



COMMUNITY DEVELOPMENT GUIDELINES

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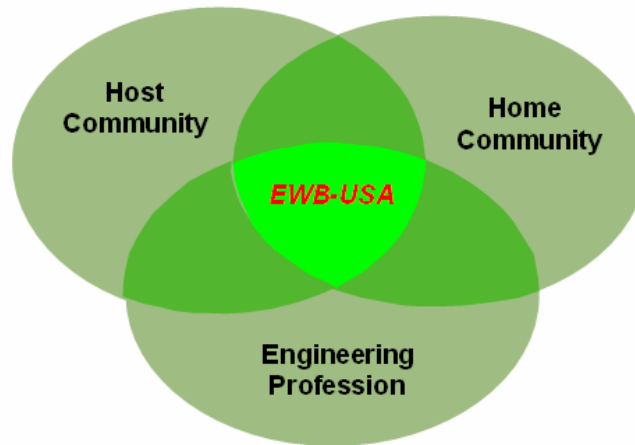
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Foreword:

Engineers Without Borders-USA (EWB) partners with the engineering community, non-governmental organizations (NGOs), and citizens of developing nations to further develop and improve three different communities:

- ◆ the “host community” that seeks engineering assistance in order to improve their quality of life and health;
- ◆ the “home (U.S.) community” that sends the technical assistance, and in return gains insight into how to improve our own sustainability.
- ◆ the “engineering community” to further strengthen their role in humanitarian and public health work.

The goal of EWB is to facilitate the interaction between the three communities. This guideline is intended to clarify EWB’s role and objectives for community development.



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1.0 Introduction

A community can be thought of as a place of belonging that is able to balance diversity and unity within a specific group of people. Communities encompass villages and cities, as well as worksites, schools, and health care sites. Improving a community requires creating and improving those physical and social environments to become economically and ecologically viable and sustainable.

2.0 Communities

2.1 Host community

EWB responds to requests for technical assistance from disadvantaged communities, in both the U.S. and the developing world, to improve their quality of life through implementation of environmentally, equitable, and economically sustainable engineering projects. We recognize that these communities are complex systems, arranged in a social structure according to relationships that has developed over a long period of time.

EWB considers itself a capacity building organization. This approach to development requires that chapters work closely with in-country counterparts to share skills, knowledge, and experience. The following describes community and host country agency counterparts.

Community Counterparts: The host community individuals who work with EWB and jointly learn through experience how to do something new, within the local cultural context, with enough competence and confidence to transfer their learning (in terms of knowledge, attitude, and skills) to others in the community.

Host-country Agency Partners: Both host-country government ministries and local non-governmental agencies (NGOs) that are co-designing, implementing, and assessing a project. There may be a single agency or several agencies that are involved in a project in some role.

2.2 Home community

The larger consumption of resources and materials and production of waste by the developed nations and their citizens has a greater influence on the economic and environmental sustainability of the planet than that of most developing nations. Lessons learned from the long-term commitment by EWB to communities in developing nations can provide a basis for appreciating this inequity of resource use and distribution. EWB can help to facilitate change in the home community by creating opportunities for professionals and students to become internationally aware and responsible and to understand the need to consciously live a more economically and environmentally sustainable life, both professionally and personally.

2.3 Engineering community

The profession of engineering developed as a response to public health needs. From the safety of shelter to purifying the water we drink, the engineering profession plays a

significant role in developing safe and healthy communities. EWB recognizes the humanitarian role engineers can play in the response to the public health and safety needs prevalent in developing nations.

EWB encourages the development of multi-disciplinary teams made up of a broad cadre of individuals from academic institutions and professionals from the public and private sector. These individuals should ideally come from a variety of disciplines including: engineering, public health, agriculture, anthropology, sociology, business, environmental studies and community development. Development of a healthy community requires a whole systems approach to assessment and planning

EWB encourages teams to learn about the culture and priority needs of the host community and in conjunction with community members and local governmental or non-governmental organizations (NGOs), design and implement sustainable projects that focus on both the technical assistance and capacity building within the community and in which outcomes are measurable over time in terms of health, social, economic and ecological sustainability metrics.

This standard will guide you on the key components that must be met in any EWB project for it to be sustainable.

3.0 Sustainable Community Development

"Sustainability may be described as our responsibility to proceed in a way that will sustain life that will allow our children, grandchildren and great-grandchildren to live comfortably in a friendly, clean, and healthy world." –Thomas Jefferson

This standard will guide you on the key components that must be met in any EWB project for it to be sustainable.

Sustainable development can be viewed as having four dimensions:

- **Ecological sustainability** implies that non-renewable and other natural resources are not depleted for short-term improvements. This requires an assessment of available natural resources.
- **Economic sustainability** implies that improvements do not depend on continuing infusions of resources that cannot be maintained. This requires looking at what and where the available resources are and how these assets are valued. Also, an understanding of how money and resources flow between the community and outside groups is required.
- **Political sustainability** requires that changes are consistent with present or emerging distributions of power in the society. It is important to understand who holds power and influence in the community and what the sources for this power and influence are. Knowing what other organizations, both government and non-

governmental organizations (NGOs), are working in the community, what programs they have brought, how projects were funded and how the community organized to respond to these projects are all important. Being aware of the nature of relationships with outside agencies: their degree of dependency and the extent of capacity building are all important. A community's history and experience with other agencies, both government and NGOs will affect their preconceived notions of what a relationship with EWB will be like.

- **Cultural sustainability** suggests that community changes must be driven primarily by the community itself in order to be consistent with core values, expectations, and mores of the society. The final implemented project should, and likely will, be a hybrid of community input and what was originally designed.

Effective approaches to sustainable development must:

- work within the existing distributions of power in the community to determine the best solutions for the community
- ensure that there is community participation on the project. The community should contribute either monetarily or with labor.
- train the community how to maintain and manage the installed systems
- conserve those resources that are needed for improvements over the long-term
- optimize the use of resources that are available locally
- minimize dependence on resources that must be brought in from the outside
- avoid improvements for which continuous infusions of existing or new resources are needed
- ensure ownership and maintenance is assumed by the community
- the long-term commitment and continuity of EWB leadership personnel. This requires the commitment of mentors, faculty advisers, and professionals to the community.

4.0 Characteristics of Successful Projects

Some of the elements that promote project success and sustainability include:

- a strong and diverse EWB chapter team.
- a strong and representative host community committee.
- a knowledgeable and trustworthy locally-based non-profit agency, preferably an NGO, but in some instances, it could be a government agency.
- initiation of the project by the community, or the community and a local NGO.
- an understanding how things are accomplished in the host community (who holds authority and power and how is it exercised; who has access to resources; who will be affected by the EWB project and needs to be a part of the decision making process and how to ensure this happens; forms of community involvement and decision making and methods for keeping the larger community informed and involved).
- involvement of the community and all beneficiaries in all phases of the project planning, implementation, and evaluation.

- development of a mutually agreed upon vision and mission for the project with clear expectations, an appropriate timetable and realistic, achievable and appropriate long and short-term goals and objectives. All of this should be written into a Memorandum of Understanding (MOU) (*see the attached sample*).
- a well-designed time frame and budget, so that the objectives are met within the time and resource limits.
- a clear means of maintaining relationships and communication over time and distance keeping in mind the realities of remote locations.
- establish how communication will occur and between whom.
- clearly defined project tasks and responsibilities for all people involved.
- qualified persons assigned to specific roles.
- an effective monitoring system that measures the project's progress, identifies problems, and provides a mechanism for necessary changes in the project.
- evaluation of each phase of the project, and of the entire project after it is complete, based on indicators agreed on by all parties beforehand.
- if a problem is identified, a problem analysis should be conducted and the community members must select a course of action that is reasonable for their community.
- a mechanism for training community members in effective maintenance of the project, if required.
- allowance for sufficient time to implement training within the community.

5.0 Planning an EWB Project

In the planning process, it is important to spend time with host-country partners to identify who will be the EWB chapter's community and agency counterparts. These key relationships are critical to the success of projects.

The EWB chapter serves as co-planner with community leaders by helping to identify, prioritize, plan, implement, and evaluate small-scale projects that will address the challenges faced by the community. Typically the NGO's role should be that of facilitator and communicator / translator.

Project planning is part of the larger community development process and begins with the community assessing its resources and needs and deciding on their development priorities. Although the projects will relate to a primary technical assignment (potable water, sanitation, energy production, construction, agriculture, etc.), the outcomes will be measured in health, social, ecological, and economic metrics.

Once the priorities are established, community members, the local NGO and the EWB chapter begin to identify and plan specific projects that will enable them to address the community's development goals. It is important for all three groups to have a common vision and clear, realistic expectations.

EWB chapters should always partner with the community to get the work done so that genuine capacity-building takes place. This can be especially hard when the planning

process is moving more slowly than you anticipated. EWB members often have to remind themselves, “It’s the community’s project, not mine.”

5.1 Activities

The following activities are designed to develop a project that is environmentally and economically sustainable and develops within the community the skills required to promote, maintain and replicate the project in nearby communities.

Activity A: Creating a Relationship and with a Host-Country Agency

Understanding the Strengths and Limitations of the NGO

Before entering a community an in-country agency counterpart, that is not part of the community, should be found. This is often an NGO that works in the area. This in-country counterpart must be well established in the country with several years of local experience, and be able to verify that they will be working in the region of the project for at least 3 years.

An NGO counterpart is essential because they are the EWB chapter’s “eyes and ears” in the area at all times. The NGO will be the liaison between the EWB chapter in the U.S. and the community. They are able to consult with and inform the community regarding the project when EWB members are not available. Even though it is tempting to work directly with communities that have good communication (e.g. language skills, e-mail, phone) it is recommended by EWB-USA that for each project, student and professional chapters develop a relationship with a local NGO. Pragmatic reasons for working in conjunction with an NGO are:

- The NGO is not part of the community’s political structure and therefore can help the EWB project team make decisions that will aid the community as-a-whole, not just specific individuals.
- An NGO will allow for support of the EWB project team on other issues such as customs and travel logistics within the country.
- An NGO has more reliable/access to communication than community members.
- An NGO typically has access to resources in the capital city and the country as a whole that community members don’t have (e.g. government officials if permits are needed, access to other governmental and NGOs with financial resources ...)

Setting up a strong relationship with an NGO can easily take six months. E-mail correspondences are crucial and the EWB project mentor must be around to support this process as the project mentor will be the one to keep up this relationship over the long term. Before the project is determined significant communication via e-mail/telephone or a visit must occur to assume that EWB and NGO have similar goals and the ability to have strong working relationship.

Finally, once the EWB chapter and the NGO feel like a strong relationship is created a Memorandum of Understanding (MOU) should be written which outlines the basic goals of their working relationship. Although this is not a legal document, it serves to clarify organizational roles and responsibilities for the participants. EWB chapters may want to consider something similar between them and the community for each project once it has started. It can help to allay any misunderstandings of what will be provided by both sides. (*See the attached example.*)

Activity B: EWB - Initial Assessment Trip

During the initial assessment trip, technical data gathering is secondary to learning the community's perspective of their priorities and their proposed methods for implementing these solutions. The community members who have solicited the project should bring the EWB group (no more than 2 to 3 members) and NGO to the rest of the community to present themselves and explain who they are and what their mission is.

The community should be responsible for finding the EWB team a place to stay and feeding them – this is how the community will pay the EWB team for doing this work. Any project that is 100% charity will leave the community feeling a lack of ownership and the project will ultimately fail. Remember, this is the community's project, not yours. You are volunteering your time and will be putting a lot of energy into this project and they should be doing the same.

The NGO and EWB group should help the community make a list of their goals and objectives for the project(s). The items that should be covered during this first trip include:

- The NGO and EWB group should be very straightforward when explaining that: their organizations have NO funding for a project
 - nothing is concrete or finalized yet
 - the NGO and EWB group can only do one very small project at a time
 - DO NOT PROMISE THE COMMUNITY ANYTHING!
- Explain that this is the community's project and that the NGO and EWB group are here to help facilitate the community in realizing their goals for the project.
- When you leave the community should have a clear ideal of what the final product will be.
- Before you arrive you will need to know how to estimate costs in the field so you can tell the community whether certain projects are realistic or not. It is not realistic to leave the community with the idea that you will be doing a \$100,000 project in the next 6 months.

- When leaving explain to the community that the NGO will be coming back to discuss more in depth and they should communicate directly with the NGO.
- The baseline health assessment should begin on this trip. Many communities do not keep very good records (if any) of illness and disease in the community. Someone from the NGO or the EWB chapter should begin training a community member (often the clinic nurse, midwife or a teacher) how to begin collecting this data. The NGO can then follow up with them on return visits to continue this data collection.
- Create a project plan and list of “jobs” that each party (the NGO, EWB and the community) is responsible for completing before the EWB group returns. This plan will become more detailed as the participants work together.
- During this trip the EWB group should be working with the NGO to tell them what type of info they will need later on and how to start collecting this.

Questions to ask during the initial site assessment include:

What are the human requirements?

- What kinds of skills do EWB members need?
- What kinds of training do EWB members need?
- What kinds of training do community partners need?
- Who will be the liaison with the host-country agency(s)?
- How many EWB group members are needed to help manage this project?

What are the financial requirements?

- What funds are required to implement this project?
- What is the EWB local contribution to this project?
- What are the host-country agency partners’ contributions to this project?
- Will additional outside resources be needed to achieve the goals of the project?
- What is the community’s contribution?
- Who will be responsible for budgeting and tracking funds?

What materials are required?

- Does the project require any tools, job-related equipment, construction materials, books, etc.?
- Can these materials be located locally? How will they be transported to the site?
- Can the EWB group and community partners produce these materials locally?
- What are alternative plans if required materials are not available?

What are the service needs of the project?

- Who will provide housing and transportation for EWB group members?
- Who will provide housing and transportation for training events in the US?
- Who will provide housing, food, transportation for community members if training events are held outside of the community?
- What sites are available for training events required for project implementation?
- Who will help with the legal requirements for allowing EWB to work in the community?

Activity C: NGO - Return Visit(s)

This visit(s) will be made by the NGO. At this point the NGO will be able to discuss the project without foreigners present and they can begin collecting information for the EWB project team. This is an important step for two reasons: First to make sure that the community is truly vested in the project and second so the NGO can begin gathering information for the EWB group.

Activity D: EWB - Technical Assessment Trip

During this visit the EWB group returns with the NGO. Plan on spending at least five days in the community to allow for more time to discuss the project goals and objectives with the community and make sure that all information needed is collected. When collecting information, be very honest and clear about why you need this information. Communities can become very skeptical extremely quickly. Duties should be assigned to all parties (the community, NGO and EWB).

- During this visit a definite timeline should be planned with the community – remember to consider seasonal issues such as weather, holidays, and harvesting when making the calendar.
- All measurements should be collected
- The baseline Health Assessment should be completed
- The project particulars should be decided (e.g. type of design for the water system and where taps and pipes will be located)
- A project plan that states the fundamentals of the project, timeline, costs and expectations of each organization should be finalized at this point and an agreement with the community should be written and signed by all participants (community, NGO, and EWB). Copies should be made for all participants (hand-written or carbon paper is acceptable).

Activity E: NGO follow up with Community

EWB needs to have constant communication with the NGO during this time supporting the NGO and having the NGO collect information that the EWB group needs.

This visit should be an opportunity for the NGO to help make sure that the community:

- is still interested in the project and
- they are working on their assigned task list

During this visit the community development aspects should be continued and the community should be encouraged to think about how they will manage this project. For instance, formation of a water board/committee, who will receive education and training on how to fix and maintain a pump or solar panels, education of school children on hygiene, proper use of the latrine and hand-washing.

Activity F: Implementation Trip

Three full days should be incorporated into this visit just for community development work and education. The management plan of the project must be finalized, written-up and signed by the respective authorities of each group – the community, NGO and EWB. Make plans to do this if there is no typewriter or computer available in the community (handwritten with carbon paper copies is fine) so that everyone can receive a signed copy at the time the document is signed.

Activity G: Evaluation and Follow Up

After the installation the NGO needs to follow up with the community and help them to refine their management structure and check that all technical aspects of the project are working appropriately. EWB should continue to stay in close contact with the NGO during this time to assure that all aspects are working appropriately and adjustments, including follow-up visits can be made if needed to fix any problems that arise.

Activity H: Evaluation, Follow-up and Initial Assessment Trip for a 2nd Project

The EWB chapter should return to the region to visit the community, assess how the project is working, and begin a new Initial Assessment trip for a second project

5.2 Timeline

Following is a sample calendar for an EWB project that would be completed over a two-year period. (A project should be designed over a minimum of a two-year period to allow for successful implementation.) The chapter should plan on several trips to the project site with 2 to 4 project participants per trip to check-in with the community and the NGO and see how the project is progressing and address problems quickly, as they arise. For student projects: Students might begin to work on a project in their sophomore

or junior year and make at least 2 trips to the community during the 2 years to follow up on its progress.

Month:

Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25+
A: Creating a Relationship with a Host-Country Counterpart	X	X	X	X	X	X																			
B: EWB- Initial Assessment Trip						X	X	X																	
C: NGO - Return Visit(s)									X	X	X														
D: EWB - Technical Assessment Trip												X	X	X											
E: NGO - follow up with Community															X	X	X								
F: Implementation Trip																		X	X	X					
G: Evaluation and Follow Up																					X	X	X	X	
H: Evaluation, Follow-up and Initial Assessment Trip for a 2nd Project																									X

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