ACTIVATING CHILDREN AND YOUTH AS AGENTS OF CHANGE IN INFRASTRUCTURE DEVELOPMENT AND URBAN DESIGN: HOW AND WHY?

KNOWLEDGE BRIEF
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Global Infrastructure Basel Foundation (GIB) is a Swiss non-profit foundation working to promote sus- tainable and resilient infrastructure globally.

GIB engages with a wide range of stakeholders to build links between infrastructure projects and sources of finance.

GIB is the Standard Owner of SuRe® –
The Standard for Sustainable and Resilient Infrastructure, a private, voluntary, third-party verified certification standard.

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Introduction

Children and young people should be seen as more than passive recipients of infrastructure services. They are powerful agents of change and if we are to make urban environments future-fit, they should be more actively involved in infrastructure consultation and decision-making processes. By doing so, project planners can ensure that the positive spill-over effects of child-friendly responsive infrastructure are felt in the broader context of urban development, climate change and inclusivity. Through participatory approaches that work with youth and children, application of tools such as the SuRe® Standard with requirements and indicators of child-friendliness in infrastructure and urban developments, these developments can better empower children and youth globally.

This knowledge brief presents the impacts that infrastructure has on youth and children, the importance of designing infrastructure that better serves the needs of this stakeholder group and concrete examples of how to practically achieve a more child and youth inclusive infrastructure.

Setting the scene: who are the children and youth of today?

At present, approximately 37.8 % of the world's population is comprised of children and youth[1] with approximately 1 billion of those children living in urban settings globally[2]. In the coming decades, this is predicted to change drastically, with some geographies expecting unprecedented aging populations, with others expecting populations to comprise much larger proportions of young people (notably in sub-Saharan Africa). The typical lifespan of infrastructure assets of 20 to 40 years and sometimes as long as a century or more, indicates that infrastructure that is built today will not only service today's children and youth but also their children's children, impacting millions of young people for decades and probably centuries to come. Therefore, when designing and building infrastructure, considering how that project will impact and service children and youth is key to designing for the future and

[1] Source: United Nations Department of Economic and Social Affairs (UNDESA) World Programme of Action for Youth. (2020).

[2] Source : ARUP (2017).

avoiding obsolete infrastructure that can potentially lock current and future generations into unsustainable development pathways.

How are children and youth impacted by infrastructure? - The challenge

Youth, and particularly children, represent a particularly vulnerable group uniquely impacted by infrastructure. Children and youth's learning and development depend enormously on the environment (including built environment) they live in and interact with, shaping their thinking, influencing their health and behavior, ensuring their safety and providing (or limiting) development opportunities and prospects. [3]

The different phases of infrastructure development have different impacts on the safety and wellbeing of children and youth. Infrastructure construction can induce large influxes of workers, placing stress on local infrastructure systems, and the communities who depend on them. In cases when adequate housing has not been planned for, migrant workers and their accompanying families can quickly become victim to unsafe or 'slum' living conditions with a lack of basic services, poor safety and security, poor development opportunities and early exposure to criminal activity. Furthermore, large-scale projects which attract mainly male workforces, including along trucking corridors in and out of large projects, can, in a worst case scenario, harbour people trafficking leading to child labour and sexual exploitation[4]. Additionally, children and young people are often the most vulnerable to environmental and safety risks posed by infrastructure development, such as dust, noise, heat as well as road traffic and truck movements.

The specific needs of children are often overlooked when designing infrastructure, for example, additional considerations required for transport safety, access to schooling and health. For example, inadequate and unsafe sanitary facilities at schools can be a cause of girls to drop out of school early in some developing country contexts[5] . Additionally, studies have demonstrated that a lack of basic services such as proper waste disposal, electricity, potable water and electricity is highly associated with

[3] *Source : ARUP (2017) ; Malone, Karen. (2013).*

[4] *Source: Buraeau of International Labor Affairs (2017)*

[5] *Source:* UNESCO *(2020)*

discrimination and limited opportunities to learn[6]. Children are more at risk of traffic accidents, due to their smaller size and lack of traffic know-how[7], in situations where roads and temporary traffic arrangements have not been designed with young people in mind. In addition, regulations governing emergency infrastructure often overlooks young people or assumes that young people will be accompanied at all times by an adult. This can lead to avoidable tragedies such as children being unable to use emergency exits which are impossible for them to open, or to use fire hydrants which are too heavy or impossible to access.

How can we make infrastructure better serve the needs of children and young people? - The solution

Children and youth have often been considered as having a passive role in terms of social capital (participation of individuals in a community), however in recent years this has changed, and more and more children and youth are considered as active social agents[8]. In terms of infrastructure, GIB supports the notion that children and youth can and should be strong agents of change, contributing to building more resilient infrastructure systems thus positively influencing urban environments. [9]

Participatory approaches of children and youth at the city and urban planning levels have been carried out successfully in various countries. For example, in Finland, Switzerland and France in the early 90's and more recently through the Child Friendly Cities Initiative, by UNESCO, whereby cities in more than 54 countries in Europe, Africa, Asia, North and Latin America have committed to improving the lives of children by changing their governance processes[10]. Other city-level programmes include the 8 80[11] Cities Initiatives, the Cities Alive Initiative by Arup and the Urban95 programme by the Bernard van Leer Foundation.

Whilst these initiatives focus on the wider urban environment at city level, the Global Infrastructure Basel Foundation, with support from the Fondation Botnar, has also taken focus at the individual

[6] *Source: Barret, Peter; Shmis, Tigran. (2019).*

[7] Source: Barret, Peter; Shmis, Tigran. (2019).

[8] Source : Malone, Karen. (2013).

[9] Source: Arup (2017)

[10] Source : *UNICEF (2017)*

[11] Source: *8 80 Cities (2020)*

infrastructure or urban development project level. As an important component of the urban environment, the individual infrastructure project provides many opportunities to benefit young people through each of its development phases from planning and design to construction, operation through to post-decommissioning.

In order to design and build infrastructure that addresses the needs of children and youth, GIB, through a convening of a multi-stakeholder advisory body, has identified the following 7 impact areas for children and youth in infrastructure projects and urban developments:

7 INFRASTRUCTURE IMPACT AREAS FOR CHILDREN AND YOUTH

1. **Future Generations**
    a. Designing infrastructure that considers the interest of future and present generations, including provisions for decommissioning, demographic change, climate impacts, biodiversity (and many more).
2. **Representation and Participation**
    a. Not only building for children and youth, but rather building and designing ***with*** them.
3. **Access to Basic Services**
    a. Assessing the probability of children and youth to access basic services such as water, sanitation, education, energy and the detrimental effects when these services are non-existent or inadequate.
4. **Safety and Emergency Management**
    a. Protecting youth and children during the different phases of an infrastructure project, paying especial attention to the girl child who is most at risk. Preventative and risk mitigation measures during natural or man-made hazards and disasters.
5. **Child Labour**
    a. Ensuring infrastructure projects take active measures to avoid and ban any form of child labour during all phases of development.
6. **Accessibility**
    a. Physical accessibility to the infrastructure (considering different capabilities, disabilities), safety measure to ensure adequate and safe access.

7 **Health and well-being**

a. Designing for the needs of children and youth, considering the importance of the environment/nature-development nexus, ensuring adequate facilities that cater to their needs.

GIB's strategy for mainstreaming children and youth friendly infrastructure

Through the development and implementation of tools, the definition of indicators, criteria and the organization and facilitation of participatory engagement processes with child-friendly and youth engagement elements at its core; GIB is empowering children and youth to participate in infrastructure projects which can potentially shape the infrastructure landscape for the better.

GIB has convened an infrastructure expert group on the topic of children and youth, which includes organizations such as UNICEF, 100 resilient cities and Bernard van Leer Foundation. Through this group, we ensure that the child elements that need to be integrated into our processes, tools and theory of change are provided and agreed through a stakeholder process.

By focusing on the 7 impact areas of infrastructure for children and youth, GIB has integrated specific child friendly elements into the SuRe® Standard, a global voluntary third-party certification tool. Each and every project that seeks to be assessed and certified by SuRe® will have to comply with those material child-friendly elements, effectively mainstreaming child and youth responsive infrastructure elements into real case projects.

Practical examples of how projects have integrated child and youth responsive elements into their design and implementation include the following:

- A previously assessed metro project in Jaipur implemented GIB's suggestion of aligning the train times with school times, effectively allowing children and youth to reduce their commuting times, improving the safety of their travel.
- A recently assessed project which could potentially have an element of child labour in its contractors' chain, increased its scope and adapted its governance processes to ensure all their contractors complied with the free child labour environment required by SuRe®.
- Additional examples of practical child-friendly recommendations for projects include (but are not

limited to): including safety equipment for emergencies in school buildings that are accessible and size-friendly for children; equipping sanitary facilities in different child and youth frequented buildings with lavatories that are accessible to the size and needs of children and also contain menstrual hygiene elements; defining the location of a highly child/youth frequented infrastructure project in terms of traffic, availability of public transport, housing complexes and community environment, connectivity to parks or other recreational areas.

Finally, together with the support of the Fondation Botnar in Switzerland, GIB is developing a process for child and youth stakeholder consultation process using virtual reality technology. This process will be piloted in the coming months and will serve as a stepping stone in conducting more inclusive and accessible consultation processes to be used during times such as the COVID-19 pandemic, when in-person workshops are not possible.

Conclusion

The degree to which an infrastructure space or a city is child-friendly, provides a strong indication of how inclusive, livable, safe and resilient the area is[12]. Designing child-friendly infrastructure does not only benefit youth, rather it brings together many objectives that contribute to building more resilient and sustainable communities. The 7 impact areas of child and youth responsive infrastructure and the application of adequate tools for the designing and assessment of infrastructure project such as the SuRe® Standard, contribute in mainstreaming child and youth infrastructure globally.

Designing with and not only for children and youth makes sense. Youth should be recognized as agents of change in infrastructure. GIB supports children and youth as a key stakeholder group in infrastructure and as such is designing for opportunities to mainstream more participatory efforts which include them into infrastructure planning, design and implementation. Join us in the effort of empowering the children and youth of today and the generations of tomorrow. Contact GIB at info@gib-foundation.org for more information on how you can get involved.

[12] Source: ARUP (2017); Malone, Karen. (2013).

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