accurate data, cartographic representations are often copied from one another with minimal changes; several display the title ‘main ethnic groups’ but then inconsistently mix ethnic and religious groups in the actual maps (e.g. Smith/Allsebrook 1994: 51).

- On the controversial issue of regional concentrations of foreign population groups (particularly Chinese, Indian, Nepalese/Gurkha and ‘western’ foreigners) there are practically no detailed regional data and few studies (Cernea 2007, Chang 2014, Maung Aung Myoe 2014).

- Due to political sensitivity, detailed data from the 2014 census concerning the various religious and belief groups – Buddhists, Christians, Moslems, Hindus, Animists etc – have only been released on a national scale and the scale of the states and regions (MoLIP 2016c). Regional and local developments and the interfaith-networks of the religious groups have been subject to little investigation. Research has focused particularly on the development of individual religious groups (see e.g.: Chakravarti 1971, Yegar 1972, Berlie 2008), different perspectives on the religious problems (Gravers 2013, Charles Maung Bo 2015, David Thang Moe 2017) and current issues of reconciliation (Schissler/Walton/Phyu Phyu Thi 2017, Chit Win/Kean 2017).

- Interpretations and statistics on the highly charged and controversial so-called Rohingya issue vary greatly (Leider 2012 and 2014, Kipgen 2013, Gibson/James/Falvey 2016, Ibrahim 2016); it is impossible to produce reliable cartographic representations of this topic.

- Even for less controversial issues, cartographic representations of regional differences in distributions or developments are either impossible or unhelpful. Thus the mapping of numbers of tourists is presently unadvisable due to the unreliability and inconsistency of data – the published tourism...
statistics include the numerous business travellers and people who are visiting relatives, leading to the recorded numbers of tourists entering the country being greatly inflated (Kraas/Häusler 2016). A cartographic representation of numbers of alleged tourists would be correspondingly misleading and could result in false conclusions being drawn.

DATA SOURCES AND CARTOGRAPHY

Drawing on topographical maps and satellite data, a Geographical Information System was created as a basis for the cartography, and linked to the statistical data and thematic contents. Great care was taken to ensure precise cartographical representations and meticulous checking of all the cartographic and data sources.

There are undoubtedly severe problems with the availability, quality and reliability of data, especially of statistics: ‘Under decades of authoritarian rule, data sensitivity was a political culture ... it is now time for Myanmar to move towards improving the quality, accuracy, credibility, timeliness and availability of economic and social statistical data and information as a first step in building a modern developed nation’ (Myint 2010, quoted in Than Tun Sein et al. 2014: 185). Against a background of very varied data quality and reliability, the temptation to create visualisations without quality control was resisted and a number of maps have not been produced that may otherwise have been possible.

The findings of the 2014 census and data from various ministries were vital sources for the Atlas. Many of the themes also drew on a synthesis of different academic sources, even when numerous very different sources had to be brought together and much work was necessary to accurately localise non-georeferenced information. Regionally detailed findings from the 2014 census have been published on population development, agriculture, education and health, allowing good and very accurate presentations of these topics. There are, in contrast, as yet limited data on industrialisation and flows of transport, trade and finance. The information on GDP, for instance, is incomplete simply because the informal sector is not included due to an understandable lack of data. There are to date no data available on the richly diverse crafts, the importance of which has scarcely been addressed, either in terms of cultural heritage or as a traditional source of local income.

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