

URBAN INSIGHT

Webinar Series

Time for Change – The Role of Environmental Psychology in Promoting Sustainable Urban Environments

JUNE 24, 2022

2:00 PM - 3:30 PM (CAMBODIA TIME)

FREE REGISTRATION



CO-ORGANIZED BY



build4people.org

CKS-B4P Webinar "Time for Change – The Role of Environmental Psychology in Promoting Sustainable Urban Environments" | Annalena Becker & Anke Blöbaum | 24 June 2022

Speakers

Moderator



Ms. Annalena Becker

Otto-von-Guericke
University Magdeburg



Dr. Anke Blöbaum

Otto-von-Guericke
University Magdeburg



Dr. Samuel Chng

Singapore University
of Technology and
Design



Dr. Puthearath Chan

Korean Foundation
for Advanced
Studies



Dr. Try Thuon

Royal University of
Phnom Penh

Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិតរបស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

IMP 2025-2027

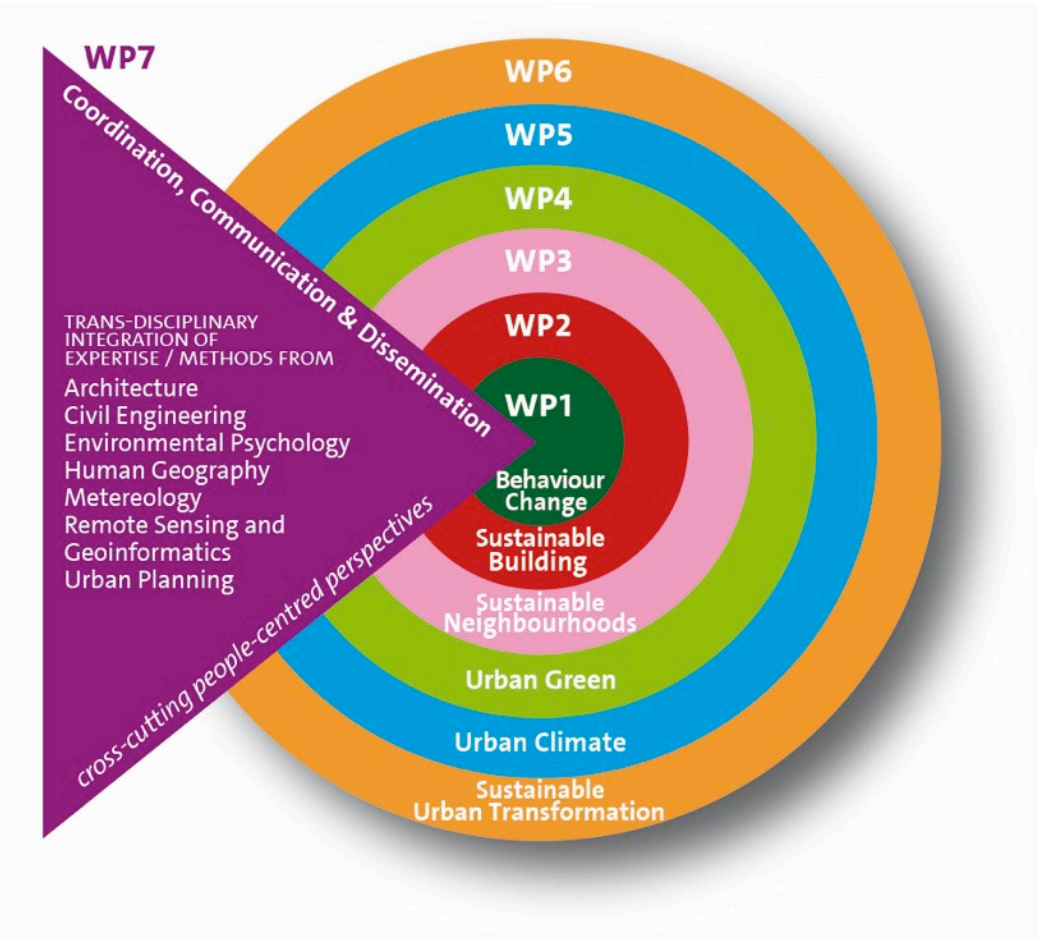
SPONSORED BY THE

 Federal Ministry
of Education
and Research

 **FONA**
Research for sustainability

 Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

 មជ្ឈមណ្ឌលខេមរសិក្សា
Center for Khmer Studies
Centre d'Études Khmères



Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia: Environmental psychological approaches of the Build4People Project

Dr. Anke Blöbaum, Magdeburg University,
anke.bloebaum@ovgu.de

Annalena Becker, Magdeburg University,
annalena.becker@ovgu.de

CKS-B4P Webinar
“Time for Change – The Role of Environmental Psychology in Promoting Sustainable Urban Environments”
24 June 2022

Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

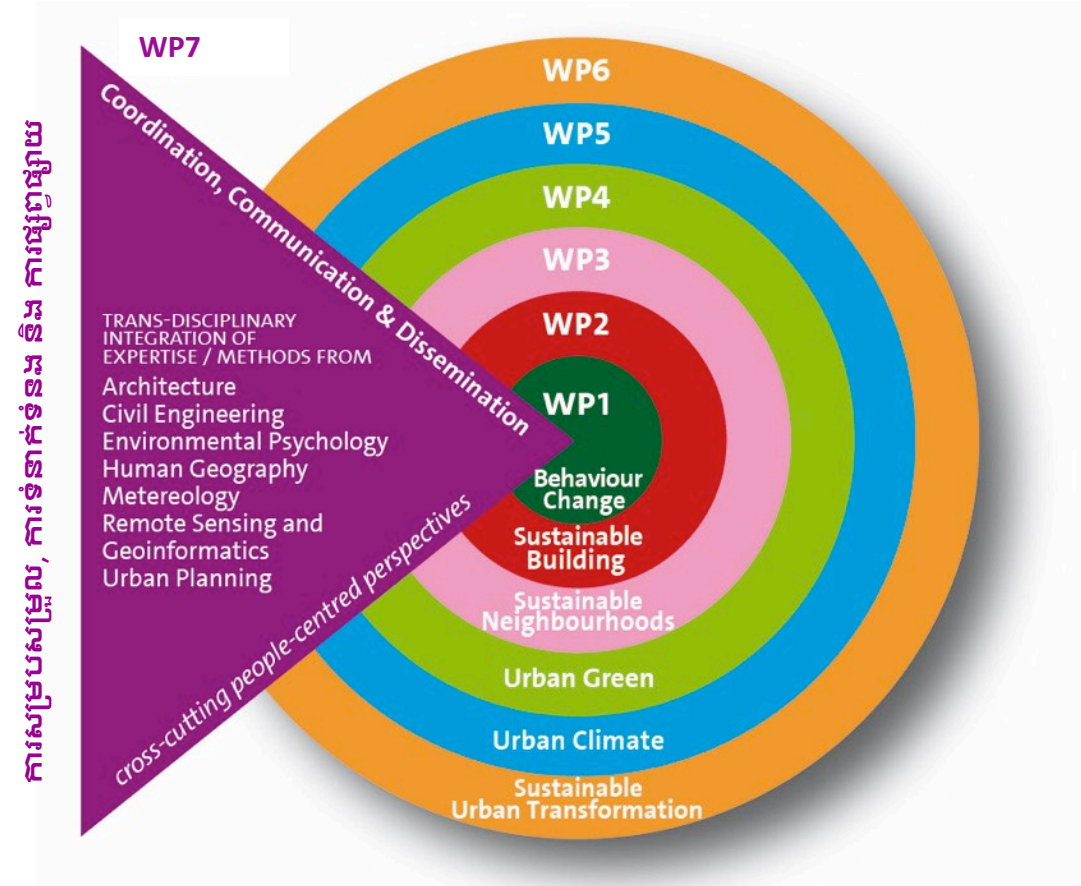
IMP 2025-2027

SPONSORED BY THE



FONA
Research for sustainability

GENERAL INTRODUCTION TO THE BUILD4PEOPLE PROJECT



Build4People Consortium



Work Package #7
Work Package #6



Local Project Management Partner



Work Package #1



Work Package #2



Work Package #3



Work Package #4



Work Package #5

Build4People Leader



Department of Geography
Dr. Michael Waibel

Funding volume during B4P R&D phase

- 3.17 mill. Euro (total, including own investments)
- 2.95 mill. Euro (BMBF funding total)
- 1.40 mill. Euro (funding of Hamburg University)

Research Partners



Implementation Partners



Dissemination Partners



Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

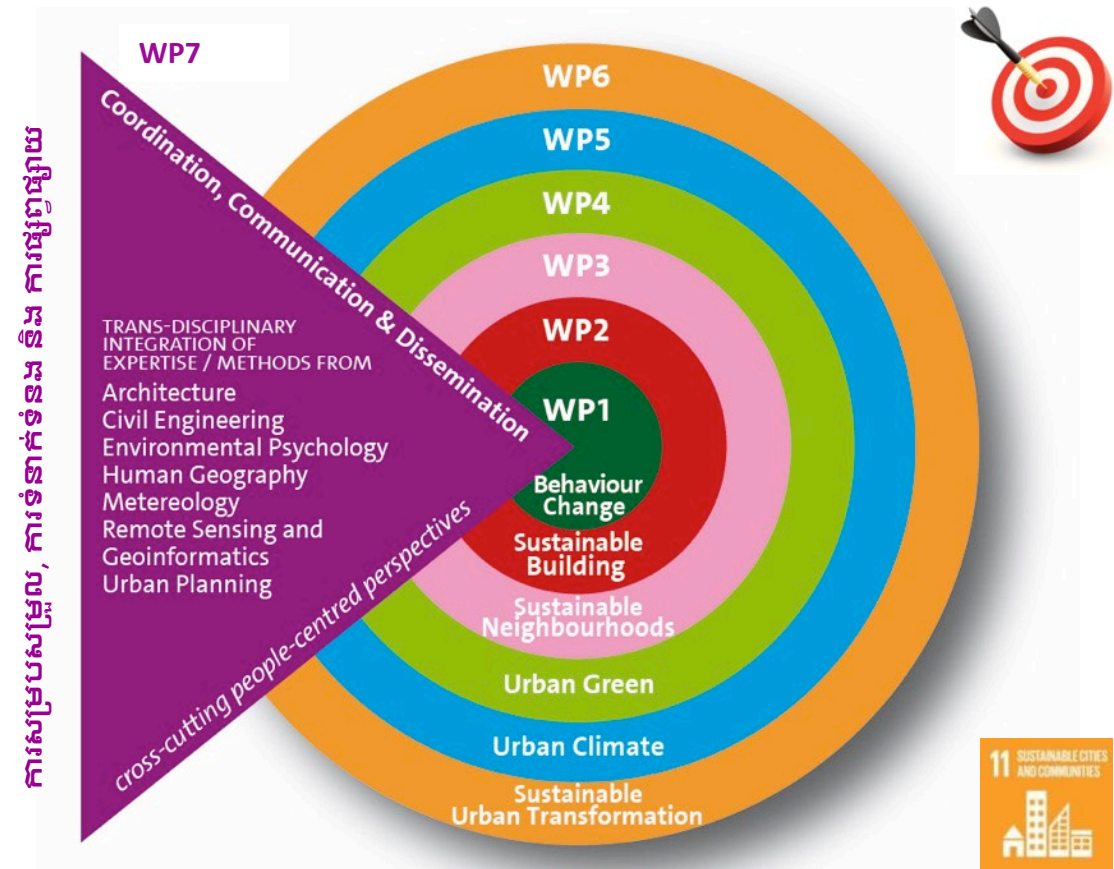
R&D 2021-2025

IMP 2025-2027

SPONSORED BY THE

FONAR
Research for sustainability

GENERAL INTRODUCTION TO THE BUILD4PEOPLE PROJECT



Work Packages កញ្ចប់ការងារ

WP1: Behaviour Change
ការផ្លាស់ប្តូរឥរិយាបថ



WP4: Urban Green
ទីក្រុងបៃតង



WP2: Sustainable Building
អគារដែលមាននិរន្តរភាព



WP5: Urban Climate
អាកាសធាតុទីក្រុង



WP3: Sust. Neighbourhoods
សហគមន៍ដែលមានចីរភាព



WP6: Sust. Urb. Transformation
ការផ្លាស់ប្តូរទីក្រុងដោយនិរន្តរភាព



➤ The Build4People project follows a people-led, cross-cutting and transdisciplinary approach

Research Partners



Implementation Partners



Dissemination Partners



Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

IMP 2025-2027

SPONSORED BY THE

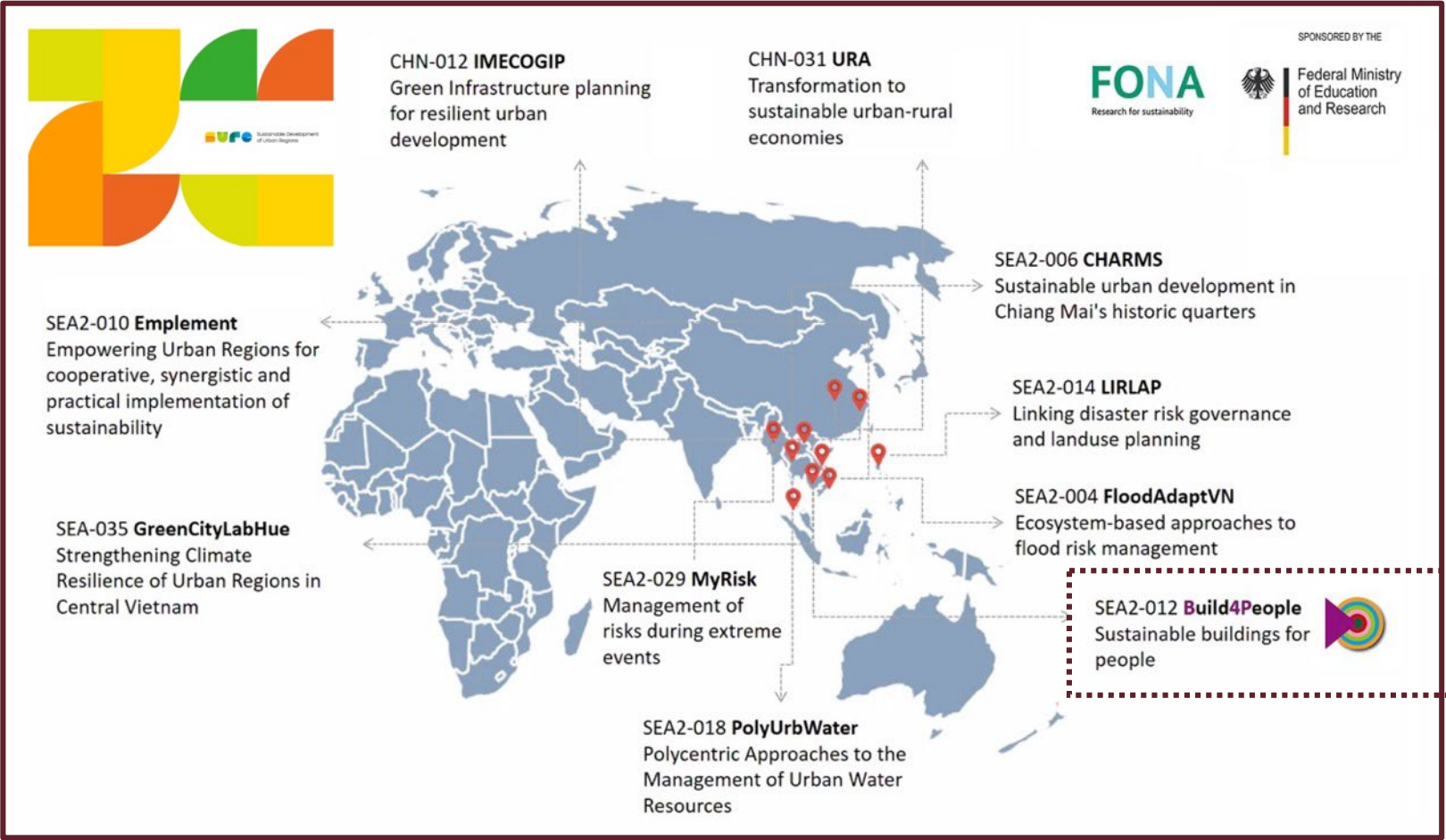
Federal Ministry of Education and Research

FONA
Research for sustainability

Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

Center for Khmer Studies
Centre d'Études Khmères

GENERAL INTRODUCTION TO THE BUILD4PEOPLE PROJECT



SURE Sustainable Development of Urban Regions



The Build4People project based in Phnom Penh is part of a larger long-term funding initiative SURE Sustainable Development of Urban Regions, sponsored by BMBF

Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

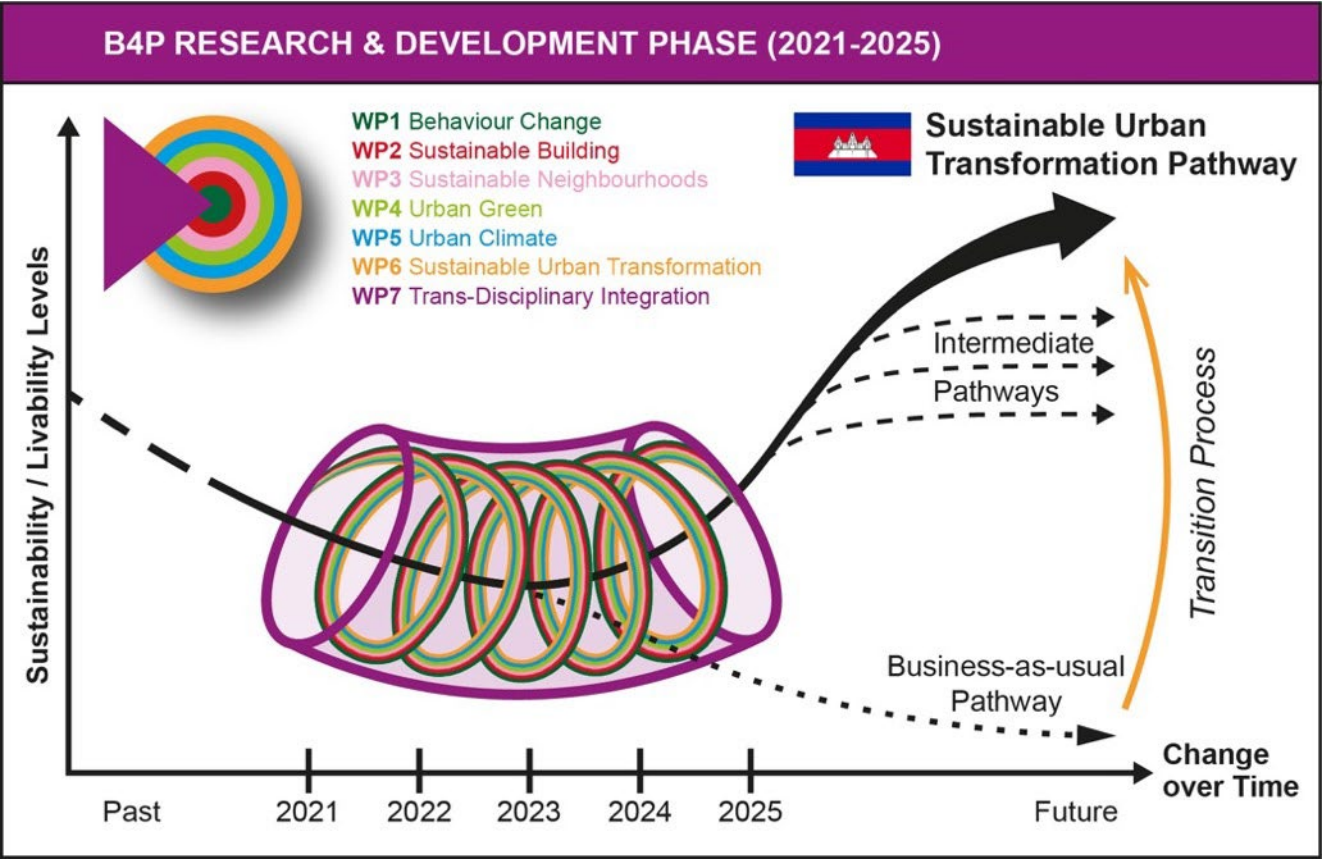
IMP 2025-2027

SPONSORED BY THE

Federal Ministry
of Education
and Research

FONA
Research for sustainability

THE OVERALL AIM OF THE BUILD4PEOPLE PROJECT (IDEAL SCENARIO)



Rationale

Sustainable Urban Transformation is not only a technological challenge but also a social, cultural, economic and political one (Rohracher, 2001; Rink et al., 2018).



WP 1:

Addressing Sustainable Urban Transformation through **Behaviour Change**

Source: Own design.

Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

IMP 2025-2027

SPONSORED BY THE
Federal Ministry
of Education
and Research

FONA
Research for sustainability

Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

Center for Khmer Studies
Centre d'Études Khmères

Speakers

Moderator



Ms. Annalena Becker

Otto-von-Guericke
University Magdeburg



Dr. Anke Blöbaum

Otto-von-Guericke
University Magdeburg



Dr. Samuel Chng

Singapore University
of Technology and
Design



Dr. Puthearath Chan

Korean Foundation
for Advanced
Studies



Dr. Try Thuon

Royal University of
Phnom Penh





Time for Change – The Role of Environmental Psychology in Promoting Sustainable Urban Environments

Dr. Anke Blöbaum & M. Sc. Annalena Becker – WP#1 Behaviour Change

Department of Environmental Psychology, Institute for Psychology, Otto-von-Guericke University of Magdeburg

SPONSORED BY THE

Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

IMP 2025-2027

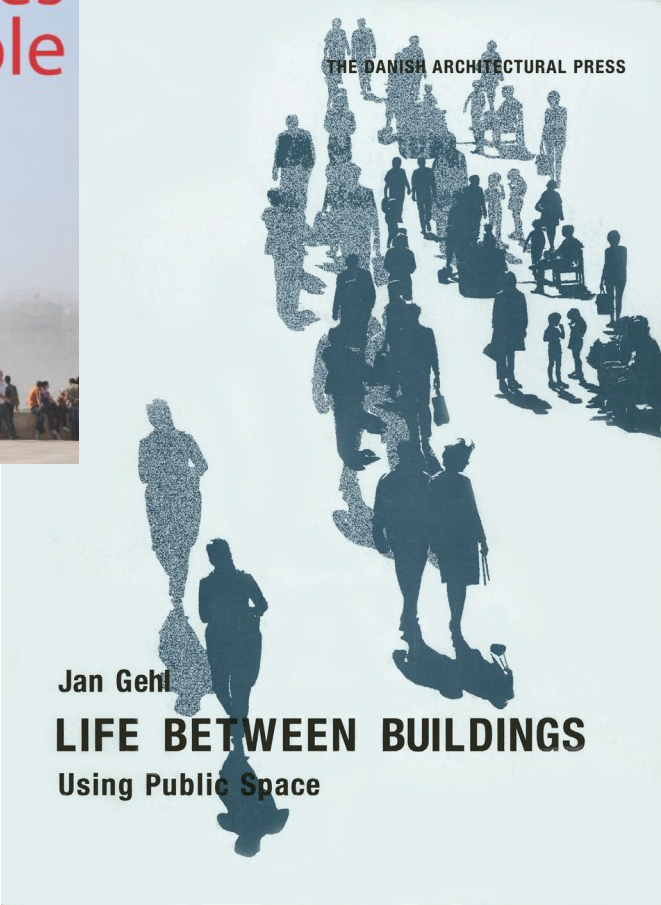
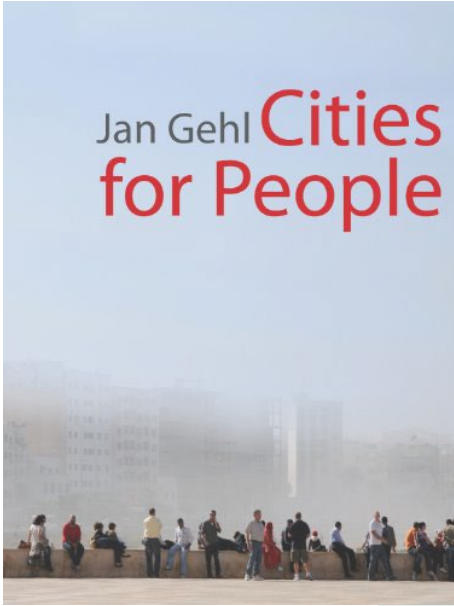
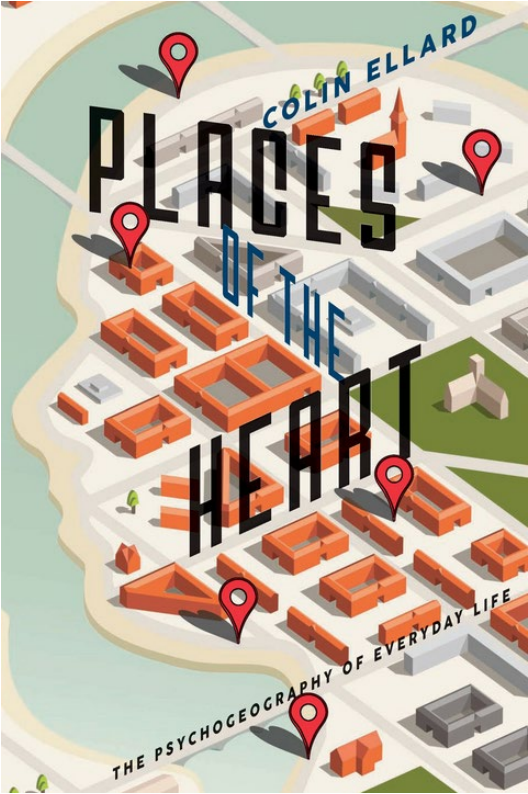
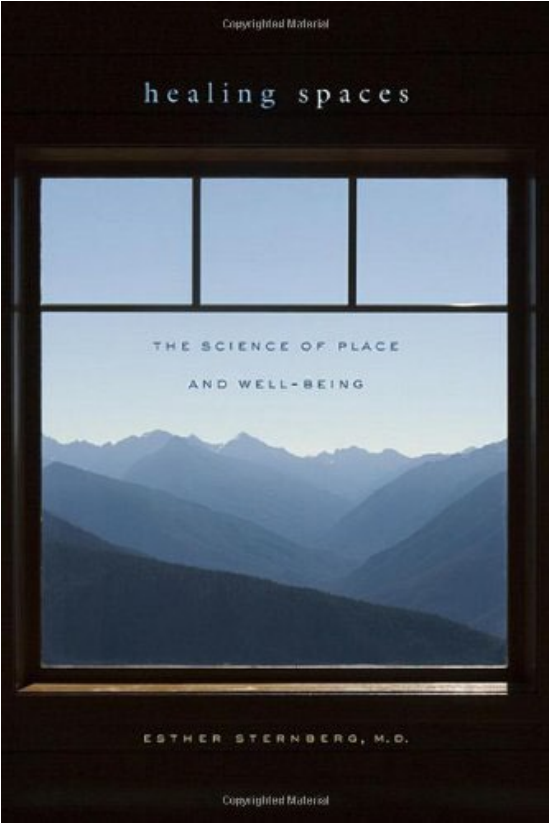
SPONSORED BY THE

 Federal Ministry of Education and Research

 **FONA**
Research for sustainability

 Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

 មជ្ឈមណ្ឌលខេមរសិក្សា
Center for Khmer Studies
Centre d'Études Khmères



Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិតរបស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

IMP 2025-2027

SPONSORED BY THE

 Federal Ministry
of Education
and Research

 **FONA**
Research for sustainability

 Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

 មជ្ឈមណ្ឌលខេមរសិក្សា
Center for Khmer Studies
Centre d'Études Khmères

Environments can shape behaviour



Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

IMP 2025-2027

SPONSORED BY THE



Federal Ministry
of Education
and Research



FONA
Research for sustainability



Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

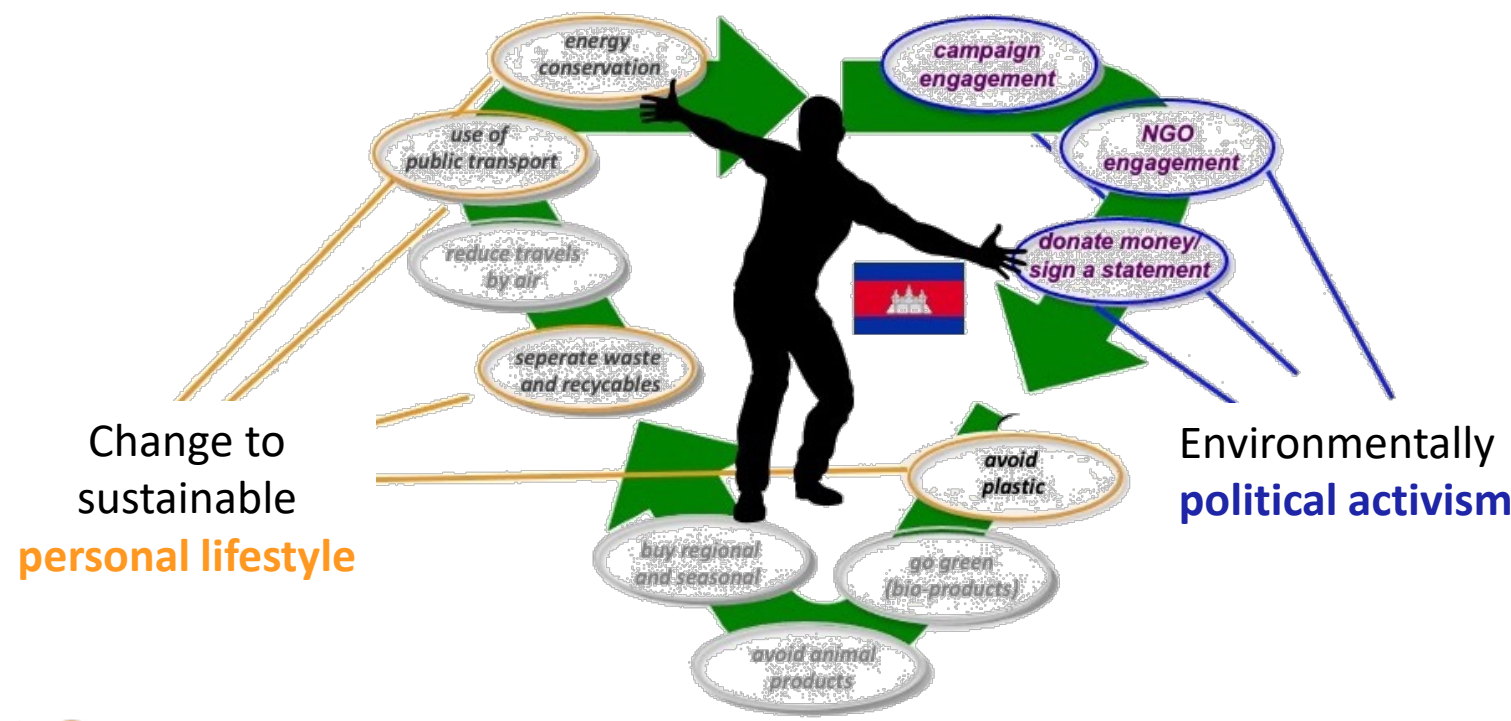


Center for Khmer Studies
Centre d'Études Khmères

Talking about Sustainable Behaviours

- Intent versus impact oriented strategies (Stern, 2000)

Various facets of **intended** sustainable behaviour



Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

IMP 2025-2027

SPONSORED BY THE



Federal Ministry
of Education
and Research



FONA
Research for sustainability



Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

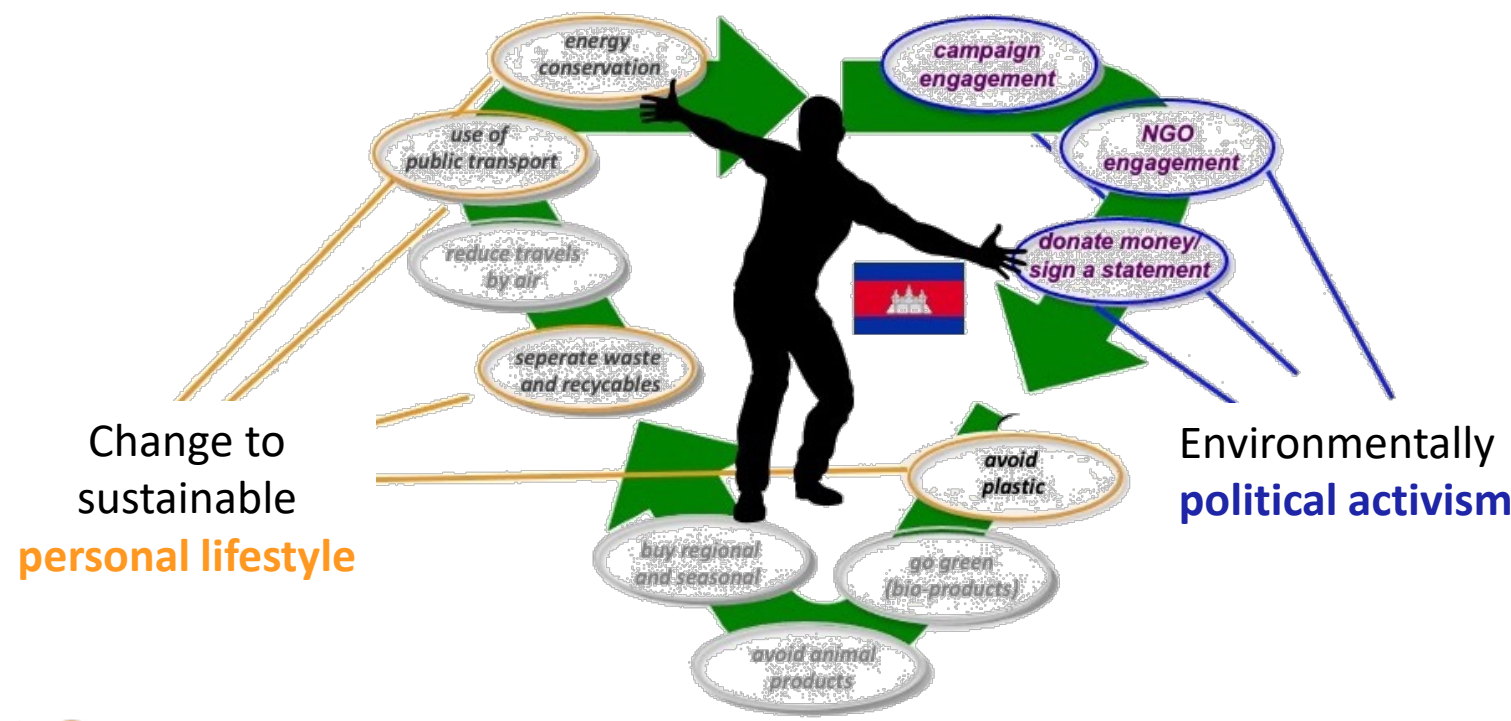


Center for Khmer Studies
Centre d'Études Khmères

Talking about Sustainable Behaviours

➤ Intent versus impact oriented strategies (Stern, 2000)

Various facets of intended sustainable behaviour



What are relevant sustainable behaviours in Phnom Penh?

- ✓ Energy consumption
- ✓ Recycling, avoiding plastic
- ✓ Pro-environmental mobility behaviour

Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

IMP 2025-2027

SPONSORED BY THE



Federal Ministry
of Education
and Research



FONA
Research for sustainability

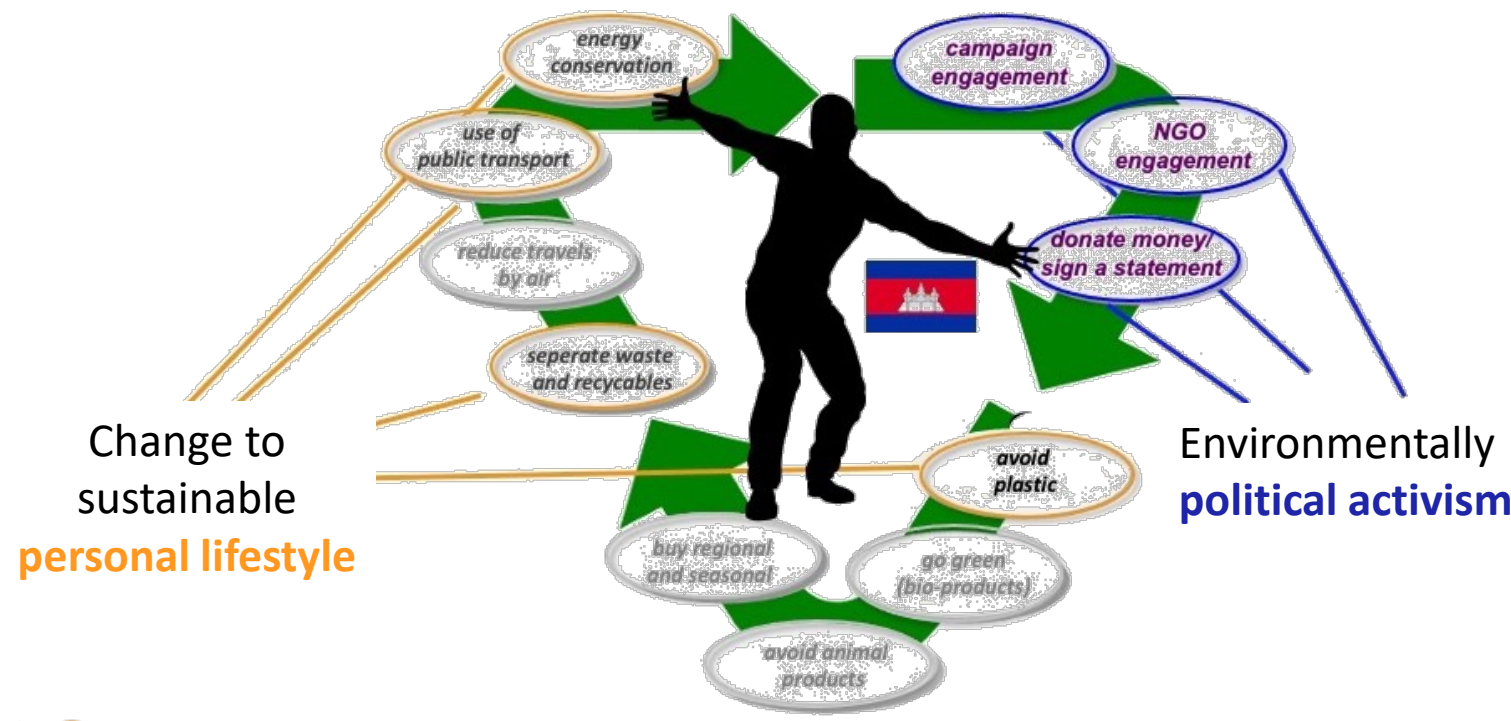


Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

Talking about Sustainable Behaviours

- Intent versus impact oriented strategies (Stern, 2000)

Various facets of **intended** sustainable behaviour



How to explain sustainable behaviours?

- How to trigger behaviour change?



Value Belief Norm Theory

Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

IMP 2025-2027

SPONSORED BY THE



Federal Ministry
of Education
and Research



FONA
Research for sustainability



Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG



Center for Khmer Studies
Centre d'Études Khmères

Explaining sustainable Behaviours

Value Belief Norm Theory

Explaining sustainable behaviour(s)



Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

IMP 2025-2027

SPONSORED BY THE



Federal Ministry
of Education
and Research



FONA
Research for sustainability



Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

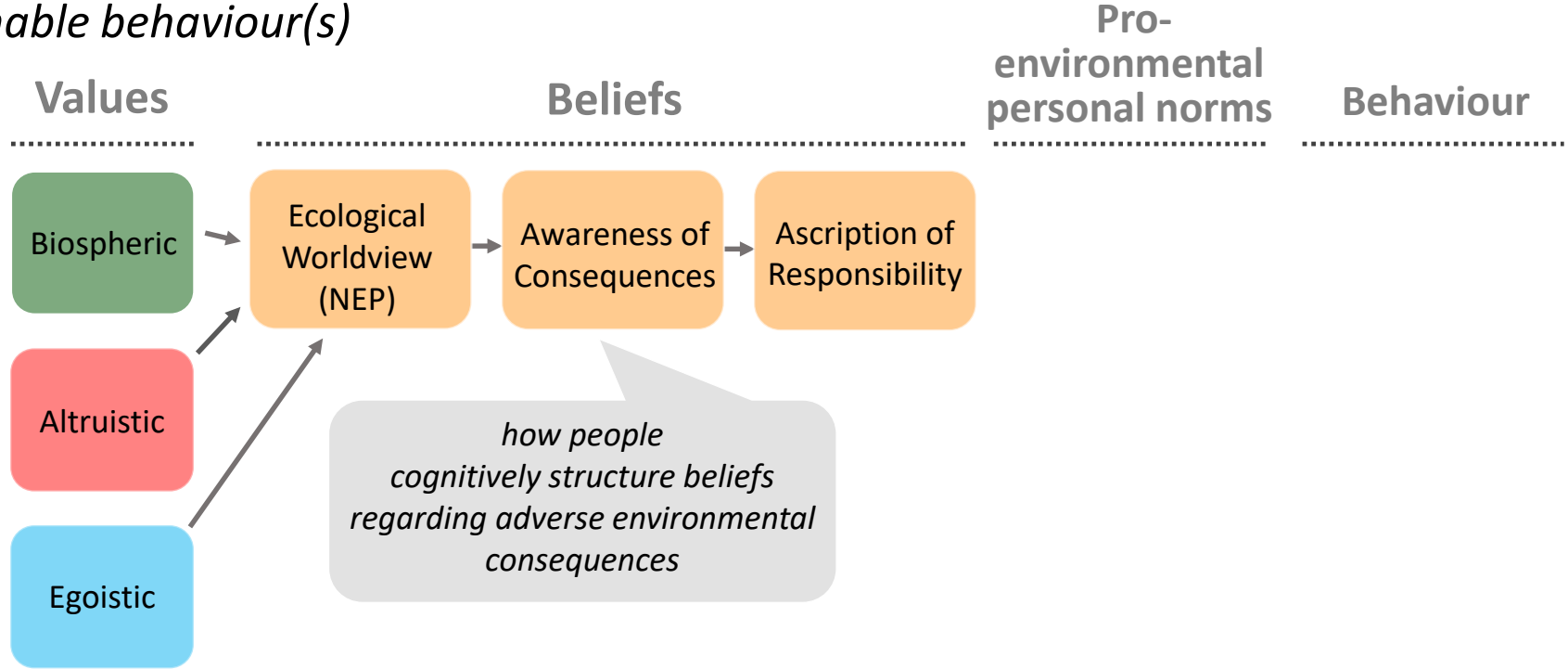


Center for Khmer Studies
Centre d'Études Khmères

Explaining sustainable Behaviours

Value Belief Norm Theory

Explaining sustainable behaviour(s)



Source: Stern et al. (1999)

Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

IMP 2025-2027

SPONSORED BY THE



Federal Ministry
of Education
and Research



FONA
Research for sustainability



Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

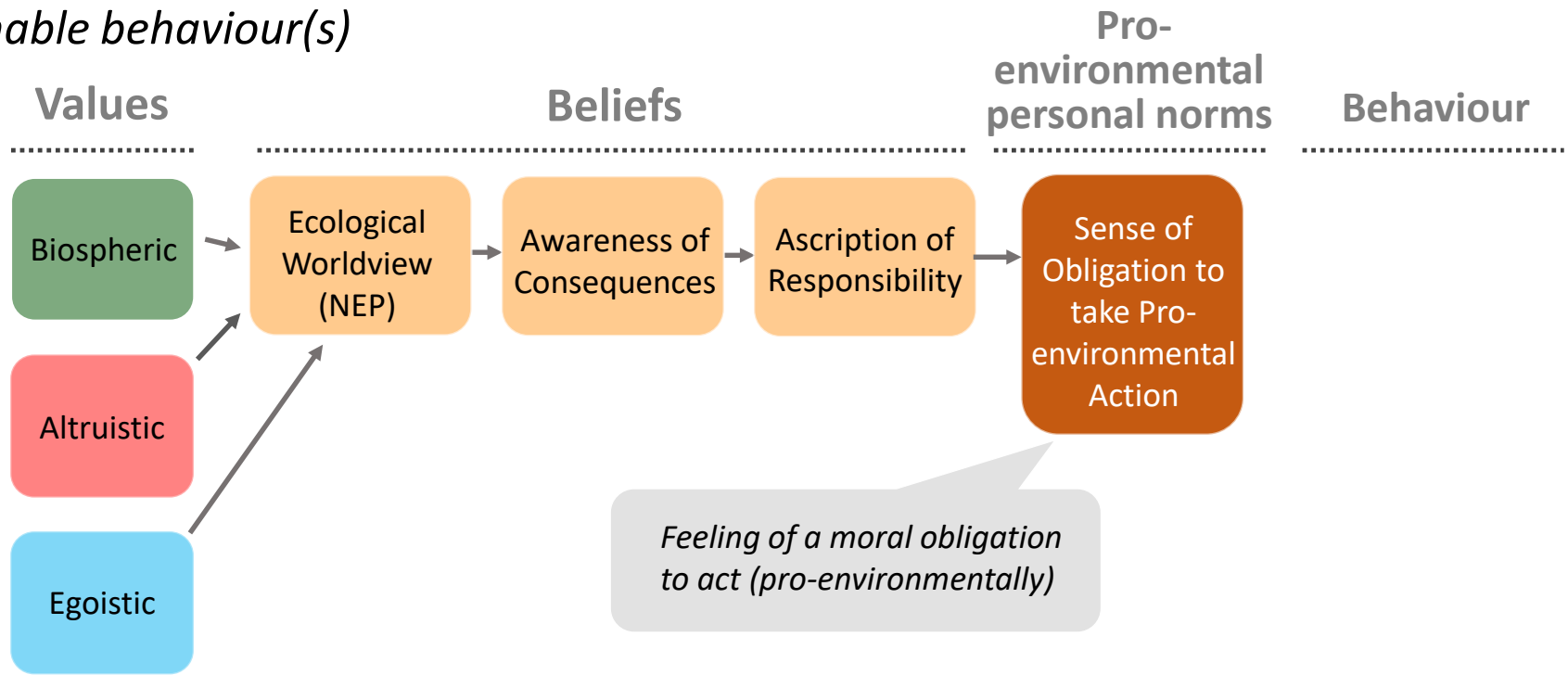


Center for Khmer Studies
Centre d'Études Khmères

Explaining sustainable Behaviours

Value Belief Norm Theory

Explaining sustainable behaviour(s)



Source: Stern et al. (1999)

Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

IMP 2025-2027

SPONSORED BY THE



Federal Ministry
of Education
and Research



FONA
Research for sustainability



Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

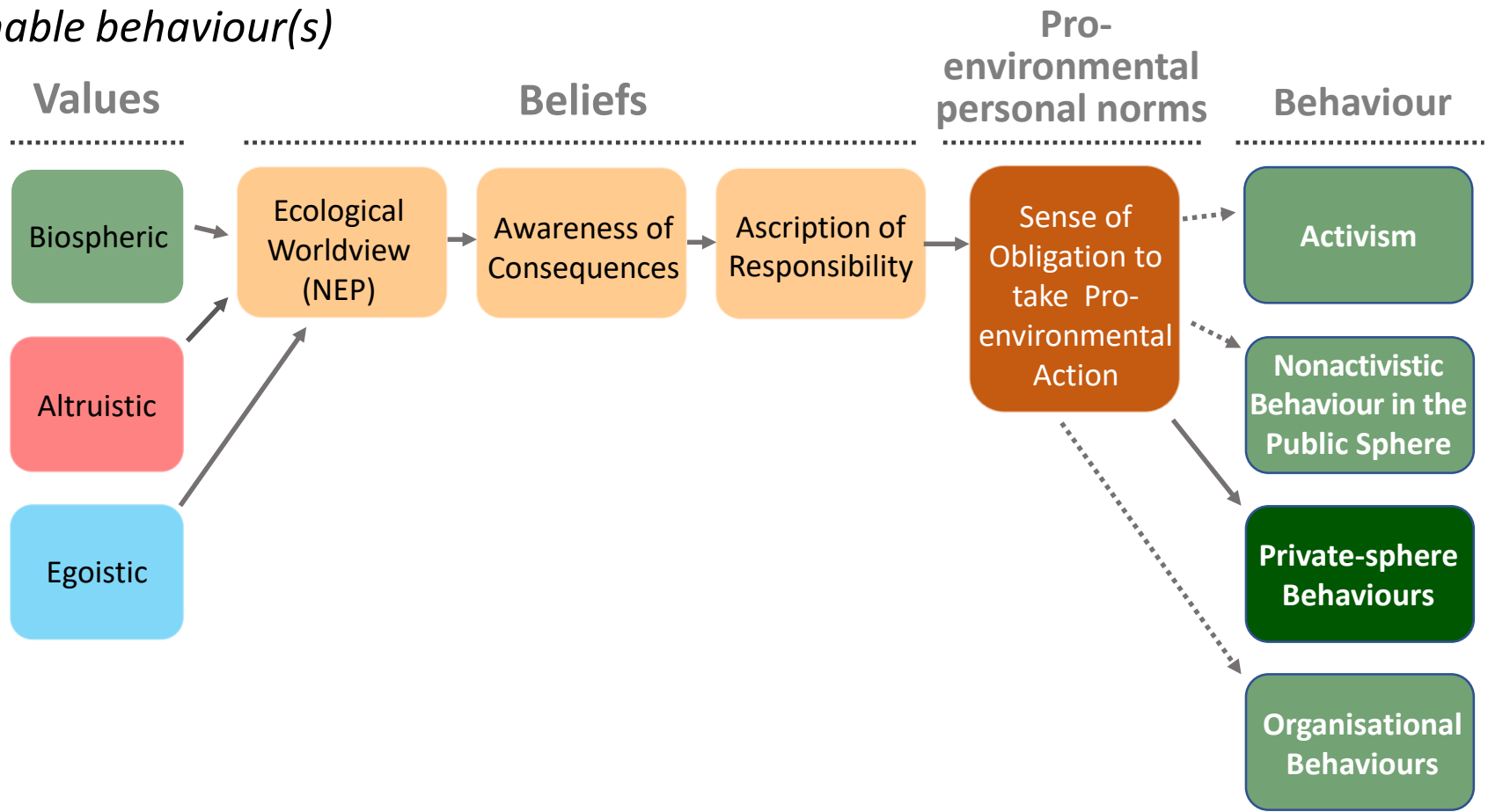


Center for Khmer Studies
Centre d'Études Khmères

Explaining sustainable Behaviours

Value Belief Norm Theory

Explaining sustainable behaviour(s)



Source: Stern et al. (1999)

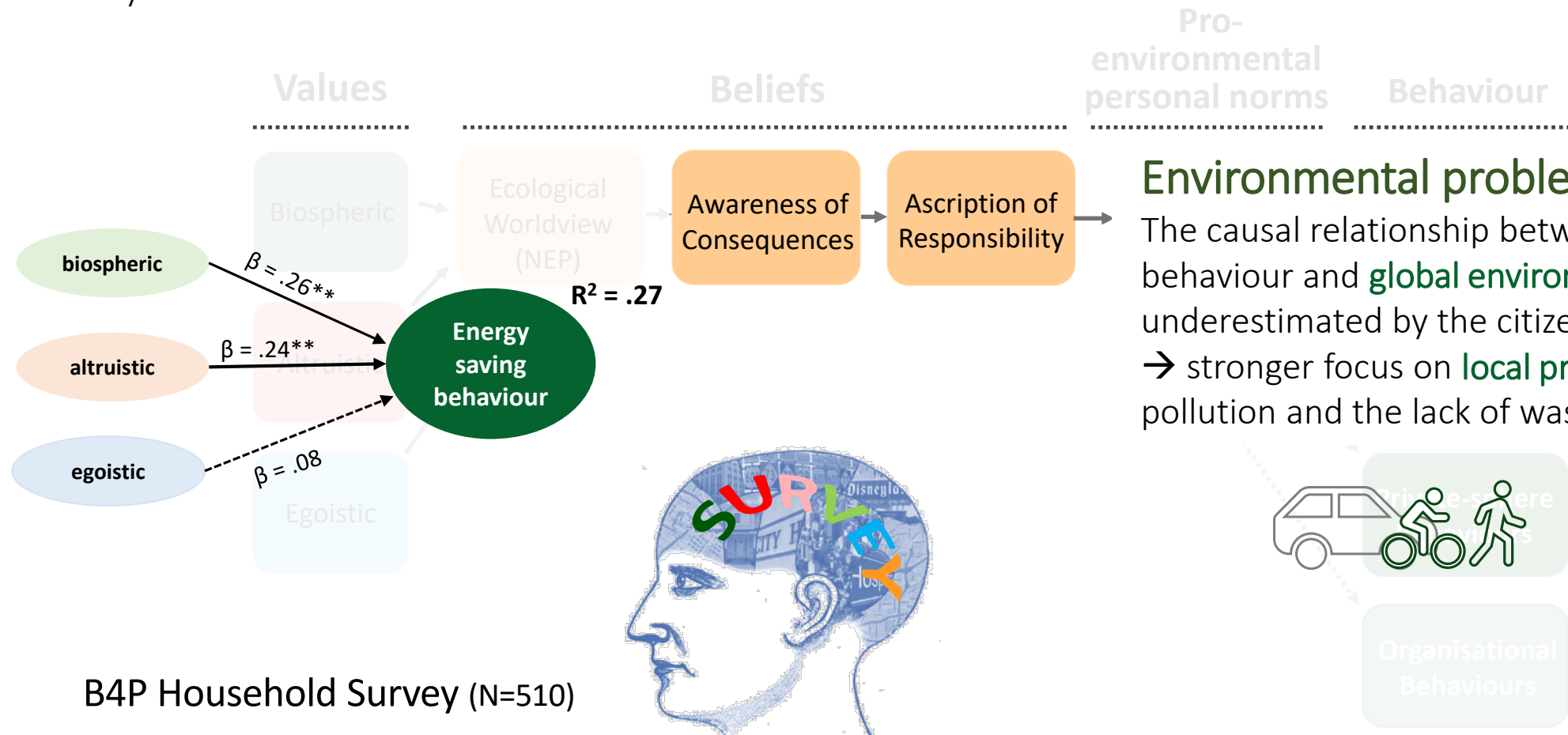
Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បង្កើន ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

IMP 2025-2027

 មជ្ឈមណ្ឌលនិស្សិត
Center for Khmer Studies
Centre d'Études Khmères

➤ Preliminary results



Environmental problem awareness:

The causal relationship between individual behaviour and **global environmental problems** is underestimated by the citizens of PP

→ stronger focus on **local problems** like air pollution and the lack of waste management



Source: Stern et al. (1999)

Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

IMP 2025-2027

SPONSORED BY THE

Federal Ministry
of Education
and Research

FONA
Research for sustainability

Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

Behaviour Change Science Workshop at Royal University of Phnom Penh, March 2022



➤ Time for change!

Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

IMP 2025-2027

SPONSORED BY THE

 Federal Ministry of Education and Research

 FONA
Research for sustainability

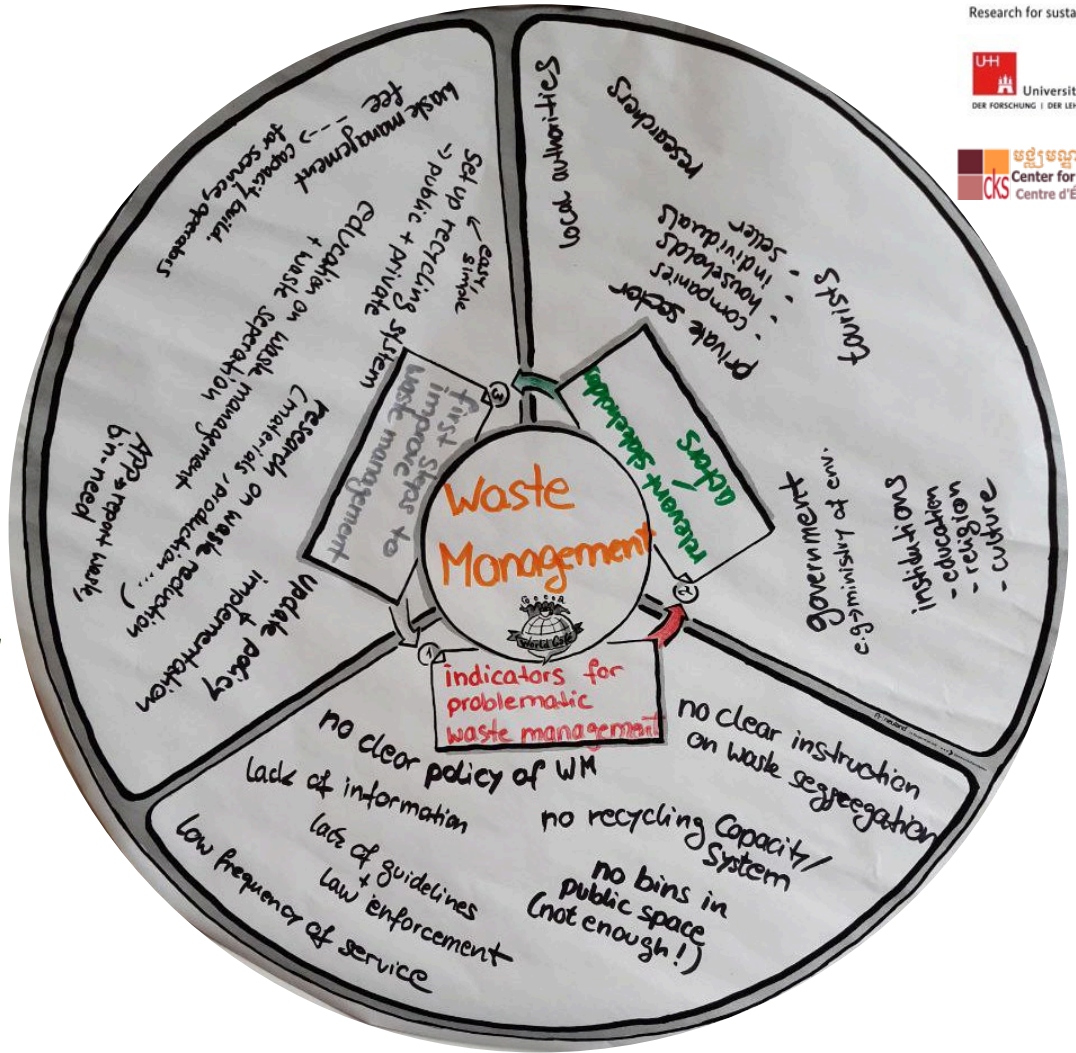
 Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

 មជ្ឈមណ្ឌលសិក្សាខ្មែរ
Center for Khmer Studies
Centre d'Études Khmères

ការផ្លាស់ប្តូរឥរិយាបថ
Behaviour Change

Waste Management

- Clear instructions on waste management and recycling
- Provision of more bins in public spaces
- Implementation of an APP:
 - *report spaces where waste collection and bins are needed*
- Implementation of a waste management fee:
 - *the more waste you produce, the more you pay*



Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021

R&D 2021-2025

IMP 2025-2027

SPONSORED BY THE



FONA
Research for sustainability

Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

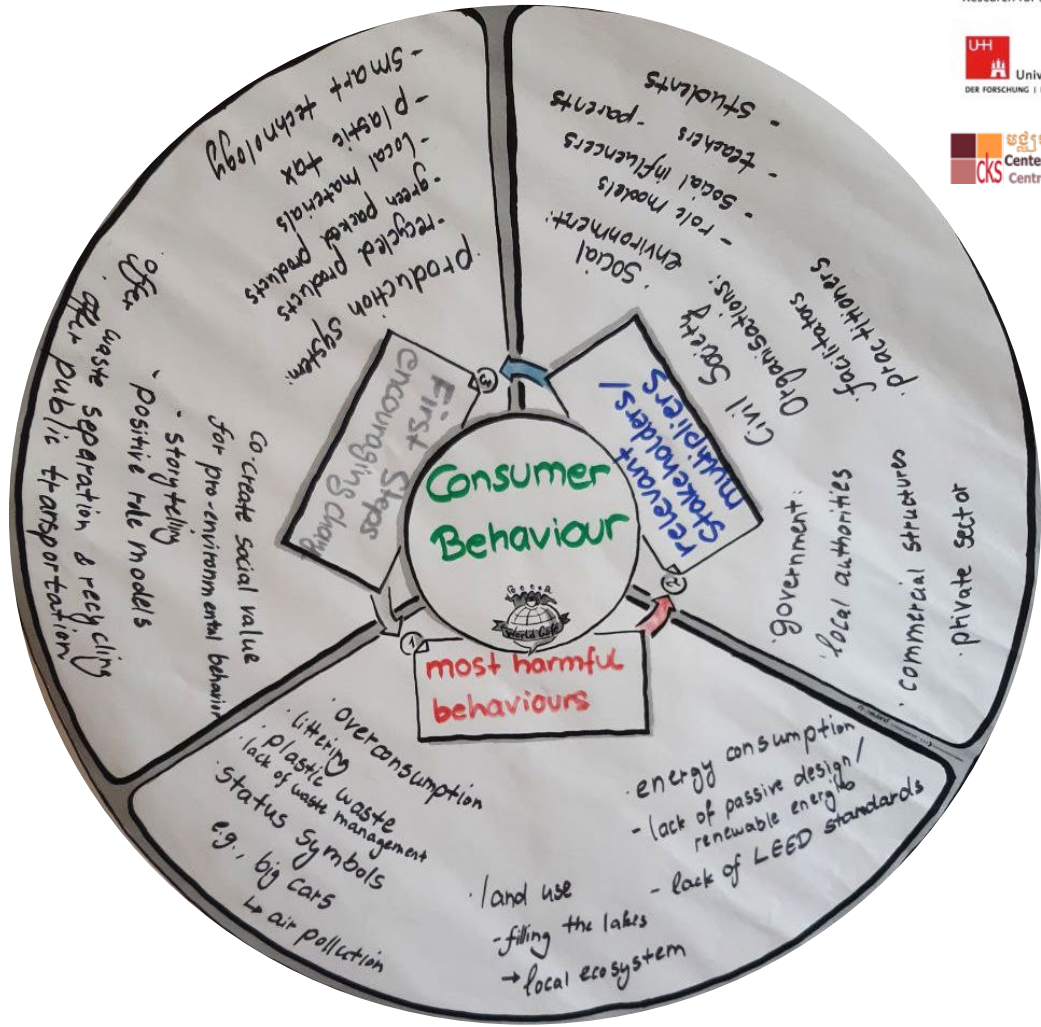
Center for Khmer Studies
Centre d'Études Khmères

ការផ្លាស់ប្តូរឥរិយាបថ

Behaviour Change

Consumption Behaviour

- Offer waste separation and recycling options
- Offer public transportation options
- Implement regulative guidelines that strengthen production systems with recycling, less packaging, local materials



Build4People Project

Enhancing Quality of Life through Sustainable Urban Transformation in Cambodia

គម្រោងសាងសង់សម្រាប់ប្រជាជន
ការលើកកម្ពស់ គុណភាពជីវិត របស់
អ្នកទីក្រុង ដោយ ការ បម្លែង ទៅជា
ក្រុង មានចីរភាពនៅកម្ពុជា

DEF 2019-2021
R&D 2021-2025
IMP 2025-2027

SPONSORED BY THE
Federal Ministry
of Education
and Research
FONA
Research for sustainability
Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG
Center for Khmer Studies
Centre d'Études Khmères



Thanks so
much for
your attention!

More info: <https://build4people.org>

អរគុណសម្រាប់
ការយកចិត្ត
ទុកដាក់!

Research Partners



Implementation Partners



Dissemination Partners



URBAN INSIGHT

Webinar Series

Time for Change – The Role of Environmental Psychology in Promoting Sustainable Urban Environments

JUNE 24, 2022

2:00 PM - 3:30 PM (CAMBODIA TIME)

FREE REGISTRATION



CO-ORGANIZED BY



build4people.org

CKS-B4P Webinar "Time for Change – The Role of Environmental Psychology in Promoting Sustainable Urban Environments" | Annalena Becker & Anke Blöbaum | 24 June 2022

Speakers

Moderator



Ms. Annalena Becker

Otto-von-Guericke
University Magdeburg



Dr. Anke Blöbaum

Otto-von-Guericke
University Magdeburg



Dr. Samuel Chng

Singapore University
of Technology and
Design



Dr. Puthearath Chan

Korean Foundation
for Advanced
Studies



Dr. Try Thuon

Royal University of
Phnom Penh



The Journey Towards Sustainable Mobility in Singapore

Time for Change – The Role of Environmental Psychology in
Promoting Sustainable Urban Environments Webinar

Dr. Samuel Chng

Urban Psychology Lab, Lee Kuan Yew Centre for Innovative Cities
Singapore University of Technology and Design

Psychological Theories Applied to Mobility

Psychological Theories

Development of an integrative conceptual overview of potentially modifiable antecedents that could inform future intervention design and further theoretical testing.

Table 2.1.
Theories identified in the review and the number of articles reporting them.

Theory	First author theorist (date)	Articles reporting theory included in review ^a
Theory of Planned Behaviour	Ajzen (1991)	14 (19) ^b
Norm Activation Model	Schwartz (1977)	8
Model of determinants of script-based driving choice	Gärling (2001)	3
Value Belief Norm Theory	Stern (1999)	3
Theory of Interpersonal Behaviour	Triandis (1977)	3
Comprehensive Action Determination Model	Klöckner (2010)	2
Stage Model of Self-regulated Behavioural Change	Bamberg (2013b)	2
Model of Action Phases	Heckhausen (1987)	1
Model of Material Possession	Dittmar (1992)	1
Normative Decision-making Model	Schwartz (1981)	1
Prospect Theory	Kahneman (1979)	1
Selection, Optimism and Compensation Model	Baltes (1990)	1
Theory of Cognitive Dissonance	Festinger (1957)	1
Theory of Cognitive Evaluation	Deci (1975)	1
Value Attitude Behaviour Hierarchical Model	Homer (1988)	1

Note: ^aArticles could have reported one or more theories
^bNumber in brackets represent the unadjusted frequency for articles in which the same first author has published more than one article applying the same theory to the same data set. Detailed information of the studies can be found in Table 2.A.1.

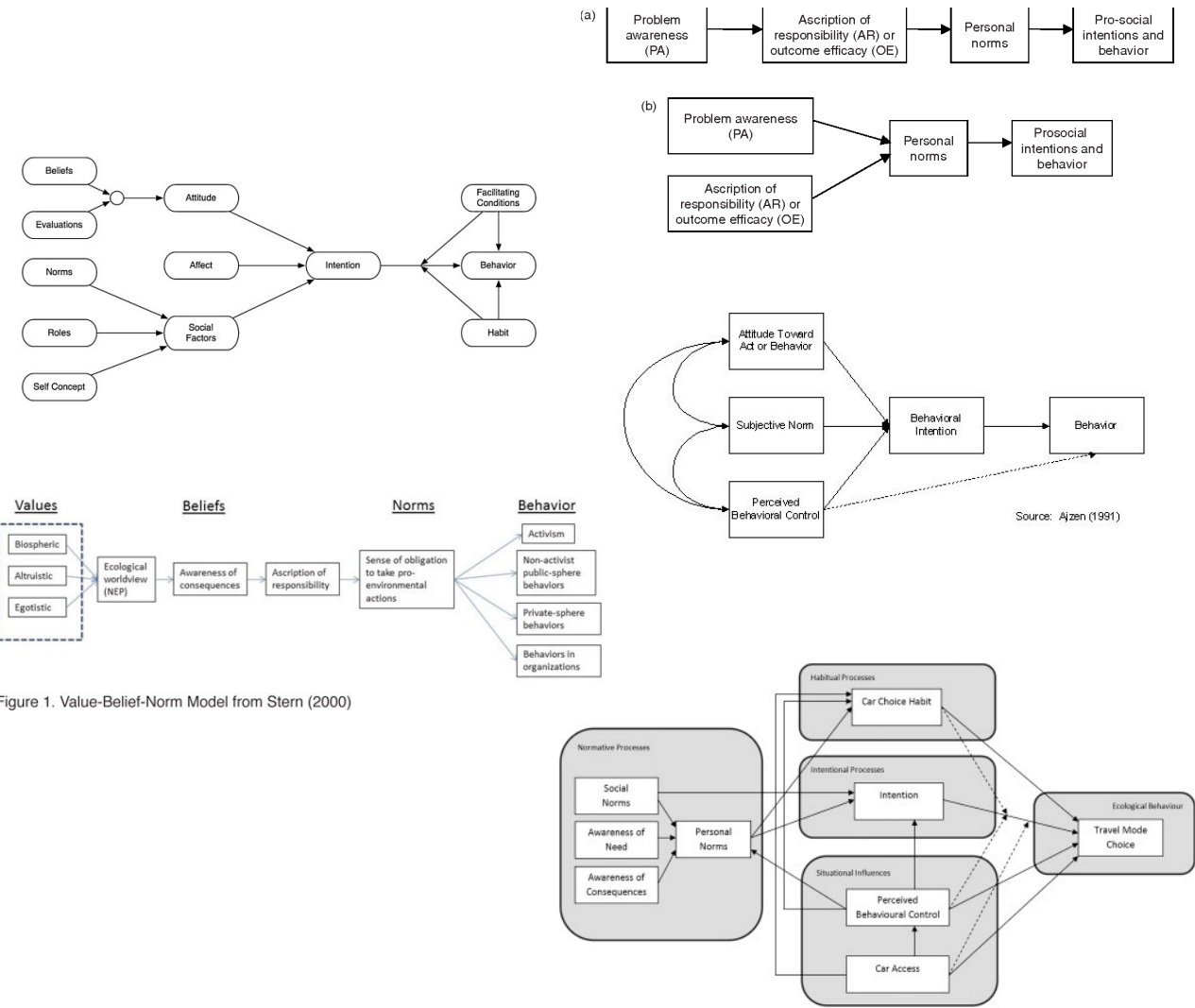
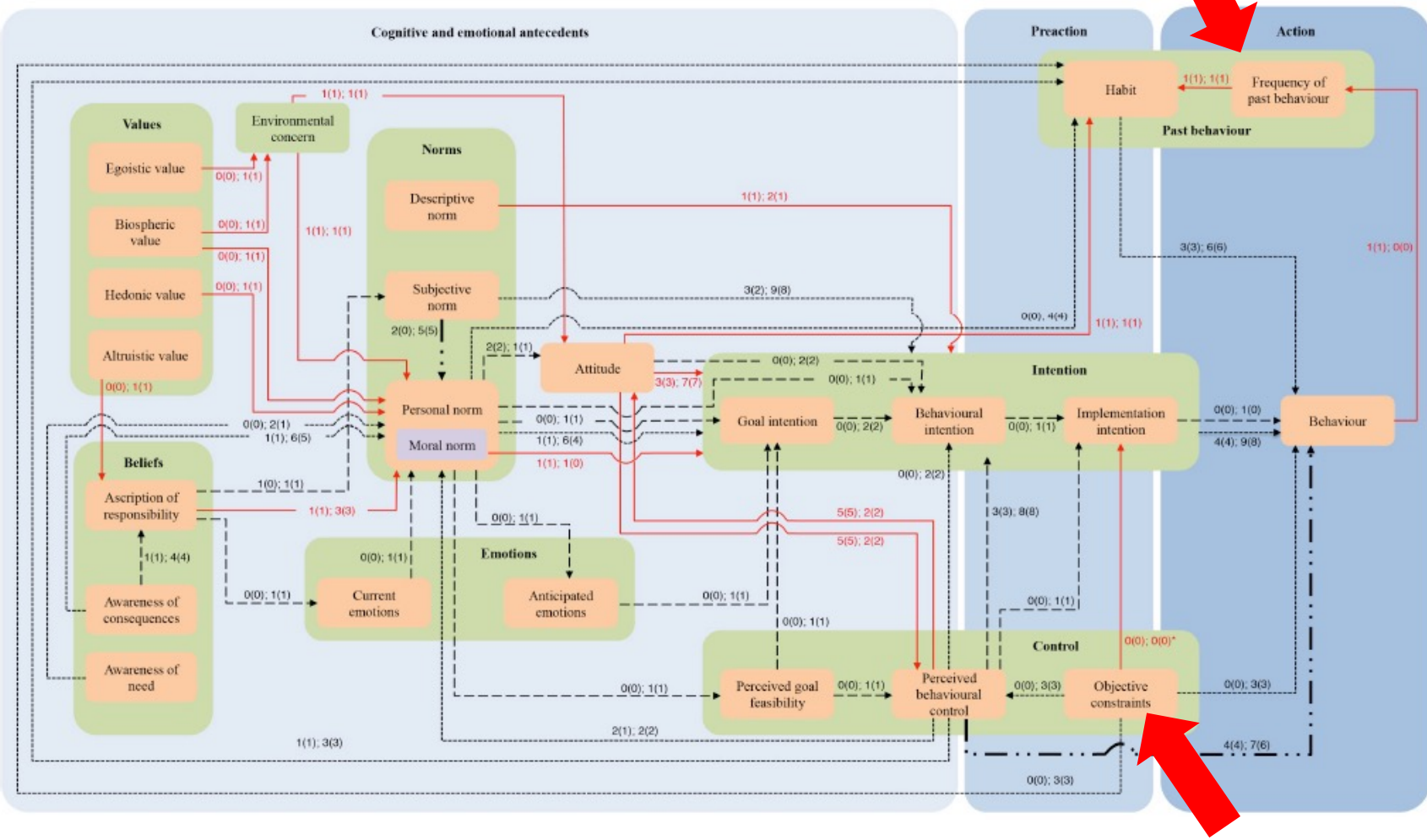


Figure 1. Value-Belief-Norm Model from Stern (2000)

Psychological Theories

Defining appropriate process and outcome measures in predictive and – importantly – intervention studies.

Systematic application of psychological theory and robust methods can help us understand why people will/will not make sustainable mobility decisions



Opportunity for urban design and planning to intervene

Mobility in Singapore

Singapore's Mobility Environment

Public transport-centric city

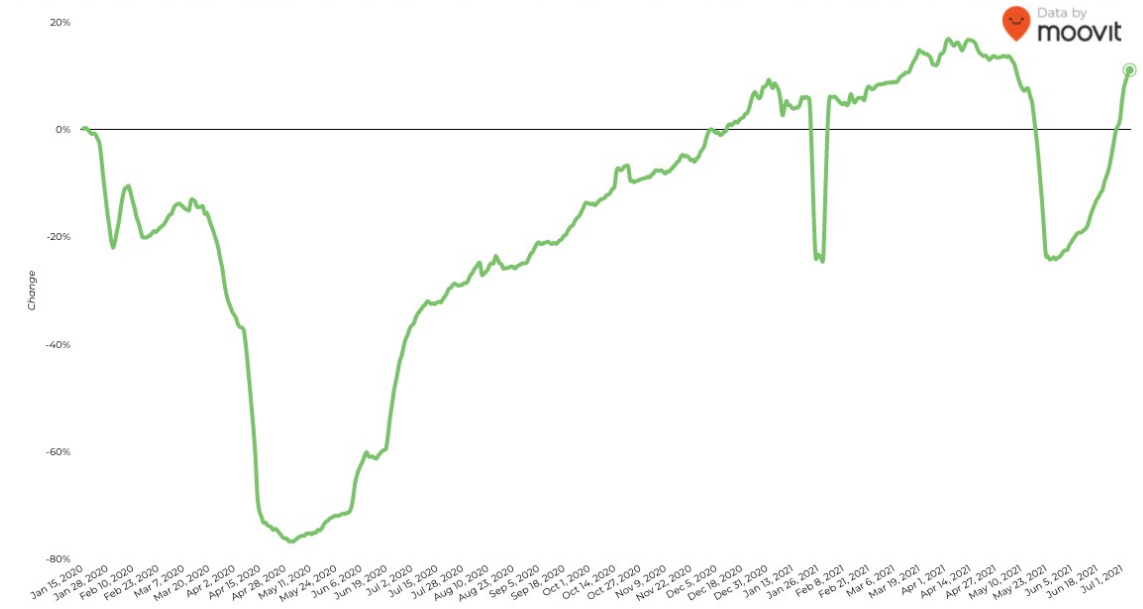
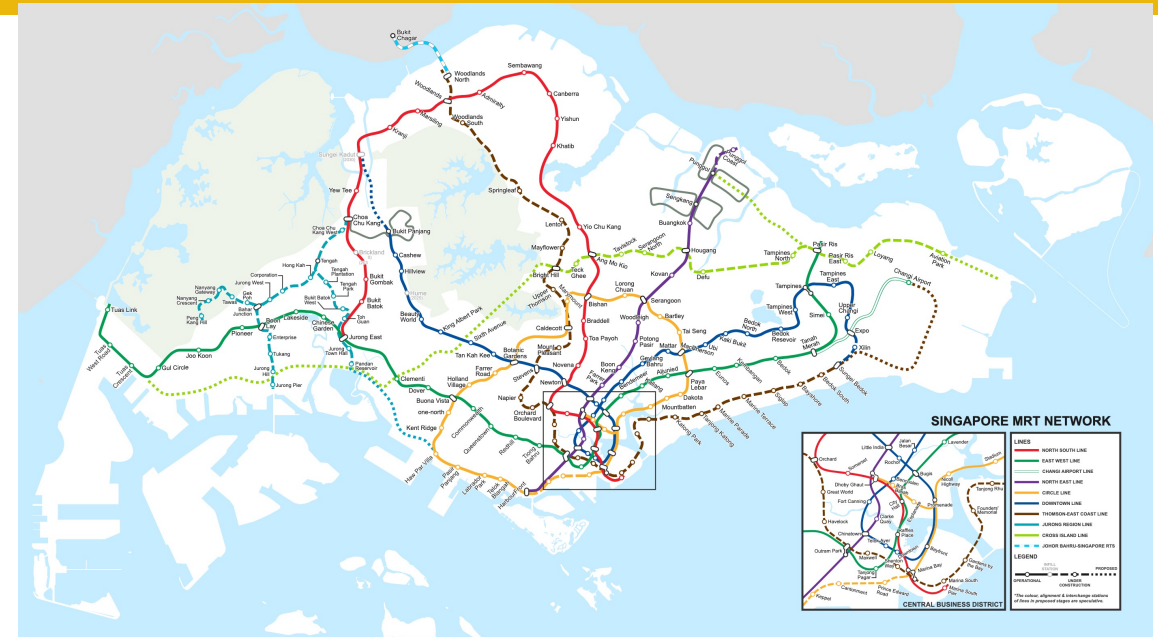
Mass Rapid Transit, Light Rapid Transit, Bus

Walk Cycle Ride SG is the vision for an inclusive city with a transport system

Affordable rides: the government subsidises public transport cost

Current peak hour mode share: 67% (target increase to 75% by 2030)

Very costly private car ownership



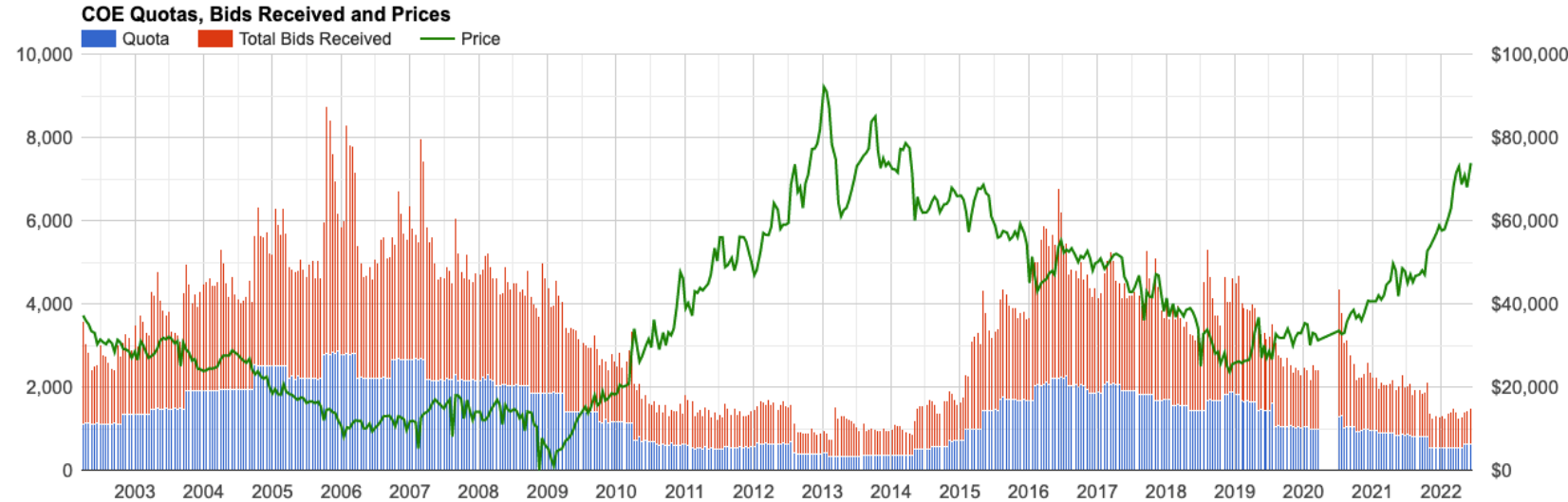
Singapore's Mobility Environment

0% vehicle population growth

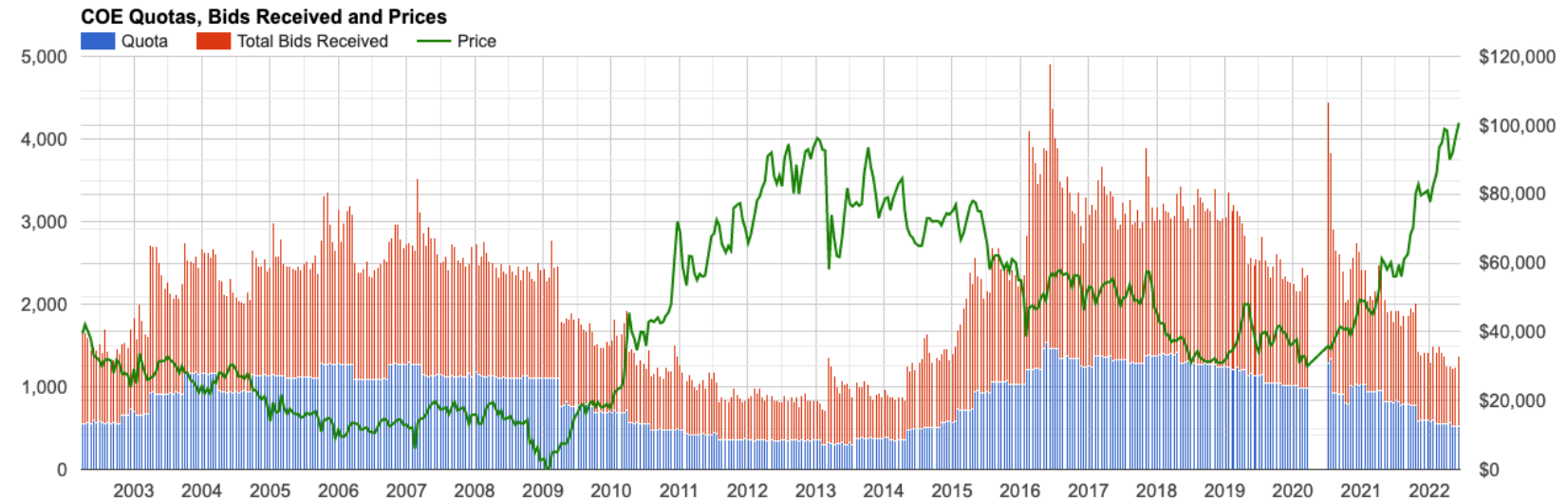
Very costly private car ownership
with taxes and quota licensing

Reducing parking provision in new
developments

Category Cat A (Cars up to 1600cc and 97kW) Year Choose a value...



Category Cat B (Cars above 1600cc or 97kW) Year Choose a value...



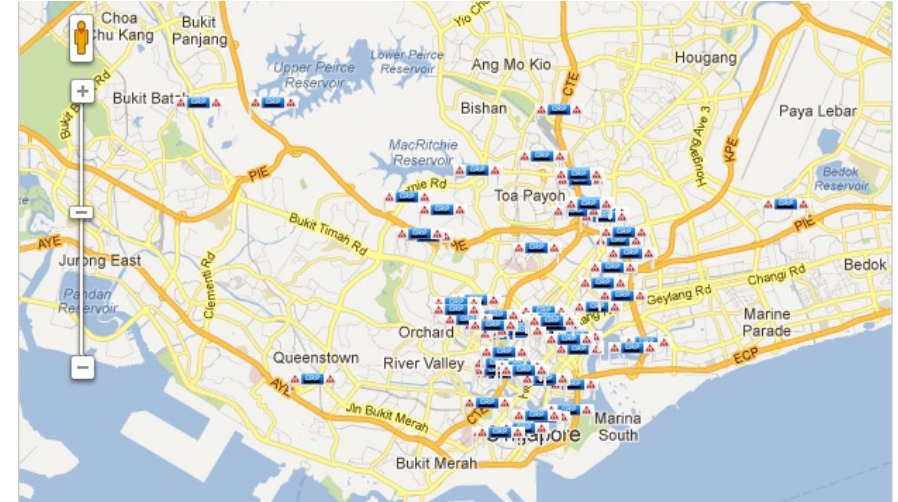
Singapore's Mobility Environment

0% vehicle population growth

Very costly private car ownership
with taxes and quota licensing

Reducing parking provision in new
developments

Road pricing (congestion charging)
for demand management

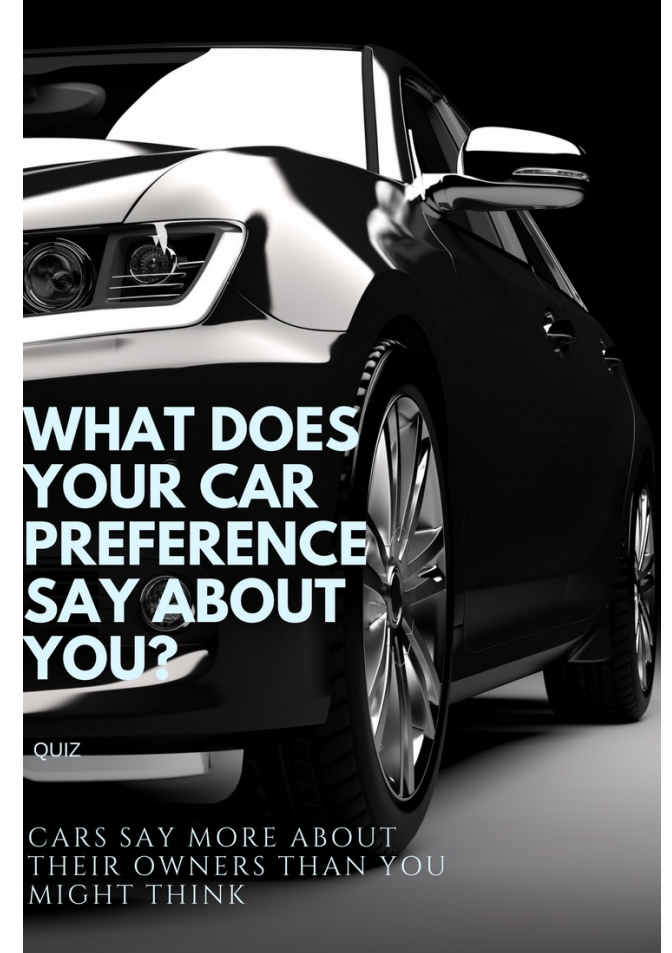


Singapore's Mobility Environment Shapes Behaviours

This has resulted in private vehicle ownership taking on symbolic meaning

Private vehicles are an extension of one's identity, a measure of wealth and social standing

The use of public transport, though still the dominant mode choice, is significantly less likely when one can drive and have ready access to a vehicle



How Else to Change Mobility Behaviours?

Today's situation: Despite increasing cost of private vehicle ownership, demand has reached new heights. Public transport mode share is peaking.

Tomorrow's predicament: What more can we do to be car-lite? What more can we do to change mobility behaviours?

How Else to Change Mobility Behaviours?

Car-lite precincts in designated regions

Car-free town – Tengah Park District

Introducing Autonomous Vehicles to enhance public transport connectivity and accessibility

Encouraging adoption of electric vehicles and accelerating electrification of vehicle fleets

Urban design and planning ambitions are present, but it remains to be seen if it is enough for the next behaviour change. Thoughts?





Thank you for your attention

Dr. Samuel Chng
Urban Psychology Lab, Lee Kuan Yew Centre for Innovative Cities
Singapore University of Technology and Design

Email: Samuel_chng@sutd.edu.sg

More info: <https://lkycic.sutd.edu.sg/>

URBAN INSIGHT

Webinar Series

Time for Change – The Role of Environmental Psychology in Promoting Sustainable Urban Environments

JUNE 24, 2022

2:00 PM - 3:30 PM (CAMBODIA TIME)

FREE REGISTRATION



CO-ORGANIZED BY



Speakers



Ms. Annalena Becker
University of Magdeburg



Dr. Anke Blöbaum
Otto-von-Guericke University



Dr. Samuel Chng
Singapore University of Technology and Design



Dr. Puthearath Chan
Korean Foundation for Advanced Studies



Dr. Try Thuon
Royal University of Phnom Penh

Moderator

“Influence of Urban Child-Friendly Initiative on Environmental Behavior”

Puthearath Chan, Ph.D.

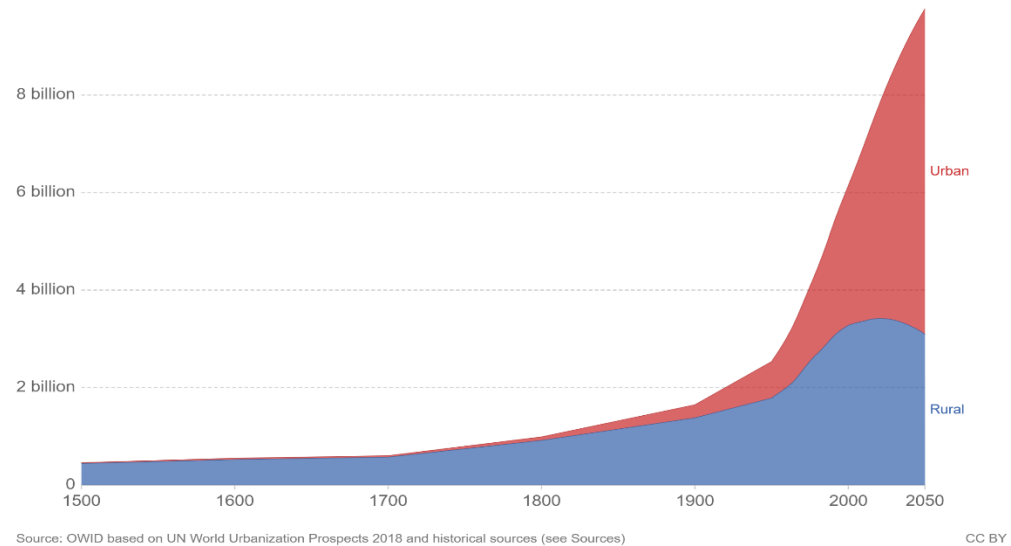
Laureate, Korea Foundation for Advanced Studies (CHEY)
Lecturer, Faculty of Engineering, Paragon International University

Influence of Urban Child-Friendly Initiative on Environmental Behavior

Introduction

The world is rapidly urbanizing. Currently, more than half of its population lives in urban areas. As projected by the United Nations, 68% of the world population is expected to live in urban areas by 2050, with close to 90% of this increase taking place in Africa and Asia.

Urban and rural population projected to 2050, World, 1500 to 2050
Total urban and rural population, given as estimates to 2016, and UN projections to 2050. Projections are based on the UN World Urbanization Prospects and its median fertility scenario.



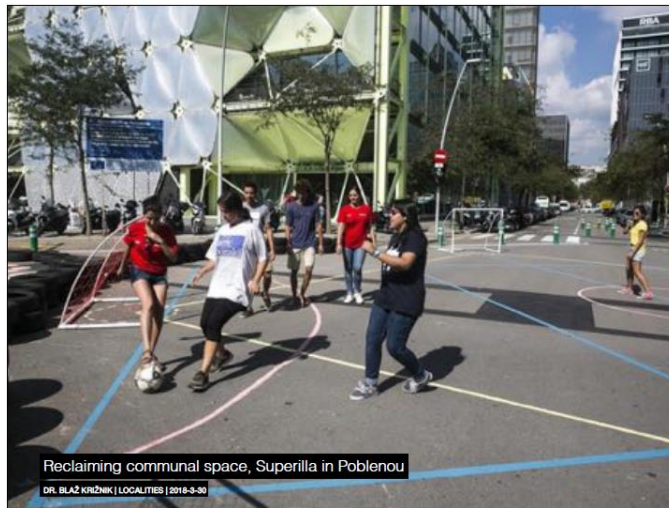
- Particularly, the urban population in the Southeast Asian region, as projected by the Martin Prosperity Institute, is expected to grow from 280 million in 2017 to 373 million in 2030.
- In this rapidly urbanizing trend, 60% of the world's children population is also expected to live in cities by the year 2025. Therefore, promoting sustainable urban environments is significant to improve the quality of life for people, particularly children, across the world, this is also true for Southeast Asian countries, including Cambodia.

Influence of Urban Child-Friendly Initiative on Environmental Behavior

Children “Indicator Species”

“Children are a kind of indicator species. If we can build a successful city for children, we will have a successful city for all people.”

— Enrique Peñalosa, Mayor of Bogotá



“The lesson that city dwellers have to take responsibility for what goes on in the city is taught again and again to children on sidewalks which enjoy a local public life.”

Jane Jacobs, 1961

Ref. Blaž Kržnik's lecture slides (2018) Hanyang University Seoul Campus.

Influence of Urban Child-Friendly Initiative on Environmental Behavior

UN SDG 11 (Global Goal)



	Target		Indicator
11.1	Ensuring adequate and affordable housing for all by 2030	1	Proportion of urban population living in slums and poor/informal settlements
11.2	Providing safe and affordable transport systems for all by 2030	2	Proportion of population convenient access to public transport for everyone in the city
11.3	Enhancing inclusive urbanization and participatory human settlement planning by 2030	3	Ratio of land consumption to population growth
11.4	Strengthening efforts to protect cultural and natural heritages	4	Proportion of cities with participation structure of civil society in urban planning
11.5	Reducing the number of people affected by disasters with a focus on protecting the poor by 2030	5	Total expenditure spent on protection and conservation of cultural and natural heritages
11.6	Reducing the environmental impact by paying attention to air quality and waste management by 2030	6	Number of people affected by disasters
11.7	Providing universal access to urban green and public spaces by 2030	7	Direct economic loss in relation to global GDP, damage to critical infrastructure
11.a	Supporting positive links between urban, peri-urban, and rural areas	8	Proportion of solid waste regularly collected
11.b	Increasing the number of cities adopting integrated policies and plans towards inclusion by 2020	9	Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities
11.c	Supporting least developed countries in constructing resilient buildings	10	Average share of open space for all
		11	Rate of persons victim of physical harassment
		12	Proportion of population living in cities that integrate population projections and resource needs
		13	No. of countries adopted disaster risk reduction strategy
		14	Proportion of local governments that adopt/implement local disaster risk reduction strategies
		15	Proportion of financial support to the least developed countries for buildings utilizing local materials

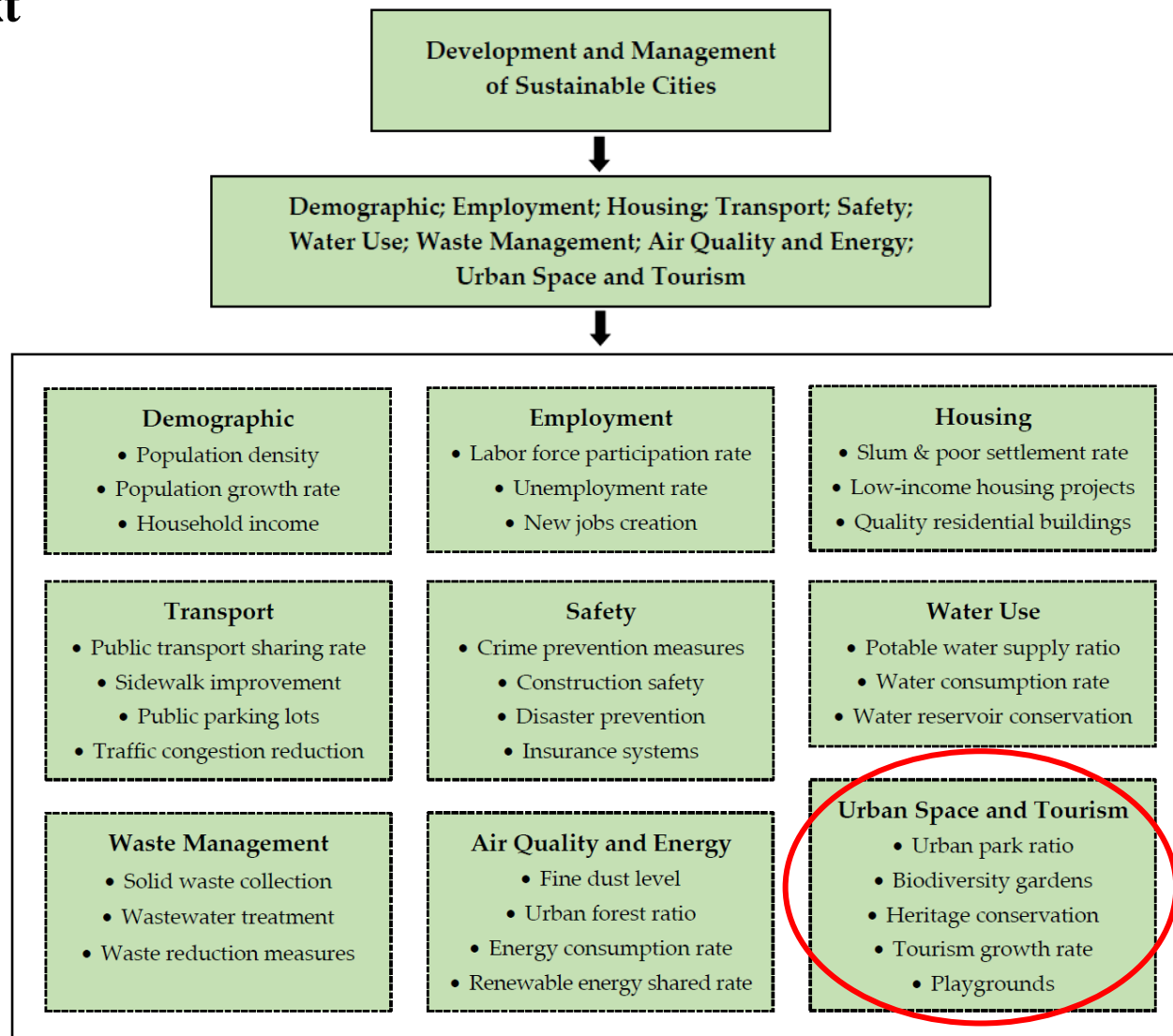
More detail: Chan 2020. <https://doi.org/10.3390/data5030079>

Provide universal access to **safe, inclusive and accessible, green and public spaces**, particularly for women and **children**, older persons, and persons with disabilities.

Influence of Urban Child-Friendly Initiative on Environmental Behavior

Cambodian Context

**Cambodia
Urban
Sustainability
Indicator
Framework**
(Surveyed with
Experts Using
Simple Delphi &
Complex AHP
Methods)



Influence of Urban Child-Friendly Initiative on Environmental Behavior

Child-Friendly Initiative



Urban green-public spaces ↔ child-friendly city/community (CFC) initiative
CFC initiative → environmental attitude → environmental behavior



Influence of Urban Child-Friendly Initiative on Environmental Behavior

Child-Friendly Initiative

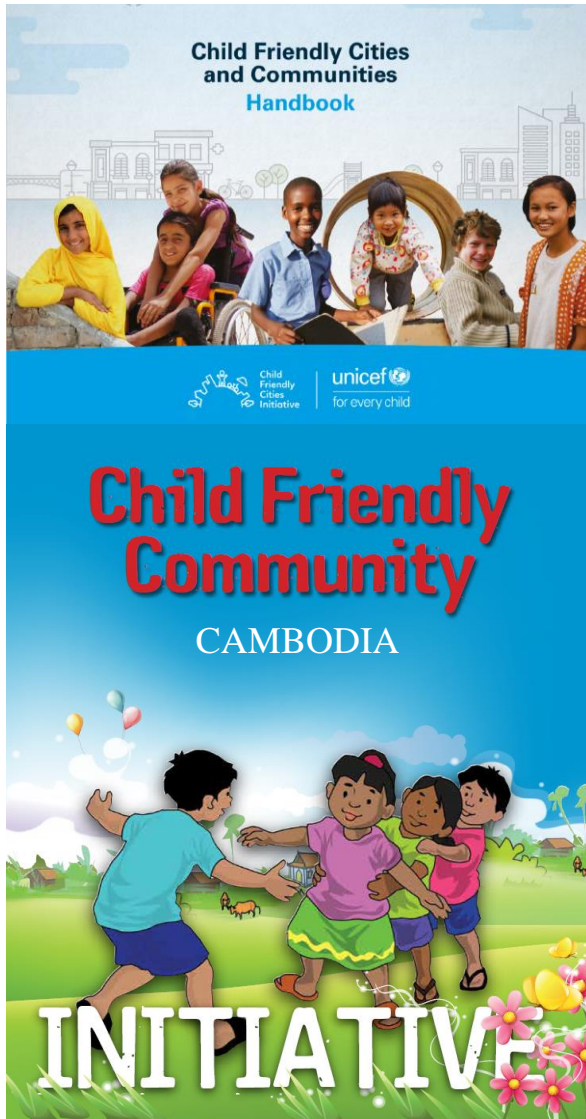


How to build a child-friendly city/community?
“By listening to children.” UNICEF-CFC, 2017.



Influence of Urban Child-Friendly Initiative on Environmental Behavior

Child-Friendly Initiative



Since urban children's populations have been rapidly increasing, the UNICEF has developed a framework for action to build child-friendly cities and communities.

This framework outlines the steps to build a governance system committed to realizing the rights of children and translated implementation processes in relation to the United Nations Convention on the Rights of the Child.

Likewise, Cambodia developed a national child-friendly community framework aimed to further improve conducive environments for children where their rights are recognized and supported.

This framework highlights that all communities must be encouraged to promote child-friendliness, **as most of the population in communities are children** (Plan International, 2012).

Influence of Urban Child-Friendly Initiative on Environmental Behavior

■ Child-Friendly Initiative

By reflecting 10 CFC initiatives from 10 countries, Chan (2021) concluded that international CFC building blocks are working well with high human-development or developed countries. For example, Japan CFC initiative has well adapted the following building blocks: child-friendly legal framework and independent advocacy for children.

However, these building blocks have not worked well with low human-development or developing countries due to the contexts and structures of the cities and communities not being ready to adapt.

For example, Bangladesh's CFC initiative involved and selected several NGOs to run the learning centers for children to provide urban children with informal education, and this was recognized as independent advocacy for children.

Nigeria's CFC initiative is first committed to building the government official capacity on the CFC concept by organizing a number of workshops seeking to improve living quality of poor urban children and advancing institutional capacity and connections between urban communities for raising awareness.

Therefore, developing countries need to develop a national CFC framework to adapt with their city and community contexts and structures.

Influence of Urban Child-Friendly Initiative on Environmental Behavior

Child-Friendly Initiative



Dimensions	Description
Children's health	Child health is significant and depends heavily on efficient health services, sufficient intake of nutritious diets, and potable water, including sanitation facilities. The parents, community, and service providers ensure provision of these for healthy growth.
Children's protection	Children are well protected and safe from all forms of violence, negligence, exploitation, and discrimination, even in the times of emergency. Services on prevention, recovery, and reintegration are available and accessible.
Children's education	Children are fully supported and encouraged by parents, teachers, families, caregivers, and concerned authorities at all levels to access quality education services and leisure activities within a safe, healthy, and child-friendly environment.
Children's participation	Children have access to commune information (plans and budget) and a complaint mechanism. They are given opportunities to participate in decision-making at home, communities, school, and government institutions at all levels that affect them. They can enjoy freedom of expression and act as active citizens.

Influence of Urban Child-Friendly Initiative on Environmental Behavior

Smile Village Community (Phnom Penh, Cambodia)

Smile Village is a community village widely known as Smile Village community, located in Phum Kom Reang, Prey Veng commune, Donkor, Phnom Penh, Cambodia. When seeing the word “Smile”, we feel the friendliness of this community.



Influence of Urban Child-Friendly Initiative on Environmental Behavior

■ Smile Village Community (Phnom Penh, Cambodia)

Smile Village community development initiative started by the three-way partnership of STEP (Solutions To End Poverty), PSE (Pour un Sourire d'Enfant), and HfH (Habitat For Humanity-Cambodia) in 2012 and later included other relevant key partners.

The STEP organization is committed to improving household quality and **income**, while the PSE organization provides supports to improve child **education** in the community, such as childcare services and children's education.

With its mission to improve the livelihood of the underprivileged families, this community development initiative created three sectoral programs:

- (1) environment and shelter (houses and communal facilities)
- (2) livelihood and enterprise (income and sustainability, including enterprises within Smile Village, facilitating employment, and micro-businesses)
- (3) community and education (community living and training, including children enrolled in PSE school, childcare, community health, and youth programs).

Influence of Urban Child-Friendly Initiative on Environmental Behavior

Smile Village Community (Phnom Penh, Cambodia)

Greeneries, vegetable gardening, widely open and communal spaces, and accessibilities in the community provide very good conditions for children's health, play/happiness, and development. Good interaction between parents and relevant stakeholders in the community protect the children from all forms of violence.

The community has a playground for its children located in the center of the community. The children were involved in the development of the playground during all stages, including planning, design, and construction processes. As a result, the playground is significantly fit for children and found to be quite popular, especially during holidays and weekends. More importantly, the playground is not only the place where children come to play but is also where parents come to chit-chat with each other.



Influence of Urban Child-Friendly Initiative on Environmental Behavior

Smile Village Community (Phnom Penh, Cambodia)

Childcare services and child education programs are very important for the children in the community. The programs cater to children from two to six years old and they have an afterschool care service from seven to twelve years old.

PSE plays an important role in supporting childcare services and educational programs. Therefore, the children in this community are well cared for and educated through the PSE programs.



Influence of Urban Child-Friendly Initiative on Environmental Behavior

CFC Contributions

Strongest Factors Influencing Environmental Behaviors

(in Developing Countries):

The strongest direct paths to environmental behavior stem from income (Kalantari et al. 2007) while the education has a direct influence on environmental attitude and an indirect influence on environmental behavior.

(Kalantari et al. 2007; Kim et al. 1991)

Table 8: Direct and indirect impacts of the independent variables on Environmental behavior

Variables	Direct impact impacts	Indirect Impacts	Total
Education	-	0.055	0.055
Age	0.07	0.006	0.076
Income	0.20	-	0.200
Environmental legislation	-	0.022	0.022
Environmental attitudes	0.09	0.021	0.111
Feeling of stress	-	0.044	0.044
Problem-based knowledge	-	0.011	0.011
Preparedness to act	0.11	-	0.110

(Kalantari et al. 2007)



THANKS FOR YOUR ATTENTION

Puthearath Chan, Ph.D.

-Korea Foundation for Advanced Studies (CHEY)

-Paragon International University, Phnom Penh, Cambodia

Tel: +82-10-2192-5094 or +855-11-66-00-40

Email: pchan1@paragoniu.edu.kh