THE WORLD’S TOUGHEST PROBLEMS NEED EQUALLY TOUGH SOLUTIONS.
“It is very nice… The poorest who have no means and live on the streets, those we see living on footpaths. weatherHYDE would be most useful to them.”

Khushi, born homeless. weatherHYDE, an innovation by billionBricks, became her first home in 23 years.
We are a one of a kind non-profit organisation that focuses on using design as our primary tool to solve one of the most pressing global problems, homelessness.

We operate two design studios, in Singapore and Mumbai, and create high quality women-focused design solutions for the poorest of communities. Our mantra is simple: “to not design poorly for the poor”.

OUR VISION
billionBricks envisions a world with no homeless, and where everyone has access to opportunities for economic and social upliftment.

OUR MISSION
We design and provide shelter and infrastructure solutions for the homeless and vulnerable. Our solutions are innovative, scalable and sustainable, creating opportunities for communities to emerge out of poverty.

Our approach empowers communities to replicate our solutions on their own, and reduce dependencies on our support, creating ownership and pride, and unlocking untapped potential for change.
INNOVATE & PILOT
Our design and technology innovation approach a problem head on and lead an integrated team to develop and pilot robust solutions.

PRODUCTIZE & SCALE
Led by a marketing and sales team, successful proof-of-concepts are driven into the market for scale and expansion, with a clear exit driven strategy.

IDENTIFY MARKETS
Our projects are conceptualized by our strategic business team, which identifies areas of market gaps & partnerships that are aligned for a vision into the future.

A PLATFORM TO OVERCOME THE HOUSING CRISIS

OUR METHODOLOGY

GRANT CAPITAL + PRIVATE SECTOR COLLABORATIONS

MINIMUM VITAL PRODUCT

CONCEPTS

EXIT

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IMPACT
FIRST PROJECT
It seems way too long ago, but our first project, the Day & Night Shelter for 100 homeless children finished in late 2014. We held an exhibition and event entitled First Impact to mark its successful completion, and to thank all our partners and supporters who made it happen.

ESTABLISHING THE bB STUDIO
We reached out to one of the most creative and impactful design practices in India, Architecture BRIO, and jointly established the billionBricks Studio to take our work to the next level.

PROOF OF CONCEPT
We are a startup but with a tested model, which is now our three step unique methodology that relies on research, innovation and productizing our solutions. The Smile Village project proves that we can deliver what we strive for.

THEORY OF CHANGE
There are three major causes for homelessness, namely: poverty, disaster displacement and urban migration, which were all addressed by our projects in Mumbai, Nepal and Konchur respectively, rehabilitating more than 1,000 homeless and vulnerable. If all these three could be tackled at scale, we believe that we could get much closer to ending homelessness.

PEOPLE
We realize that we are a new kind of organisation. We try to do things differently to address the same problem which we’ve had for decades. This spirit has helped us attract unique talents from all over the globe, who come to us not because we advertise ourselves, but because they believe in our idea and vision.

THE FUTURE
We continue to question the premise of our existence, and whether our efforts could indeed end homelessness. Could our methodology really work? To explore this further, we embarked on a program called Urban X which iteratively debases our work and others in the field. We held our first workshop with interdisciplinary experts in Singapore, and are continuing this conversation within and outside billionBricks. May I invite you to join the conversation by reaching out to me at prasoon@billionbricks.org.
The Supreme Court of India in 2011 directed all cities to build one homeless shelter for 50 per every 100,000 people.

**Innovation**

A flexible day & night space was designed for comfortable sleeping on the floor, with customized movable furniture that converts into a classroom and multipurpose space during the day.

**Scaling**

A book with design methods and standards was published and shared with city officials and local NGOs that operate shelters.

**LEARNING**

The importance of good partnerships, good relationships, and understanding how they are instrumental to the success of our work and projects.

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### Day & Night Shelter for Boys

- **Completed in:** 2015
- **Location:** Mumbai, India
- **Impact:** 100 children
- **Partners:** Municipal Corporation of Greater Mumbai, Salaam Baalak Trust, Space Matrix and DBS Bank

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### Hope Home

- **Concept Design Completed & Exited**
- **Status:** Kothanur, Bangalore, India
- **Impact:** 40 girls
- **Partners:** The Hope Home Children’s Foundation, Architecture BRIO

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According to a study by Unicef, 48% of Indian girls are sexually abused before they turn 19 years of age. After which they are often abandoned or they run away to cities to fend for themselves.

**Innovation**

A design built on the existing structure but providing a high quality living and learning environment. Every program of the structure was stitched in a very linear fashion giving natural light and privacy for the girls.

**LEARNING**

Projects like this are important, but our approach focuses more on innovation and systemic change which we believe would enable us to address the problem at a larger scale. We must be selective in our projects to achieve maximum impact.
We see that there exists a gap in the provision of shelter during humanitarian crises. billionBricks had been contemplating with some concepts and had developed prototypes to tackle this issue when the earthquake happened.

billionBricks deployed 116 commercial tents to some of the worst hit areas of Kathmandu Valley, providing temporary humanitarian relief to displaced families. Tents were also deployed 100kms from Kathmandu where the community had seen access to relief aid, and about 100 households were severely affected. Unfortunately, 6 tents were lost during cargo clearance.

Scalling

In order to continue with long term rebuilding efforts in Nepal, we designed permanent earthquake-resistant homes. Unfortunately, political challenges, like the blockade between India and Nepal at the time which can significantly impact the work of young organizations, lead to us coming out of this project.

<table>
<thead>
<tr>
<th>STATUS</th>
<th>DEPLOYMENT COMPLETED</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCATION</td>
<td>Kathmandu Valley, and Kavrepalanchowk, Nepal</td>
</tr>
<tr>
<td>IMPACT</td>
<td>116 Families, Nepal</td>
</tr>
<tr>
<td>PARTNERS</td>
<td>Alliance for Social Empowerment and Child Education, Nepal Olympic Association, Yakru</td>
</tr>
</tbody>
</table>

Nepal, being one of Asia’s poorest countries, was caught off-guard, reeling under the rubble in its ruins. Many buildings, houses, and even roads from the pre-earthquake era collapsed. The landscape was filled with casualties and the rubble of thousands of houses. Nepal, a country of about 32 million people and 126 ethnic groups, is located between China and India. The earthquake triggered by a natural disaster sent shock waves throughout the country, causing more than 9,000 deaths and injuring more than 23,000 people. Entire villages were flattened across the country. Houses collapsed while many became unfit to live in.

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Field experience in Nepal helped us complete the design of weatherHYDE which led to its pilot deployment in India months later.

billionBricks partnered with Makealmas, one of Paris-based organizations whose mission is to accelerate the impact of social entrepreneurs by connecting them with passionate individuals. In support of our relief efforts in Nepal, their Singapore team led a crowdfunding campaign where we collectively raised over $35,000 in 72 hours.
Potential for impact
There are more than 100,000 slum dwellers in Phnom Penh at the verge of eviction because of increasing land values in the city.

Innovation
A new construction methodology was used to design and build homes in traditional Khmer style, and the know-how of construction methods was transferred to the community to increase their incomes.

Scaling
The first phase of this project which involved the pilot construction of 48 homes, a child care center and a community center were completed and turned over in September 2015. The remaining 112 homes are directly being constructed by the community.

LEARNING
Infrastructure design in homes is an important means to an end which in this case enables people to be brought out of poverty. These homes were designed with the primary vision to increase people’s skills and incomes which was prioritized over affordability.
Potential for impact
In Sabah, on the Malaysian island of Borneo, there are 50,000 stateless children who have become marginalized and have no access to education due to their migrant status. These are children of illegal or legal Indonesian migrant labourers who come to Sabah to seek work at plantations for a better life.

Innovation
A lightweight module for a classroom was designed which would float over shipping containers, serve as foundations and, house storage and services. Classrooms will be well protected from any flooding and will be naturally cool by capturing the breeze. The building’s openness and integration with the site will create new learning opportunities for the students.

Scaling
30 schools across the island of Sabah are planned to be built within the next 10 years.

LEARNING
As demonstrated by the Etania Green School design, a systemic approach to design and architecture is not always a new idea or thinking. It could very well be derived from traditional regional typologies, materials and construction techniques which can be made to adapt to those systems.
Potential for Impact
By 2030, 40% of India’s population will be urban against the current 30%, with urban migration as a key factor due to the lack of development and employment opportunities in rural India. Tackling and improving the rural infrastructure could slow down the pace of migration and relieve the stress on urban areas to provide for needs such as housing.

Innovation
Transforming Konchur into a Sustainable Model Village (Adarsh Gram) for New India, this project introduces strategic interventions and investments that are self-sustainable by the community, and which guide development within 5 key areas: 1) water and sanitation, 2) healthcare, 3) education, 4) job creation in agriculture, and 5) community mobilisation and spiritual motivation. The project also includes the design and build of infrastructure to a standard of quality far above the current, with the use of technology and techniques that address the most critical issues faced by the community.

Scaling
In close partnership with the local government, the model of Konchur is being developed for direct implementation across 200 villages in the Taluka, and with the potential for learnings to be applied across the country.

LEARNING
As demonstrated by this project, it is only through collaborations with stakeholders from various sectors and groups that we can take a step closer to achieving our vision. As we continually adapt to change, we are constantly open to forming creative relationships, and aligning mutual interests through engagements and partnerships.

KONCHUR SUSTAINABLE MODEL VILLAGE

status Ongoing
location Konchur, Karnataka, India
impact Village of 500 Families
partners SELAVIP Foundation, Habitat for Humanity India, Government of Chitapur Taluka, Residents of Konchur, FINALCAD, Architecture BRIO
Potential for impact
Urban homeless communities have 3 critical needs which current support programs are not able to sufficiently address. We’ve identified these specific gaps in providing weather protection, women safety, privacy and empowerment, and opportunities for poverty alleviation. In the past 10 years, 10,000 lives were lost in Delhi because of cold weather. The 2015 heat wave in India claimed another 2,500 lives.

Innovation
weatherHYDE is designed to address all 3 critical needs in a single innovative solution. This life-saving, fully insulated, lightweight, and women-friendly emergency tent is tailored for the urban homeless and vulnerable. It traps a family’s body heat to keep them warm in winter, and when used in its reverse configuration reflects solar radiation to protect from the harsh sun. It provides privacy to women and can be easily manufactured in small factories making this a product of pride and income for the homeless.

Scaling
In 2014-2015, 7 weatherHYDE prototypes with incremental improvements were designed, manufactured and tested. Post the 2015 Fiscal Year, the first samples of 12 weatherHYDEs were deployed under a pilot test in Delhi during winter and summer, while a proof of concept deployment program of 1,000 units is being planned for 2017-2019.

Learning
The homeless (those who can’t even afford to live in slums) belong to the poorest segment of the City and are in such a state of neglect that Governments and NGOs too have limited interest and funds to address their needs. Their solutions to solve their problems are prevalent and accepted, and a high quality product such as weatherHYDE is therefore seen with suspicion. The validation of its design becomes more political than user centric which is requiring a substantial amount of strategic iterations.

India, with the capacity to be deployed in other countries with high concentrations of urban homeless and disaster-displaced communities. Urban homeless families, with the potential to be deployed for disaster-displaced families

Beghar Foundation, ftwo Consulting, Halcyon Incubator, Stratasys, UPS
1. Comfortable in temperatures up to 0 deg C
2. Waterproof outer skin up to 300mm/hour
3. Fit a family of 5 (2 adults and 3 children)
4. High privacy and woman friendly
5. Easy toolless installation & maintenance
6. Low cost repairs & affordable all round solution
7. Light weight & compact for fast implementation
8. Stability against wind by pouring water or sand into the frame
9. Designed for appeal & night visibility
10. No ground anchoring, suitable for urban setting
TEAM bB

TEAM MEMBERS
Prasoon Kumar
Founder & CEO
Robert Verrijt
Chief Design Officer
Riaanna Medina
Operations Manager
Rukum Shahoda
Design Associate (joined in 2015-2016)
Mutaram Raj
Fundraising Manager (joined in 2015-2016)
Prantik Maumdar
Digital Marketing (joined in 2015-2016)

ADVISORS
David Gensler
Ex-CEO, Gensler
Rahul Mahbota
Founder Principal, RMA Architects
Prantik Mazumdar
Digital Marketing (joined in 2015-2016)

STRAATEGIC PARTNERS
Sharad Malhautra
Business Strategy (joined in 2015-2016)

TRUSTEES
Anurag Srivastava
Founder, billionBricks Group (joined in 2015-2016)
Snehal Maroti
Founding trustee, billionBricks

WHERE IS OUR TEAM

Our People & Partners

OUR PARTNERS

Alliance for Social Empowerment and Child Education
Architect
Autodesk
Autodesk Foundation
Barclays
Beghar Foundation
Blink
BoP HUB
BP de Silva Group
Child at Street
Conject Consulting
DBS
DBS Foundation
Deloitte
Eric Yip photography
FinalCAD
Foyo Consulting
Habitat for Humanity
Hakyon Incubator
Happ
Happy Marketer
Hub Singapore
Jungle Ventures
Macquarie Foundation
Make-Sense
Mantri SEVA Foundation
Matakan Education Consulting

Foundation Partners
sustainability and strategy partners

Professional Partners
skill and competency based organisation support

Program Partners
events and engagement partners

Project Partners
collaborative towards set project objectives

Municipal Corporation of Greater Mumbai
Nepal Olympic Committee
Opal Lawyers
Opportunity Collaboration
Paista
Pour un Sourire D’Enfant
raidSE
Rebel & Soul
S&R Foundation
Sage Corps
Sandbox Design
Science Centre Singapore
Selarip Foundation
Solutions to end Poverty
Space Matrix
Stratagos
The Hope Home Children’s Foundation
The Mill
Tetton
UPS
Urban Design & Planning Consultants
URBN Arc
Walton Sustainability Solutions Initiatives
We Jungle
Wibology
World Toilet Organisation
Yakru
There's a lot of focus on financing and building houses for the poor, but there is a lack of attention on
If Billion Bricks can enable every homeless person to have a roof over his or her head, then I think we would have contributed towards building a more equitable world. – Anurag Srivastava, bB Founding Trustee

“Providing low-cost housing goes beyond building four-walled structures. We have to go in and ensure that everything we do is not in misalignment with the national government’s plan...”

Prasoon, bB’s Head for Market Development (weatherHYDE), presented and exhibited our work. Organized by the Urban Design Research Institute to develop an interdisciplinary and comprehensive redevelopment plan for Dharavi, one of Mumbai’s largest and richest slums. bB was awarded an Honourable Mention.

billionbricks was one of two enterprises representing Singapore as a finalist for weatherHYDE. Roanna made the pitch for bB.
Destruction & Rebirth brought together artists, musicians and designers over the course of three weekends at The Mill building in Singapore before it was set to be demolished.

Exhibition
We exhibited photographs and artworks by our partners and volunteers, as well as interactive installations celebrating the completion of our first project, and the launch of the first weatherHYDE prototypes.

First Impact Evening
A night for 150 attendees with refreshments, discussions, activities, music and performances, we wanted to thank all our partners and volunteers who had helped us see through 2014, and continue to build a community of believers in our vision.

Fundraising Workshops
Acroyoga, bellydance, macrame, partner yoga, contact dance and more workshops were offered where revenues raised went to support billionBricks projects.

Volunteers
Aurika Chan
Bea Butler
Charles Osawa
Ekta Thakar
Hui Jie
Jonno Katz
Marcella Segre
Monika Pahalad
Sophia Guna
Sowjanya
Sponsor Chan
Tobias Harzig
V. Morgan
Yukari Yuneda

Sponsors
Impact Hub Singapore
Jungle Ventures
Opal Lawyers
Rebel and Soul
The Mill
We Jungle
Housing for All
The Prime Minister has pledged to achieve Housing for All by building 20 million homes in next 7 years ensuring that every urban dweller without access to decent housing would have one. The vision is for India to become homeless free by 2022, India’s Diamond Jubilee Year of independence. While this is great leadership, the machinery behind this to implement and execute has not changed. There is limited time to capacity build these delivery mechanisms. We have no choice but to innovate.

Potential for Impact
Urban X is an initiative to ensure that Housing for All is successful. It will potentially be a transformative idea that will enable India to build 20 million homes in next 7 years to house homeless families. By solving Urban X, there will be phenomenal amount of innovation which could potentially solve the problem globally.

THE FUTURE OF BILLIONBRICKS

URBAN X
ACKNOWLEDGEMENT

We would like to thank Anh Nguyen Tuong for the design and layout of this Annual Report.

We would also like to thank the following photographers who contributed some images used:

Charles Osawa, First Impact
Eric Yip FotographEY, weatherHYDE
Francis, Etania Green School
Guillermo Fdez Florez, About Us
Sandbox Designs, weatherHYDE
Palita Mak, Urban X