Sustainable Housing in Third World Countries

Adequate housing, according to the habitat agenda released by the United Nations, is defined as “more than a roof over one’s head. It also means adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and durability; adequate lighting, heating and ventilation...” and much more (Adequate Shelter, GHF). After knowing what the term ‘adequate shelter’ actually implies, it is not hard to realize why so many people around the world do not have access to such a resource. This need is present everywhere, but it is especially present in third world countries. The need for adequate and sustainable housing in third world countries is a current and pressing issue that must be examined by people around the world using feasible solutions. In order to find the best solution, the existence and persistence of this issue must be examined.

In third world countries, there is an obvious need for adequate housing. According to the Merriam Webster online dictionary, the third world is defined as “the aggregate of the underdeveloped nations of the world.” In such countries, there is a clear need for proper housing. According to the Global Housing Initiative, 31% or 431 million people in Sub-Saharan Africa have been living on less than $1.08 a day. Also, according to the Habitat for Humanity, three billion people are going to be in need of new housing by the year 2030. This translates to approximately 93,150 new homes each day or about 4,000 new homes each and every hour. With these statistics, there is a clear need for sustainable housing in these places, and we must ask the question, “Why does this problem continue to persist?”

In these countries, the issue of inadequate housing continues to persist because the local government is not confronting the problem properly. One way the government does not properly deal with this issue is by addressing only the urban side of the issue. It is easy for a government to see the problem when thousands of people live in slums near the city, but that is not where the issue is most prevalent. The statistic I gave earlier stating that 431 million people in Sub-Saharan Africa live on less
than $1.08 a day also states that the majority of these people live in a rural setting. Because of this, the local governments are ignoring the majority of the issue due to its lack of visibility. Although these governments are not properly confronting this issue, at least they are making an effort to fight it. On the other hand, some governments are completely ignoring the issue. For example, in Nairobi Kenya, according to a New York Times article by Jane Perlez, the government’s way of dealing with the problem of an overcrowded slum was to simply bulldoze over it. This land then was used for a growing middle class housing neighborhood that was getting too close to the slum. The Kenyan authorities also failed to provide any sort of housing for the people whose houses were demolished. When considering the proper way of addressing this issue, these people must be given the resources they need in order to provide for themselves. This is where the idea of sustainability comes in.

According to the Merriam Webster online dictionary, sustainability is defined as “using a resource so that the resource is not depleted or permanently damaged.” When a homeless person in one of these countries receives a home, he or she is given security, self-confidence, a healthy environment, and self-worth. These are all good things, but security, self-confidence, and health alone are not going to sustain these people and keep them from entering back into their previous situation of poverty. These people need to be given the skills and education necessary to be able to support themselves. If we train homeless adults or educate them so that they can make a living on their own, they will be able to support themselves and their family. Once the adults are able to support the family, then their children will not be forced to drop out of school to work. By staying in school, these children will be able to get an education, and hopefully, break the vicious cycle of poverty that their families have been trapped in. When deciding on a solution to implement in these countries, we must choose one that provides families with a home as well as skills so that they can support themselves.
Considering all of the different complexities of this issue, one of the best options to help reduce this problem is earth bag construction. Earth bag construction is a construction technique that creates structurally sound dwellings out of polypropylene bags that are filled with earth, stacked on top of each other, and covered with some sort of plastering material. Using earth bag construction has many benefits that make it the best alternative for helping families in need. For one, earth bag construction is a very simple construction technique, and it can easily be taught to others in the area. The process of using earth bag construction is very repetitive. Basically, it consists of digging a hole for a gravel filled foundation, filling bags with earth, laying them in layers, tamping down the bags, and finally covering over the structure with an adobe material. The process is simple enough that it could be taught to the people living in the area and mastered quickly, even with a language barrier. Also, this type of construction practice requires a minimal number of tools, and all of the construction materials can be found locally, except for the inexpensive polypropylene bags. The tools required are simple including shovels, tamping bars, and things of the sort, and since the building materials are found locally, the construction practice can be adapted to many different places. If one area is more prone to earthquakes, then rebar can be driven though the bags, making the structure very strong without harming the bags. These are all reasons why earth bag construction is a good option, but some clear objections need to be addressed.

With earth bag construction being so simple, some might ask if it is technologically advanced enough to be the best option out there. One example of a technologically advanced solution is Moladi. Moladi is a very efficient building material used for quick construction of homes. It packs in many different technological needs in construction into an easy to use building material that allows you to construct a small house in days at a cost effective price. This does seem like a good technological solution to this problem, but it has some clear flaws. First, this building material cannot be found in the country where you want to build. If, after they were taught how, the locals living in the area wanted to
construct more houses, they would need to be supplied with the Moladi building material from the United States. With the earth bag method, all the materials can be found locally or are easily supplied, so if those living in the third world countries want to build more houses, they have almost every material at hand. Along with the lack of availability of resources associated with Moladi, it does not have any respect for the local culture or architecture. Moladi, since it is one mass produced material, tends to build ‘cookie cutter’ style houses. With earth bag construction, the use of local materials adds a little bit of a cultural flair into the architecture of these homes. The earth bags also allow much more freedom in how you lay out the structure of the home. Even past the pros and cons, the feasibility of earth bag construction must be examined.

When looking at the earth bag construction practice, the cost of construction must be considered. Rodney Johnson, a man who has lived in Haiti and been involved in aiding the Haitian people, recently build a 10 foot by 15 foot earth bag house for earthquake victims. After he added up all his expenses for the home, the total construction cost was only a little more than $2000. Along with a low construction cost, many organizations are finding alternative ways to help these poor people afford a new home. For example, the Habitat for Humanity, along with other similar organizations, offers a micro financing option for these people. A micro financing option gives people who do not normally qualify for credit a loan with little or no interest. These options are funded by private donors and investors. With these financing options, the earth bag construction option is not only a good method to reduce this problem, but it is a feasible, cost effective option as well.

The need for sustainable housing in Third World countries must be approached in more effective ways. When choosing a solution, sustainability must be stressed, and earth bag construction is a solution that focuses on this issue. It only uses local resources, and the construction techniques can easily be taught to others, no matter their education level. On top of all of this, it is also very cost
effective. The need for sustainable housing is a pressing issue. Although it is hard for us to recognize how great an issue this is because of the privileged nation we live in, we cannot be naïve about what is going on around the world. To that end, in the time it took to read this paper, now approximately 300 more people around the world are in need of a new home.
Works Cited


"International Housing Statistics and Research -- Habitat for Humanity Int'l." Habitat for Humanity Int'l.

   <http://www.earthbagstructures.com/projects/johnson.htm>


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