



ROOTS FOR RESILIENCE 7030

CLUSTER RESOURCE PACK

Restoring Our Mangroves. Protecting Our Caribbean.



A practical guide for Rotary Clusters across District 7030

Site selection | Partnerships | Rehabilitation | Education | Monitoring | Reporting

Contents

1. Purpose of this Resource Pack
2. Getting Started - The Cluster Roadmap
3. Initial Partner Outreach Template
4. Mangrove Site Assessment Checklist
5. Selecting the Right Rehabilitation Activity
6. The Cluster Project Planning Sheet
7. Suggested Six-Month Implementation Timeline
8. Mangrove Guardians Starter Guide
9. Mangrove Learning Station Guide
10. Volunteer and Site Safety Checklist
11. Equipment Checklist
12. Measuring District Impact
13. Before-and-After Monitoring
14. Mangrove Planting Survival Rate
15. Community Engagement Toolkit
16. School and Interact Activities
17. Potential Sponsorship Package
18. Sample Sponsor Pitch
19. Public Image and Storytelling Guide
20. Project Do's and Don'ts
21. Recommended Project Standards
22. District Recognition Checklist
23. Potential Funding
24. Useful Technical Resources
25. Cluster Start-Up Checklist
26. The Roots for Resilience Commitment

1. Purpose of this Resource Pack

This Resource Pack is designed to help Rotary Clusters across District 7030 move Roots for Resilience 7030 from concept to action.

It provides clusters with simple tools and guidance to:

- Identify an appropriate mangrove site or conservation activity
- Find suitable technical and community partners
- Assess the needs of the selected site
- Develop an appropriate rehabilitation activity
- Mobilize Rotary, Rotaract and Interact members
- Engage surrounding communities
- Establish a Mangrove Guardians programme
- Monitor rehabilitation activities
- Measure and report environmental impact
- Promote the project within the community

The most important principle is:

Restore the ecosystem, not simply plant trees.

Mangrove rehabilitation is site-specific. Clusters should not begin a project by purchasing seedlings or deciding how many mangroves they want to plant.

Best-practice mangrove restoration emphasizes first understanding why the mangrove ecosystem became degraded, whether natural regeneration is possible, and whether hydrology, sediment movement or other ecological conditions need to be restored. Planting should only be undertaken where technically appropriate.

2. Getting Started - The Cluster Roadmap

Step 1 - Establish the Cluster Project Team

Appoint a small team to coordinate the project.

Cluster Project Lead: Coordinates the overall project.

Technical/Partner Liaison: Works with environmental agencies, NGOs and technical specialists.

Community Engagement Lead: Coordinates residents, schools and community organizations.

Youth Engagement Lead: Coordinates Rotaract, Interact and student involvement.

Public Image Lead: Documents and promotes the project.

Monitoring and Reporting Lead: Collects the District impact data.

Individual clubs within the cluster can each take responsibility for different components of the project.

Step 2 - Identify Potential Mangrove Sites

Clusters should identify one or more potential mangrove ecosystems within their territory.

- Degraded mangrove forests
- Coastal wetlands
- Mangrove areas affected by waste dumping
- Areas experiencing restricted tidal flow
- Mangrove ecosystems near communities
- Areas experiencing coastal erosion

- Existing restoration sites requiring continued support
- Mangrove nurseries operated by established environmental organizations
- Protected mangrove areas requiring community education or monitoring

Do not select the final site without consulting an appropriate environmental authority or technical partner.

Step 3 - Find a Technical Partner

Every cluster should seek at least one organization or professional with expertise in mangroves, wetlands or coastal ecosystems.

- Government environmental agencies
- Forestry departments
- Fisheries departments
- Universities
- Marine science institutions
- Environmental NGOs
- Wetland conservation organizations
- Protected area managers
- Coastal engineers
- Marine biologists
- Ecologists
- Community organizations already working with mangroves

The technical partner should help determine:

- Whether rehabilitation is required
- Why the mangrove site has degraded
- Whether natural regeneration is occurring
- Whether planting is appropriate
- Which species are suitable
- Whether water flow needs improvement
- Whether permits or approvals are required
- What monitoring should be undertaken

3. Initial Partner Outreach Template

Clusters can use the following message when approaching potential technical partners:

Subject: Partnership Request - Roots for Resilience 7030 Mangrove Rehabilitation Initiative

Dear [Organization/Name],

Rotary District 7030 is implementing Roots for Resilience 7030, a District-wide mangrove rehabilitation and coastal resilience initiative involving Rotary Clusters across the Caribbean and Guianas.

Our cluster is seeking to identify and support an appropriate mangrove rehabilitation or conservation activity within [country/territory].

Given your organization's experience in environmental conservation, we would welcome the opportunity to explore a partnership, particularly in relation to site identification, technical guidance, appropriate rehabilitation activities and long-term monitoring.

The initiative is intended to move beyond one-time mangrove planting and instead support scientifically appropriate ecosystem rehabilitation, community education and stewardship.

We would be grateful for an opportunity to discuss potential collaboration.

Kind regards,

[Name]

[Rotary Cluster/Club]

Roots for Resilience 7030

4. Mangrove Site Assessment Checklist

Before selecting a project activity, clusters should visit the proposed site with their technical partner. Use the following questions as a starting point.

About the Site

- ☐ What is the name and location of the mangrove area?
- ☐ Who owns or manages the site?
- ☐ Is the site protected by law?
- ☐ Are permits required to undertake activities?
- ☐ Are communities located nearby?
- ☐ Are there existing environmental projects at the site?

Condition of the Mangrove

- ☐ Is the mangrove ecosystem healthy, degraded or severely degraded?
- ☐ Are mangroves naturally regenerating?
- ☐ Are mature mangrove trees present nearby?
- ☐ Is there evidence of mangrove loss?
- ☐ Is coastal erosion occurring?
- ☐ Are there invasive plants or other environmental threats?

Water and Hydrology

- ☐ Is natural tidal water flowing through the area?
- ☐ Are drains, channels, roads or structures restricting water flow?
- ☐ Is the site experiencing unusual flooding or drying?
- ☐ Has the technical partner identified hydrology as an issue?

Pollution and Human Activity

- ☐ Is plastic waste present?

- ☐ Is illegal dumping occurring?
- ☐ Are fishing activities affecting the area?
- ☐ Are nearby businesses or communities affecting the ecosystem?
- ☐ Is sewage or wastewater entering the site?
- ☐ Are vehicles or boats damaging the area?

Community

- ☐ Who uses the mangrove ecosystem?
- ☐ Are fisherfolk dependent on the area?
- ☐ Are residents willing to participate?
- ☐ Are schools located nearby?
- ☐ Are there community organizations that could become partners?

5. Selecting the Right Rehabilitation Activity

Once the assessment has been completed, the technical partner and cluster should determine the most appropriate intervention.

Option A - Mangrove Clean-Up

Best suited to areas affected primarily by solid waste.

- Removing plastics
- Removing bottles and cans
- Removing fishing debris
- Collecting bulky waste
- Establishing waste collection points
- Conducting anti-dumping education

Option B - Natural Regeneration Support

Where mangroves can naturally recover, clusters may assist by removing the pressures preventing regeneration.

- Removing waste
- Protecting young mangroves
- Preventing trampling
- Reducing human disturbance
- Supporting restoration of water flow under expert supervision
- Establishing protective areas

Natural regeneration can often produce more resilient and ecologically appropriate mangrove ecosystems than mass planting when the necessary environmental conditions are restored.

Option C - Mangrove Planting

Planting should only be undertaken where a technical assessment determines that it is necessary.

The technical partner should determine:

- Appropriate species
- Appropriate location
- Suitable elevation

- Tidal conditions
- Planting method
- Spacing
- Timing
- Source of seedlings or propagules
- Monitoring requirements

Clusters should never plant mangroves simply because an empty coastal area appears suitable.

Mudflats, seagrass areas and other coastal habitats can also have significant ecological value and should not automatically be converted into mangrove planting sites.

Option D - Mangrove Nursery

Where appropriate, clusters can support an existing nursery or establish one with an experienced environmental partner.

- Nursery materials
- Seedling containers
- Shade structures
- Watering equipment
- Volunteer support
- Educational activities
- Transportation

Nurseries should be connected to a defined rehabilitation programme rather than growing seedlings without an identified suitable destination.

Option E - Community Education and Protection

Some healthy mangrove ecosystems may need protection rather than rehabilitation.

- Environmental signage
- School programmes
- Guided mangrove tours
- Anti-dumping campaigns
- Community education
- Biodiversity awareness
- Mangrove Guardians
- Citizen science
- Community monitoring

6. The Cluster Project Planning Sheet

Each cluster should complete the following before implementation.

Cluster: _____

Country/Territory: _____

Participating Clubs: _____

Mangrove Site: _____

Technical Partner: _____

Community Partner(s): _____

Primary Environmental Problem: _____

Proposed Intervention: _____

Project Start Date: _____

Monitoring Dates:

Month 0: _____

Month 3: _____

Month 6: _____

Estimated Volunteers: _____

Estimated Budget: _____

Youth Participation Planned: Yes / No _____

Community Education Activity: _____

Mangrove Guardians Programme: Yes / No _____

7. Suggested Six-Month Implementation Timeline

Month 1 - Identify

- Establish Cluster Project Team
- Identify potential mangrove sites
- Contact environmental partners
- Conduct initial discussions
- Select preferred site

Month 2 - Assess

- Conduct site visit
- Complete baseline assessment
- Identify cause of degradation
- Determine appropriate rehabilitation activity
- Obtain required approvals
- Take baseline photographs

Month 3 - Prepare

- Finalize project plan
- Secure funding and sponsorship
- Purchase or obtain equipment
- Recruit volunteers
- Engage schools and communities
- Launch public awareness campaign

Month 4 - Act

- Conduct the major rehabilitation activity
- Clean-up
- Restoration activity
- Mangrove planting where recommended
- Community education

- Mangrove Guardian recruitment

Month 5 - Educate

- Conduct school activities
- Engage surrounding communities
- Establish Learning Station where appropriate
- Continue environmental awareness campaign

Month 6 - Monitor

- Return to site
- Conduct monitoring
- Record changes
- Photograph the same monitoring points
- Conduct maintenance where necessary
- Submit preliminary impact data to the District

Clusters should continue monitoring beyond the initial six-month implementation period where possible.

8. Mangrove Guardians Starter Guide

Clusters can establish a local Mangrove Guardians group to encourage long-term community stewardship.

Who Can Become a Guardian?

- Interactors
- Rotaractors
- Students
- Fisherfolk
- Residents
- Environmental club members
- Tourism operators
- Community volunteers

Mangrove Guardian Pledge

As a Mangrove Guardian, I commit to helping protect our mangrove ecosystems, encouraging responsible environmental practices, participating in conservation activities and promoting the importance of mangroves within my community.

Suggested Guardian Activities

Guardians can:

- Participate in quarterly monitoring
- Assist with clean-ups
- Photograph the site
- Observe young mangrove growth
- Report illegal dumping
- Participate in community education
- Promote mangrove protection online
- Help maintain the Mangrove Learning Station

Young participants can receive a Roots for Resilience 7030 Mangrove Guardian Certificate.

9. Mangrove Learning Station Guide

Clusters can install a simple weather-resistant sign containing a QR code. The QR code can link to a webpage, document or District information page containing:

About Our Mangroves

What are mangroves?

Why They Matter

How mangroves support:

- Coastal protection
- Fisheries
- Biodiversity
- Water quality
- Climate resilience
- Community livelihoods

Meet Our Mangroves

Information about the mangrove species found at the site.

Wildlife Watch

Information about birds, fish, crabs and other wildlife supported by the ecosystem.

Our Restoration Journey

- Before photographs
- Project activities
- Monitoring photographs
- Impact statistics

How You Can Help

- Do not dump waste
- Avoid damaging young mangroves
- Participate in clean-ups
- Reduce plastic use
- Join the Mangrove Guardians
- Report environmental damage

10. Volunteer and Site Safety Checklist

Before every field activity, clusters should conduct an appropriate risk assessment.

- ☐ Tides
- ☐ Weather conditions
- ☐ Deep water
- ☐ Mud and unstable ground

- ☐ Sharp objects
- ☐ Broken glass
- ☐ Fishing hooks
- ☐ Wildlife
- ☐ Insects
- ☐ Heat exposure
- ☐ Dehydration
- ☐ Access and evacuation routes
- ☐ First aid
- ☐ Appropriate footwear
- ☐ Gloves and protective equipment
- ☐ Safe collection and disposal of waste

Children and young participants should be appropriately supervised.

Volunteers should not handle unidentified chemicals, medical waste, sewage, hazardous materials or other dangerous substances. These should be reported to the relevant authorities.

Clusters should also follow all national environmental, occupational safety and protected-area requirements applicable in their respective territories.

11. Equipment Checklist

Depending on the activity, clusters may require:

Clean-Up

- ☐ Heavy-duty gloves
- ☐ Garbage bags
- ☐ Reusable sacks
- ☐ Litter grabbers
- ☐ Buckets
- ☐ Boots
- ☐ First-aid kit
- ☐ Drinking water
- ☐ Sunscreen
- ☐ Waste weighing scale

Monitoring

- ☐ Camera or smartphone
- ☐ Measuring tape
- ☐ GPS-enabled device or phone
- ☐ Monitoring sheets
- ☐ Clipboards
- ☐ Waterproof markers

Planting - If Technically Recommended

- ☐ Approved native mangrove seedlings/propagules
- ☐ Tools recommended by the technical partner
- ☐ Appropriate protective equipment
- ☐ Transportation arrangements

12. Measuring District Impact

Every cluster should collect the same core data.

Cluster Impact Report

Cluster: _____

Country/Territory: _____

Mangrove Site: _____

Area rehabilitated/protected: _____

Mangroves planted, where appropriate: _____

Mangrove survival rate: _____

Kilograms of waste removed: _____

Number of volunteers: _____

Volunteer hours: _____

Rotarians participating: _____

Rotaractors participating: _____

Interactors participating: _____

Other young people participating: _____

Community members reached: _____

Educational activities conducted: _____

Partner organizations: _____

Mangrove Guardians recruited: _____

Major environmental improvement observed: _____

13. Before-and-After Monitoring

Every cluster should identify at least three fixed photographic monitoring points.

Month 0 - Baseline

Before rehabilitation begins.

Month 3 - Progress

Record early changes.

Month 6 - Impact

Record the condition of the ecosystem following rehabilitation and maintenance.

Where projects continue longer, clusters are encouraged to also monitor at:

Month 12 - Sustainability

Photographs should be taken from approximately the same position and angle each time.

Before → During → After

This will allow the District to create powerful visual comparisons across District 7030.

14. Mangrove Planting Survival Rate

Where planting forms part of the technically approved rehabilitation activity, clusters should monitor survival rather than reporting only the original number planted.

Example: Mangroves planted: 500 | Mangroves surviving at Month 6: 415 | Survival Rate: 83%

This provides a better indication of project performance than simply reporting: “500 mangroves planted.”

Long-term success should also consider whether the ecosystem is becoming diverse, functional and capable of sustaining itself, rather than relying solely on tree counts.

15. Community Engagement Toolkit

Clusters should identify the communities most closely connected to the selected mangrove ecosystem.

Consider engaging:

- Fisherfolk
- Residents
- Schools
- Tourism operators
- Farmers
- Businesses
- Youth organizations
- Local government representatives

Ask the community:

What has changed in this mangrove area?

What are the biggest threats?

How is the mangrove used by the community?

What would help protect it?

Who should be involved?

Community participation should begin during project planning rather than only when volunteers are needed.

16. School and Interact Activities

Interact Clubs and schools can participate even where students cannot safely enter mangrove sites.

- Mangrove poster competitions
- Environmental quizzes

- Classroom presentations
- Mangrove species identification
- Coastal resilience discussions
- Model mangrove ecosystems
- Photography competitions
- Environmental debates
- Mangrove Guardian programmes
- Social media awareness campaigns
- Guided educational tours

Students can also research:

How would our community change if our mangroves disappeared?

17. Potential Sponsorship Package

Clusters approaching corporate partners can request support for specific project components.

Equipment Sponsor

Supports:

- Gloves
- Boots
- Clean-up equipment
- Waste collection materials

Restoration Sponsor

Supports:

- Nursery activities
- Native seedlings where required
- Technical restoration activities

Education Sponsor

Supports:

- Mangrove Learning Stations
- School materials
- Educational signage
- Community workshops

Monitoring Sponsor

Supports:

- Monitoring equipment
- Environmental assessments
- Data collection

Transportation Sponsor

Supports:

- Volunteer transportation
- Waste removal
- Equipment transportation

Companies may also contribute staff volunteers and technical expertise instead of financial support.

18. Sample Sponsor Pitch

Roots for Resilience 7030 is creating a network of Rotary-supported mangrove ecosystems across the Caribbean and Guianas. Through rehabilitation, education and long-term monitoring, Rotary Clusters are helping strengthen natural coastal protection while engaging communities and young people in environmental stewardship.

We invite [Company] to partner with our cluster in protecting [Mangrove Site] by supporting [specific activity]. Your partnership will directly contribute to measurable environmental rehabilitation and community resilience.

19. Public Image and Storytelling Guide

Clusters should document the journey, not just the final activity.

Before

- Condition of the site
- Environmental problem
- Community concerns

During

- Volunteers working
- Technical specialists explaining the ecosystem
- Youth involvement
- Community participation

After

- Improved site condition
- New growth
- Wildlife
- Monitoring activities
- Mangrove Guardians

Tell the Impact Story

Instead of: “Our cluster planted 500 mangroves.”

Tell the fuller story: “Rotary members, environmental specialists, students and residents worked together to rehabilitate a degraded coastal ecosystem, remove waste, restore suitable conditions for mangrove recovery and establish a community monitoring programme.”

Suggested hashtags:

- #RootsForResilience7030
- #Rotary7030
- #ProtectOurMangroves
- #PeopleOfAction
- #ProtectingTheEnvironment

20. Project Do's and Don'ts

DO

- ✓ Engage environmental experts early.
- ✓ Understand why the site became degraded.
- ✓ Work with local communities.
- ✓ Obtain necessary permissions.
- ✓ Prioritize natural regeneration where appropriate.
- ✓ Use native species when planting is required.
- ✓ Monitor the project.
- ✓ Measure survival rather than planting numbers alone.
- ✓ Document before-and-after conditions.
- ✓ Plan for long-term stewardship.

DON'T

- ✗ Select a site simply because it looks empty.
- ✗ Begin by ordering thousands of seedlings.
- ✗ Plant without technical guidance.
- ✗ Assume every coastline should contain mangroves.
- ✗ Introduce non-native species.
- ✗ Alter tidal channels without authorization and specialist guidance.
- ✗ Plant over other valuable coastal habitats.
- ✗ Conduct one activity and never return.
- ✗ Measure success only by how many trees were planted.

Modern mangrove-restoration guidance specifically encourages ecological restoration approaches that address hydrology and other underlying conditions and involve local stakeholders throughout project design and implementation.

21. Recommended Project Standards

Every Roots for Resilience 7030 cluster project should aim to meet the following minimum standards:

- ☐ At least one qualified technical partner
- ☐ Appropriate approval to work at the site
- ☐ Baseline site assessment
- ☐ Baseline photographs
- ☐ Community involvement
- ☐ At least one rehabilitation or protection activity
- ☐ At least one educational activity

- ☐ Youth participation where possible
- ☐ Month 3 monitoring
- ☐ Month 6 monitoring
- ☐ District impact reporting
- ☐ Plan for continued stewardship

22. Potential Funding

Clusters should first determine the needs of the site before developing a budget.

Possible funding sources include:

- Participating Rotary Club contributions
- Rotaract Club contributions
- Corporate sponsorship
- Government environmental programmes
- Environmental grants
- Foundations
- Community fundraising
- In-kind donations
- Rotary Foundation grants where eligible

Rotary identifies protecting the environment as an area of focus and encourages projects that strengthen conservation, natural-resource protection and ecological sustainability. Rotary Foundation District Grants may support eligible small-scale, short-term activities, while Global Grants can support larger international projects with sustainable and measurable outcomes that meet Foundation requirements.

23. Useful Technical Resources

Global Mangrove Alliance - Best Practice Guidelines for Mangrove Restoration

<https://www.mangrovealliance.org/best-practice-guidelines-for-mangrove-restoration>

Wetlands International - Mangrove Restoration resources and toolkit

<https://www.wetlands.org>

Rotary International - Protecting the Environment

<https://www.rotary.org/our-work/protecting-the-environment>

Rotary International - Service Project Center and grants resources

<https://www.rotary.org>

Clusters should use internationally recognized technical information alongside local environmental expertise and national environmental requirements.

24. Cluster Start-Up Checklist

Week 1

- ☐ Appoint Cluster Project Lead
- ☐ Establish project team
- ☐ Contact participating Rotary and Rotaract Clubs

Week 2

- ☐ Identify potential mangrove sites
- ☐ Identify environmental organizations
- ☐ Contact potential technical partners

Week 3

- ☐ Conduct initial site visit
- ☐ Speak with surrounding community
- ☐ Determine ownership/management of site

Week 4

- ☐ Complete site assessment
- ☐ Select project intervention
- ☐ Identify approvals required

Week 5

- ☐ Develop budget
- ☐ Approach sponsors
- ☐ Recruit volunteers

Week 6

- ☐ Establish baseline monitoring points
- ☐ Take baseline photographs
- ☐ Confirm project activity date

Then Begin

RESTORE → EDUCATE → ADOPT → MEASURE

25. The Roots for Resilience Commitment

Each participating cluster becomes part of a wider District effort to demonstrate what coordinated environmental service can achieve.

The goal is not simply to say that Rotary planted mangroves.

The goal is to demonstrate that:

Rotary helped restore ecosystems.

Rotary helped communities understand why those ecosystems matter.

Rotary brought young people into environmental stewardship.

Rotary remained involved long enough to measure the change.

Through Roots for Resilience 7030, individual cluster activities become part of one collective environmental story across District 7030:

Restoring Our Mangroves. Protecting Our Caribbean.