

PASSIVE HOUSE WORLDWIDE

Latin American Passivhaus approach: an exploration of SDGs and policy

Introduction

Passivhaus was first developed for mid- and northern European cold weathers. It has now spread and adopted in many other countries. While the climatic conditions may have changed, the primary goal is still the same: reduce energy consumption while providing high indoor environmental comfort levels.

The aim is to discuss how the **Passivhaus uptake in Latin America** responds with a positive impact of to the UN Sustainable Development Goals.



Picture courtesy of ArquíAmbiente

Passivhaus buildings in Latin America – key facts

- Buildings are responsible for almost 25% of the CO₂ emissions [1]. We must **consider the building materials, design and use** of the building.
- Potential to **shape National Strategies** to mitigate the impact of the housing industry, (i.e. Mexico's NAMA for housing [2]).
- Application of strategic policies to support the SDGs, particularly **the SDG 3, 7, 9, 11 and 13**.
- **Bio-fibre based construction materials** have the potential of **CO₂ sequestration** and integration of policies to mitigate the greenhouse emissions.
- Passivhaus has the potential to **adapt to local contexts** and policies.
- **Early adoption** of Passivhaus in Latin America.

Passivhaus in the SDG era

Passive House design, construction and innovation has the capacity to positively address the following SDGs:

- **Goal 3** Health and well being.
 - **Indicator 3.9.1** Mortality rate attributed to household air pollution.

- **Goal 7** Affordable and Clean Energy.
 - **Indicator 7.1.2** Proportion of population with primary reliance on clean fuels and technology.
- **Goal 9** Industry, innovation and Infrastructure.
 - **Indicator 9.4.1** CO₂ emissions per unit of value added.
- **Goal 11** Sustainable Cities and Communities.
 - **Indicator 11.1.1** Proportion of human population living in slums, informal settlements or inadequate housing.
 - **Indicator 11.c.1** Proportion of financial support to the least developed countries that is allocated to the construction and retrofitting of sustainable, resilient and resource-efficient buildings utilising local materials.
- **Goal 13** Climate Action.
 - **Indicator 13.2.1** Number of countries with an integrated policy to mitigate greenhouse gas emissions.



Conclusion

As the Passivhaus develops in Latin America, we must act. **The time is NOW!** Passivhaus has the potential to positively address the SDGs through National Policies and Strategies. Join your local network that supports the Passivhaus Standard (i.e. LatamHaus, ILAPH) to help shaping its future in Latin America.

[1] C. Sheinbaum-Pardo and B. J. Ruiz, "Energy context in Latin America," *Energy*, vol. 40, no. 1, pp. 39–46, 2012, doi: 10.1016/j.energy.2011.10.041.

[2] Kaineg, R. et al., 2012. "NAMA Apoyada para la Vivienda Sustentable en México – Acciones de Mitigación y Paquetes Financieros"

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