

Build Back Better

Public Awareness Campaign, West Sumatra

STAGE II STORIES FROM THE FIELD

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for



AUSTRALIA-INDONESIA
FACILITY FOR
DISASTER REDUCTION

Increasing understanding and commitment for safer, more earthquake resistant construction for the earthquake-affected communities of West Sumatra.

Its getting easier to socialize Earthquake Safe Housing

Its now ten months since the September 30th 2009 earthquake, and Anggin has finished building nine homes. Four of these projects involved fixing broken houses and the other five were building new homes from scratch.

Anggin is a 45 years old brick house builder, who has a lot of experience. He's been a handyman for 23 years, since he finished high school. "I learned from my father who is also a tradesman," he said when we met him in mid August 2010, at the construction site for a house he was building in the Village of Lubuk Minturun, Kecamatan Koto Tengah, Padang, West Sumatra.

According to Anggin, knowledge of how to build houses properly is something you learn by doing. "I learned from friends who graduated from Sekolah Tehknik Mashin (STM). To build properly, the iron must be the correct national standard, and all the various iron elements need to be properly connected to each other. The amount of mortar used also needs to be the correct amount - it can't be skimped on. You need a ratio of 3:2:1 for sand, gravel and cement, this needs to be followed "he said.

According to Anggin, over the years he's been building based on these basic standards. "The houses I build are actually in accordance with the instructions listed in the books that IDEP distributed," he said.

He also explained that he learned quite a few new things from reading the user's manuals for building earthquake safe houses. "Now I know that you need to also connect the house's base iron to the foundation," he explained pointing to the iron connection he was referring to.

Anggin said that he felt the book was a very comprehensive guide for how to build houses that would be safer when earthquakes happen. "For me, the book provides some additional knowledge, but for new builders it is a very useful resource. A lot of new builders don't understand even the basic principles of correct building techniques," he explained.

When building homes he advises his clients the homeowners about the standard materials, which needs to be used. "Some of them don't want to follow the standards, others are willing." Anggin explained.



Homeowners learn from construction wokers



Pak Anggin checking the materials



Pak Anggin explains techniques he learned

“The reasons people don’t build houses using earthquake safe house materials and techniques is due to two things.” He said. “First, it’s because they don’t understand what an earthquake safe house is, and secondly, it’s because of money. Some of my clients instruct me to ‘not build the house too strong’. They ask me to reduce the materials and mixtures from proper standards so that less is used. It is of course more expensive to built a safe house,” Anggin explained.

Anggin smiled as he told us that: “Since the September 30th earthquake and the running of the earthquake safe house campaign, his

previous challenge of trying to explain to homeowners the importance of using proper materials and building standards for earthquake safe houses has become much easier.”

“Now that people have seen the impacts of the earthquake they are much more agreeable. I tell them, if you build properly, you don’t need to worry about your building collapsing without warning. Insha Allah, even major earthquakes will just cause damage, not total building collapse, like the terrible events before, “he said.



Above: Pak Aggin is a dedicated construction worker who encourages his clients to build safer homes using Earthquake Safe Principles



More stories from the field from the Build Back Better program can be found on:
www.RumahAmanGempa.net/cerita-dari-lapangan

It's more expensive, but it's safer

Homeowners in housing complexes, have to accept whatever shape the buildings they occupy are in. The earthquake of September 30th, 2009 earthquake was terrible proof, that residential homes built by complex contractors are not being built in accordance with the principles of earthquake safe houses.

“Most of the houses in this complex have suffered heavy to moderate damage. In other housing complexes around here, some homes totally collapsed, and cannot be repaired. For homeowners who are not involved in the process of building their houses, there's really no choice,” explained Yonda Sisko, when met him at his home in Villa Angrek Blok T No 2 Air Dingin, Lubuk Minturun, Padang, in mid-August 2010.

According to Yonda, the problems are because of the quality of building are not up to standard, and the principles of earthquake safe house construction aren't used. “My house was one of those that was badly damaged. The front wall collapsed, most of base is damaged and the columns are bent out of shape. I'm really worried about the condition of the house,” he explained.

Yonda really has no option but to fix his heavily damaged home. “Help from the government hasn't come, I've had to use all my savings and also ask for help from the office where I work,” he said unhappily.

Yonda is a journalist, and because of that he had a basic understanding about building houses in accordance with safer standards. When he got a hold of the earthquake safe home building guide distributed by IDEP, he felt much more able to explain his needs and expectations for building an earthquake safe house to his building team.

“Before the house was built, I had several discussions with the builders. I asked them to rebuild the front wall, to strengthen the columns and foundations using the correct materials and techniques for cast-iron mortar,” he explained.

The artisans who worked on Yonda's house, agreed with him. They purchased the right quality building materials, including good quality bricks, the correct size of iron, and other building materials. “I ask that when the built the new wall, to fix iron between the bricks and the



Left: Housing complexes like this are found throughout Padang • Right: Yonda's house slowly being rebuilt after the earthquake

columns. We expect that this will anchor the bricks, so they won't collapse so easily if there's an earthquake," he said.

Because he chose to build according to safe standards, Yonda needed more materials and it was indeed more expensive. "For the work and improvements we did, I spent around Rp 24 million (US\$ 2,667). If I hadn't built based on earthquake safe standards, the same work would have probably cost me about Rp 20 million (US\$ 2,222). It is more expensive, but it helps keep us safe," he said.

Now the house is done and Yonda and his family can feel a bit better, knowing that their home is

stronger and more secure.

Yonda said: "Many homeowners in local housing complexes didn't know, or really care, about earthquake safe construction, until after the September 30th earthquake. The earthquake really taught a lot of people lessons. Now people want to build better," he said.

According to Yonda, the earthquake safe house campaign has really helped to guide the public who want this type of knowledge. "The campaign has been really useful for educating the public and raising awareness about the danger of unsafe buildings," he said.



Above: Yonda's family feels safer now that their home has been rebuilt using earthquake safe standards



Having access to the Building Manuals makes it much easier for people to be able to explain to workers what they want

Building supply stores socializes Earthquake Safe Houses

Stores that supply people with buildings materials can be effective outlets for disseminating information about earthquake safe construction, as customers who are buying building materials will ask the shops' opinion before or while they are buying.

As we all know, proper standard building materials is an important element in building earthquake safe houses. Pretty much everyone who plans to build will go get the bricks, iron, cement, sand, wood and stones needed to construct their at a building supply store.

Not everyone knows exactly what materials they want before they go to these shops. This was clearly shown in the monitoring and evaluation conducted at five different building supply stores in Solok, Padang, Padang Pariaman, Pariaman and Agam

West Sumatra as part of the Build Back Better program. At all of these shops, owners and shopkeepers reported that their customers regularly asked them for advice about what materials they should buy.

“When people ask, we give them alternative choices about the type and quality of materials. Iron, for example, we will tell you, comes in

either the national standard, or cheaper ‘Besi Medan’” explained 33 year old Abdul Razak, the owner of the “TRB Bangunan” shop on Jalan By Pass, Kota Solok, West Sumatra.

According to Razak, explaining the quality of various materials helps raise people’s awareness about the importance of quality materials and helps people make more educated decisions about what they will consider buying.

The same thing was explained by Novi the 31-year-old owner of the Building Supply Shop ‘Buah Sungai’, in Kapalo Koto, Kota Padang. “People often ask us what materials are needed to build houses so they are safe from earthquake shocks”

Nurhasna, owner of the ‘Maransi’ building supply shop in Maninjau, Agam regency, had a good understanding of the basic principles of building earthquake safe houses. “For the house to be secure it must be built on a solid foundation, with a reinforced based, using a mortar mixture of one to three, cement to sand,” said the 56-year-old lady.

According to her, this knowledge really helped her to answer questions from her customers.



Similar comments were made by 31-year old Emrizal, owner of the 'Putra Lugos II' shop in Simpang 4 Kampung Ladang Lubuk Aluang, Padang Pariaman and 43-year old Hajah Juniar, owner of another building supply shop in Kota Pariaman.

In principle, the storeowners all claimed that people who came to their shops to buy building materials wanted to discuss with them about the materials needed to build.

Not everyone, however, seemed to care about quality materials. "Generally the people that

ask about quality materials and implement the principles of building 'Earthquake Safe Houses' are middle or upper class and well educated. I guess its because it costs more than building a regular house," said Abdul Razak.

Nevertheless, the role that building material supply stores play in this campaign is important. It clearly shows the critical role that these shops can play in ensuring that the general public has a better understanding about earthquake safe building standards.



Above: IDEP MONEV team interview shop owners • Below: Building supply stores distribute key information to the community





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membangun rumah aman gempa

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