



# Scaling Women-Led Adaptation for Green Roads for Water: A Scaling Manual

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## Executive Summary

This manual presents a step-by-step approach for upscaling women-led adaptation in road development and water management, using the People’s Adaptation Plans (PAP) methodology within the Green Roads for Water (GR4W) framework. Locally Led Adaptation (LLA) empowers vulnerable communities, especially women, to shape climate resilience strategies by shifting resources and decision-making power to the local level.

The PAP process includes nine practical steps: stakeholder mapping, formation of committees and women’s groups, climate risk assessment, recruitment and training of community mobilizers, settlement mapping, settlement profiling, household enumeration, climate risk profiling, and developing a list of costed priority interventions. Each step is designed to maximize community participation and ensure women’s leadership in planning and decision-making.

The GR4W approach integrates water management into road development, addressing drainage and flood risks while improving local livelihoods. Women Adaptation Labs play a central role, enabling women to identify climate vulnerabilities, propose solutions, and validate priorities with local authorities and technical experts.

This manual provides detailed instructions, lessons learned, and recommendations for upscaling each step, emphasizing inclusive engagement, technical collaboration, and ongoing support for women’s groups. The process culminates in the development of costed, community-validated intervention plans, with women actively involved in implementation and monitoring. The approach ensures sustainable, locally relevant, and gender-responsive adaptation for road infrastructure and water management.



## Acronyms

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<b>CSmaRT</b>	<b>Climate Smart Rural Transport</b>
<b>FGD</b>	Focal Group Discussions
<b>GCA</b>	Global Centre on Adaptation
<b>GIS</b>	Geographic Information System
<b>GR4W</b>	Green Roads for Water
<b>HQ</b>	Head Quarter
<b>KII</b>	Key Informant Interview
<b>LGED</b>	Local Government Engineering Department
<b>LLA</b>	Locally Lead Adaptation
<b>NGO</b>	Non-Government Organisation
<b>PAP</b>	People's Adaptation Plan
<b>PRA</b>	Participatory Rural Appraisal
<b>UP</b>	Union Parishad
<b>WALs</b>	Women's Adaptation Labs
<b>WaSH</b>	Water, Sanitation and Hygiene
<b>WB</b>	World Bank
<b>WBG</b>	World Bank Group

# Introduction to LLA and PAP methodology

Communities most affected by climate change are often highly innovative in developing adaptation solutions but lack the resources and agency to implement them effectively. Locally Led Adaptation (LLA) empowers these communities, especially women and marginalized groups, by shifting power and resources to the local level. The eight LLA principles promote inclusive decision-making, address inequalities, provide accessible funding, build local capacity, integrate diverse knowledge, ensure flexibility, promote transparency, and encourage collaboration.

The process for developing People’s Adaptation Plans (PAP) involves:

1. **Stakeholder Mapping:** Identify key actors and their roles.
2. **Formation of Committees:** Establish committees for strategic oversight and local leadership.
3. **Climate Risk Assessment:** Analyze current and future climate risks.
4. **Training Community Mobilizers:** Prepare local residents to collect data and engage communities.
5. **Settlement Mapping:** Map local features and infrastructure.
6. **Settlement Profiling:** Gather information on local climate risks through household interviews.
7. **Household Enumeration:** Conduct a census to collect demographic and socioeconomic data.
8. **Climate Risk Profiling:** Facilitate community discussions to identify and prioritize risks and solutions.
9. **Prioritizing Interventions:** Develop a list of validated, costed adaptation actions.

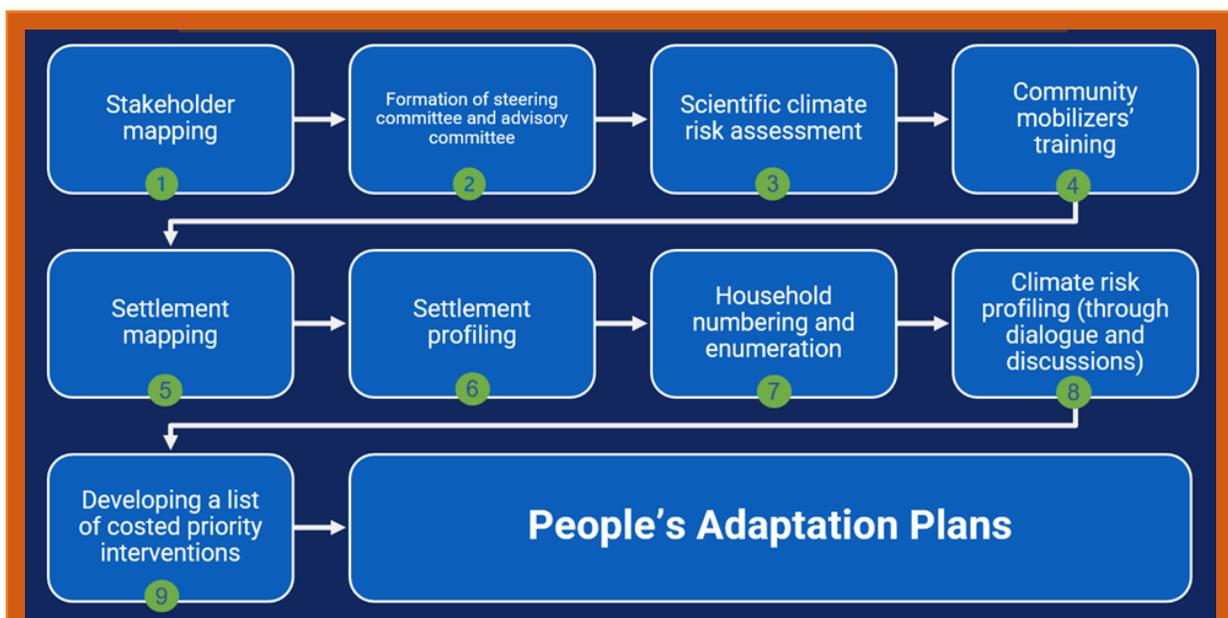


Figure 1: Steps in the development of People's Adaptation Plans

## Intro to Green Roads for Water (GR4W)

The Green Roads for Water approach addresses the missed opportunities in linking road development with water management, a gap that has contributed to drainage problems and increased flood risks in regions such as Bangladesh. By integrating water management into road planning and construction, this approach transforms roads into tools for climate resilience and sustainable development. The benefits are far-reaching: reduced waterlogging and road damage, improved access to essential services, enhanced agricultural and aquacultural productivity, better watershed management, and stronger local livelihoods.

Green Roads for Water goes beyond interventions on the road itself, considering impacts on both sides of the road, upstream and downstream, and across the broader landscape.

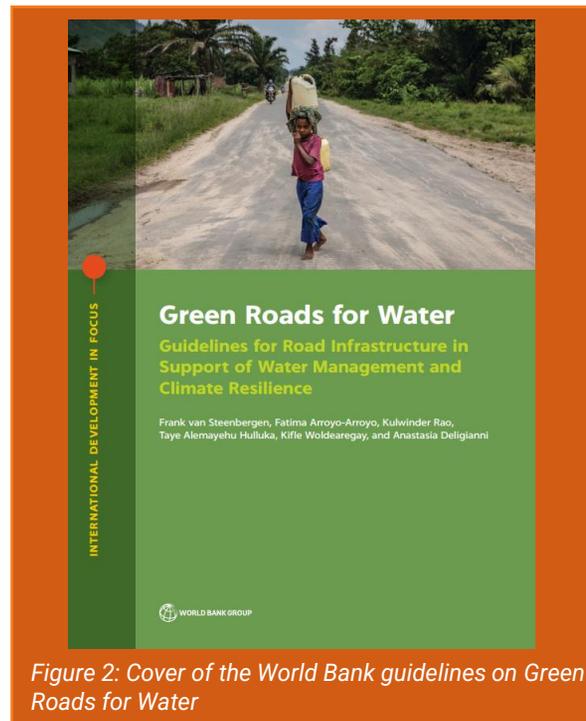


Figure 2: Cover of the World Bank guidelines on Green Roads for Water

The approach is holistic, taking into account the people, natural features, and assets within the road's vicinity. Local participation is central, with the voices of roadside communities and local governments shaping every stage of road development to ensure solutions are practical and widely supported. Guidelines published by the World Bank in 2021 offer strategies for adapting this concept to various landscapes and climate conditions and follow up projects continue to refine these guidelines with local insights, ensuring relevance to specific geographic contexts.

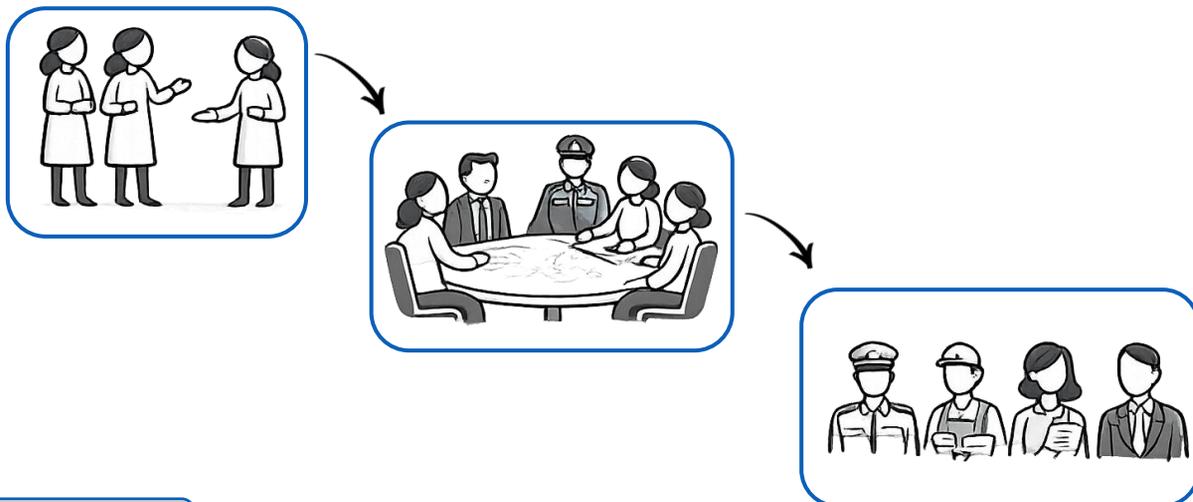
A key component of this approach is the inclusion of women, who are often most affected by climate change but also possess valuable knowledge and networks. **Women Adaptation Labs** empower women to identify vulnerabilities and co-create solutions, ensuring that women's priorities are integrated into adaptation and infrastructure planning. This leads to more inclusive, equitable, and sustainable outcomes for communities as a whole



# Applying PAP for GR4W (9-step approach)

## Step 1

## Stakeholder Mapping



### Objective

To systematically identify, analyze, and engage all relevant stakeholders - clarifying their roles, interests, and influence - to lay the foundation for an inclusive, coordinated, and effective GR4W project.

### Main activities in the pilot

In the pilot, stakeholder mapping was the essential first step for the People's Adaptation Plans process. The team systematically identified and analyzed all key stakeholders along the target roads, including local government officials (Upazila and Union Parishad), technical agencies (LGED, Land Office), sectoral departments (health, agriculture, fisheries, social services), community mobilizers, women's groups, NGOs, vulnerable households, and private sector representatives.

This process clarified roles, responsibilities, and influence, ensuring all interests were considered from the outset. Special emphasis was placed on engaging women's groups, who also carried out their own stakeholder assessments to ensure their perspectives were fully included. Regular meetings and consultations helped build buy-in, align with local priorities, and avoid duplication with other ongoing projects. Stakeholders were also involved in nominating members for advisory committees and adaptation labs, further strengthening engagement.



Figure 3: Mohanpur Upazila, Mougachi Union Parishad visit, Team with UP secretary, Rajshahi (29 June, 2025)

Stakeholder mapping was not a one-time exercise; it was updated throughout the project as new actors and insights emerged. This iterative and inclusive approach, with active input from women's groups and community mobilizers, made the process more responsive to local needs and dynamics. These activities-built trust, fostered collaboration, and grounded the planning process in a solid understanding of the local context

## Lessons learned

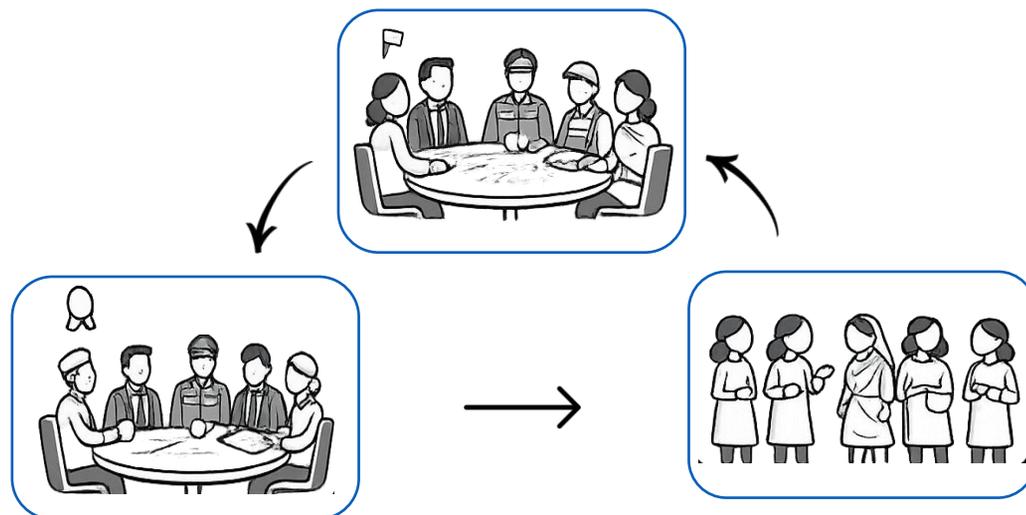
- High-level engagement from LGED headquarters is essential for legitimacy and coordination, beyond support from local officers.
- Respecting existing hierarchies and administrative channels ensures smoother collaboration and institutional buy-in.
- Expectation management must be deliberate and continuous—clear, repeated communication about project scope and limitations is necessary to build trust.
- Openness about evolving roles increases flexibility and ownership, encouraging stakeholders to co-shape the process.
- Iterative mapping throughout the project improved accuracy and inclusiveness, especially when women's groups were involved.
- Early understanding of local initiatives and development activities helped avoid duplication and fostered alignment with other projects.

## Instructions for successful upscale

- Begin with a broad mapping of all potential stakeholders (local government, women's groups, technical agencies, NGOs, private sector, etc.), ensuring LGED HQ is formally engaged from the start.
- Facilitate participatory mapping sessions with women's groups to capture local perspectives and reveal overlooked actors.
- Respect administrative hierarchies: engage senior officials first, then cascade to lower tiers for smoother collaboration.
- Clearly communicate project scope, timeline, and limitations—both verbally and in writing—to manage expectations.
- Document interests, influence, and recommended engagement strategies for each stakeholder, and update the mapping regularly as new actors emerge or roles evolve.
- Maintain transparency about roles and processes, encouraging stakeholders to help define and adjust responsibilities as the project progresses.
- Continuously scan for parallel initiatives and development activities to seek alignment, maximize synergy, and avoid overlap.

## Step 2

# Formation of Steering Committee, Advisory Committee, and Women's Groups



### Objective

To establish leadership, guidance, and operational structures that ensure effective project direction and strong community ownership, with women's groups as core implementers.

### Main activities in the pilot



Steering Committee



Advisory Committee



Women's groups

Figure 4: Formation of Steering and Advisory Committee and women's groups

After stakeholder mapping, the pilot established a Steering Committee with representatives from GCA, LGED, World Bank, and MetaMeta to provide strategic guidance and ensure alignment with broader initiatives. Meetings were primarily between partners, focusing on project direction and coordination.

Advisory Committees were formed at the union level, with members selected through consultations with local engineers and Union Parishad leaders, and endorsed by LGED HQ. These committees included local officials, women's group representatives, market and standing committee members, and project partners. Meetings at Union headquarters enabled lively discussions, problem identification, and consensus on solutions.

Women's groups were formed and adjusted using socio-economic surveys and community consultations, ensuring diversity in age, proximity to the road, and socio-economic status. Existing groups were expanded or restructured to include more women, especially those regularly using the road.

## Lessons learned

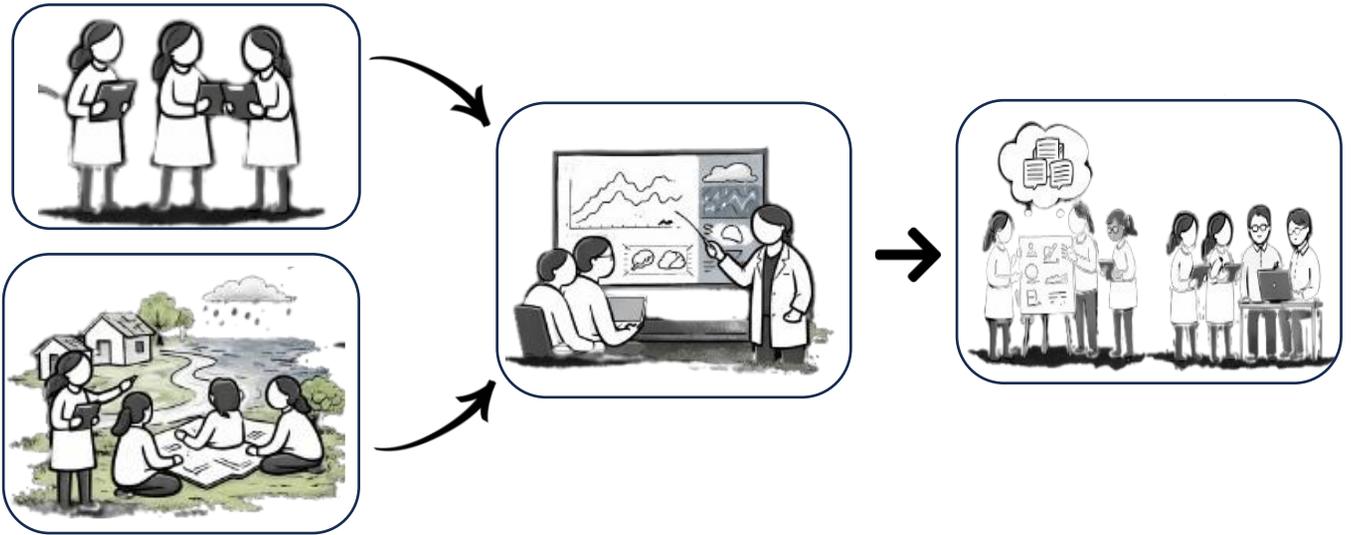
- Allow sufficient time to strengthen women's groups to support long-term sustainability, ownership, and leadership development within project activities.
- Clearly communicate the long-term value of organizing and participatory planning, particularly in cases where investments and implementation extend beyond the pilot phase, to help participants understand the benefits and maintain engagement.
- Political developments at local and national levels affected group stability and participation, highlighting the need for adaptive approaches and ongoing facilitation.
- The process of working with existing groups had both advantages and challenges; integrating new members required balancing local dynamics but definitely speed up the process
- The rapid socio-economic survey helped inform group heterogeneity, but proximity to the road was also a key factor in group formation. This ensured proper representation of all social layers within women's groups is essential for legitimacy and inclusive decision-making.
- Women demonstrated strong capacity to engage in planning processes, indicating that the same women-led approach can be applied beyond roads to other adaptation and development activities.
- Creating a clear "reason for being" for women's groups beyond the project duration is critical for long-term sustainability; this requires expanding the focus beyond GR4W to include other social and livelihood-related activities.
- For the Steering Committee, continuity is essential for follow-through, institutional memory, and sustainability beyond the pilot phase.
- Clarifying committee roles, meeting frequency, and expectations early fosters engagement and collective decision-making.
- For the Advisory Committee, early involvement would have provided better guidance and legitimacy.
- Endorsement by local authorities and careful, balanced selection of committee members is crucial for credibility and sustainability.

## Instructions for successful upscale

- Use participatory approaches (e.g., PRA) and initial socio-economic surveys to form diverse women's groups, considering both heterogeneity and proximity to the road.
- Clearly communicate the short-term and long-term value of participation to women's groups and provide ongoing facilitation, especially during political changes.
- Integrate new members from the broader community as needed to maintain diversity and representation, and adapt group structures as the context evolves.
- Plan for implementation activities to start immediately after plans are finalized, as delays make it difficult to keep women's groups connected, motivated, and active.
- In cases where implementation timelines are uncertain, where feasible, formally link women's groups to local NGOs (e.g. as members or partner groups) so they can participate in other relevant activities (e.g. water, agriculture, or livelihoods), provided the NGO has appropriate programs. If NGO-based continuation is not feasible, explore mechanisms to gradually hand over women's groups to local government structures, ensuring institutional anchoring and longer-term support.
- Form a Steering Committee with thematic experts and implementing partners for strategic direction, ensuring roles and meeting schedules are clear from the start.
- Establish Advisory Committees of local actors early, aligning with local hierarchies and securing formal endorsement from authorities (e.g., LGED HQ).

## Step 3

# Climate Risk Assessment



### Objective

To assess current and future climate risks and vulnerabilities using both scientific analysis and participatory community profiling, ensuring local relevance and scientific rigor.

### Main activities in the pilot

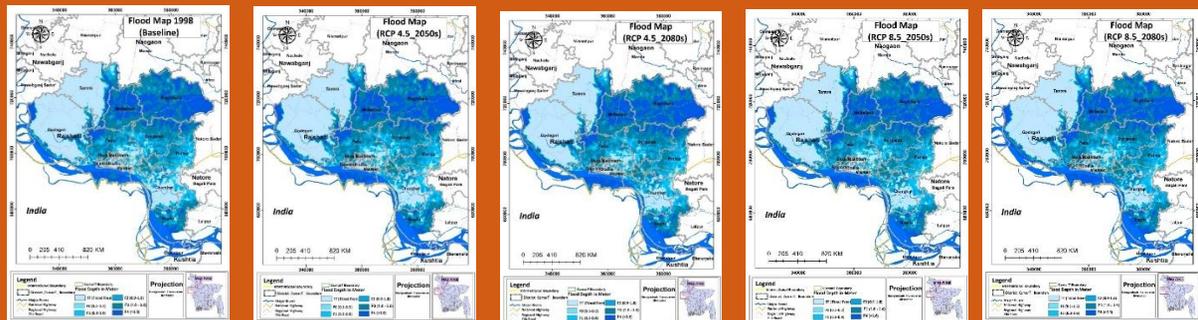


Figure 5: Findings of the scientific climate assessment - Inundation Maps in Rajshahi District for different conditions

In the pilot, a multi-layered climate risk assessment was conducted using three main methods. First, a rapid vulnerability assessment was carried out through focus group discussions (FGDs) and key informant interviews (KIIs) in villages along the two target roads. This process evaluated each mouza on thematic areas such as water, sanitation, literacy, women's empowerment, climate impacts, and women's mobility, assigning scores and ranking overall vulnerability.

Second, a detailed household survey was administered to 1,622 households, with emphasis on climate risks and the impacts of climate change. This survey collected quantitative and qualitative data on how households experience and respond to various climate-related hazards.

Third, findings from an external scientific climate risk assessment conducted by Nippon Koei and IWM were incorporated. This assessment used climate projections, rainfall statistics, and flood modeling to analyze risks to the roads and surrounding settlements.

## Lessons learned

- Community-led risk profiling and scientific assessments were complementary, with strong alignment in findings. This alignment was validated through discussions with the Advisory Committee and Women's Adaptation Labs (WALs), strengthening credibility and shared understanding.
- Building assessment capacity within local institutions secures access to data, supports continuity, and increases ownership.
- Strengthening local ability to interpret climate data and apply assessment tools is key for long-term sustainability.
- Integrating scientific and community-generated knowledge from the outset, in an iterative and collaborative way, produces the most robust results.
- Involving community members in vulnerability assessments ensured that local perceptions and realities were fully reflected.

## Instructions for successful upscale

- Conduct a rapid participatory vulnerability assessment with active community involvement, focusing on key themes (e.g., WaSH, literacy, women's empowerment, climate impacts, mobility).
- Use scoring tools and group discussions to rank vulnerabilities across settlements, ensuring local relevance.
- Carry out scientific climate risk analysis in partnership with local actors and institutions to secure data access and foster ownership.
- As an addition, where possible, ensure that scientific climate data and assessment results are translated into clear, accessible formats and language for local institutions and women's groups. LGED should lead the interpretation and communication of climate risk information, supported by experts where needed, to strengthen institutional ownership.
- Integrate interpretation of climate data and risk assessment tools into training activities (linked to Step 4)
- Supplement participatory findings with scientific assessments as soon as they are available, while avoiding critical dependencies on external timelines.
- Integrate and iterate scientific and community-generated knowledge throughout the process, validating findings with local stakeholders and women's groups.
- Use the combined results to prioritize interventions and inform planning at all levels.

## Step 4

# Recruitment and Training of Community Mobilizers and Enumerators



### Objective

To recruit and train local women as community mobilizers and enumerators, building local capacity for data collection, facilitation, and participatory planning, and ensuring trust and effective engagement with the community..

### Main activities in the pilot



Figure 6: Selected photos of practicing the participatory tools. The top photos show the tools being tested during a training session through role-play, with each participant actively taking part, while bottom photos show the games being tested in the field with

In the pilot, community mobilizers and enumerators were selected from women's groups and communities near the target roads, with recruitment focused on ensuring representation and proximity to project areas. All mobilizers and enumerators participated in an initial training session covering principles of locally led adaptation, interview techniques, and the use of Kobo Toolbox for household data collection.

A second, five-day training further developed their technical skills, including an introduction to the Green Roads for Water approach and its relevance for the area, as well as participatory methods for developing Adaptation Plans. Mobilizers gained facilitation experience through interactive sessions, group work, field practice, and daily reflection. They practiced a variety of participatory tools—such as transect walks, social and resource mapping, seasonal diagrams, timelines, and chapati (Venn) diagrams—to effectively engage women's groups in creating locally led adaptation plans for their respective road sections.

## Lessons learned

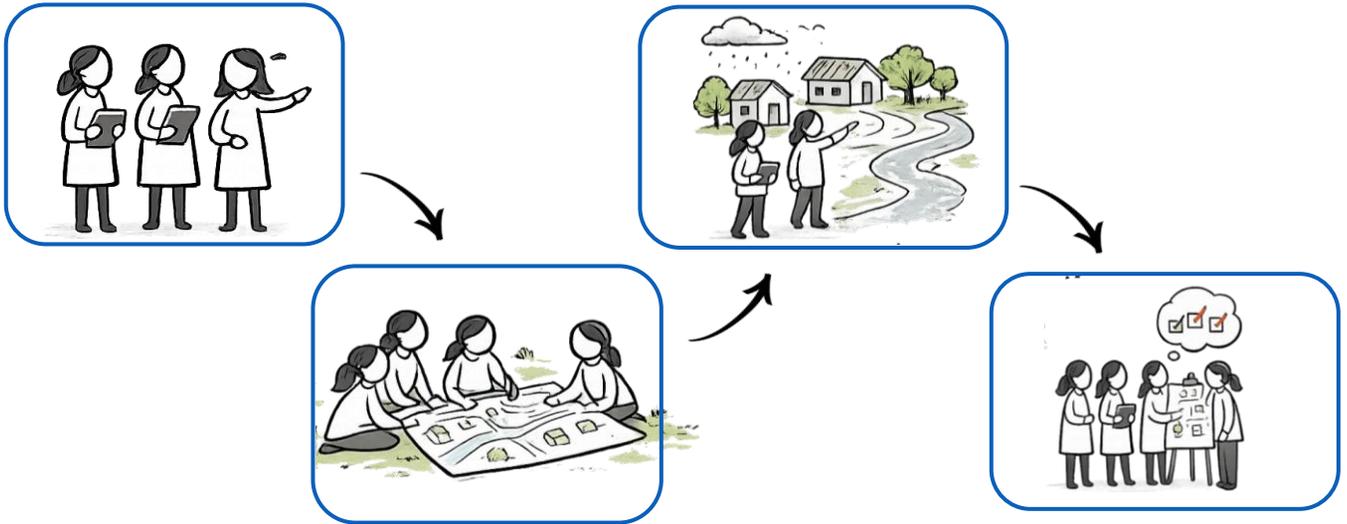
- Taking sufficient time for training was essential for building both technical and facilitation skills.
- Combining classroom-based and field-based training led to better skill development and confidence among mobilizers.
- Ongoing on-the-job support and mentorship was critical for effective performance and adaptation to challenges.
- Horizontal learning—peer-to-peer support and co-facilitation—strengthened the program and built a sense of shared ownership and mutual support.
- All enumerators and mobilizers were women with an appropriate education level, which supported effective data collection, facilitation, and engagement with technical topics.
- Training included introductory sessions on all project approaches and topics, ensuring a shared understanding among women participants from diverse backgrounds.
- Residential, in-house (overnight) training sessions were crucial for team bonding, trust-building, and strengthening collaboration among mobilizers.

## Instructions for successful upscale

- Select community mobilizers and enumerators with appropriate education, from local women's groups or communities near the road to ensure trust and local knowledge
- Organize comprehensive training that covers both technical topics (e.g., survey tools, data collection, climate communication) and facilitation/participatory methods.
- Include clear introductions to the main concepts, principles, and approaches used in the project, ensuring all participants share a common understanding.
- Use a mix of interactive classroom sessions, group work, role play, field practice, and daily reflection to maximize learning.
- Provide on-the-job training, ongoing mentorship, and practical facilitation guides/checklists to support mobilizers in their work.
- Encourage mobilizers to work in pairs or trios, fostering peer learning and shared problem-solving.
- Where possible, organize residential (overnight) trainings to strengthen group cohesion, peer learning, and team spirit.
- Schedule regular opportunities for mobilizers to reflect, share experiences, and adapt approaches based on feedback from the field during and after the training(s).
- Empower mobilizers to guide women's groups through participatory planning and to champion the GR4W process within their communities.

## Step 5

# Recruitment and Training of Community Mobilizers and Enumerators



### Objective

To enable women to lead the mapping of key geographical features, infrastructure, climate-related risks and impacts, and relevant stakeholders in their own villages/mouzas—working together with other women in their communities—to identify vulnerable spots and opportunities for GR4W interventions.

### Main activities in the pilot

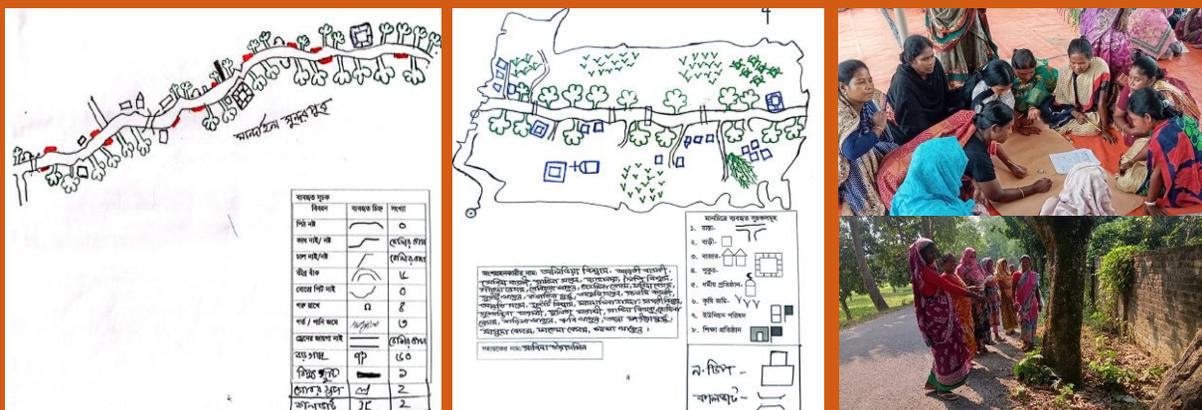


Figure 7: Photos of community mobilizers practicing transect walks and social and resource mapping with their women's groups during the pilot project.

In the pilot, trained community mobilizers and women's group members, visited identified settlements to map key geographical features and infrastructure. This process began with broad profiling to understand climate-related risks and pinpoint vulnerable spots and opportunities for Green Roads for Water interventions.

A central activity was the road transect walk, where mobilizers led women's groups along their road stretch to observe conditions and identify issues. Participants documented at least five key problems—such as road damage, lack of drainage, narrow culverts, and erosion risks—using photos and flashcards.

Responsibilities for solutions were clarified using color-coded cards to distinguish between government, community, and individual landowner roles.

Following the walk, groups engaged in social and resource mapping, drawing detailed maps of their mouza that included the road, identified issues, and local resources like houses, schools, markets, and flood shelters. Mobilizers facilitated the process, ensuring accuracy and consensus, and compiled final versions with proper labeling for later integration into broader adaptation plans.

### Lessons learned

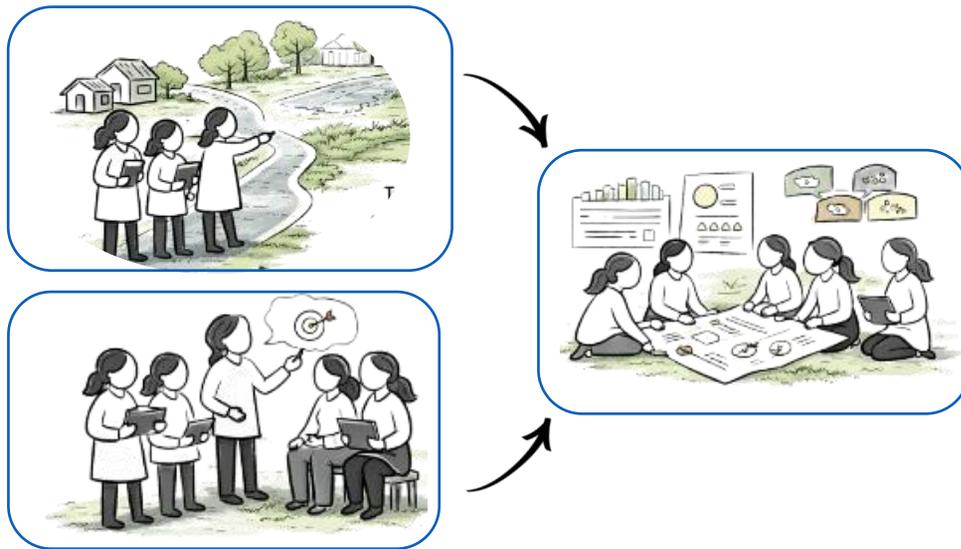
- The mapping exercises provided a valuable platform for women to reflect on and strengthen their leadership and role in road development.
- Women-led discussions during mapping activities clarified the influence of climate and climate change on local infrastructure and livelihoods.
- Although this exercise was entirely new to all the women's groups, the tools used were highly effective in enabling participants to identify problems, opportunities, and potential benefits related to road infrastructure.
- Conducting a rapid road assessment earlier in the project helped generate visual materials and baseline information, which supported community mobilizers in understanding key issues and facilitating discussions more effectively.
- The process highlighted the importance of continually assessing whether the exercises and tools are the most effective, encouraging ongoing feedback and adaptation.

### Instructions for successful upscale

- Empower women's groups to take the lead in organizing and conducting settlement mapping sessions, working closely with other women in their villages/mouzas, with community mobilizers offering facilitation and technical support as needed.
- Build on prior rapid road or infrastructure assessments to prepare visual materials (maps, photos, diagrams) that help mobilizers and participants quickly grasp key issues.
- Use participatory tools—such as road transect walks, social and resource mapping, seasonal diagram, timeline and chapatti diagram—to allow women to collaboratively identify and document key issues (e.g., road damage, drainage problems, encroachments) and propose solutions.
- Ensure mapping sessions are structured to maximize women's leadership, input, and decision-making—making their experiences and proposed solutions central to the process.
- Regularly review and adapt the mapping exercises based on feedback from women's groups and participants, to ensure tools remain effective and relevant.
- Compile and analyze mapping results led by women's groups to inform the development of targeted adaptation plans and guide further participatory planning steps.

## Step 6

## Settlement Profiling



### Objective

To enable women to lead the mapping of key geographical features, infrastructure, climate-related risks and impacts, and relevant stakeholders in their own villages/mouzas—working together with other women in their communities—to identify vulnerable spots and opportunities for GR4W interventions.

### Main activities in the pilot

In the pilot, settlement profiling was conducted in parallel with mapping, led by community mobilizers and co-researchers who engaged households to understand and share climate-related risks and challenges. Three participatory exercises were used to capture local insights:

- **Seasonal Diagram:** Mobilizers facilitated discussions on how different months and seasons impact daily life, farming, and road conditions. Women's groups used a visual exercise with jute sticks to map benefits and problems across the year, reflecting on climate events, and livelihoods.
- **Timeline Exercise:** Groups created a timeline matrix to compare key issues (like transportation, agriculture, and employment) 25 years ago and projected five years into the future. Seeds were used to represent perceptions of trends, with participants reflecting on changes and their implications for adaptation.
- **Chapati Diagram (Venn diagram):** Women's groups identified and mapped stakeholders involved in rural road management using colored circles of varying sizes to indicate influence and relationships. This helped clarify which actors are crucial for road solutions and how to strengthen collaboration.



Figure 8: Photos of community mobilizers practicing the seasonal diagram, timeline and Chapata (Venn) diagram exercises with their women's groups during the pilot project.

## Lessons learned

- Comprehensive, hands-on training for community mobilizers was essential. Training included not only classroom sessions, but also extensive role play, practice using each participatory tool, and preparation of all necessary materials before fieldwork. Mobilizers tried out the tools themselves before facilitating sessions in their own villages, which built both confidence and competence.
- On-the-job training and continuous support during field implementation were equally important to address real-time challenges and ensure quality facilitation.
- These participatory tools created a safe space for women to voice their views, which increased ownership of the process and ensured that key issues—often overlooked in traditional assessments—were documented.
- Many new insights and priorities emerged directly from women’s perspectives.

## Instructions for successful upscale

- Organize in-depth training for community mobilizers that goes beyond theory: include interactive sessions, role playing, and practicing all participatory tools (e.g., transect walk, social and resource mapping, seasonal diagram and timeline) until mobilizers are comfortable and can facilitate confidently.
- Prepare all required materials (large papers, markers, seeds or other material needed for the different exercises) ahead of field sessions and ensure mobilizers can adapt tools for different literacy levels.
- Encourage intergenerational participation and ensure all voices are heard, including those of younger and older women.
- Provide on-the-job mentoring and regular reflection meetings for mobilizers to share experiences and adapt facilitation approaches as needed.
- Systematically document the findings from each profiling session, ensuring women’s perspectives and priorities are central, and integrate these results with other planning steps (e.g., Advisory Committee meeting, and Women Adaptation Labs meeting).
- Use the profiling outcomes to inform the planning and prioritization of GR4W interventions that are grounded in women’s lived experiences.

## Step 7

# Household Numbering and Enumeration



### Objective

To conduct a comprehensive household-level census and survey in selected mouzas, collecting key demographic, socioeconomic, and vulnerability data to inform inclusive adaptation planning and the formation of representative women's groups.

### Main activities in the pilot

In the pilot, household numbering and enumeration followed mapping and profiling to gather demographic and socioeconomic data. Mouzas were selected through map verification and consultation with land surveyors, resulting in eight mouzas in Mohanpur and seven in Godagari. A door-to-door census was conducted in all households (100% sampling, 4,425 households) to assess wellbeing using indicators like occupation, income, land ownership, housing, electricity, and self-assessment.



Figure 9: Household surveys in the pilot project

Enumerators categorized households as well-off, average, or poor. Census data supported the formation of diverse women's groups and guided selection for further surveys. Vulnerability levels were determined using census results and Key Informant Interviews, ranking mouzas as high, medium, or low vulnerability.

Based on this, 50% of mouzas were selected for a detailed household survey using stratified random sampling, ensuring representation across wellbeing categories. The survey covered 1,622 households and addressed livelihoods, social structures, agriculture, climate perceptions, transport, and governance. The questionnaire was developed with GCA and the Steering Committee, providing comprehensive data for adaptation planning.

## Lessons learned

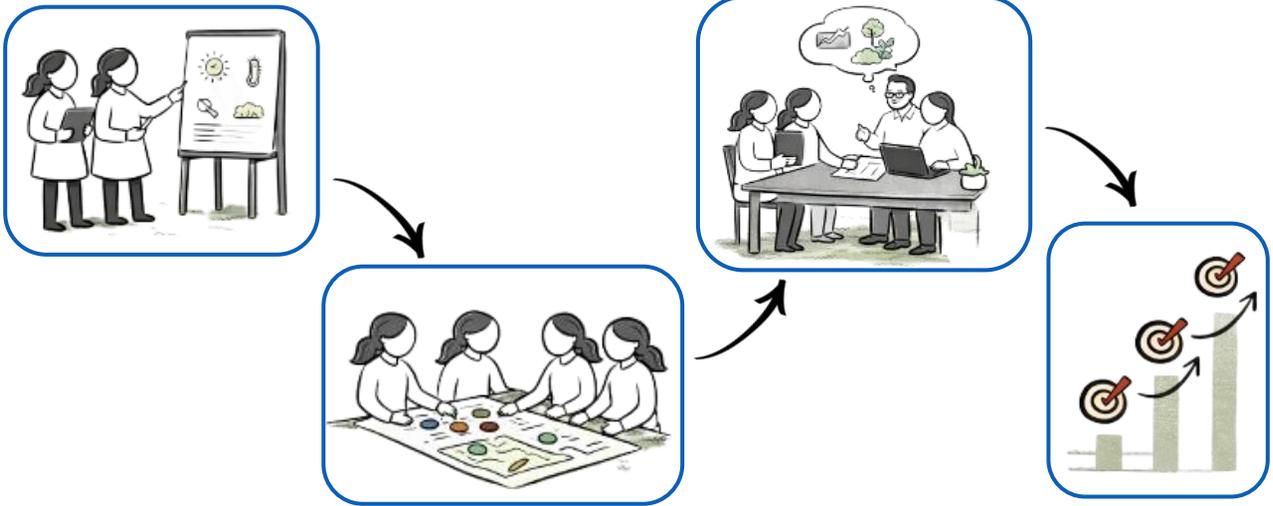
- Close collaboration with local land surveyors and careful physical verification of mouza boundaries were essential to ensure all households were included and to avoid any mapping errors.
- The census provided valuable data on household wellbeing (well-off, average, poor), which was crucial for ensuring that women's groups were inclusive and that adaptation activities reached vulnerable households.
- Using a simple questionnaire with clear categories made data collection and analysis straightforward, and sharing the results with the community helped with validation and transparency.
- Involving local women as enumerators was highly effective: their local knowledge increased trust, encouraged participation, and improved the reliability of the data.
- This step was resource-intensive, and in many cases, essential planning information had already been captured during the participatory sessions with women's groups (Steps 5 and 6). The results of the household surveys were not fully utilized to inform the trainings or the tools used to engage women's groups in the planning process. For future scaling, household enumeration could be limited to a select number of roads, simplified for validation purposes, or integrated into baseline monitoring and impact evaluation activities.

## Instructions for successful upscale

- Begin by selecting and verifying the mouzas with the support of local land surveyors to ensure accurate boundaries.
- Conduct a quick, door-to-door census in all households of the selected mouzas to collect basic data on occupation, income, land ownership, housing, electricity, and self-assessed wellbeing.
- Group households into three categories—well-off, average, and poor—based on the census data. From each category, select a fair number of households for the detailed survey to ensure all groups are represented.
- Develop the survey questionnaire with input from key partners (such as GCA and the Steering Committee) to cover relevant topics: livelihoods, agriculture, climate, environment, transport, and social structures.
- Train local enumerators, with a focus on women, to carry out the survey accurately and respectfully.
- Enter collected data into a monitoring tool for analysis and present the results to the community for validation and feedback. Focus primarily on direct census results rather than extensive analysis, to maintain efficiency and usability in participatory planning.
- Use the findings to identify vulnerability levels in each mouza and to ensure women's groups are inclusive and representative.
- Where possible, integrate this step into baseline monitoring or impact evaluation, reducing duplication and keeping the process locally led and sustainable.

## Step 8

# Climate Risk Profiling



### Objective

To ensure that women lead the climate risk profiling process—facilitating discussions, identifying and ranking climate risks, impacts and proposing solutions—so that community priorities and diverse experiences directly shape the GR4W planning.

### Main activities in the pilot

In the pilot, climate risk profiling was carried out through a series of community-led dialogues and group discussions, primarily in Women Adaptation Labs. Data from settlement mapping and household surveys, along with findings from



Figure 10: Impression of WAL workshop in the pilot project.

scientific climate risk assessments, were presented to the community for validation. Women's groups—representing diverse backgrounds and vulnerability levels—actively participated in ranking climate risks, diagnosing impacts, and evaluating strategies for potential solutions

During iterative sessions, women's groups assessed both opportunities and barriers to implementing proposed solutions, reflecting the full range of community experiences. These sessions were further informed by inputs from sectoral experts and consortium partners, supporting a collaborative process of community visioning for climate resilience. Immediate and future goals were set based on these discussions.

The process resulted in a list of priority interventions for investment, identified and validated by the wider community. Both structural and non-structural problems were considered, with proposed solutions tailored to local needs and capacities

## Lessons learned

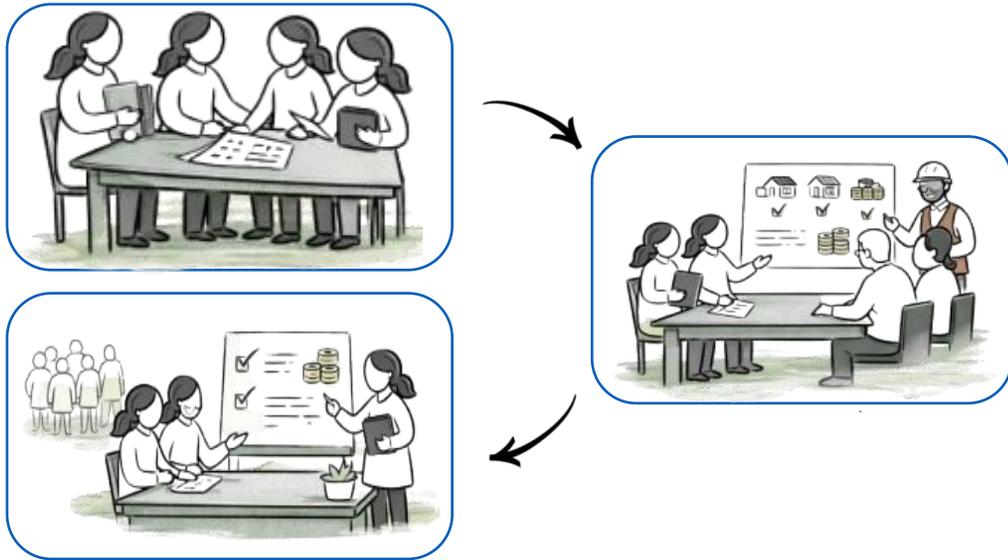
- Women group members effectively presented their identified problems and priorities in discussions with Union and Upazila representatives.
- Active encouragement from LGED HQ led to serious involvement from Upazila officials, strengthening the process and validation of community-identified risks and solutions.
- Collaborative discussions between women's groups, local government, and technical staff resulted in a well-rounded list of structural and non-structural climate risks, and practical, locally relevant solutions.
- The process encouraged open discussion of both structural (e.g., road damage, drainage, safety) and non-structural (e.g., right-of-way, tree roots, connectivity) challenges. It helped generate a clear list of priority interventions, clarified responsibilities for different actions, and created space for women's participation throughout.
- Scheduling sufficient time for both formal and informal discussions—for example, with advisory committee members and Women Action Leaders (WALs)—enabled iterative feedback and improved validation of plans at the Union level.

## Instructions for successful upscale

- Facilitate women-led group discussions and risk ranking sessions, ensuring women from diverse backgrounds identify key climate risks and solutions.
- Bring together data from participatory mapping, settlement profiling, and scientific assessments to inform discussions.
- Involve Union officials early and encourage their active participation, as their support is critical for validating and implementing community-driven priorities.
- Conduct one formal decision-making meeting with the advisory committee and one with the WAL, complemented by informal discussions and interactions to refine and finalize plans collaboratively.
- Use the results to develop a list of prioritized interventions, endorsed by both women's groups and local authorities.
- Maintain flexibility for iterative discussion and refinement of risks and solutions as new information or feedback emerges.
- Following plan validation, ensure women group representatives communicate outcomes back to their group members, keeping everyone informed on the plan and its status.
- Following plan validation, women's groups should be actively involved in developing and implementing the adaptation plan.

## Step 9

# Developing a list of costed priority interventions



### Objective

To develop a prioritized and costed list of GR4W interventions for investment, identified and validated through women-led community discussions and formalized with local authorities.

### Main activities in the pilot

In the pilot, Women Adaptation Labs facilitated the identification and prioritization of Green Roads for Water interventions by women's groups. These women groups compiled lists of proposed measures addressing climate and road-related challenges, which were then presented to Union and Upazila representatives, advisory committees, and technical experts for review.

Technical experts collaborated with women's groups to estimate costs for each intervention. The costing process took into account the different standards required for Union roads and Upazila roads. The final list of interventions, with corresponding cost estimates and quantities, was refined and validated in meetings with local authorities and community representatives. All documentation, including roles and responsibilities, was consolidated and endorsed before moving to the next phase of planning.



Figure 11: Technical experts, UPZ engineers, and women's group representatives jointly discussing and estimating costs for proposed Green Roads for Water interventions along the two roads.

## Lessons learned

- Women's groups effectively led the identification and prioritization of interventions, presenting their findings clearly in meetings with Union and Upazila representatives and advisory groups.
- Active encouragement from LGED HQ resulted in strong participation and support from Upazila officials, which helped validate and refine the final list of interventions, as well as to validate the costing and quantities of interventions.
- Collaboration between women's groups, local authorities, and technical experts resulted in solutions that addressed both technical requirements (such as road standards and land acquisition) and community priorities, especially those benefiting women.

## Instructions for successful upscale

- Engage a technical expert to work alongside women's groups in costing the selected interventions, especially as priorities are refined after community discussions (Step 8). This joint approach enables women to confidently present both proposed interventions and draft costings to Union and Upazila representatives for validation, ensuring alignment with technical standards and local policies.
- For each intervention, in addition to the cost estimate, clearly define the roles of women in monitoring, maintenance, and oversight, as well as the specific benefits that can be unlocked for the community and for women themselves through their involvement.
- Ensure the final list of interventions—including costs, roles, and expected benefits—is accessible and endorsed by both community members and local authorities before moving to implementation.

## Women's role in Implementation and Monitoring and Evaluation of the Plans



While women traditionally have not been involved in the development or maintenance of roads, our pilot demonstrated strong interest and capacity for active engagement. Women identified numerous ways to contribute to the implementation of GR4W plans, including reporting damages and monitoring road quality, maintaining turfing and vegetation on eroded slopes, identifying dangerous curves, cleaning and maintaining culverts and side drains, supporting tree planting along roads, and prioritizing linking roads to improve local accessibility. Participation in these activities not only strengthens the sustainability and effectiveness of green road interventions but also offers potential income-generating opportunities for women. Hands-on training prior to involvement is essential to build technical skills and confidence, while minimizing the time between women group formation, WAL engagement, and actual project implementation is critical to maintain momentum, interest, and long-term sustainability. Additionally, women can play an important role in monitoring and quality control during and after construction, ensuring that interventions are implemented effectively and that community priorities continue to guide road management.