Post-earthquake Seismic Retrofit Programs for Improved Reconstruction

Criteria for Successful Post-earthquake Housing Reconstruction Programs:
- Economically suitable
- Appropriate architecture, space and features
- Secure
- People trust that the structure is earthquake-resistant

Examples from Post-earthquake Seismic Retrofit Programs in Haiti

Observed Advantages of Retrofitting vs. New or Temporary Homes:
- Increased Homeowner Satisfaction
- Improved Existing Practices - Local engineers and builders are trained to design and construct retrofit solutions. This approach promotes an understanding of the key weak points in the existing construction practice that led to the catastrophic loss. These skills will be used in the future to design and build safer structures. Retrofitting can be done with local materials and labor, putting resources back into the local economy.

Cost Comparison by Type of Structure

Purpose of a Post-Earthquake Seismic Retrofit Program
- Lower Cost - Retrofitting is significantly cheaper in terms of materials and labor than the other options, providing more safe floor space per dollar spent. Parts of houses that are intact and structurally sound can be part of the retrofit solution, rather than being torn down to make way for a new house.
- Skip Temporary Shelter Phase - Because a retrofit program can start early in the relief process, even while rubble is being cleared, money that would have been spent on temporary solutions can be allocated earlier to permanent solutions.