Resilient urban development against the backdrop of large-scale transitions

Srei Sophon, Cambodia

This studio is linked to a larger collaborative project in which the Faculty of Architecture works together with several Cambodian Universities, research institutes and the city of Srei Sophon.

The project is coordinated by dr. Koen De Wandeler and dr. Caroline Newton

ONLINE SUMMARY

Description

The city of Srei Sophon is going through major changes at the moment due to development plans that are part of the national plans for infrastructure development and reconstruction as well as the regional infrastructure plan that reaches Thailand. the city has witnessed a serious growth over the last years, attracting new businesses and people. This growth can be attributed to several factors such as the good location of the city and its connectivity with other major cities in Cambodia and its close distance to Thailand.

During the term we aim to:

understand the complexities of urban growth in the context of rapid change and transition.

recognise the challenges to deal with these complexities through (architectural, urban, service,...) design.

propose spatial strategies to deal with these major challenges

More specifically we aim to develop spatial strategies that:

create a more resilient and diverse urban (rural) landscape and enhance the rural urban relations

raise awareness of the potentiality of local resources and cyclic systems

optimise the production and use of local resources

allow the development of systems for locally produced (green) energy

promote production and distribution of local food

stimulate sharing and collaboration in the communities

house people in an integrated way, not only provide a dwelling space, but a space that is productive, inclusive and enables the empowerment of the community.

design individual architectural housing proposals. These can be either site specific or on a typological level

Starting as a collective the students are expected to contribute to the overall strategic design. As individuals they will then focus on specific design interventions whereby they illustrate the impact of their intervention over time and in space.

We will work on different scales, from that of the city to that of the 'architectural object'. Masterplans will help to elaborate how resilient strategies and cyclic systems create urban form. Models and drawings are instruments to imagine future urban alternatives and possibilities, they are arguments that show opportunities and ways in which urbanites can activate them in order to realise their (sustainable) potential.

Planning

A week to week planning will be available at the start of the studio.

1. On the group level: A strategic design will be presented in a format that is supportive to the content.
2. On an individual level: The design intervention will be presented in a format that is supportive to the content. A model on a relevant scale is expected.
3. Each student will submit a booklet that brings together both the process, the research and the outcomes of their work. The indesign format will be provided.

It is crucial that the output, the research and the sources used are referenced correctly to enable a future use of the material

All the material that will be produced will be shared and made available to all people collaborating in the project and to the local municipality and the communities involved.

DESCRIPTION

Background

Cities in the Global South are coping with an unprecedented rate and pace of urbanisation. Especially secondary cities face unseen challenges in terms of governance, resource management and social and economic equity. Whilst they may have been of some importance as regional urban centres, they tend to gain more importance as infrastructural and trading networks expand beyond national borders. Local authorities often are ill-prepared to handle this situation: they either lack the capacity, the material and financial resources or the institutional and regulatory framework to cope with an exponential growth of urban populations and activities.

The environmental impact of unbridled urban growth is well documented. Efforts to limit the ecological footprint of growing cities essentially revolves around the reducing the input of resources and the output of waste. Almost 24 million people are involved in some sort of waste management around the globe, 80% of them are waste pickers. World Bank research suggests that about 1% of the urban population in developing countries are making a living out of waste picking and recycling (Medina, 2008).

Three decades of advocacy on sustainability have demonstrated that a circular economy creates various ways to avoid stretching scarce resources and handle value chains in cost-effective, environmentally friendly, socially just and culturally validated ways. In line with this approach, this Studio Project is designed to clarify the cornerstones of circular thinking, elaborate feasible scenarios and offer concrete measures to implement a stepwise conversion of local economies. It explicitly focuses on the spatial aspects of this conversion to help anchoring the activities in the everyday life of all stakeholders and realising a truly circular city.

This approach is of particular relevance for Cambodia as it is, once again, in a time of transition. Urbanisation is steadily progressing, but increasingly, cities will have to manage the challenges of urban growth by themselves. Therefore, all knowledge that can be developed and shared with local authorities will be useful to cope adequately with city-wide transformations.

Cambodia

RECENT HISTORY AND POLITICAL CONTEXT

At the turn of the 20th century Cambodia was part of French Indochina The French Protectorate over Cambodia (1863-1953) was established in August 1863. At that time the territory of Cambodia was only 100.000 square km and was inhabited by about 1 million people. Phnom Penh did not count more than 25.000 inhabitants at that time (Vann Molyvann). Durin this period the French organised the major cities according to the French notions of urban life. Phnom Penh became the seat of government and home of the royal palace.

From the 1920s onwards Phnom Penh faced rapid modernisation and grew into a noteworthy city. The French constructed vast boulevards, churches, hotels, and villas for the well-endowed.

When Cambodia became independent from France in 1953, Phnom Penh was further developed and Prince Sihanouk stimulated the use modern urbanisation using '**New Khmer Architecture**', a

fusion of modern European architecture with traditional Angkor typologies and ornaments. (Turnbull 2007). He also initiated more expansive suburban development to accommodate small but rising upper and middle classes. Phnom Penh expanded rapidly and doubled its inhabitants from 364800 in 1950 to 760000 in 1970.

Fig. 1: Map of Cambodia and location of Srei Sophon

Durin the 1960s comprehensive urban plans were developed and large scale public works initiated (Van Mollyvann).
A railway link between Phnom Penh, Battambang and further North ws introduced in 1936.

During the late sixties the first peasant uprisings paved the way for the establishment of the violent Khmer Rouge regime under Pol Pot. This devastating civil war between 1970 and 1975 destabilised the country. Pol Pot and his army took over the capital in 1975 after having "tortured the capital almost continuously", "inflicting random death and mutilation" on millions of civilians and reducing the city to rubble (Barron and Anthony 1977). City dwellers were forced to move to the countryside and work as agricultural labourers. Under the terror of the Pol Pot regime millions were tortured and executed, those who could fled the country.
While Phnom Penh was home to more than 1 million people at the beginning of 1975, by April 1975 the city was literally emptied. Only a couple of hundred people were living in the capital during the Khmer Rouge regime.

An invasion from neighbouring Vietnam 'liberated' the capital in 1978. Former residents together with thousands of others, returned to Phnom Penh. Homes were occupied on a first-come, first-serve basis (Barron and Anthony 1977). The Khmer rouge fled to the border regions. In 1981 elections are held, but the results never recognised by the international community. The government in exile (former Khmer Rouge) keep their seat at the UN. In 1989 the Vietnamese withdraw from the country. In 1991 a peace agreement is signed.

Fig 2: Successive Government in Cambodia since independence (Ross, 1990)
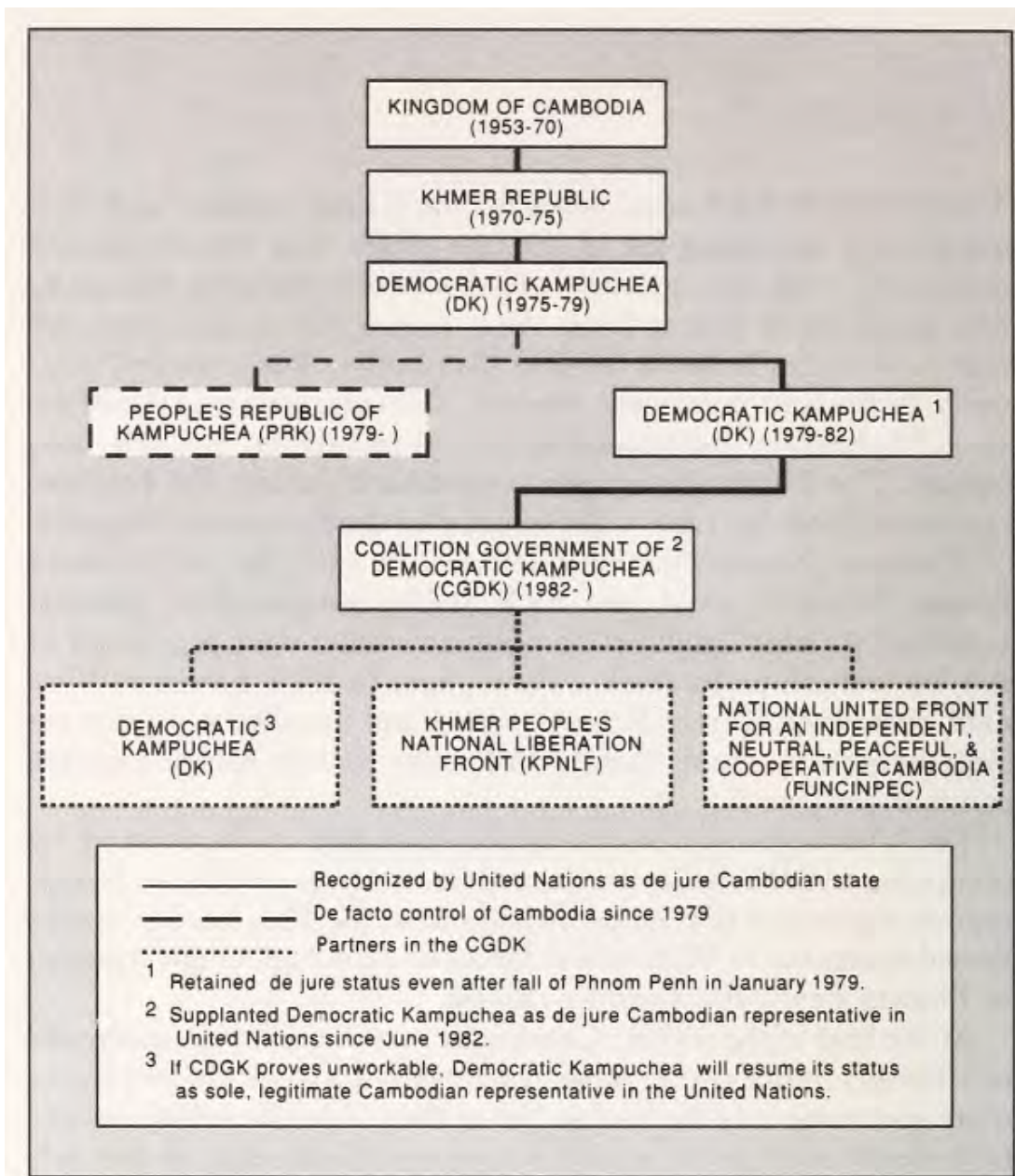
In 1992-93 the United Nation Transitional Authority in Cambodia (UNTAC) is established. The UNTAC aimed to restore peace and civil government after decades of civil war, and to hold free and fair elections (September 1993) leading to a new constitution. It was the first occasion on which the UN had taken over the administration of an independent state.

DEMOGRAPHICS

Cambodia's total population was estimated by the United Nations Population Fund at 15.8 million in 2016, with annual population growth of 1.6 percent. The last formal census was carried out in 2008:

- 78% of the population live in rural areas

- Two-thirds of the population are working age (15–64), around 29 percent younger than 15 and around 5 percent 65 and older
- The average age at marriage is 23.7 years for women and 26.2 years for men; both are marrying later in life than in previous years.
- Life expectancy at birth is 67 for men and 71 for women.

Cambodia is divided into Provinces (*khaet*), whose further administrative subdivisions are the districts (*srok*), the subdistricts (*khum*), the villages (*phum*). Cities (*krong*) are also administrative entities, though with limited powers, with the exception of *krong* Phnom Penh, whose status is equivalent to one of the provinces. Cities are subdivided into districts (*khan*), subdistricts, or boroughs (*sangkat*), and villages (*phum*).

Srei Sophon City

Srei Sophon is the capital and the largest city of Bantaey Manchey province, which is located in the northwest of Cambodia. The city is going through major changes at the moment due to development plans that are part of the national plans for infrastructure development and reconstruction as well as the regional infrastructure plan that reaches Thailand.

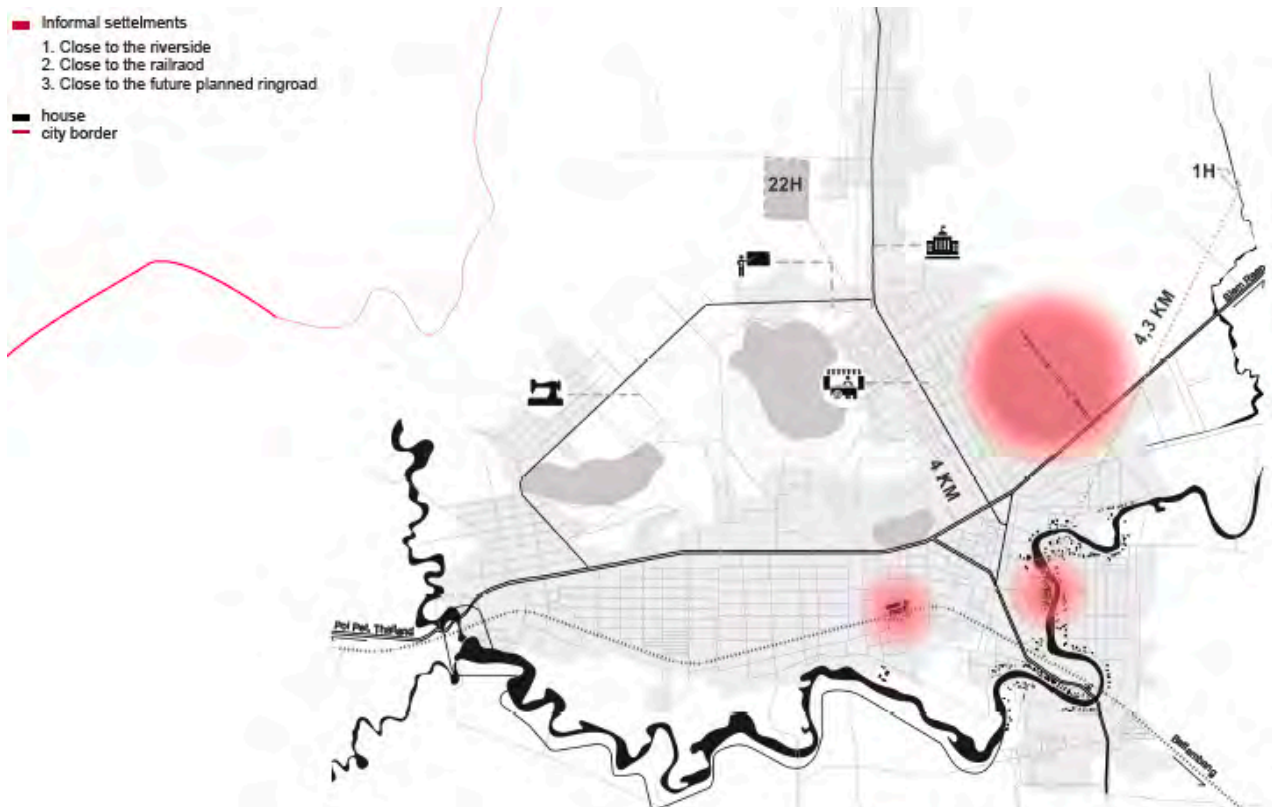Fig. 3: Srei Sophon, map of the urban centre (Auris, Carpentier, Claessens and Krasniqi, 2019)
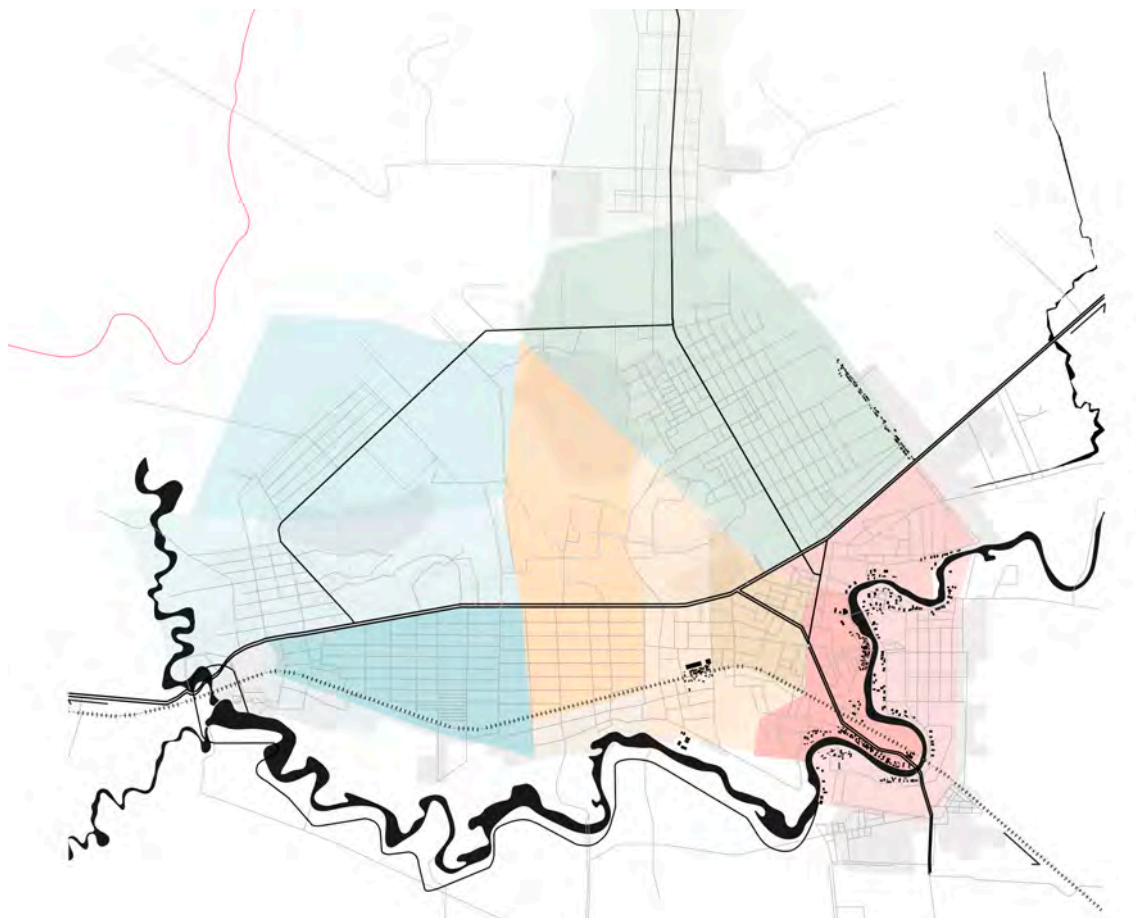
As a result of those plans, many settlements are facing the threat of eviction. There is a huge need and urgency of relocating those settlements, specifically the ones on public land.

Fig. 4: Srei Sophon, informal settlements (Auris, Carpentier, Claessens and Krasniqi, 2019)

Railway communities

Four villages along the railway tracks are facing this threat of eviction. These villages are named Rong Masen, Sae Sen, Korotham, and Village 4. In total these 4 settlements about 500 people (approx. 280 families) are under threat of eviction. Each village is located on both public and private land.

Eviction threats are not a new concern, there have been people living in the area since 1979 and the land has always been state-public. The concern is that when the railway upgrading begins people who depend on the railway will be driven away to a location where their dependencies will not be compensated for.

Furthermore, the location of the settlements, particularly Village 4 and Sai Sen is very valuable. Being surrounded by a Pagoda, a nearby school and a very close distance to the city centre.

However there are certain disadvantages to this location, they are surrounded by the pagoda, an ice factory and privately owned warehouses thus there is very little space for settlement expansion or upgrading. This is a concern particularly since the buffer zone along the railway line requires that no houses are within 30 metres from the line. In order for these settlements to remain and upgrade they would have to move back from the line at least 10 or 15 metres. Neither Sai Sen or Rang Masen have the space to do so.

River communities

34 families inhabit a space on the river banks. The area is prone to flooding and the living conditions are influenced by the waste that is to be found everywhere. During flooding periods people temporarily move to the old busstation. This current situation is untenable and most of the families are willing to relocate. The government is in the process of acquiring a plot of 22 ha. in the Kampong Svay area.

(Images by Newton and Bailliu)

Ring road communities

Over time a large number of families have informal settled along the proposed northern ring road. This linear settlement is commonly referred to as Baret and is divided along three communities of which the closest to the national road n° 6 is an organised community and a large number of the houses are in brick. Families keep arriving although they know they can not stay. A current developed of a row of shop houses is under way. The developer has started the subdivision and the first houses are being constructed in anticipation of the new ring road. In the mean time discussions are under way to move the proposed northern ring road more towards the east, increasing the lack of certainty and clarity about the future developments.

(Images by Bailliu and Newton)

WASTE PICKERS

There is no waste management system in place and the waste is either burnt or collected at the local dumpsite. This dumpsite is inhabited by people who make a living out of garbage picking and recycling activities. The living conditions of these urban poor are unsafe and unhealthy. Mobilising and organising waste pickers communities and having them cooperate with local industries and governments not only offers opportunities to upscale waste-pickers' income-generating activities. It is also a way to reduce, recycle, and reuse waste and discarded goods and thereby realise a first step towards a more sustainable city.. The fact that in a city in rapid transition like Srei Sophon, many aspects of the urban economy are yet in a stage of formation thus offer an opportunity rather than an impediment for introducing a circular economy.

(Images by Claessens and Newton)

BASIC DEMOGRAPHICS - KRONG (COMMUNE LEVEL) SREI SOPHON

families: 22,083
people: 90,181
Female: 44,749
Male: 45,432

# of housing units in Krong (municipality): 19,746
The number of housing units and families is different because some households may have multiple official "family books" (often used for reporting) for different generations living in the same property.

# of houses with (reported) waste collection 4,677 (HHs) (# Houses which have access to garbage collection by a garbage collector?)

# of families living in a house located on public land: 883 families (a proxy for informal settlements)
# of families with official land titles 6,284
So still a considerable number of families ~72% "at some risk".

Fig. 5: Srei Sophon: Location of some important places and functions (Auris, Carpentier, Claessens and Krasniqi, 2019)

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READING LIST

A bibliography of relevant readings is provided below. In addition to these readings, students are encouraged to do their own literature searches.

Cambodia

Ross, R. R. & Library Of Congress. Federal Research Division. (1990) *Cambodia: A Country Study*. Washington, D.C.: Federal Research Division, Library of Congress: For sale by the Supt. of Docs., U.S. G.P.O. [Pdf] Retrieved from the Library of Congress, https://www.loc.gov/item/89600150/.

CDF

ACHR (2010) Citywide upgrading in 11 Cambodian cities. Bangkok: ACHR.

ACHR (2012) Decentralizing UPDF to 24 provincial funds. Bangkok: ACCA Third Year Report.

CDF (2013) Profile of Community Development Foundation (CDF)

UPDF (2008) UPDF is ten years old. News about some of the recent activities of the Urban Poor Development Fund in Cambodia

Housing and Architecture

General Secretariat of Council for Land Policy (2010) National Housing Policy, 3rd draft. Kingdom of Cambodia.

Grant Ross, H. & Collins, D. L. (2006) Building Cambodia: New Khmer Architecture. Bangkok: The Key Publisher Company Ltd.

Wakita, Y. & Shiraishi, H. (2010) Spatial Recomposition of Shophouses in Phnom Penh, Cambodia. Journal of Asian Architecture and Building Engineering. 9 (1), 207–214.

Weinberger, N. (2010) The Shophouse as a Tool for Equitable Urban Development: The Case of Phnom Penh , Cambodia. University of Pennsylvania.

RIGHTS

ACHR (2004) Negotiating the right to stay in the city. Environment and Urbanization. [Online] 16 (1), 9–26. [online]. Available from: http://eau.sagepub.com/cgi/doi/10.1177/095624780401600103 (Accessed 11 February 2014).

Springer, S. (2009) Violence, Democracy, and the Neoliberal "Order": The Contestation of Public Space in Posttransitional Cambodia. Annals of the Association of American Geographers. 99 (1), 138–162.

Land

Bristol, G. (2007) Cambodia: the struggle for tenure. Case study prepared for Enhancing Urban Safety and Security: Global Report on Human Settlements 2007. [online]. Available from: http://www.unhabitat.org/grhs/2007.

ACHR (2004) Negotiating the right to stay in the city. Environment and Urbanization. [Online] 16 (1), 9–26. [online]. Available from: http://eau.sagepub.com/cgi/doi/10.1177/095624780401600103

Khemro, B. H. S. & Payne, G. (2004) Improving tenure security for the urban poor in Phnom Penh, Cambodia: an analytical case study. Habitat International. [Online] 28 (2), 181–201. [online]. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0197397503000675

Ministry of Land Management, Urban Planning and Construction (2010) Circular on Resolution of Temporary Settlements on State Land Illegally Occupied in the Capital, Municipal, and Urban Areas. Kingdom of Cambodia.

MAPPING

Adler, D., Ironside, J., & Ratanak, M. (2009). Mapping and Tenure Security in Cambodia ' s Indigenous Communities. Discussion Paper.

Poverty and Relocations

STT (2011) Rehabilitation of Cambodia' s Railways: Comparison of field data. Phnom Penh: STT. [online]. Available from: http://teangtnaut.org/PDF/Rehabilitation of Cambodias Railways_STT July 2011.pdf.

STT (2012) Railway Relocation in Phnom Penh: Six Women Tell their Stories. Facts and Figures 20. [online]. Available from: teangtnaut.org/railways-relocation-six-women-tell-their-stories.

Development

UN (2001) United Nations Development Goals - Cambodia. [online]. Available from: http://www.undg.org/archive_docs/162-Cambodia_MDG_Report_-_International_Development.pdf.

WASTE MANAGEMENT

Storey, D., Santucci, L., Aleluia, J., & Varghese, T. (2013). Decentralized and Integrated Resource Recovery Centers in Developing Countries: Lessons Learnt from Asia-Pacific. In ISWA Congress, 7-11 October 2013 (pp. 7–11).

UN-ESCAP. (2015). Valuing Waste , Transforming Cities. www.waste2resource.org

Relevant websites

https://www.loc.gov/collections/country-studies/?q=cambodia&fa=segmentof%3Afrdcstdy.cambodiacountrys00ross%2F&st=gallery

https://opendevelopmentcambodia.net/about/

http://www.nis.gov.kh/index.php/en/

Ashoka Fellow Profile for Somsook Boonyabancha, structured into 'The New Idea', 'The Problem', 'The Strategy', and 'The Person'. (https://www.ashoka.org/en/fellow/somsook-boonyabancha)

Asian Coalition for Housing Rights. (http://www.achr.net/)

Asian Coalition for Housing Rights. 'A Conversation about Upgrading at Bang Bua', September 2008. (http://www.iied.org/pubs/display.php?o=G02376)

Asian Development Bank YouTube Channel. (http://www.youtube.com/asiandevelopmentbank)

Srinivas, Hari. 'Defining Squatter Settlements', the Global Development Research Centre, available online: (http://www.gdrc.org/uem/squatters/define-squatter.html) Accessed 08 February 2012.

UN-HABITAT (http://www.unhabitat.org/)

Un-Habitat Rss Feed: UN-HABITAT

(feed://www.unhcr.org/cgi-bin/texis/vtx/page/rss.xml?coi=THA) Accessed 08 February 2012. Must copy and paste as URL – hyperlink does not work

'Urban Land Policies for the Uninitiated', UN-ESCAP Human Settlements, available online: (http://fght.utm.my/tlchoon/files/2016/02/Urban-land-policies-for-the-uninitiatied.pdf)

Cambodia Daily http://www.cambodiadaily.com/

Phnom Penh Post http://www.phnompenhpost.com/

City of Water, Architecture, Infrastructure and the Floods in Phnom Penh http://cityofwater.wordpress.com/

Constructing Cambodia http://constructingcambodia.wordpress.com/

Future of Phnom Penh http://futureofphnompenh.wordpress.com/

John Vink Photography http://johnvink.com/JohnVinkSite/

Lumhor, Architecture and Urbanism in Phnom Penh http://lumhor.wordpress.com/

Phnom Penh Places http://phnompenhplaces.blogspot.co.uk/

RUOM Collective Journalist and Photographers http://www.ruom.net/

Sahrika, an Overview of Media Coverage of Land and Housing Rights Issues in Cambodia http://sahrika.com/