

Integrated Design and Planning Strategy for Flood Resilient Housing in Nepal

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Introduction

- Climate change and urbanization
- Urban vulnerability
- Rapid rise in temperature erratic rainfalls
- Destruction of settlement and houses
- Stronger, safer and sustainable communities against floods
- Innovation & techno-social solutions for “fighting the water” to “living with the water”

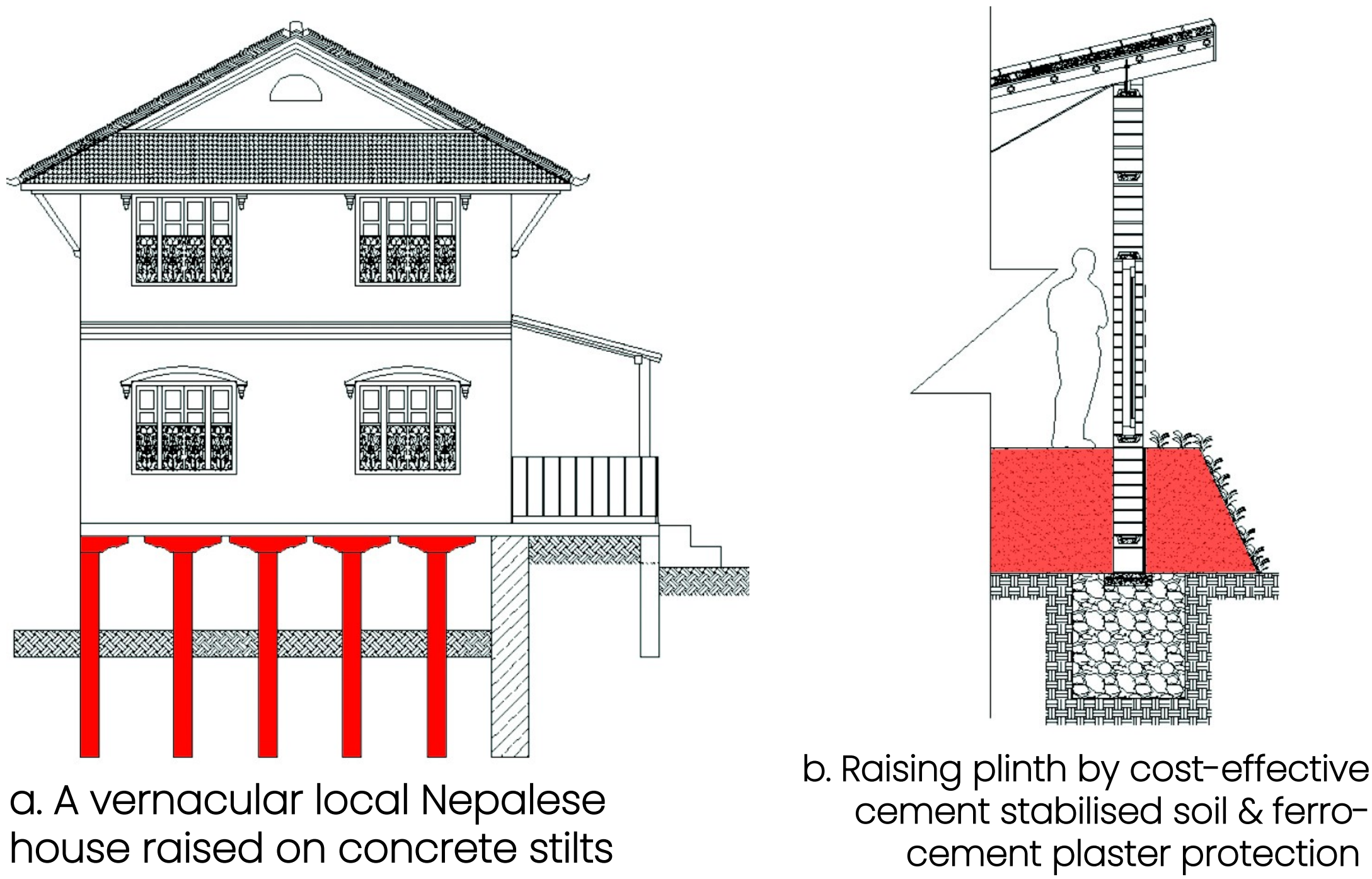


Inundated ground floors of houses in Kathmandu & security personnel rescuing people. July 2019, The Himalayan times

Research Questions

1. What are the **structural measures** of protection for housing at flood-prone areas ?
2. What are **hybrid interventions of grey, green and blue infrastructure** to protect cities from floods ?

Conceptual Ideas

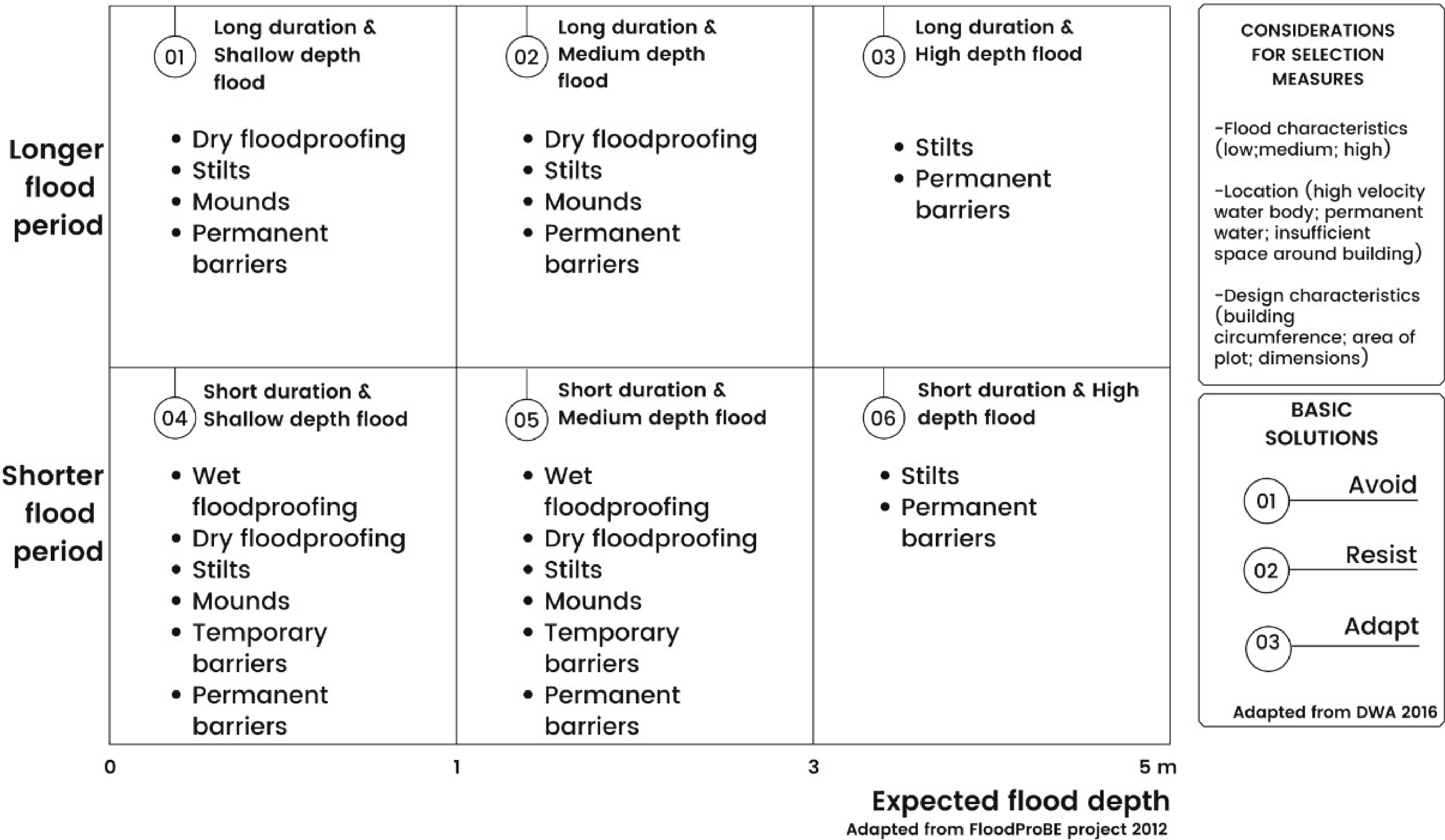


Recommendations

- A menu of solutions is necessary – diverse topography, nature of flooding – no one-size fits all solution
- Interdisciplinary working – breaking the silos
- Development of a design selection and evaluation tool
- Policy level (National, Federal & Local level)
 - Flood risk assessment
 - Flood risk and flood hazard maps
 - Flood risk management plans
- Integration of urban drainage planning with urban planning, open space and private-property level interventions and linking it to water sensitive urban design and flood prevention.

Findings

Flood proofing concepts as per flood level and flood duration for building protection



Integrated urban planning for water sensitive cities & flood prevention



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