



AFFORDABLE  
HOUSING  
DESIGN  
CHALLENGE  
2018

INTERNATIONAL COMPETITION  
MAY -- AUG

# INTRODUCTION

**Cambodia** (Khmer: Kampuchea, officially known as the Kingdom of Cambodia) is currently experiencing something of an industrial revolution in the 21st century. Cambodia is developing to become an economic centre for manufacturing and production, graduating from the status of a Low income country to a Low-middle income Country in 2016. As more international companies move their production within Cambodia's borders, the capital city located on the banks of the Tonlé Sap and Mekong River, **Phnom Penh**, is experiencing rapid urbanization.

As low-income workers flood the city to live nearer to employment opportunities, and to pursue better living conditions, the city struggles to build infrastructure and affordable housing to support its new residents. Despite the national economic optimism, many urban residents live in dismal, slum-like conditions. Small multi-family units with poor ventilation, light, and water access are offered without proper rent protection, leaving the city's most desperate residents vulnerable to their landlords. Often, the housing available to these low-income workers is little more than a poorly constructed room.

*“My friends and I have very little time to chat because we work overtime every day. What’s important is that my friends and I don’t want to live like this. We want a place with certain standards; i.e. with enough equipment and a bathroom inside, with enough space to live in.”*

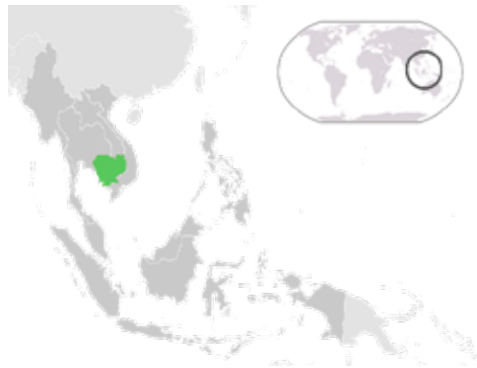
**Hem Sela, 26**

The **Phnom Penh Special Economic Zone**, in association with **United Nations Development Programme SDG Finance initiative\*** and **Building Trust International**, aims to support the transition from Special Economic Zones to SUSTAINABLE Economic Zones in line with the UN SDG Goals. This first challenge focuses on building new affordable social housing for low-income workers.

These new units should be well-designed, sustainable, and most importantly, improve the quality of life of the intended residents and the surrounding community. More than just housing, this new project should build a future for workers and their families in Cambodia.

\*

<http://www.undp.org/content/undp/en/home/sustainable-development-goals.html>



Photos: Chin Sambath, 2016

# UNITED NATIONS DEVELOPMENT PROGRAMME

United Nations Development Programme (UNDP) works in about 170 countries and territories, helping to eradicate poverty, and reduce inequality and exclusion. They help countries to develop policies, leadership skills, partnering abilities, institutional capabilities and build resilience in order to sustain development results. In September 2015, world leaders adopted the 2030 Agenda for Sustainable Development to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity. UNDP supports countries' efforts to achieve the new Sustainable Development Goals, or Global Goals, which will guide global development priorities through 2030.

## AREAS OF FOCUS:

1. Upgrade Value Chains,
2. Finance Development Sustainably,
3. Build Resilience and
4. Foster Voice & Participation.



Empowered lives.  
Resilient nations.



**PHNOM PENH**  
SPECIAL ECONOMIC ZONE

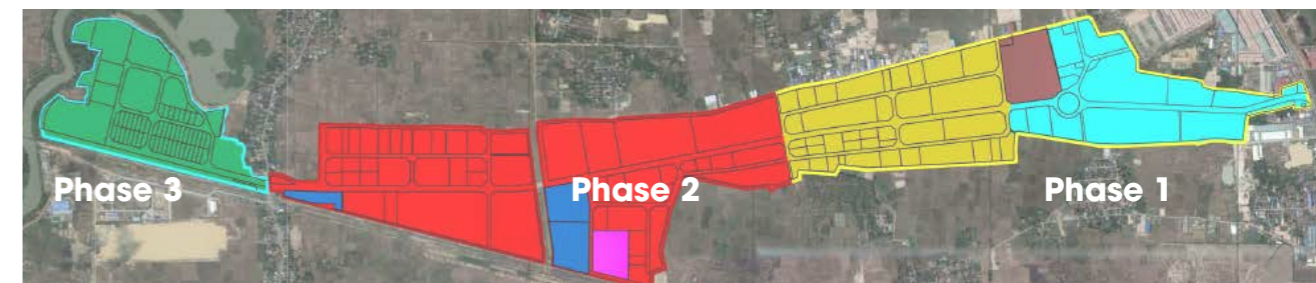
COMMITTED TO THE FUTURE

Phnom Penh Special Economic Zone (PPSEZ) was established in 2006 on the outskirts of Phnom Penh. More than 88 companies located in PPSEZ today (09/2017) are enjoying a wide range of support from government institutions based on site - minimizing administrative efforts and providing direct access to fast solutions.

# PHNOM PENH SPECIAL ECONOMIC ZONE

PPSEZ offers reliable, flood-safe infrastructural facilities such as generation and distribution of power, water supply, sanitation and sewage systems, telecommunication networks as well as a health clinic, dormitories, restaurants, banks, and office and residential units.

Totalling more than 357 ha in size, PPSEZ was to be developed in three phases, of which two are completed and the third is currently being made available to interested companies. Currently the area employs 17000 people and 80% of this workforce is female.



*“I left my family to work as a factory worker in Phnom Penh 10 years ago. I always dream that I will be able to live with my family in the future in a proper shelter and with enough food to eat, just like other people who are also workers like me. Is it possible?”*

**Yang Chenda, 31**



## DESIGN CHALLENGE

The aim of this competition is to design modern, affordable homes for the workers in and nearby PPSEZ. The design should have a sensitivity to the local culture and tropical surroundings and where possible provide a sustainable solution that enhances the local architectural tradition, in which locally sourced renewable resources are used to provide natural temperature and humidity regulation. As the costs related to sustainable technology solutions decrease, opportunities arise to integrate new technology innovations into the design. Sales cost per standard unit house should be capped at **US\$16,000**, to maintain affordability and allow for future ownership by factory workers. The standard unit house, should be safe, include at minimum; a bedroom, a living room, a kitchen, and an independent toilet. Efficient space management and new construction designs may allow for variable and adaptable space usage. Thought should be given to access to fire exits, ventilation and natural light.

The houses should be designed for families, young couples with optional design elements for multiple or larger groups. As a total of 3,000 units are to be designed within the housing community, please include an overall masterplan of how the units will be arranged. This community planning, should include supporting facilities that meet the basic needs of residents, such as children's daycare, shops, and public/ green space.

## COMPETITION STRUCTURE

This is a single stage competition with the aim of identifying the most appropriate proposal, which best satisfies the general and specific objectives of the contest.

# SITE

Our design site is located in **site shown** which is part of the third phase of the PPSEZ, net sellable area: 70,000 m<sup>2</sup> (see plan). The site is largely greenfield site with an area close to the river and trees. The whole site (shown on Available PDF) shows how whole site will be developed over time in to a mixed use area of accommodation and employment.



# CONSIDERATIONS

- Climate, weather and flooding
- Accessibility (inclusive design)
- Local environmental factors and contextual issues
- Health and promotion of safe living spaces
- Material selection
- How design/construction could stimulate local economy
- The implications of mass production
- 3,000 units required in proposal (at least)
- Integration of latest technology innovations
- Human factor: liveability of design and how design could improve the quality of life of its' residents



## ELIGIBILITY

Design professionals, Engineers, Architects, architecture/design/engineer graduates or architecture/design/engineer students are eligible to participate.



## REGISTRATION

Register online at our website or send an email to [competitions@buildingtrustinternational.org](mailto:competitions@buildingtrustinternational.org) with:

- Your name (and team members)
- Office name if entering as an office
- Nationality

You can download an information pack with further plans and documents from: [www.buildingtrustinternational.org/faq](http://www.buildingtrustinternational.org/faq)



## SCHEDULE

Competition Officially Announced

**1st May 2018**

Registration deadline

**15th July 2018**

Closing Date for Submissions

**1st August 2018**

Announcement of Winners

**1st September 2018**

The winners will be posted on [www.buildingtrustinternational.org](http://www.buildingtrustinternational.org).



## AWARDS

**1st prize: US\$20,000**

**2nd- 5th prize honourable mentions: US\$5,000 each**

### PUBLICATION

1st Prize, will be published in any subsequent magazine press as well as on the websites of UNDP, PPSEZ and Building Trust International.

The winning team is expected to remain involved with the detailed design before the projects goes out to tender.



## RESTRICTIONS

There are no restrictions for this international competition.

Registration and participation in the competition implies an immediate acceptance by the entrants of all terms & conditions governing the site and competition.



## DISCLAIMER

This is an open International competition hosted by Building Trust International with UNDP to help the people who work in PPSEZ, while generating progressive contemporary design ideas. The winning design will be built inline with the winning proposal. Please see the terms and conditions on Building Trust's website for full details and guidelines on the competition structure and governance.



## DEADLINES

All entry submissions must be sent via email to; [competitions@buildingtrustinternational.org](mailto:competitions@buildingtrustinternational.org) by **1st August 2018** at midnight (11:59 pm-00:00 GMT). Competitors will be responsible for the arrival of their proposals within the corresponding deadlines and no proposal will be received one day after the date previously stated.



## CONDITIONS

Submissions can be the work of an individual or a group. There is no age limit. However, entrants under 18 years of age must be led or entered by someone over 18 year of age. Interdisciplinary teams are encouraged to enter the competition.

# SUBMISSION REQUIREMENTS

Submission of entries must be in A2 format with all images at 300dpi and a maximum of four (4) pages sent to:  
competitions@buildingtrustinternational.org

Subject of email: Subject of the email must be your unique registration number.

Presentation panels: you can use up to 4 sheets at A2 format these should be horizontal (landscape) and can run together or stand alone as separate sheets.

Dimensions: (1 A2 board = 594x420mm) x 4

File Name: The zipped image file name must correspond to your unique registration number.

(Example: A3333.pdf where A3333 represents your unique registration number assigned and sent to you by Building Trust after a successful registration).

Text file: Any text contained on the boards should also be sent as a separate text file in word format.

The presentation technique is open and at the discretion of the entrant. However, it is recommended that your submission includes the following information which reflect the main concept of the design:

- Sketches, perspectives or renders representing your design in use
- Master Plan (arrangement of units/streets, open space and services.)
- Standard Unit Plans (single bedroom, family house units) and floor plans
- Sections
- Elevations
- Any additional diagrams showing how elements are organized or materiality

The presentation should clearly document the proposed design as well as the approach to the project. Ideas regarding organisation, disaster and risk mitigation, materials, treatment of the location and the design should be included when considered relevant. This will be used to make rough cost estimates and test the 'buildability' of any winning design chosen.

The total area of the project should be included in a part of the image. Any other textual or numerical description should be expressed in English only and it should be incorporated into the graphical presentation of the project.

Entrant's unique registration number should appear on the upper right side of the image.

**Do not place your name or company name on any of the competition panels.**

## **Note:**

Entrants are advised to send their submissions from the email address used for the registration, as submissions from a different or unrecognizable e-mail account might be treated as spam and also prevent us from tracing you in the event we have to contact you.



## EVALUATION CRITERIA

Entries will be evaluated based on the following criteria:

- 1st Intelligent use of space and thought paid to comfort of residents
- 2nd At least 3,000 units planned
- 3rd Ease of construction and ability of structure to perform to environmental conditions
- 4th The design's aesthetics and originality
- 5th The use of sustainable and locally sourced materials
- 6th Clarity and comprehensibility of the design
- 7th Cost & Affordability



## COMMUNICATION

All communications should be through Building Trust and not any of the other interested parties.



## JURY

The Jury for this International competition will be comprised of both professionals and interested parties. Full jury yet to be announced but will include representatives from:

- UNDP
- PPSEZ
- Building Trust international



## QUESTIONS

All queries regarding the registration, process should be sent to: [competitions@buildingtrustinternational.org](mailto:competitions@buildingtrustinternational.org)  
Please also check: [www.buildingtrustinternational.org/faq.html](http://www.buildingtrustinternational.org/faq.html)



## JUDGING PROCESS

The Jury will review the submitted entries based on the competition objectives and from the short-listed entries select the competition winners with UNDP and PPSEZ representative overseeing each stage of the process.

The Jury's decision will be final as stated in the competition's terms and conditions.



## TERMS + CONDITIONS

Please see the terms and conditions on our website

## OWNERSHIP + PUBLICATION

All material submitted to this design competition will become part of the public domain. Entrants acknowledge that Building Trust international + UNDP + PPSEZ may exhibit all entries in an online gallery, and a selection of entries may be chosen for physical exhibition and/or public display.

BTI+UN+PPSEZ will make reasonable effort to notify entrants of any public exhibitions of their work through correspondence with the registered contact.

In entering the design competition entrants grant BTI+UNDP+PPSEZ unrestricted license to exercise the entrants' rights regarding their design submissions, including, but not limited to, reproduction, preparation of derivative works, distribution of copies of the design submission, and the right to authorize such use by others.

In entering the competition, the registrant and all team members recognize the competition's program as the intellectual property of BTI+UNDP+PPSEZ and agree to credit the organisations by name in any subsequent exhibition or publication of materials. Entrants will be credited on all online and print material published by the organisers of the competition.





*Empowered lives.  
Resilient nations.*

building trust  
international



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