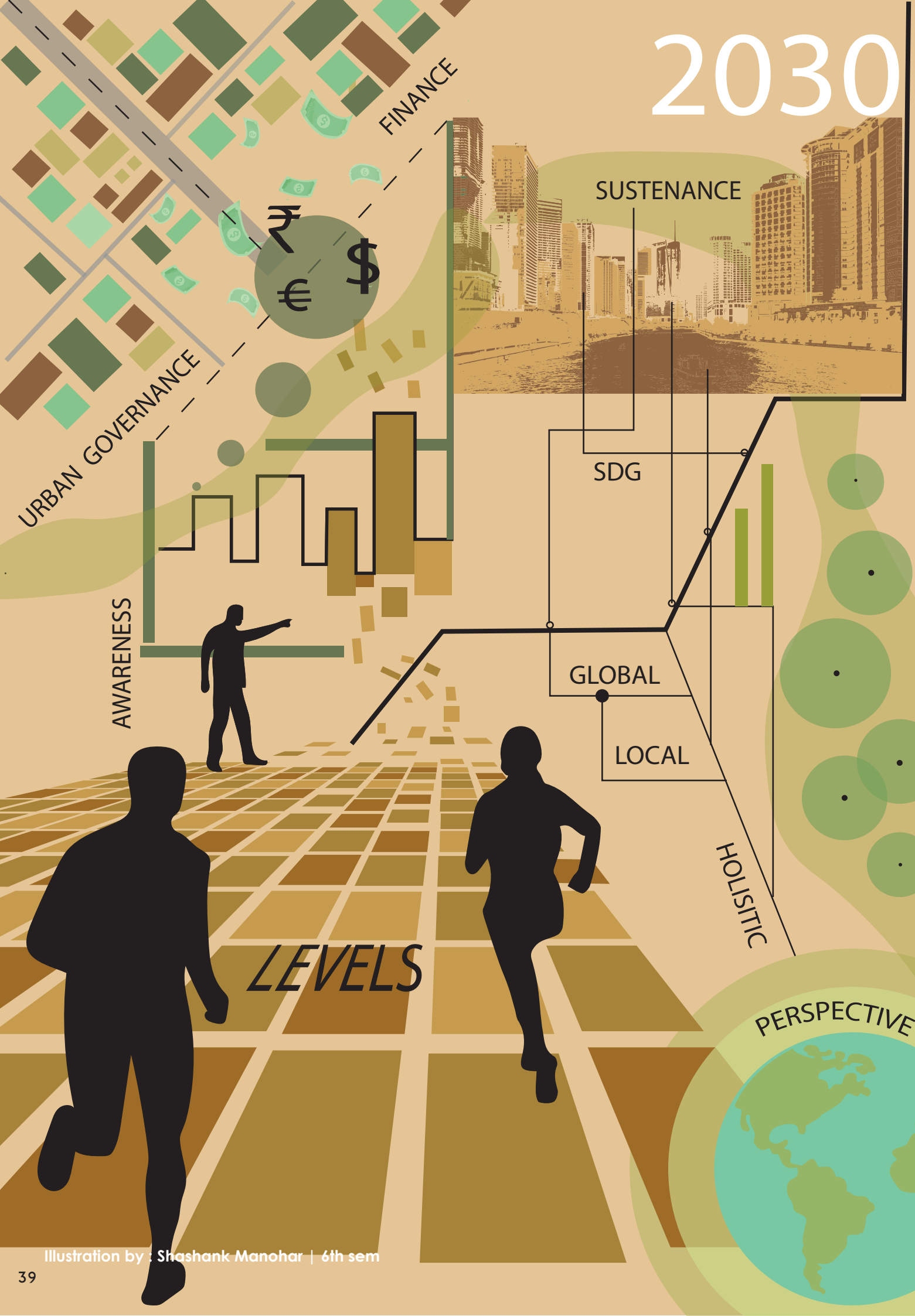


Illustration by : Shashank Manohar | 6th sem

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# GAMIFICATION OF SDGS – Alternate approaches to sustainable futures

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Vidhya Mohankumar is an architect and urban designer with 17 years of work experience in India, Ireland and the United States. Her work is focused on creating cities that are people-oriented and centred around transit as part of a sustainable development agenda that she is passionate about. Her approach is driven by research that is grounded and intersectional as a way to understand the everyday urbanism of cities.
With clientele ranging from state governments, urban local bodies, county/town councils, private sector entities and NGOs, her urban design projects exhibit a wide variety with master plans for cities, towns, station areas, harbour areas and their environs as well as redevelopment plans for town centres, city public spaces and brownfield sites. She has also been involved in several strategic planning projects, regional plans, local area plans, campus master plans and urban design studies for existing developments in various cities around the world.

***Abstract / Introduction :***
Given that the SDG 2030 framework is rooted in a diverse and multi-stakeholder platform, gamification as a tool for promoting and achieving SDGs becomes all the more valid owing to its universal appeal. The range of audiences that were considered in the design of the game includes elected representatives, bureaucrats, urban local body officials, school & college students, non-governmental organisations, and the general public.
The objectives of the game were set as guiding principles for its development and are as follows:
Creating general awareness about the SDGs and how they fall under various domains for developmental impact
Understanding linkages between the SDGs
Encouraging a collaborative way of working for better developmental impact
Improved decision making guided by SDG performance indicators
Improve awareness on how projects at the ward and city level impact overall SDG performance indicators
The game was developed and hosted on a website- http://sdggame.in/

***Key words :***
Gamification, Testing, Urban Development, Urban Governance

The Sustainable Development Goals (SDGs) are the deemed blueprint to achieve a better and more sustainable future for all because they address global challenges including poverty, inequality, climate change, environmental degradation, peace and justice. In other words, the SDGs are a universal call to action to end poverty, protect the planet and improve the lives and prospects of the global population. The 17 SDGs were adopted by all UN Member States in 2015, as part of the 2030 Agenda for Sustainable Development which set out a 15-year plan to achieve the goals. Current assessments around the world reveal that while progress is being made in many places, cumulatively, the action to meet the goals is not yet advancing at the speed or scale required.

The successful implementation of the SDGs, at its core, requires an unprecedented level of coordination, transparency and accountability across different levels of government. Despite the concerted efforts taken by state and non-state stakeholders, the awareness on the importance and relevance of SDGs for holistic and integrated development has still not fully percolated into the governance sphere.

Awareness precedes action and therefore much of the tepid performance of Indian cities in particular can be attributed to the low levels of awareness on how the SDGs can drive ongoing city development plans. Using SDGs as a framing device to tell the story of a state/ city will be crucial in compartmentalizing the ongoing efforts by the government for achieving the SDG targets by 2030. However, decoding SDGs can be demanding and overwhelming given the universal nature of the goals and the framework's interdependencies. Additionally, traditional methods to engage stakeholders are limited in scope and ill-suited for breaking down complex socio-institutional relationships. In order to ensure inclusive development, it is imperative to design effective methods to understand their aspirations, challenges and create avenues for co-creation. Such methods will further serve as means to achieve evidence informed knowledge sharing and democratisation of urban governance.

As a step in this direction, GIZ India and Urban Design Collective worked on an SDG gamification project in 2021. The SDG Gamification project was supported

by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) under the umbrella of Indo-German Development Cooperation and implemented in partnership with the Coimbatore City Municipal Corporation (CCMC). This online game is situated against the backdrop to improve awareness and to demonstrate how urban development projects impact the SDGs even at the level of local governments.

## About the game

The game is designed for up to 6 players to be played across 10 rounds - each round signifying one year until 2030; the game is set to start from the year 2021. Players are assigned a hypothetical city with baseline indicators for all 17 SDGs for the year 2020. Players are given 60 crores every year/ round to be allocated to realizing a set of 22 projects as per their choice.

The set of 22 projects are designed to demonstrate linkages between multiple SDGs by showing varying percentages of impacts across different SDGs. Projects are distinguished by domain, variations in capital expenditure and operational expenditure ratios, and conventional projects versus projects with holistic impact, as a way to create awareness on project design for better impact. Players have to exercise prudence while choosing from this given list of 22 projects that they would like to fund and realise.

At the end of each round, a cumulative performance report is generated based on the collective performances of all the players. Players will be able to reflect on their individual performances and how this contributed to the overall city performance across all 17 SDGs. In subsequent rounds, players can choose to work together and/ or influence each other to collectively improve their city's overall performance. The game provides a mock experience of how choices of projects at a local level will impact the SDGs over the next 10 years. The target is to collectively achieve an improved performance for the city for all 17 SDGs by 2030.

## Testing the game

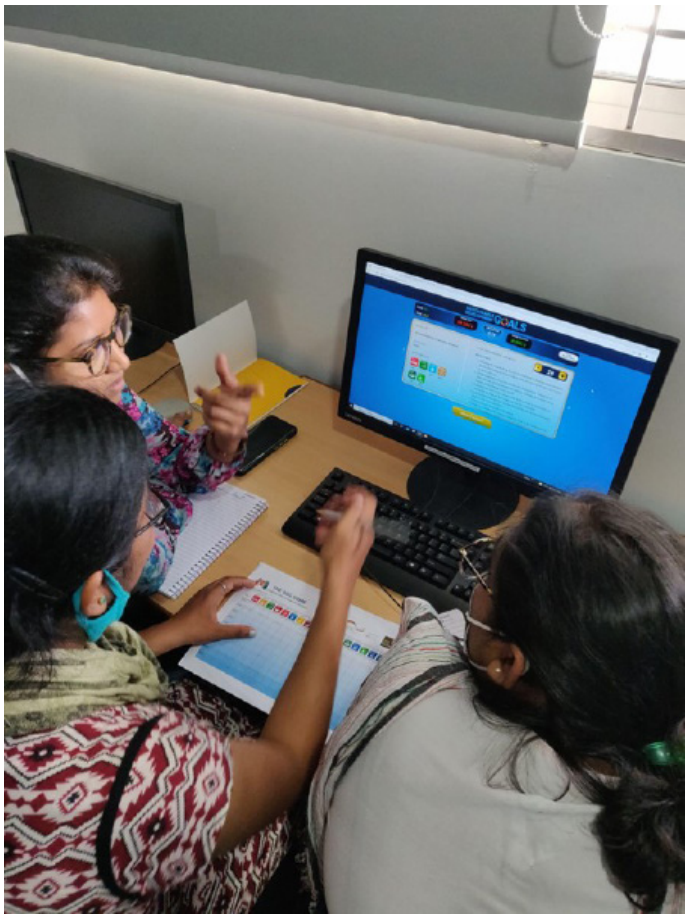
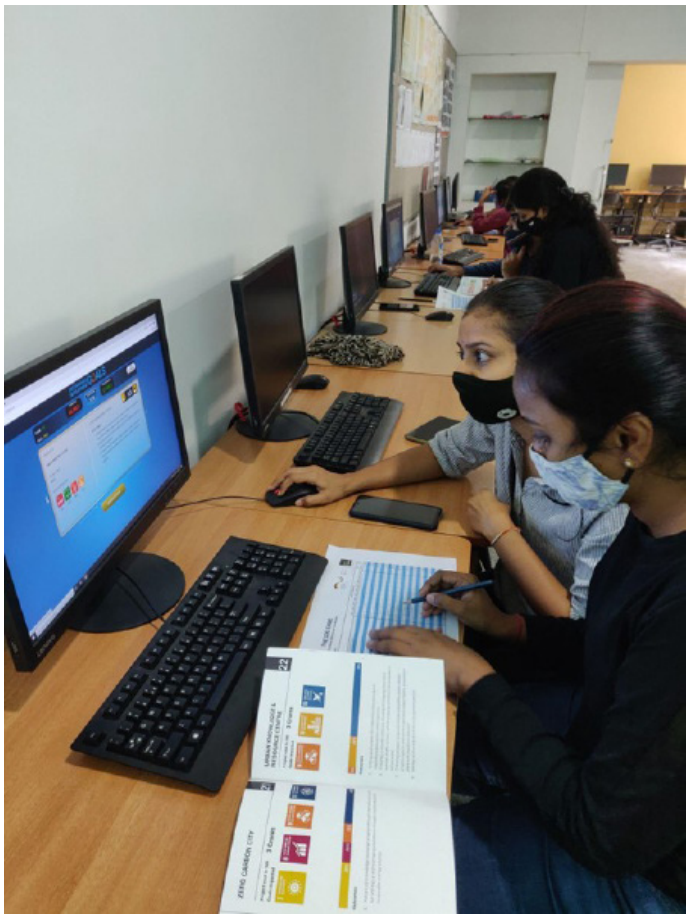
Since its development, the game has been tested on multiple occasions with a diverse audience. In its launch workshop in Delhi in December 2021, the audience included ULB officials, Smart City officials from Tamil Nadu, Delhi, Karnataka, Madhya Pradesh, Assam and Orissa, and urban development practitioners from NITI Aayog and the National Institute of Urban Affairs. The game was tested in a large hall with the audience divided into six teams. The enthusiasm levels in the room reinforced the gamification approach to invoking a conversation about the SDGs. Groups developed their strategies for choosing and funding projects by the second round, and over subsequent rounds revisited their

strategies too with the realisation that they were not making adequate progress on the goals. Teamwork was enabled naturally as players realised that they needed to track several parameters and therefore assigned roles amongst themselves. But most of all, the game spurred spirited discussions amongst the team members as to how they could collectively fare better with each round while also finding the many hidden nuances that were layered in the game design itself. The session was wrapped up with a feedback session from the participants for further improvements to the game design keeping in line with the objectives of the game itself.

Another interesting session transpired when the game was played with students of the master's program in urban design at RV College of Architecture in Bangalore. This game session was conducted as part of the course titled 'Urban Governance and Project Finance' offered as a core subject under the master's program. The objective of this course is to introduce the mechanism of urban governance and fiscal foundations of urban development. In this context, the game served as a primer to municipal finance and the consequences of budgetary decision making using the SDGs as an evaluation metric.

## In conclusion

Cities are complex entities, and urban challenges are far more complex in the current day scenario. On the one hand, there is doubt on whether the SDGs as a universal standard for improving performance is even justified given the disparities in contexts. The idea of localising the SDGs has gained much momentum over the years as a way to enable local governments to embrace these metrics. Both the game sessions served as proof of the versatility of the game format to be used in various contexts and with various audiences to build awareness. Another reinforcement across both sessions was how everyone concurred on how we need more such tools to enliven the work that we all do with cities. Perhaps it's a sign to explore more such approaches to ensure that we are able to collectively move towards the desired future by 2030.

## Acknowledgements

The game was designed by Vidhya Mohankumar and Srivardhan Rajalingam from Urban Design Collective collaboratively with Krishna Kumar from GIZ India. Game development and hosting is anchored by Anirudh Kasturi.