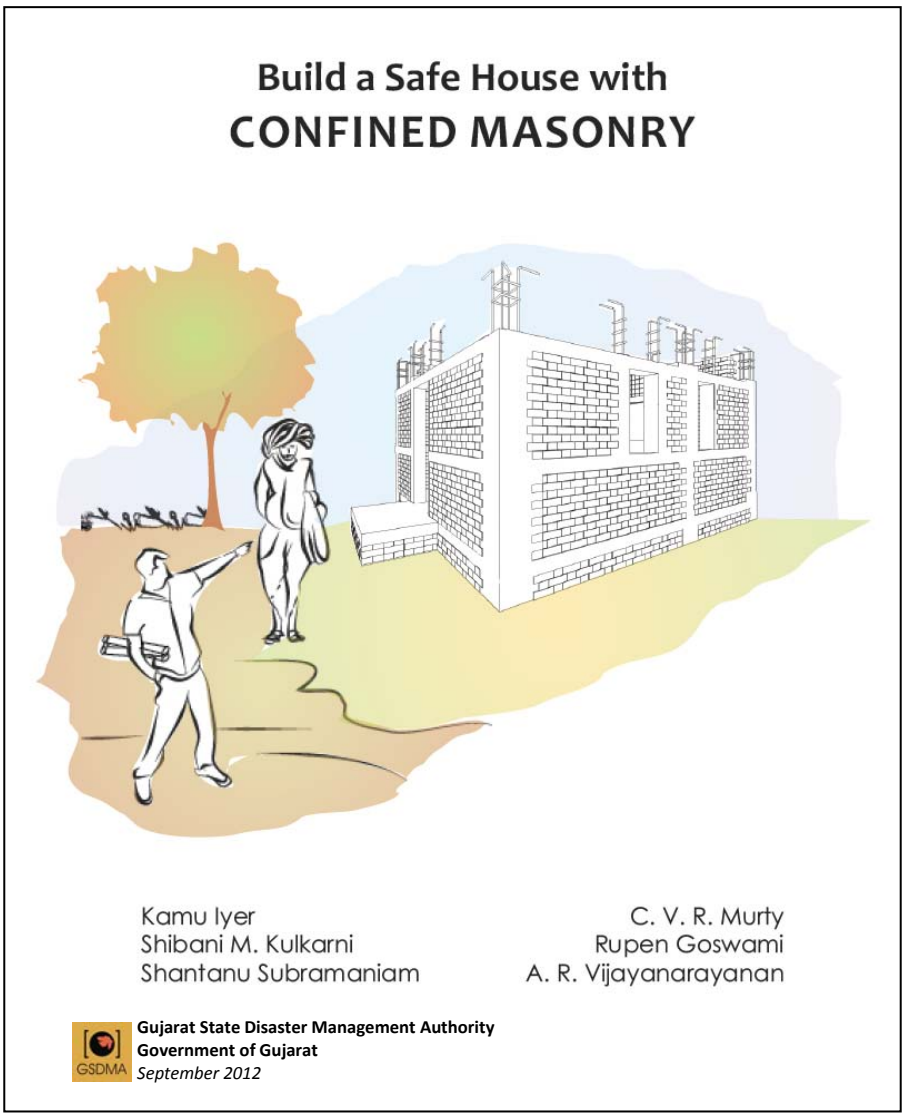

Most houses in rural India are masonry houses. The masonry walls are built with burnt clay brick or natural stone masonry. Many choices are made across India for the roof. For instance, a sloping roof with wood truss and burnt clay tile is adopted in Kachchh region of Gujarat (western state of India), and a flat roof with reinforced concrete (RC) slab in Tehri Region of Uttarakhand (northern state of India). These houses are constructed in the *conventional* manner known to masons. Technically, they are called *Unreinforced Masonry (URM) Houses*; it has plain masonry walls with no steel reinforcement embedded in them to improve their behaviour during earthquakes. Today, of the existing building stock in India, about 45% of houses are made of burnt clay brick and about 10% of natural stone. Thus, over half of India's population lives in URM houses.

Despite houses collapsing in earthquakes, people still continue to reconstruct their houses in the age old method of unreinforced masonry, thereby making their houses vulnerable to future earthquakes. Small, but significant, changes should be made in current method of construction of masonry houses in rural India. This improved method of house construction is called *Confined Masonry Construction*. Loss of life can be reduced considerably in masonry houses during future earthquakes. For this, masonry walls are confined on all four sides with (a) stiffer and stronger vertical elements made in RC, and (b) RC horizontal bands at discrete levels in the masonry walls along the perimeter of all the rooms of the house.

Books providing technical information on confined masonry construction are exhaustive, but largely offer generic details. They have to be adapted for specific conditions at site. Often, this is difficult for a man building his house. An illustrated manual such as this is required, that follows the requirements of Confined Masonry Construction in an easy-to-follow language, and provides guidance on how to build a confined masonry house with specific functional design. Such a manual will enable the individual house owner or a 'practical technician' to build such a house. Also, the manual will help local authorities to construct houses under any social housing scheme sponsored by the Governments. This book illustrates the step-by-step construction of a *Confined Masonry House* of a specific design. It provides precautions to be taken and amount of material required to construct the house. Also, alternate specific designs are presented.

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