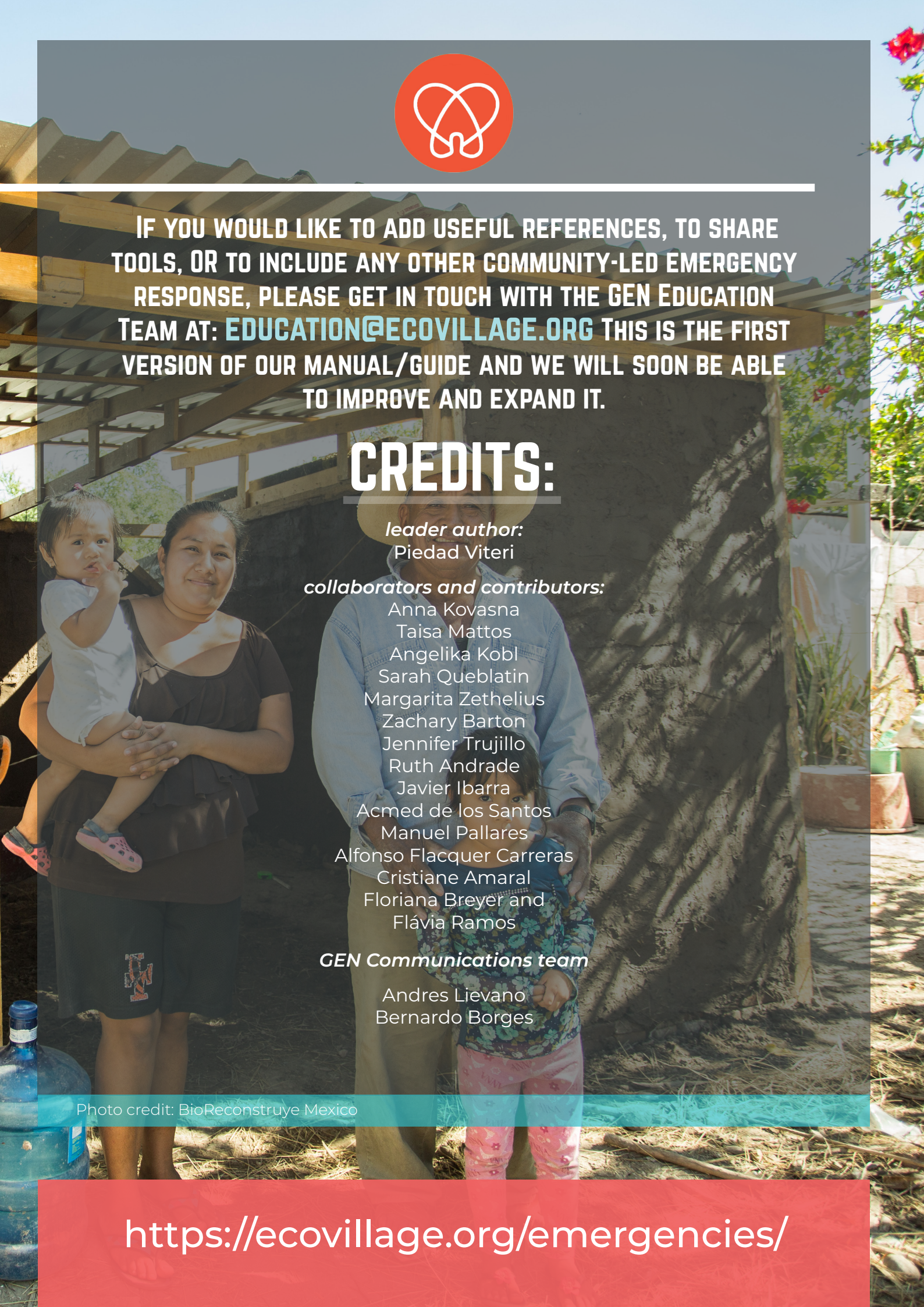

If you would like to add useful references, to share tools, or to include any other community-led emergency response, please get in touch with the GEN Education Team at: education@ecovillage.org This is the first version of our manual/guide and we will soon be able to improve and expand it.

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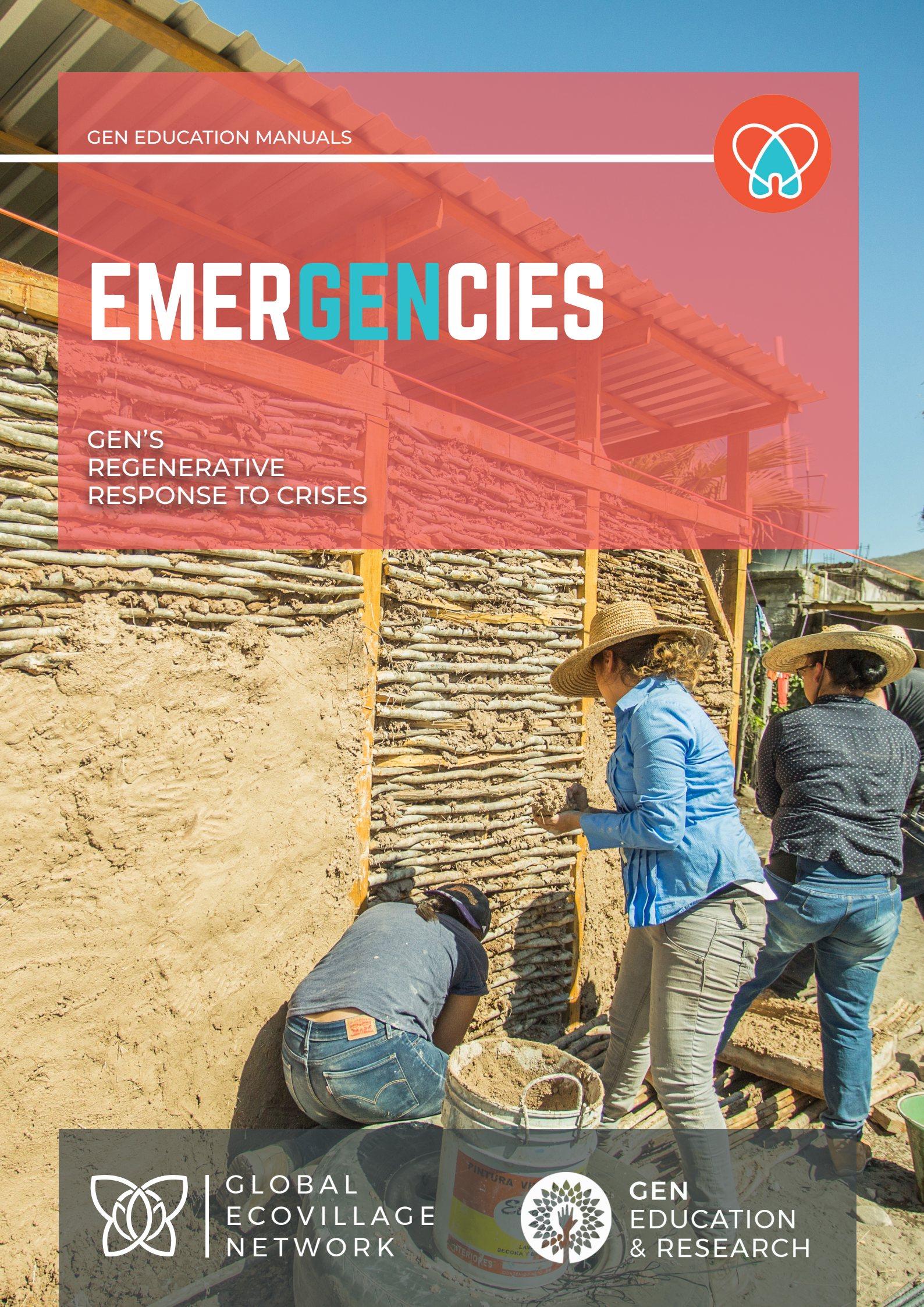
Photo credit: BioReconstruye Mexico

https://ecovillage.org/emergencies/

GEN EDUCATION MANUALS

EMERGENCIES

GEN'S REGENERATIVE RESPONSE TO CRISES



GLOBAL ECOVILLAGE NETWORK

GEN EDUCATION & RESEARCH

Ecovillages have spent decades researching collaborative and interlinked ways of social, ecological, cultural, and economic regeneration.

GEN Education actively collaborates with Ecovillages and Ecovillage Trainers across the world to turn that research into core trainings and unique immersive learning experiences for individuals, organisations and communities.

To best harvest and share the abundance of experience, knowledge and wisdom about regenerative lifestyles from within the GEN network and from GEN partners, a series of manuals were created, starting with Ecovillage Incubation, Urban Ecovillages and EmerGENcies.

These manuals were developed to support people who are seeking information and tools in these areas and to showcase and share the experience of the network and best practices of how to create community in different contexts.

Photo credit: BioReconstruye Mexico

Photo credit: http://www.caemba.com/

A BRIEF NOTE ABOUT THE EMERGENCIES MANUAL

The term EmerGENcies was coined by Alfonso Flacquer of GEN Europe in 2013 after he invited initiatives responding to emergencies to join together and build on this practice. Several ecovillages followed this call and years later, EmerGENcies is now a programme of GEN, recognizing the growing response to disasters and displacement using ecovillage design and solutions in many parts of the world.

We know that the field of humanitarian assistance and recovery is complex and delicate and not much in relation to sustainability has been systematised in terms of knowledge so far. The GEN team did a survey, mapping the initiatives, solutions, and approaches developed within the network and partners (in all regions), and systematised the practices with the conceptual references of the area. This manual is the result of this and GEN's contribution to the field for now and is open to adaptation and evolution in the future.

GEN would like to express our deepest gratitude to all the initiatives mentioned for the amazing work they have been doing!

BACKGROUND

Disasters triggered by climate change are responsible for some 150,000 deaths every year and cause millions of people to seek refuge elsewhere. The Intergovernmental Panel on Climate Change (IPCC) predicts 150 million environmental refugees by 2050. In 2015, 19,2 millions of people in 113 countries were displaced by environmental catastrophes and about 8,6 millions by conflict and violence. Given these realities, providing basic needs like food and water will be challenging, placing populations around the world at severe risk. We live on a planet in emergency, where catastrophe, crisis, and conflicts multiply day by day.

Those internally displaced living in camps often have to survive on inadequate humanitarian assistance, with few opportunities for self-organization or self-reliance, living on the margins and being routinely overlooked by national sustainable development programmes. There is a need to increase capacity in all sectors, not only the government and humanitarian organizations, but also in the local communities, especially the ones exposed to frequent catastrophes and the impacts of climate change.

Humanitarian action today is often linked to the consequences of unsustainable land use such as deforestation, topsoil erosion, and polluted water sources. Unsustainable practices are often caused by economic pressures and are likely to cause not only socio-cultural but also ecological implications like droughts or floods.

Several communities/ initiatives/ organizations that collaborate with GEN or our wider network have had to respond to such crises and disasters. From hurricane relief in The Philippines to refugee camp organisation in Greece and post-earthquake green building reconstruction in Ecuador, these responses have led to the development of concrete regeneration tools.

Around the world, there are also various cases of permaculture and community based techniques applied to aid in different contexts. Oftentimes, these responses have been connected and inspired by each other and by other organizations in the field, strengthening best practices.

It is therefore through responding to the increasing vulnerability of communities around the world that the EmerGENcies programme was born - with the general aim to offer ecovillage-based, regenerative and holistic solutions when addressing human displacement and suffering due to climate disasters, conflict, social upheaval, and economic transitions around the world. GEN's integral approach offers systems that can start to reverse these harmful trends, initiate the recovery of the natural environment, and provide the basis for a regenerative way of life.

It is in the growing crisis on Earth today that the Global Ecovillage Network is starting to compile all its learnings from disasters all over the world and continue to support emerging initiatives being done by its member ecovillages. Thus, this manual was designed for existing practitioners, advocates, and those wanting to respond to humanitarian recovery and disaster prevention efforts.

photo credit:
Zachary Barton

WHY ECOVILLAGE DESIGN?

Ecovillage models of regenerative living are based on an integral approach centered around economic, cultural, social and ecological sustainability. Through participatory processes, communities can re-design villages, towns, cities, and settlements.

Ecovillages around the world range from indigenous or traditional villages to rural intentional communities to large urban neighbourhood projects. In the transition phase after emergencies, ecovillage design offers valuable technologies and systems that can contribute to the improvement of life conditions of affected or displaced communities.

The following elements are essential when using an integral approach for ecovillage development:

SOCIAL – ensure inclusive and consultative decision making in the design process while taking care of the needs of all sectors involved.

ECOLOGICAL – provide for human needs in a sustainable way using appropriate technologies that regenerate ecosystems in the long term.

CULTURAL – design based on cultural context and subtleties while incorporating trauma informed practices in response to loss and damage.

ECONOMIC – design regenerative sources of livelihood that restore human dignity and improve social and natural systems.

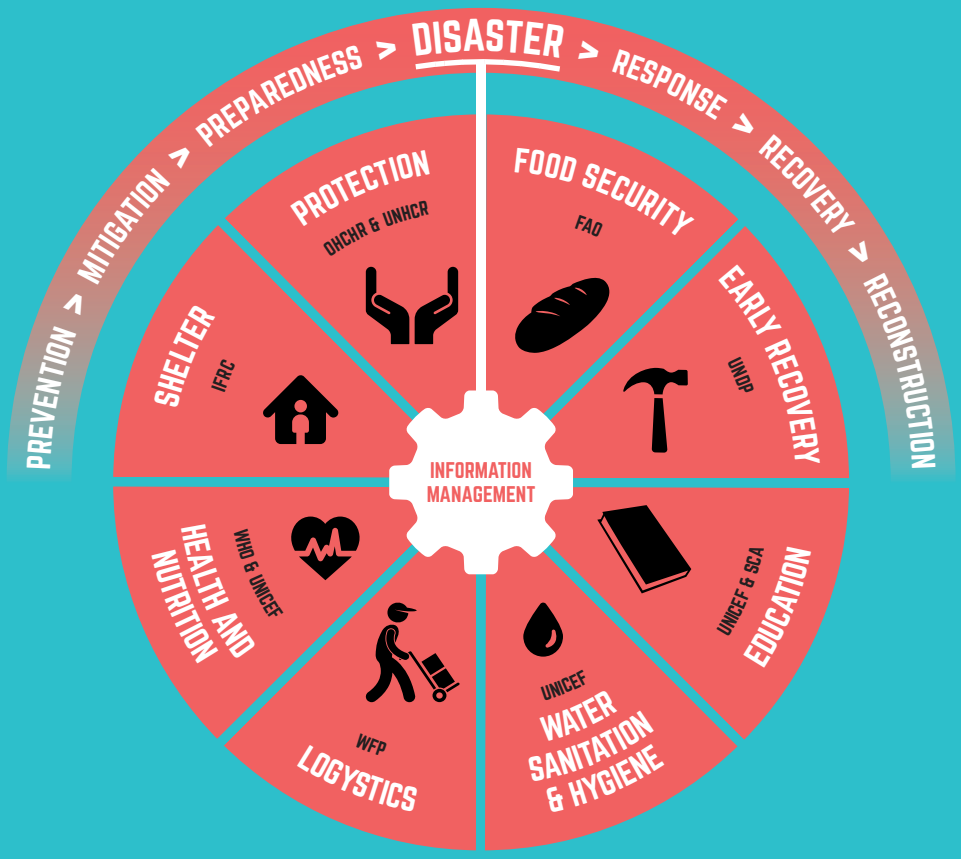
Due to the nature of initial responses to emergencies, many of the following examples come from the social and ecological dimensions of GEN's map of regeneration and also include methods and tools based on permaculture design.

Later stages of disaster response as well as stages of disaster prevention and increasing of community resilience can then also focus more on the economic and cultural aspects of ecovillage design.

photo credit:
Musurrakuna Colombia

GEN Principles & UN clusters

UN cluster model

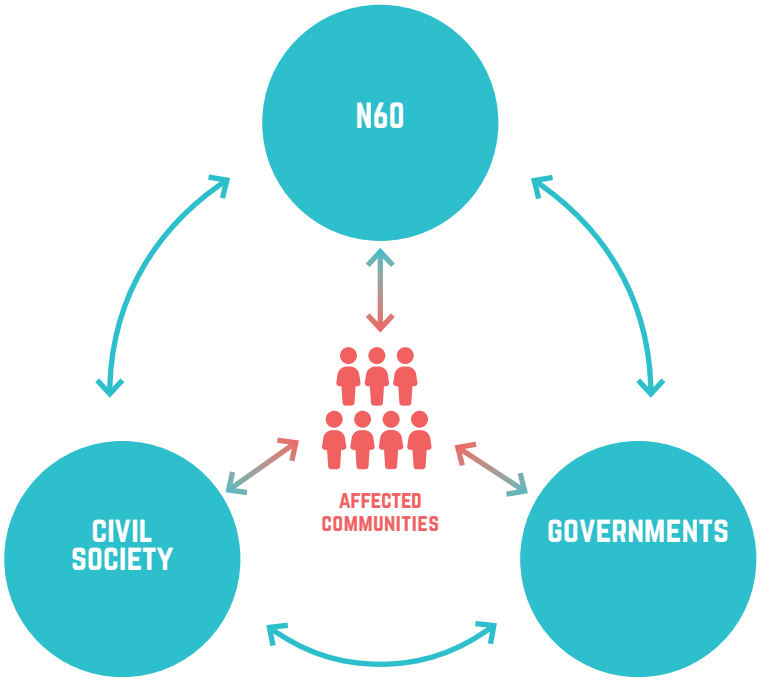


As one of the major humanitarian organisations, the United Nations has developed a cluster approach to improve leadership, organization, and transparency in emergency responses through thematic areas of intervention.

While this helps to streamline coordination across all areas of need, affected communities often deal with the interconnection between systems in relation to needs - organizations should therefore look for integral solutions that can help to minimize the gaps and overlaps created when implementing a more disconnected, clustered humanitarian aid response. For example, the UN's WaSH cluster includes water provision and treatment without being connected to the SHELTER cluster dealing with housing solutions.

This means that oftentimes different organizations act to address a family's or community's basic need of a house with a bathroom without much cross-organisational communication - often leading to flaws in the design and usability.

Photo credit: RefuGEN



The Global Ecovillage Network, through the EmerGENcies programme, promotes knowledge transfer and capacity building by systematising experiences and gathering case studies in order to contribute to the development of a sustainable, resilient, and regenerative approach to humanitarian assistance.

EmerGENcies projects start with local design and implementation with a bottom-up focus, thereby creating empowerment and participatory processes as well as encouraging the use of ecological and permacultural technologies and solutions that are aligned with GEN's integral vision.

1. PREVENTION AND MITIGATION, RESILIENCE IN SUSTAINABILITY
2. EARLY RECOVERY, FROM BOTTOM UP
3. REHABILITATION AND RECOVERY, HOLISTIC MANAGEMENT
4. REBUILD AND INTEGRAL HOUSING, ECOVILLAGE DEVELOPMENT

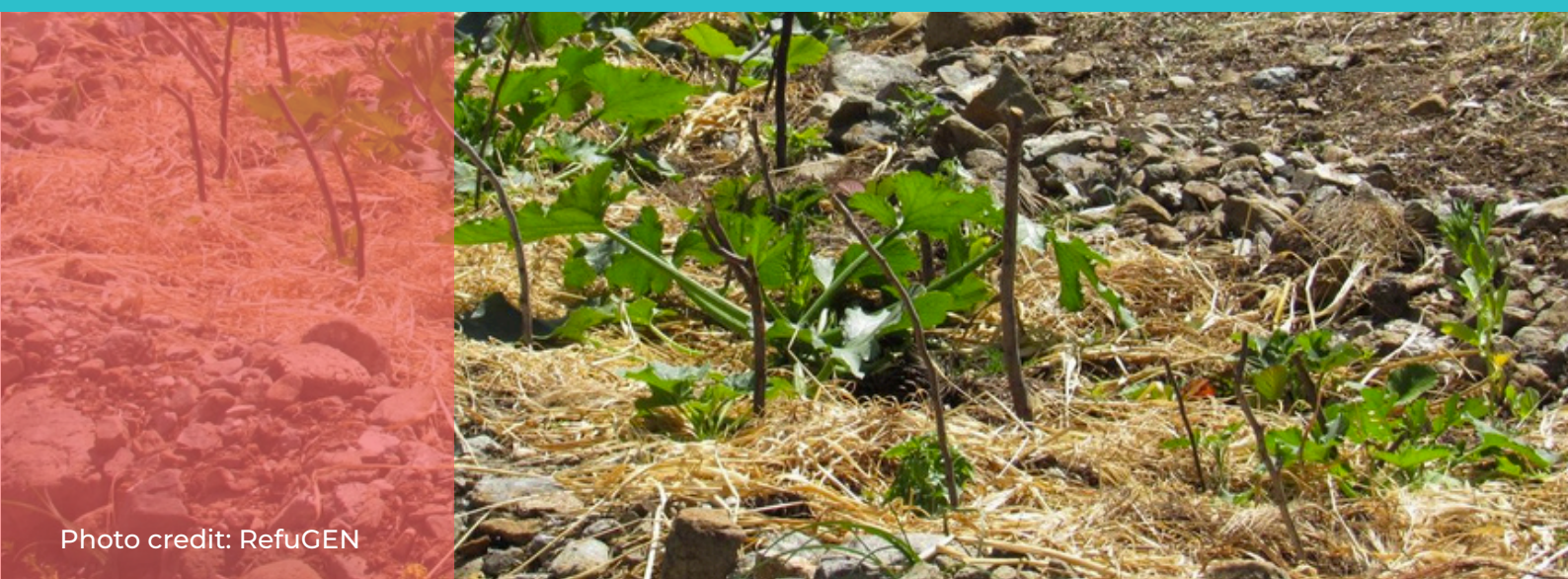
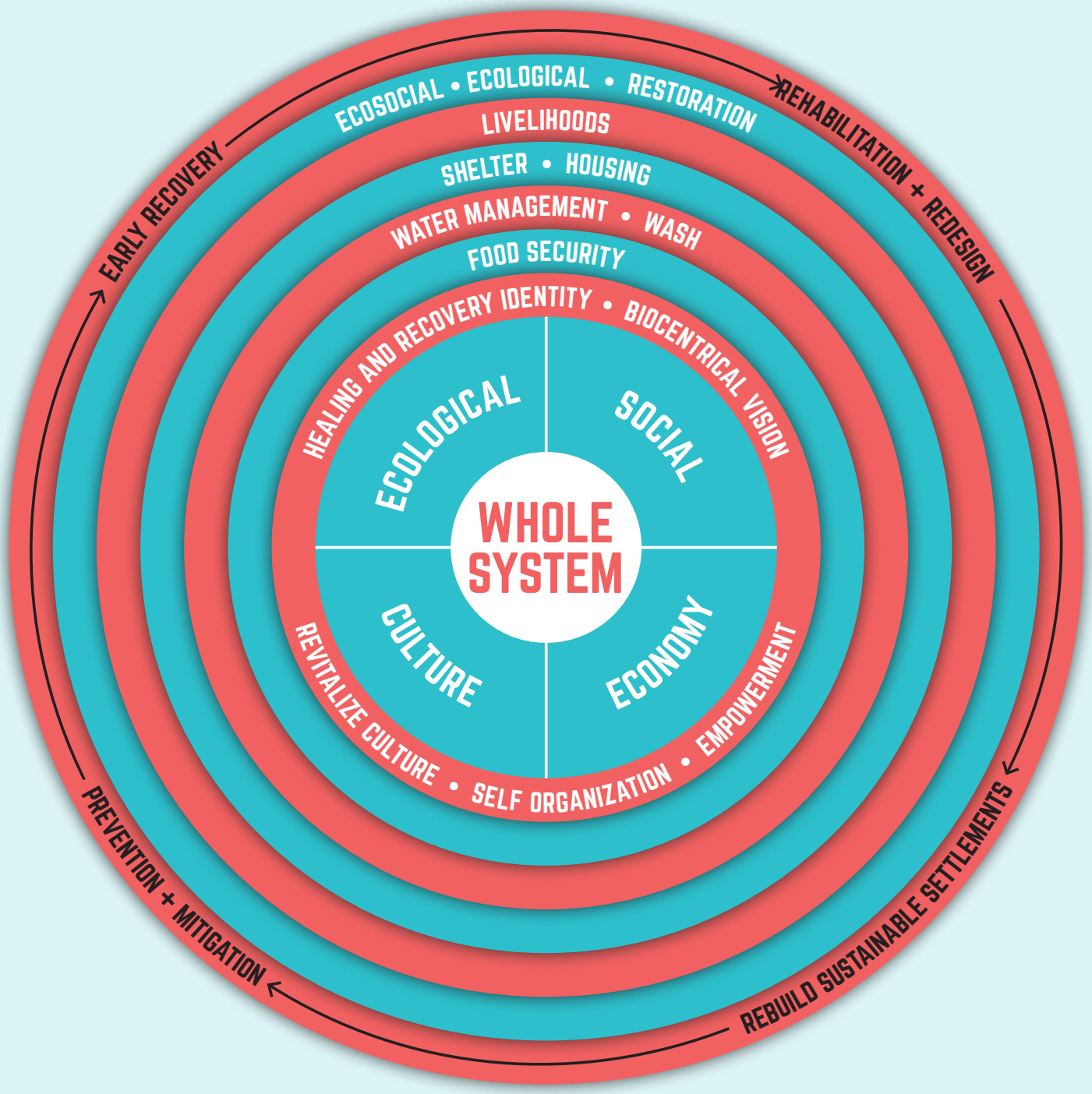


Photo credit: RefuGEN

Using GEN's integral and regenerative approach and processes allowing cooperation between affected communities, organizations, governments, and civil society, clusters can interact to create systemic solutions from the design to the implementation of resilient and sustainable settlements.

GEN has began an investigation into case studies from all regions of the world from both within the network and the permaculture field, that address the preparedness and response to situations such as floods, fires, earthquakes, and displacement.

Based on the information gathered, we developed a model of phases of intervention and outline the most important issues within each one, which we hope will help people and organizations face and deal with disasters in a more sustainable, cooperative and resilient way.



1. PREVENTION AND MITIGATION

- **Local and Regional Community Organizations:**

Self-organization is essential for resilience and preparedness. Healthy organizations have a systemic approach at heart that recognises, values, and empowers the different roles and capacities in a cooperative and participatory way, going from local to regional, to national and international, while being interwoven with the network. In this way, a resilient community able to respond to critical situations with teams and plans based on healthy and strong relations is organised. The community also develops the regional risk response plan, finding support in committees from their networks who can connect stakeholders and their teams to the aid organizations.

Education is necessary at this point to train response teams and draw up assistance policies that may empower affected people instead of seeing them as victims. Being prepared means that organizations can have operating manuals in place when they find themselves in an emergency - thereby activating community committees as well as enabling regional communication and collaboration. The local community is well organized and able to interact with governments and other national or international organizations.

- **Ecovillage and Eco-Social Regenerative Design:**

Designing and building resilient communities is especially based on self-reliant systems in water and energy provision, food security, and community organization in order to be prepared for disaster, crisis, and conflict. Populations that are exposed to consequences of climate change and to other global challenges, geographically or historically, can start the transition to a resilient and sustainable way of living and relating with their environment using the social, cultural, ecological, economic, and integral approach of GEN's map of regeneration.

Ecovillage design processes, such as mapping, can be very impactful: using the ecovillage principles as a basis to discover strengths and weaknesses, vulnerabilities and assets, allows for the integration of other risk reduction frameworks through the development of a participatory project in which communities can receive contributions from permaculturists, as well as risk reduction, social, education, economic and other experts. They can then cooperate in a creative process based on the results of the mapping to design and create ecological and resilient systems, local and regional organization, circular economies and cultural revitalization.

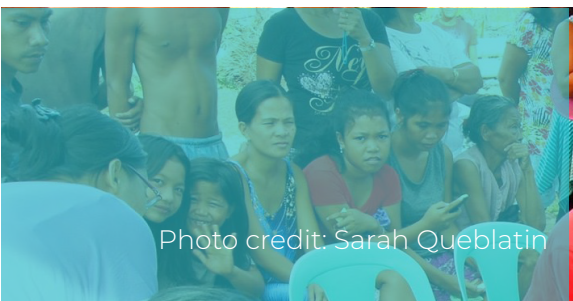


Photo credit: Sarah Queblatin

- **Disaster Mitigation with Permaculture Design:**

Diverse sources within the permaculture network have created risk reduction tools and techniques to prevent or be prepared for landslides, fires, floods, earthquakes, and others. Risk reduction is understood in permaculture design terms as helping to define the most resilient ways to build and develop human activities in relation to the environment. This can include earthquake resistant constructions, landslide and flood prevention through appropriate hydrological design, or planting barriers for fire.

Recommended Links:

EmerGENcies network

- Bangladesh - BASD (Bangladesh Association for Sustainable Development) trains communities in low-lying ecosystems to store food in earthen jars under the soil and homes are built with stilts to provide access during floods. Preparedness with Ecovillage Design: transformation of 42 communities to ecovillages

BASD

- Food Security and Permaculture Resilience: Restorative agriculture http://permaculturenepal.com/
- Green Releaf, in The Philippines uses participatory 3D mapping for the community to map areas of risk for hazards where vulnerable communities and structures are located as part of its Ecosystem Based DRR https://www.greenreleaf.org
- Design Solutions for Regenerative Settlements

https://www.blueprint-alliance.org/projects/bp200-design-solutions-regenerative-settlements

- Indonesia - IDEP Foundation trains communities in disaster preparedness using permaculture

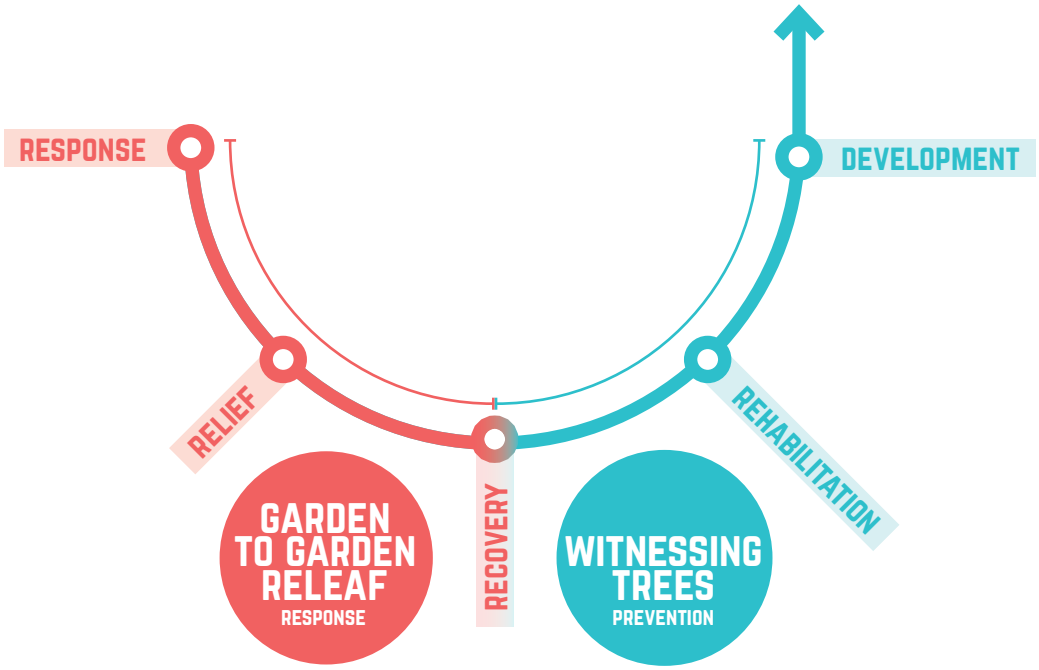
Disaster Management and Prevention

- **IDEP** - http://www.idepfoundation.org/en/what-we-do/disaster-management
- Japan - Konohana Family regularly does disaster simulation activities to prepare the community for emergencies

NOTE: To apply regenerative design in rural and urban contexts, resilience can be reached with temporary or permanent systems based on systemic and local approaches.

2. EARLY RECOVERY, RELIEF, BOTTOM -UP

Green Releaf U process from survivor to thriver



- **Local and Regional Community Response Organization**

Affected populations should not be seen as victims but as potential creators of a new reality. Setting up a community organization - at the camps or in other temporary shelters - based on an empowering process helps the community to hold the first stages of grief with appropriate emotional and psychological support, to provide the ritual spaces where members can gather and revitalize their social network and regain a sense of identity, and also to facilitate decision making processes. This organization can nurture the creative energies arising within the community that may lead to the sustainable regeneration and resilient reconstruction of their settlement.

In Colombia, the CASA Latina Mushurrunakuna Project brought together community leaders and elders, foremen, bricklayers, constructors, farmers and young community members with ecovillagers and experts in food security, bio-construction, permaculture, water management, eco-technologies, agroecology, waste management, governance, and project incubation. This diverse group then worked together to bring relief and create an ecovillage design for resilient settlements.

Mushurrunakuna - https://ecovillage.org/solution/casa-latina-and-emergencies-musurrunakuna-mocoa-colombia/

- **Solidarity Citizen Organizations, Volunteer Networks and Donations**

At the beginning of an emergency, citizen organization is very important and we have seen examples in our network of effective solidarity amongst ecovillage and permaculture initiatives. Most of the world's donations are centralized and exposed to manipulation. The eco-social approach promotes local, community based initiatives that can effectively channel donations and voluntary work to strengthen an integral project.

REFUGEN in Europe, for example, directed European ecovillage efforts to support the influx of refugees in Lesvos, Greece, with donations as well as by providing food security through permaculture gardens, offering appropriate technologies and supporting with participatory decision making processes. Furthermore, REFUGEN used donations from European ecovillages to train Syrian refugees in permaculture principles that they could apply at their camps, and some ecovillages in Denmark and Germany opened their doors and welcomed refugees.

In Mexico, the Bio-Reconstruction Network organized more than 750 volunteers to work in 5 states with relief brigades, including octors and psychologists, as well as people to help and work in the bio-construction of 40 permanent shelters and 12 houses.

Huerto Roma, for example, received 3000 volunteers who helped at least 12.000 people with donations, trauma healing, food and clothing - thereby bringing an example of community resilience to the city.

Example of voluntary network :

- **BIORECONSTRUYE MEXICO**

https://ecovillage.org/project/bioreconstruye-mexico/

- **REFUGEN**

https://ecovillage.org/with-refugen-on-lesvos/

- **DENMARK ECOVILLAGES RECEIVES REFUGEES**

https://expeditionecovillage.home.blog/2019/03/07/refugee-project-in-hallingelille-new-roots/

Photo credit: RefuGEN

- **Sustainable Donations**

Humanitarian aid donations should not lead to a waste disposal problem for affected populations - avoiding plastic and any items coming from large-scale industrial food systems therefore seems essential. Choosing low-plastic, sustainable hygienic products can further help minimize the waste accumulation in affected zones. With a little planning, donations can even catalyse sustainability and self-organization in communities by, for example, promoting the set up and running of gardens in camps. Regional solutions can also be found for the overall food supply based on people's solidarity. Such civil society self-organization has in many places accomplished to bring healthy food directly to affected communities through regional family connections. These kinds of examples can have an even greater impact if communities start working with resilience strategies before disasters strike.

Community Kitchen vs. Industrial Food Donation

Example Gardening in Camps: https://lemontreetrust.org/

- **Emotional Management**

In a state of emergency, both the affected population and relief team members need emotional and psychological support with methodologies and therapies that work on trauma recovery and help strengthen the thrivers' vision to see crisis as an opportunity for a rebirth with new resilience skills. Sharing stories in a circle supported by deep active listening has often brought relief to the pain and tensions within people, while also nurturing the strong social "container" that the community can provide in times of disaster.

Examples:

- The Philippines - Green Releaf uses fresh food and garden based relief assistance for internally displaced communities, addressing food and water security, waste management, and emotional recovery by using the gardens for healing.

GREEN RELEAF - https://www.greenreleaf.org/

Green Releaf´s key learning: Work with the pace of the community, allow them to grieve and recover before introducing something new. New ideas or methodologies can be slowly introduced to early adapters, not to everyone. These early adapters are leaders who can be trained for replication and scaling of solutions.

EMERGENCY PEDAGOGY - https://www.freunde-waldorf.de/en/emergency-pedagogy/

Photo credit: RefuGEN

- **Sustainable Camps**

Camps can be specifically designed for their transitory purpose in order to promote community organization and the incubation of projects. It is the first place where affected people come together to deal with their process of grief and rebirth, and therefore where social dynamics meet primary needs. This is where Ecovillage principles and/or community based approaches can offer valuable tools to empower the community, for example by building a community kitchen to cook together instead of eating industrial convenience foods, or by having other spaces for social interaction and community organization. Permaculture teams can be of great help in the design and set up the camp and to identify decentralized solutions, like temporary or permanent water provision, soil repair, waste disposal and others.

In Ecuador, the Comparte Project cooperated with 12 NGOs, 37 enterprises, 15 universities, and 8 government institutions to hold a permaculture Refugee Camp for over 300 people. They further incubated projects in 30 communities.

Permaculture for Refugees works in Africa, Asia and Europe to support the creation of productive and sustainable living situations for those who have fled from war, civil disturbance or environmental disaster. They have developed a specific manual on how to use permaculture in refugee camps and they hold the vision of creating transformative processes that lead to ecovillage solutions.

Permaculture for Refugee Camps -

https://www.permaculturefor refugees.org

THE FARM ECOVILLAGE has also created an **OUTREACH FOR DISASTER RELIEF** where we can track solutions and their work:

https://plenty.org/programs/disaster-relief-recovery/

Photo credit:
Comparte Worldwide

Photo credit: BioReconstruye Mexico

- **Demolition for Regeneration**

Although having to deal with demolition can be painful for affected populations, this can turn into a positive outcome when recycling comes into action. Debris can be reused for camp infrastructure by using technologies that work with the rubble - an example of this are evapotranspiration beds which can offer an effective use of recycled materials while being water management systems for ecological baths at the same time.

Evapotranspiration bed in Rambuche permaculture community Center in Ecuador

Community of Rambuche, together and by themselves, built their camp from parts of the collapsed houses from the earthquake.

- **Waste Management**

Addressing this important issue in an integral way can bring recycling, reusing, and composting solutions to the entire affected area and to camps to both ensure hygienic conditions and make use of existing materials. Green Releaf has developed a comprehensible manual on waste management that can be shared with communities and organizations:

https://www.greenreleaf.org/copy-of-our-work-1

3. REHABILITATION AND RECOVERY, HOLISTIC MANAGEMENT

- **Community Organization, Committees and Decision-Making Processes**

Self-organization is a goal to be reached for affected communities. As mentioned before, the UN's cluster approach creates overlaps of different organizations within a territory. To improve both efficiency and empowerment, various projects have developed holistic social designs through tools like sociocracy, participative leadership, ritual, and cultural celebration. Also, NGOs, governments, and other organizations should synchronise their interventions and create alliances to work together on solutions. The local organizations can work better if policies and contribution guidelines are developed.

Community Based and Permaculture Disaster Management: A complete guide for self-organization in communities, step by step for before, during and after the disaster

http://idepfoundation.org/en/what-we-do/get-idep-media/disaster-management-resources

- **Participatory and Integrative Eco-Social Redesign/ Ecovillage Design**

Empowered affected people are actively involved in the redesign and recreation of their community based on a shared vision deeply grounded in principles of GEN's map of regeneration. Using ecovillage regeneration tools and community based approaches, the community will engage in a self-organized process to reach resilience with the following objective:

"Design, plan, and develop an eco-social regeneration model based on local socio-economic, cultural, environmental and geographical forms in order to create safe and sustainable communities where the impact of disasters and climate change are minimized and the local and regional economy is reactivated."

Photo credit:
Bioreconstruye Mexico

Photo credit: http://www.greenreleaf.org

The BASD works with 42 communities to reach holistic development through ecovillage design and technical solutions specifically addressing climate change.

https://www.facebook.com/basdbd.org/

EARTH VILLAGE PROJECT
in The Philippines

http://www.mandalaearth.org/earth-village-project.html

RIO DOCE Alliance in Brazil created a Post Disaster mapping game to gather information, inspire people, and recuperate cultural identity.

http://www.aliancariodoce.org/acoes/jogo-do-rio-doce/

In the Philippines, Green Releaf is using ecovillage and permaculture solutions with IDPs from an ISIS attack now relocated in a resettlement. They are cultivating community leadership with early adapters to prepare the site as a learning center for other displaced communities.

http://www.greenreleaf.org

- **Regenerative Ecology and Territorial Planning Based on Environment and Risks**

Settlements are planned both in relation to the surrounding environment and with a collaborate vision in which humans co-create with nature while land use is planned to mitigate disasters and have nature based responses. Environmental regeneration can be achieved through permaculture, agroforestry, agroecology, hydrological design and social tools in order to minimize climate change, reduce risks, create livelihoods and establish food security programs.

The design can include local to regional scales as well as regeneration processes like hydrological design, restoration based on environmental characteristics and a risk reduction plan in the face of catastrophe and climate change. Tamera Ecovillage, for example, has developed hydrological design tools for environmental restoration that can bring resilience to large areas.

Tamera Ecovillage (Portugal)
https://www.tamera.org/

Permaculture Nepal:
http://permaculturenepal.com/

- **Community Centers, Education and Social Space**

Community centers are a key and repeated outcome of any project. They can be seen as spaces for eco-social regeneration by acting as a permaculture school, psycho-social therapy space, social and economic organization and cultural center. In that way, community centers are learning, sharing and healing spaces which enable and enhance group and community work. In Rambuche, Ecuador, the collective construction of a community and permaculture center made of bamboo activated the social organization, became a learning space for permaculture and sociocracy, and functioned as a demonstration site for eco-technologies such as bamboo construction, gardening, evapotranspiration beds or rocket kitchens. Aldea Domo in Chile has developed the Social Emergency centers which are bio-constructed domes for working, training and creating community within camps and disaster zones.

Rambuche Eco-social Regeneration Project in Ecuador -
http://www.ecopoblaciones.org

Aldea Domo in Chile -
https://aldeadomo.cl/

Photo credit:
http://www.ecopoblaciones.org/

- **Sustainable Temporary Shelters**

The humanitarian aid organizations' shelter cluster contains a wide range of information based on methods and processes that NGOs around the world use to provide large-scale solutions. A sustainable temporary shelter, however, should be based on the recycling and use of natural materials adequate to the climate, geography, and socio-economic characteristics of the area, thereby providing not only a roof but also a comfortable place from where the affected community can become active in the reconstruction process. Sustainable shelters therefore fulfill two purposes: enabling community work and providing the space for sustainable reconstruction.

In some cases, shelters can evolve from temporary to permanent dwellings in healthy and organic ways. In Ecuador, the CAEMBA initiative has built over 500 bamboo houses with private donations, as well as community and voluntary work whose design started with temporary shelters and ended in becoming beautiful homes.

CAEMBA - http://www.caemba.com/

- **WaSH**

From hygiene to the sustainable management of water in camps, reconstruction plans and hydrologic restorative design, the underlying principle is to avoid water contamination, use water efficiently, and honor it as a life keeper. Bathrooms are as much a part of any house, as the disposal of excrements is part of the environment and facilitating access to safe and hygienic sanitation systems is therefore paramount. In the WaSH programme, water and sanitation systems are designed using technologies that allow the harvesting, recycling and treatment of water while ensuring high hygienic standards and also allowing for environmental restoration.

BluePrint Alliance:
https://www.blueprint-alliance.org/

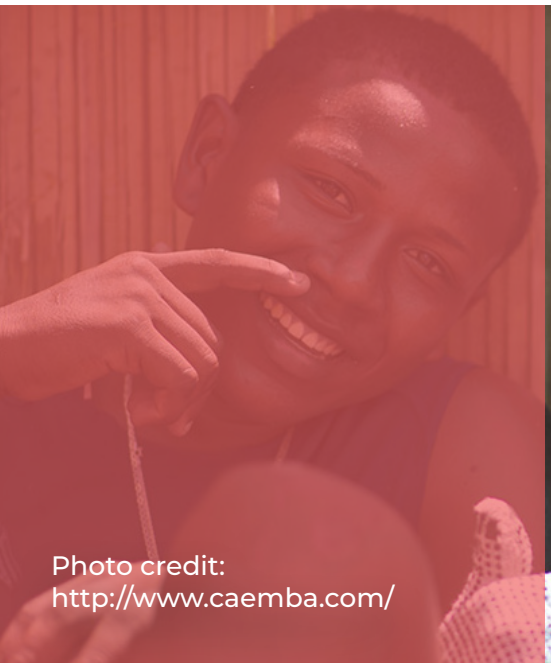


Photo credit:
http://www.caemba.com/

- **Food Security**

Finding solutions to this worldwide challenge in the emergency context is a priority in camps, shelters and reconstruction sites. Local food provision can be achieved through using local and regional markets, as well as through gardening and permaculture methods that include training in organic food growing. Achieving food security requires a systemic approach that includes processes in agroecology, agroforestry and urban agriculture, and works among ecological, economical and social aspects. This integral approach has the dual benefit of also enabling restoration: the Blueprint Alliance, which gathers various permaculture and ecovillage designers, is developing tools, methods and case studies specifically for land restoration.

Blueprint Alliance -
https://www.blueprint-alliance.org/

Lemontree Trust -
https://lemontreetrust.org/

SCOPE Programme -
Schools and Colleges Permaculture Programme of Zimbabwe -
http://www.seedingschools.org/

- **Livelihoods**

A renewal of the economy after disasters is also essential - however only effective if it goes beyond mere donations of particular goods or services to actually motivating the restoration or start-up of businesses and productivity. In a local to regional systemic approach, trade programs are designed to generate circular economies based on local skills and possibilities. Participatory processes like mapping to identify needs and strengths can also show paths to holistic and resilient settlements. In Ecuador, UNDP launched a community tourism entrepreneurs contest in a disaster area which led to the creation of the Rambuche community project with trainings in leadership, administration and marketing. The La Azulita Training Center in Venezuela uses agroecology and permaculture methods in gardening programs in partnership with the government and other organizations to restore food security.

LA AZULITA, VENEZUELA
https://ecovillage.org/project/ecoescuela-el-jardin/

Photo credit:
http://www.seedingschools.org

4. REBUILD, INTEGRAL HOUSING AND ECOVILLAGE DESIGN AND IMPLEMENTATION

- **Ecovillage Design in Relation to Integral Housing Plans**

Using ecovillage design during housing planning can lead to an integral approach that draws upon economic, social, cultural, and environmental participatory design tools in order to create sustainable and resilient settlements. These can nurture local work which in turn brings economic benefits, fosters social empowerment, and improves social conditions through community based cooperation. The ecovillage development plan contains participatory tools such as mapping that can help to design settlements based on local conditions. The housing design prototyping and the settlement planning should include not only social, economic, ecological, and cultural aspects, but also risk mitigation in order to contribute to preparedness and to empower and support stakeholders in livelihood planning.

Example: Integral Housing Plan

This housing plan was developed for a fishermen community that lost their houses and land when the government relocated the settlement. The Plan considers not only the layout of houses, but includes spaces for the development of the fishermen's work, to sell their products, a community center, recreation areas, and green spaces containing garden patches with biodigesters and composts, even in a small space.

Photo credit:
CAEMBA

Photo credit: JonGagnon

- **Bio-Construction for Rebuilding Resilient Houses and Settlements**

A sustainable home can be a systemic solution for improving resilience, health and wellness care, reducing risks, stopping the destruction of the environment and contributing to regeneration through the use of natural materials and ecological water management systems. Designs and materials are dependent on the land, culture, geography and climate and we can therefore find diverse experiences around the world in this field. Bamboo, for example, has proved to be the best material for seismic resistant houses while lime construction can result in flood resistant homes.

Example: Bamboo Building in Ecuador, bioclimatic, seismic resistant healthy home.

http://www.ecopoblaciones.org

Lime Stabilized Soil for Flood Resilient Building - Manual

https://www.humanitarianlibrary.org/resource/lime-stabilized-soil-flood-resilient-building

AREAS OF REGENERATIVE RESPONSE TO CRISES

Areas of response where GEN members (individuals, communities, and eco villages) have responded, is responding, and will be responding to. Harvested during the Ecovillage and Resilient Crises Response stand during the GEN + 20 Summit

Background Reading

Photo credit: Andrés Lievano

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Photo credit: BioReconstruye México

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