



CBEMR Community-Based Ecological Mangrove Restoration



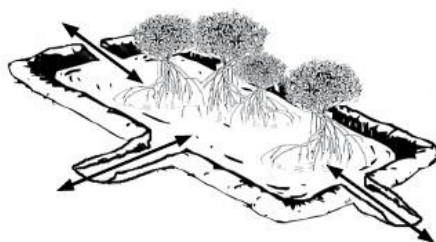
Information Sheet

MAP has been promoting the CBEMR methodology since 2005. MAP adopted CBEMR based on EMR developed by Robin Lewis of Florida, USA, as a means to rehabilitate mangrove forests in response to failures of mainstream restoration efforts that focus on nurseries and planting seedlings. Community-based (CB) was incorporated into EMR because community participation and stewardship are essential to successful restoration in the developing world.

What is CBEMR?

ecological restoration

Community-Based Ecological Mangrove Restoration is **a mangrove restoration methodology** that is grounded in the basic principle that restoring mangroves requires that **the natural ecological processes that once supported the healthy mangrove must be restored**. CBEMR thus places a strong emphasis on correcting hydrological problems and dealing with natural or man-made stressors in order to facilitate natural mangrove regeneration. It reaches far beyond mere hand-planting of seedlings, as is typical of most projects. CBEMR increases the effectiveness of restoring degraded mangroves by understanding the science that underpins natural regeneration and draws on decades of field experience.



community stewardship

CBEMR is also a participatory, community-led process that thinks long term. Community involvement occurs from the planning stage through implementation which often requires physical adjustments to the site, along with monitoring and follow-up. By engaging the local community from the onset of the restoration project, CBEMR does not consider community involvement as a mere mechanism to levy labour for field work. Rather **it relies on participation as an empowering process that creates a sense of ownership of the restoration project** amongst the community and that helps maintain the project's benefits long-term. The CBEMR approach teaches local people how to restore the hydrology of former or degraded mangrove sites to facilitate the natural regeneration of

mangroves.

Further reading on **Ecological Mangrove Restoration (EMR)** from Robin Lewis

→ [\(website\)](#)



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Where can I find out more on CBEMR?

MAP makes CBEMR knowledge and experience available via multimedia channels. Here is a selection!

CBEMR videos [↗](#)

- 1.) "Restoring The Natural Mangrove Forest": 10 min video showing MAP's CBEMR approach
- 2.) "CBEMR a sustainable approach to mangrove restoration": a 2 min. intro
- 3.) "Mangroves: Reducing the Risk of Disaster through Nature-Based Solutions": 9 min video explaining the Ecosystems Protecting Infrastructure and Communities (EPIC) project on Koh Klang, Krabi



CBEMR blog [↗](#)

... reports experience about MAP's CBEMR sites.

CBEMR projects

Between 2009-2018 MAP has implemented 12 CBEMR demonstration projects in 4 provinces along the Andaman Sea coast of southern Thailand. Most of these sites were single abandoned shrimp aquaculture ponds with the most recent site involving 3 interconnected ponds but one site was degraded mangroves and another an experimental afforestation site. All sites required hydrological restoration by a backhoe and/or hand digging. Livelihoods and environmental education / awareness raising are an integral part of our holistic approach. A CBEMR network has been developed amongst 8 communities, and their restoration sites are being used for field study trips by communities and groups interested in learning about CBEMR.



CBEMR e-group [↗](#)

MAP established the CBEMR e-group in 2005 to share information amongst mangrove restoration practitioners on the CBEMR methodology, practice in the field and other information on mangrove conservation. The CBEMR e-group is open to anyone interested in CBEMR and has proved to be an effective platform for information - and experience-sharing. As of July 2019, the CBEMR e-group counts more than 260 members including students, NGOs, academics, and mangrove restoration practitioners



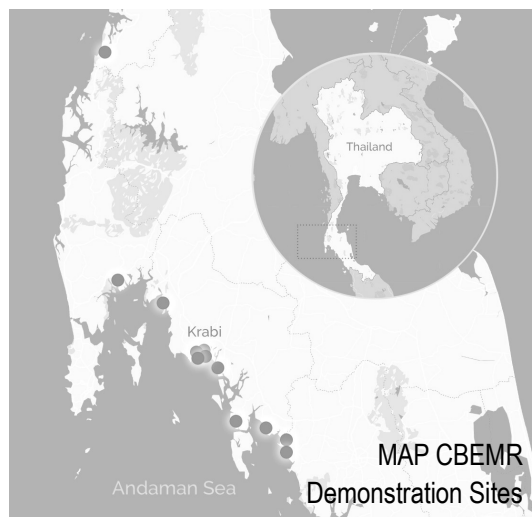
CBEMR website [↗](#)

And also [↗](#)



Key publications

- Global Nature Fund. 2015. Mangrove restoration guide: Best practices and lessons learned. GNF. Germany. [↗](#)
- Lewis & Brown. 2014. Ecological mangrove rehabilitation – a field manual for practitioners. Version 3. 275 p. [↗](#)
- Quarto. 2012. Ecological Mangrove Restoration (EMR): Re-Establishing a More Biodiverse and Resilient Coastal Ecosystem with Community Participation. Mangrove Action Project. [↗](#)
- Lewis. 2005. Ecological engineering for successful management and restoration of mangrove forests. Ecol. Eng. 24: 403-418. [↗](#)
- Robin Lewis' website contains about 150 publications [↗](#)
- 5 steps EMR manuals (available in 6 languages) [↗](#)



Does MAP provide CBEMR trainings?

Yes!

... as part of **MAP's commitment to make mangrove restoration work on the ground!**

Since 2015 MAP has held CBEMR training workshops in Cambodia, Colombia, El Salvador, Honduras, India, Indonesia, Malaysia, Myanmar, Senegal, Suriname, Sri Lanka, Tanzania and Thailand. Each training workshop is **custom-designed** for the participants and local region. The training usually involves 20-25 participants, lasts 3-12 days and includes several practical field study trips to the nearby mangroves.

