

CHAPTER 03:

Impact Journey & Metrics

Since its founding, GMT has worked to restore coastal ecosystems while supporting the communities that depend on them. By linking ecological restoration with livelihood opportunities, GMT has sought to address both environmental degradation and local challenges. From early efforts in Myanmar to the expansion of the Blue Carbon Corridor in Indonesia, GMT's approach has evolved in response to the needs of the people and landscapes it serves. Its work remains grounded in collaboration, learning, and a commitment to lasting impact.

Advancing the SDGs Through Community Impact

GMT's initiatives align with 12 of the 17 UN Sustainable Development Goals (SDGs):

SDG 1: No Poverty – Livelihood programs in silvofishery and women-led enterprises have created direct income opportunities in vulnerable communities.

SDG 2: Zero Hunger – Mangrove restoration has enhanced fish stocks and protected farmlands from saltwater intrusion, contributing to food security.

SDG 4: Quality Education – Programs like the Free School Boat ensure access to education for underserved children, fostering long-term community resilience.

SDG 5: Gender Equality – Women's participation in conservation leadership and livelihood activities has strengthened gender equity and female decision-making.

SDG 8: Decent Work and Economic Growth – Over 100 direct jobs and numerous indirect opportunities have been created through expanding nursery operations, active conservation patrols, and restoration activities across the watershed.

SDG 10: Reduced Inequalities – Inclusive governance and equitable resource distribution empower marginalized groups within communities.

SDG 11: Sustainable Cities and Communities – Mangrove conservation improves coastal resilience, ensuring safer, sustainable habitats for local populations.

SDG 12: Responsible Consumption and Production – Waste management initiatives have recycled over 4 tonnes of materials.

SDG 13: Climate Action – GMT's mangrove restoration projects have avoided over 2,594,027 tCO₂e, mitigating climate change.

SDG 14: Life Below Water – Revitalized mangrove ecosystems support marine biodiversity, benefiting over 4,000 fish species.

SDG 15: Life on Land – Mangrove forests provide habitats for endangered species and act as natural barriers against extreme weather events.

SDG 17: Partnerships for the Goals – Collaborations with YAGASU, Marex, and other partners have amplified GMT's reach and impact.

Community-Led Projects and Early Lessons

GMT's experience working with coastal communities has shown that lasting conservation depends on meaningful community involvement. Early efforts in Myanmar highlighted the need to align projects with local priorities such as jobs and food security. This understanding shaped GMT's approach in North Sumatra, where participatory governance and livelihood support became central to its work.

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"The communities we work with are the true custodians of the forest; their involvement is critical to our success."

- Dr. Mohamed Abdelwareth,
GMT Project Lead

Navigating Challenges

Balancing conservation with economic realities is an ongoing challenge. GMT works alongside community leaders and representatives to co-design solutions that respond to local needs, recognizing that priorities shift as economic and environmental pressures change. Programs like Silvofishery and women-led enterprises are developed with community input to ensure they provide meaningful benefits. By fostering dialogue with local leaders and governments, GMT helps mediate conflicts and support collaborative decision-making, allowing initiatives to adapt over time.

Gender and Social Inclusion

Women stand at the heart of GMT's community impact. Programs focus on economic empowerment to help shift traditional gender roles by providing local women with practical skills and alternative incomes. When women become breadwinners, they gain stronger voices in household decisions, and can more readily advocate for better land use choices. Beyond financial benefits, livelihood programs thus elevate women's roles in conservation leadership and foster inclusive governance. Today, job training and market access support help women's co-ops create and sell mangrove foods, seafood products, and batik textiles.

Socio-Economic Impact: Empowerment through Livelihoods

01 Education Access

Programs like the Free School Boat initiative launched in 2024 in Pulau Kampai village address immediate needs by providing safe transportation for students. This intervention ensures children can access education across the watershed despite geographical barriers, strengthening community trust in GMT's work.

02 Sustainable Livelihoods

GMT's Silvofishery programs transform aquaculture practices by providing tools and training for sustainable fishing. Similarly, tradecraft workshops for women's groups introduce income-generating activities producing mangrove-based soap, dyes for batik fabric, and food products. Artisanal production co-ops empower women economically and promote gender equality in household decision-making.

03 Smart Patrol Systems

Communities are being trained to use mobile-based patrol tracking and reporting tools, enabling them to monitor and protect mangrove forests. With the accelerating rise in smart-phone availability at the first mile, GMT is increasing investment in point-of-impact reporting tools that enrich and validate organizational level reporting. The resulting, more participatory model of impact reporting promises to foster greater accountability while reducing local reliance on destructive activities.



"Together with GMT, we've found that creating long-term, sustainable livelihoods is just as important as the improved land-use outcomes we achieve in the field. By empowering the communities to prosper in tandem with the forest, we sustain our most powerful allies for impact."

- Dr. Meilinda Suriani Harefa
(YAGASU)

Measuring Impact

At GMT, we adopt a structured approach to track and evaluate the socio-economic and environmental outcomes of our projects. Our impact measurement focuses on key areas of participation, employment, economic growth, and environmental conservation. Community feedback and adaptive management ensure our programs remain effective and responsive to local needs.

Participation and Capacity Building

- Workshops, training events, and restoration activities are the backbone of community engagement.
- Metrics include attendance, participant demographics, and event frequency.

Sustainable Livelihood Development

- Women's Income Generating Activities (IGA) and silvofishery programs central to economic empowerment strategies.
- Metrics include new silvofishery ponds funded, jobs, and income generated

Conservation and Restoration

- Mangrove restoration and waste management initiatives promote biodiversity and coastal resilience.
- Metrics include hectares conserved, trees planted, and waste collected.

Educational Access

- Ensuring underserved students can access schooling via the Free School Boat program.
- Metrics include the number of students served annually.

Impact Metrics (2019–2024)

The outcomes of our initiatives are summarized below:

Environmental Impact

GMT's conservation efforts have achieved the following:

- **Carbon Sequestration:** Avoided over **2,594,027 tCO₂e**, significantly contributing to climate change mitigation.
- **Mangrove Protection:** Conserved **3,854 hectares** of mangrove forests, with 70.21 hectares under active restoration.
- **Waste Management:** Facilitated the recycling of **3.97 tonnes** of waste through community-led initiatives.

Environmental Metrics	Total
Community MOUs Signed for Regenerative Conservation	12
Hectares of Mangrove Forest Conserved	3854 ha
Hectares of Mangrove Forest in Active Restoration	70.21
Restoration Trees Planted	136,125
Silvofishery Ponds Monitored / as a Business model for 5 years	13
Village Silvofishery Ponds Funded	3

Social and Economic Impact

Our community-centered programs have resulted in:

- **Job Creation:** Generating more than 250 direct jobs and numerous indirect livelihood opportunities across 9 villages.
- **Women's Empowerment:** Women constitute 69% of direct beneficiaries, reflecting inclusive development across programs.
- **Education Access:** Over 50 students have benefited from the Free School Boat program in the Pulau Kampai village in GMT's first easement in North Sumatra.
- **Training and Skill Development:** Delivered 48 training events, building capacity across restoration, silvofishery, and conservation roles.

Social Impact Metrics	Total Number
Mangrove Stewardship Training Events	48
Women Livelihood Workshops and Trainings	19
Women IGA Participants	191
Silvofishery Livelihood Workshops and Trainings	5
Silvofishery Group Participants	63
Forestry Inventory Training (3) and Monitoring (4) Events	7
Patrol Training (9) and Interdiction (24) Events	33
Nursery and Restoration Training Events	12
Permanent Nurseries Established	9
Nursery and Restoration Group Participants (Women)	36
Planting Missions for Active Reforestation	6
Number of Jobs Created	245
Number of People Impacted	481
Number of women impacted	242
% of Women Impacted	69%