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THE PANJE PROJECT

AQUATIC SURVIVAL & RESILIENCE

TRAINING MANUAL

FOR SEA-WEED FARMERS

We would like to acknowledge Kennedy Oulu and Ahmad Said for the valuable time, effort and expertise that went into developing this manual.

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This manual is a culmination of research and co-creation processes intended towards enabling seaweed farmers in Zanzibar (Unguja and Pemba) to build aquatic survival and resilience in their efforts to secure their livelihood. The arduous process began in January 2020, initially with the intention to assess aquatic risks faced by seaweed farmers and then use such findings to inform a review of the TPP/RNLI's "aquatic survival swimming manual", however, the study results indicated a need for an entirely different and broader manual that slightly adapts some sections of the aquatic survival swimming manual, especially swimming and first aid skills, but creates an alternative conceptual framework to address, contextualize and respond to the risks associated with aquatic survival and resilience in the context of seaweed farmers in Zanzibar (Unguja and Pemba).

HISTORY:

The development of this manual has been evidence-based, participatory and iterative. Following the review of the aquatic survival swimming manual by RNLI, that anchored the aquatic risk assessment study, which study findings illustrated the need to among others: engage with communities to strengthen knowledge of sea awareness and patterns; establish seaweed farmer groups as an avenue for skills building; expand the swimming skills to accommodate adults and especially women sea weed farmers; integrate canoe skills as a practical and operational component of seaweed farming; reorient thinking and practice of first-aid; and mainstream operational skills and mechanisms of emergency rescue and coordination. These findings were initially used to develop the Master Trainer guides, which were improved during the training of swimming Master Trainers in September 2020.



RATIONALE AND PURPOSE:

The manual intends to be a working, guiding and reference document for seaweed farmers to strengthen their aquatic resilience and effectively mitigate aquatic risks as they secure their livelihoods. This implies that the manual is organic and will be improved based on experiences of its implementation so as to be relevant to context, circumstances and new innovations in the pursuit of seaweed farming in Zanzibar (Unguja and Pemba). The manual is thus a simplified and co-created version from the Master-Trainers guide developed and piloted in September 2020 at The Panje Project in Nungwi (Unguja).



THE SECTIONS/UNITS:

The manual is developed based on core units that were identified and consensually agreed on during the Master Trainers (MTs) skill-building sessions. It comprises of the following units, which were identified as critical in enabling seaweed farmers build effective capacities for resilience. These include: (i) selection of seaweed farmers for training (drawn from existing or established seaweed farmer groups), (ii) building swimming skills (based on phases of capacity); (iii) Practical first-aid skills, (iv) integrating canoeing skills; (v) Rescue operations and coordination (as participants but linked to community initiatives); and (vi) aquatic resilience skills evaluation. These units are not independent of each other, but phased and interlinked.



RATIONALE FOR PHASING THE UNITS:

In the contextualization process (see figure 1 below), it was understood that seaweed farmers, would require to have groups as a form or organization from which participants will be selected. That is the rationale behind the establishment of seaweed farmer groups to precede selection of participants. It was also found that there is little knowledge on among others sea patterns and awareness, mostly taken for granted; the need to engage participants and community with the purpose of the resilience skill-building as a way to gain ownership of the initiative; but also, the importance of shifting mindsets on first-aid, even before active swimming skills are built. These are preliminary knowledge needed before swimming skills are built, and will be provided concurrently. The co-creation process and experiences of master trainers indicated that seaweed farmers (especially women) would take time to understand the practical swimming basics, however, practical first aid skills can be introduced, together with canoeing skills to strengthen the additional competencies that a seaweed farmer requires for aquatic resilience. Canoeing skills was thus categorized as demanding of higher faculties that top-up swimming and builds operational efficiency in aquatic survival and seaweed farming. To test the acquisition and nurture of these skills, rescue operations and coordination was placed last, as it allows for assessing all the skills among the team, as well as coordination with the community. The participants will eventually be evaluated to identify the gaps where Master Trainers can provide coaching and mentoring for resilience. The graduates from this skill-building therefore becomes the Trainers of Trainees (ToTs), who will be deployed when needed to train others, under guidance and supervision of the Master Trainers.

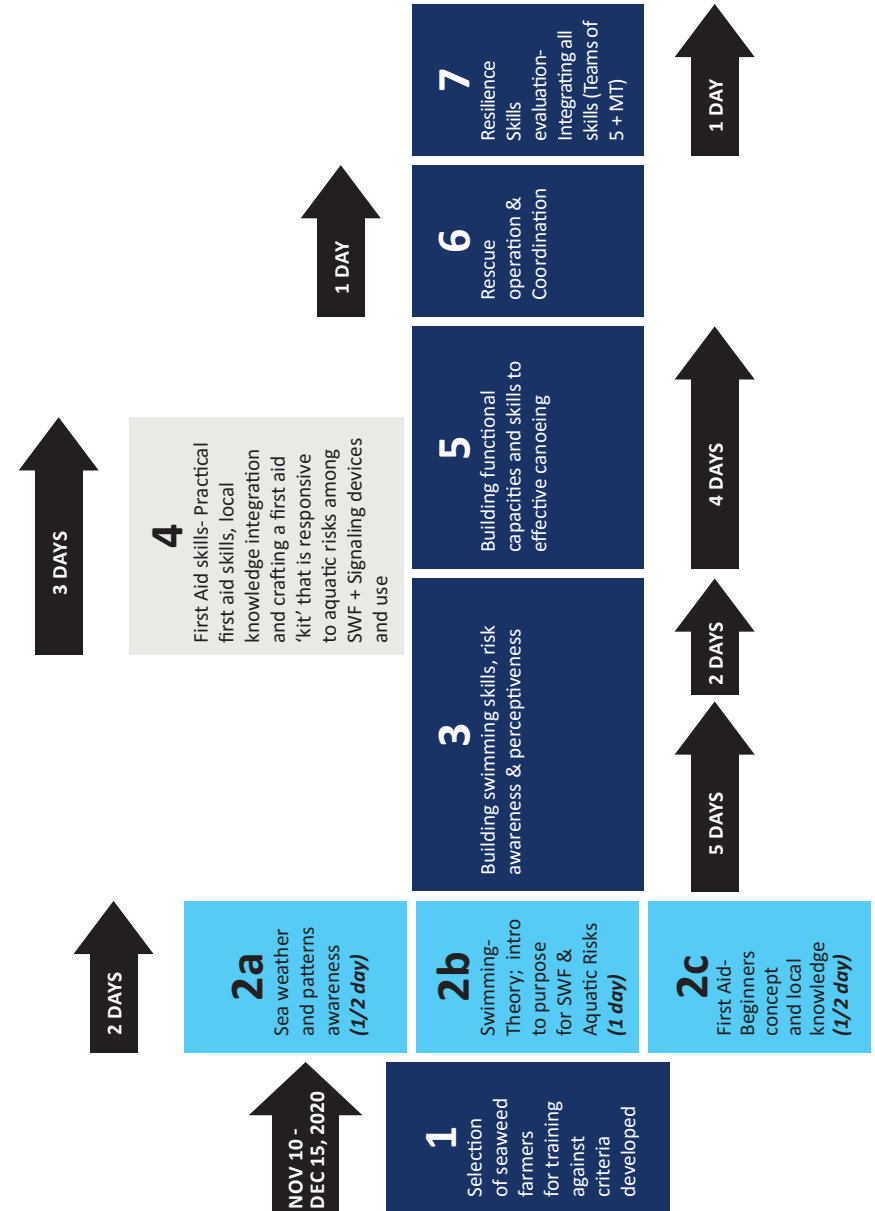
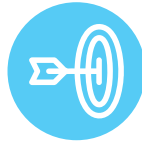


Figure 1. TPP Aquatic Resilience Skills-building Map for Seaweed farmers (15 days)

GUIDING VALUES FOR USE:

Table 1. Guiding values on use of the manual

VALUES	FRAMING
ORGANIC	It is not static. It will evolve with new experiences and knowledge that emanates from practice in the context
ADAPTIVE	Some aspects and standards will change. The phasing of units may also change based on learning from use. However, justification for adaptations will be documented
RESILIENCE	It builds aquatic survival and livelihood security by adapting, coping and manipulating the context to suit the ecosystem, its protection and holistic benefit
PRACTICAL & PARTICIPATORY	It is skills based, and thus practical and participatory in nature. Collective knowledge and skills will be infused to improve effective capacities of seaweed farmers
CONTEXT SITUATED & SENSITIVE	It continually draws from local traditional and scientific knowledge, and is sensitive to the norms and values of the community that sustains its ownership and use.



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WHO CAN USE THE MANUAL?

This manual can be used by any organization who operates within the scope for which it is intended (Zanzibar) and works with seaweed farmers. It has different units, which can be used independently for specific purposes, and or in-tandem if it serves the purpose for which it is used. It is meant for adults and implemented with the purpose to build specific skills for aquatic survival and resilience of those whose livelihoods depends on the sea.



The manual can also be adapted by other organizations, however, adaptations need to draw from evidence of risks from the context it is to be adapted to, and the lessons learnt in its implementation and use, for which TPP are at the discretion to share. The fundamental values above, should also inform any adaptation and use of this manual by others.

LANGUAGE OF USE:

Although the manual is available in English, it will be translated into Kiswahili, and that will be the language of use, in training of seaweed farmers. Depending on the specific context, it can be translated into local languages, as and when appropriate, with the authorization from TPP/RNLI.





PHOTOGRAPH BY: THE PANJE PROJECT

2.1. THE SETTING:

The setting for the skill-building sessions will take due considerations for the following aspects that are critical for the successful implementation of these units and sessions:



- All theoretical sessions which do not need the environment of the sea, can be done away from the shore/beach, inasmuch as the decision to be away from the shore/beach is better than indoor sessions.
- All practical sessions shall be conducted on the shores/beach which has been identified and approved to be safe and secure for the participants involved.
- The practical sessions will be supported by all the necessary materials/equipments required for the success of the unit or sessions. These include:
 - i. First aid kits that are context sensitive and responsive
 - ii. Canoes for practical sessions whenever needed of the type/kind used in the training session
 - iii. Appropriate attire¹ at all times during practical trainings, that is culturally and context responsive and sensitive

- iv. Indoor training materials and equipment as may be necessary
 - v. Illustrative training materials, especially of the sea animals that cause injury, plus pictures of the effect of such injuries that can appeal to the mental models of the participants (picture cards, projectors or liaising with fisherfolk to actually observe some of these sea animals)
- All sessions, where master trainers do not have the requisite skills or have skill gaps, will be supported by invitations of experts on the specific skills gaps to ensure practical engagement of the participants with the skill. These include but are not limited to (i) sea and weather patterns awareness, (ii) natural and modern medicine in first aid, (iii) sea rescue coordination and management and (iv) canoe operations and maneuvers.
 - The method and approach to skills building must be participatory, engaging and patient to allay the inherent fears with participants, but also to assure them the freedom to learn, err and build the skills they need with confidence.
 - The timing of the sessions, must also consider that seaweed farmers have livelihoods and need to also take into considerations their roles in providing for livelihoods, the period and time they engage in seaweed farming, and whether mornings or afternoons are the best for their engagement. Such decisions shall be made jointly with participants to ensure that there is higher commitment and higher completion rates of the skills building training.



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¹ The Master Trainer sessions had already determined that some of the equipment and attire will be remodeled to suit the skills building sessions. For example (i) the first aid kit will be expanded to include local medicines/herbs identified as effective, use a simple carrier that is easy to venture with into sea, replace the bandage so that it is waterproof among others, (b) the attire especially for women, will: be of a hooded tracksuit type that is light enough but also strong enough to reduce injury and heat, locally available footwear can be used instead so that it is responsive to needs and culture, head gear may change to suit culture and norms, and (c) canoes can be locally sourced from fisherfolk at reduced cost of free for the purposes of skills building, and fishermen can also be invited to demonstrate these skills whenever needed.

UNIT 1: SELECTION OF SITES AND SEAWEED FARMERS	
WHAT SKILLS TO BUILD & PROCESS	TIMELINE & RESPONSIBILITY <ul style="list-style-type: none"> • Nov-Dec 2020 • TPP & MZF
PURPOSE OF SKILL BUILDING: This unit is purposed at identifying the initial batch of seaweed farmers to benefit from skills-building on aquatic survival and resilience. Since this process is based on some criteria and founded within the existing and or newly established sea weed farmer groups, the guide provides the preliminary community engagement initiatives to consider, the selection process and criteria, and approach to be used by TPP and the community.	
PRELIMINARY COMMUNITY ENGAGEMENT MECHANISMS	Prior to selection of seaweed farmers, a community sensitization and mobilization exercise will be conducted by TPP to engage the community on the purpose of the skills-building initiative, which is to “provide aquatic survival and resilience skills to seaweed farmers (especially women) so as to mitigate the risks associated with drowning, injury and loss of livelihoods in the pursuit of aquatic seaweed farming”. The following approaches will be employed: <ol style="list-style-type: none"> 1. Mapping of existing seaweed farmer groups in the target communities and assessing their strengths, organization and governance practices to support selection. 2. Establishing new seaweed farmer groups, in areas where there are no such groups, as well as strengthening governance of those that are low in capacity, following the assessments. 3. Engage community leadership in mobilizing for support of the initiative, but also to establish relevant by-laws against destruction and pilferage of the seaweed farms by other farmers and or fishers using the same waters. 4. Identifying the initial pilot seaweed farmer groups to commence the initiative with, develop criteria for providing support on gaps, strengthening their capacities, and graduating them as independent and sustainable social/community groups, who also catalyses formation and development of other such groups.

PILOT SITES/ VILLAGES SELECTION AND RATIONALE

It is generally agreed that deep sea weed farming has more significant benefits in terms of quality and value, and therefore the intention is to move seaweed farming from the low tide to the high tide farming. Currently, some of the sites still entirely depend on low tide farming, however, they have opportunity to venture into the deeper sea-weed farming to thrive.

The following sites have therefore been selected for the pilot phase of this manual, although additional sites can be identified in the expansion phase to culminate into a maximum of 6 sites by 2022/23:

1. Tumbe (Pemba)
2. Pwani Mchangani (Unguja)
3. Uzi island (Unguja)

The villages will be selected based on the following criteria²:

- The village(s) have a significant number of seaweed farmers pursuing their trade in the waters around the village
- The village has had some previous engagement with the implementing partners either in seaweed farming or aquatic survival swimming
- The village experiences high levels aquatic risks associated with sea weed farming, whether high tide or low tide.
- The village is pursuing high tide seaweed farming or have intention of transforming the farming system to high tide
- The village is interested in the project, willing and ready to make any changes necessary to enable the success of the initiative.
- The village has existing (or newly established) seaweed farmer groups
- The village/community has (can establish) a safe and secure space/place to train identified participants on aquatic survival and resilience skills.



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² Initial selection by participants during the Master Trainer Sessions identified the following villages: Tumbe (5/5), Makangale (5/5), Uzi (4/5), Msuka(4/5), Bwejuu (3/5), Pwani Mchangani(2.5/5), Pongwe(2.5/5) and Urowa (2.5/5). However, these were based on a narrow criterion which has been expanded here. The criteria highlighted: (a) Farm in high seas, (b) Have high aquatic risk levels, (c) community willingness and readiness to embrace the project, (d) groups are available or can be established, (e) has a safe place to train participants identified.

<p>THE PARTICIPANTS' SELECTION APPROACH AND CRITERIA:</p>	<p>The community engagement and selection process is envisaged to commence in November 2020 and end by December 2020. It will be guided by the following minimum criteria³ in selection of the aquatic survival and resilience skills building for seaweed farmers:</p> <ul style="list-style-type: none"> • Gender Mix: Although it targets more women, it acknowledges that men are also seaweed farmers, and can play a significant role in managing the gender inequalities that exist at the community level, and should thus be included, at a ratio of 3 women for every 1 man (at the beginning), although this can be reviewed after the pilot phase. • Residence: The Participants must be residents of the villages selected and directly engaged in sea weed farming within and around the selected villages. • Personal attributes: Some of the qualities/attributes agreed to guide selection of Participants from the seaweed farmer groups include: <ol style="list-style-type: none"> i. Of sound mind ii. Present-has time to participate in the skills building iii. Ready and willing to learn and build on these skills iv. Willing to train others after acquiring the skills as ToT v. Able to influence others in the communities vi. Respect and willing to adhere with the guidelines vii. Has passion to improve the situation of seaweed farmers and aquatic survival viii. Willing to sign an admission form into the training, agreeing to some code of conduct and guidelines.
<p>SEAWEED FARMER GROUP(S) LEADERSHIP AND GOVERNANCE</p>	<p>This component, discussed at length, was agreed to be left aside of the manual, but coordinated between TPP and Milele Zanzibar Foundation (MZF) who are implementing partners in and lead in seaweed farming as a livelihood. However, the following were key issues identified around leadership and governance, that TPP/MZF will need to consider in establishing and or strengthening capacities of the groups:</p> <ul style="list-style-type: none"> • Trust and efficiency-based conflicts • Governance and management capacities • Skills necessary for effective seaweed farming as a source of livelihoods • Economies of scale in productivity, marketing, value addition and systemic influence • Alternative social support and income generation activities

³ It should be noted that the criteria of age was discussed, however, realizing that there are those who are already engaged in seaweed farming but are below 18, it would be unfair to exclude them when that is their source of livelihood. Issues of self-confidence and acceptance by community were also excluded, as these can be built through the skills building, and should not be limitations to participate.



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UNIT 2: BUILDING SWIMMING SKILLS, RISK AWARENESS AND PERCEPTIVENESS

WHAT SKILLS TO BUILD & PROCESS

TIMELINE & RESPONSIBILITY

- 9 days, staggered after selection of Participants.
- Master Trainers

PURPOSE OF SKILL BUILDING:

The purpose of this unit is two-fold: (i) To provide background knowledge, experiences and significance of understanding and being aware of sea weather patterns, as well as the theoretical background on swimming skills and the aquatic risks to seaweed farming, and (ii) To systematically build the aquatic swimming skills among the trainee seaweed farmers as a way to effectively cope with aquatic risks in pursuing their livelihoods.

2A: SEA & WEATHER PATTERNS & AWARENESS

TIME-0.5 DAYS

PURPOSE

- This is a quasi-theoretical and practical session purposed at ensuring safety of all operations at sea. It is important to help Participants understand the risk that may arise as a result of failure to appreciate and perceive the sea and weather patterns:
- A short theoretical part should be led by some community elders and or seafarers to share experiences and consequences of this lack of awareness, then the practical aspects should be clarified when the Participants are at the seashore, so that they understand and grasp the importance and implications

WHERE IS THE KNOWLEDGE?

PURPOSE: This session helps the Participants to understand the sources of this knowledge in the community, and how best they can tap into this knowledge to help them be more conscious of sea and weather patterns when they pursue their trade. Where is the knowledge

KNOWLEDGE SOURCES: The following are knowledge sources, and they should be available during training and or consulted and informed of the training so as to contribute their knowledge:

- Master Trainers, who will be leading these sessions with Participants, have significant knowledge about sea and weather patterns as they engage with the sea. Seafarers are also among this team.
- Community-Fisherfolk, in their fishing trade have significant knowledge and experiences with/ about sea and weather patterns, and their presence would also add value to this quasi theoretical session
- Community-Elders, plays a big role in passing the sea tradition to generations, but are also cognizant of some of the changes that have occurred over time on sea and weather patterns that can help in improving awareness and perceptiveness. Their presence will also add value to the session
- Meteorological department use modern predictive science to map and communicate sea and weather patterns. They are critical resource persons to engage in this session, so as to have a blend of modern and local knowledge and awareness of sea and weather patterns.
- Community weather signals and warning platforms sometimes exist, and the Participants should be knowledgeable about these mechanisms where and how members of community receive and communicate warning systems on the state of the sea to support and inform decisions on sea-based operations in the community

THE RISKS AND CONSEQUENCES

Experiences should be shared by the resource persons and Participants about some of the risks and consequences of lack of knowledge on and or ignoring use of an awareness and perceptiveness on sea and weather patterns. These should touch on experiences of among others

- Drowning and related deaths
- Equipment breakdown (if used) or capsizing
- [Those] lost at sea
- Sea weed farms swept away
- Letting the Participants understand that sometimes swimming skills alone is not enough.

THE SEA AND WEATHER PATTERNS TO CONSIDER

This sub-session must be carried out at the seashore/beach, where Participants can observe some of these changes in sea patterns and interpret their severity, skills needed and potential consequences to operations at sea (including sea weed farming). Some of the resource persons mentioned earlier, should be part of the group practically explaining some of these patterns and reflecting on the experiences they shared before. Among the areas to articulate and help Participants understand the implications include:

- The cloud patterns and what it means before making a decision to go to sea, in relations to:
 - o Will there be heavy rains or calm weather, and what are the implications.
 - o Is it going to be windy or not, and what are the implications?
- Seasons of the monsoons (major winds): There are different seasons of major winds, either moving, south, north, east or west and these seasons are critical as they may have a bearing on the seaweed farming seasons.
- Wind speed, direction and movement: The Participants should be exposed to skills of determining the wind direction, speed and how it moves, so as to help them predict what operations they can undertake at sea, what vessels can and cannot be used and make decisions on whether to go to sea or not to go after all. This understanding is critical for decision making on when to go to sea but also how to evade and or survive when such situations find one at sea.
- Wind direction and Water current strength and speed: It is critical for Participants to be exposed to some of the dynamics between wind direction and speed, versus water current and strength. Some of the following need to be clarified, as it helps in maneuvering vessels at sea:
 - o When the wind direction is in opposition to underwater currents.
 - o When the wind direction is in tandem with underwater currents
 - o When the wind speed is lower than the speed of underwater currents
 - o When the wind speed is higher than that of the underwater currents
 - o When there are heavy rains approaching

The above scenarios are helpful when one is (i) making a decision to venture into the sea, (ii) Is already at sea, (iii) operating a vessel at sea, and reinforces the significance of understanding sea patters and weather, for personal or group safety, decision making and survival at sea.

2B: SWIMMING THEORY, SIGNIFICANCE & AQUATIC RISKS IN SEAWEED FARMING

TIME: ONE (1) DAY

WHY SWIMMING FOR SEAWEED FARMERS?

PURPOSE: This sub-session seeks to align the need for swimming especially for seaweed farmers to overcoming the risks they face in their pursuit of their livelihoods at sea.

PROCESS AND APPROACH:

Why swimming is important for seaweed farmers:

- swimming is important to help them effectively pursue their livelihood of aquatic seaweed farming,
- to help them gain skills to venture and excel in high/deep sea seaweed farming and,
- to build the skills they need to survive in water and overcome the numerous risks associated with aquatic seaweed farming
- to overcome some[most] of the fears and concerns seaweed farmers have over water and aquatic seaweed farming.



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AQUATIC RISKS THAT SWIMMING SKILLS NEEDS TO MITIGATE FOR SEAWEED FARMERS

PURPOSE: This sub-session seeks to reflect with participants on the evidence-based risks that had been identified as common with aquatic seaweed farming and how best they can be mitigated through the planned sessions.

PROCESS AND APPROACH:

Presentation by TPP Staff (or Research Co-Consultant [Ahmed]) on the aquatic risks identified through the research process (Aquatic risk assessment on seaweed farming). This presentation should share:

- a. the risks identified and how they affect seaweed farmers as individuals or collective(group)**
 - i. Drowning and injury at sea being a result of lack of swimming skills, which challenges aquatic survival and securing livelihoods for seaweed farmers
 - ii. Associated risks to individual at sea including
 - Contact with dangerous sea animals causing injuries and or skin irritations and health effects
 - Lack of skills to steer (operate) sea vessels predisposing sea weed farmers to risk of drowning and even death
 - Low use of emergency signaling and devices at sea complicating rescues to individuals or groups and coordination of rescue efforts
 - Low awareness and appreciation of sea weather and patterns affecting decisions to go to or not to go to sea.
 - iii. Risks associated with attitudes, norms and practices (mazoea)
 - [Mis]conceptions on/of first aid and its practice
 - “business-as-usual’ an attitude and approach to practice that does not change, despite evidence to the contrary.
- b. seek local knowledge to illustrate (in drawing, pictures and naming) some of the most dangerous sea animals identified in the study,**
 - Participants illustrate in drawings and name (in local language) the sea animals identified as most dangerous [This is best as a gender mixed group activity of 5 participants]
 - Different groups share their drawings and naming with other groups to confirm if the drawings represent the sea animal and the names locally understood and agreed on.
 - The MTs share with the picture card of the dangerous sea-animals for participants to confirm and validate these as correct and representative. (if new ones are identified, efforts should be made by the MTs and TPP to update their picture cards)

c. Discuss and offer ideas on how such risks can be mitigated.

- This is round ‘group’/Circle sitting discussion on how best the aquatic risks to sea weed farming can be effectively mitigated
- TPP (or Research Co-Consultant (Ahmed) shares the approach that was adopted to address most of the risks, and the team being part of this process, thus
 - o Strengthening the sea weed farming value chain through farmer groups and identification of course participants from the groups
 - o Skills building on swimming (sea patterns, first aid, canoe operating and rescue operations and coordination

PARTICIPANTS EXPECTATIONS ON BUILDING SWIMMING SKILLS

PURPOSE: To map Participants’ expectations on building swimming skills so as to understand the fears, concerns and opportunities around developing swimming skills for seaweed farmers

PROCESS AND APPROACH:

- Participants are put in a group of 5 (gender mixed), to discuss together and share some of their major fears and concerns around going through the swimming skills unit.
- Each group then selects one member who presents (in whatever form) the major fears and concerns of their group
- The whole group then sits together again and discusses the opportunities in undergoing the swimming skills building course, and what they believe they will gain from it.
- They choose one person to present (in whatever form they feel comfortable) the opportunities and benefits of swimming skills course.
- The MTs picks the key points (fears and concerns, opportunities and potential benefits) and uses these to inform the ensuing practical swimming skills course.



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2C: BUILDING SWIMMING SKILLS-STEPS AND PROCESS

- This session, is expected to take 15 days. In these 15 days are allocated to building practical swimming skills as exemplified in the steps, while the last day culminates with an assessment of the swimming skills built and the process effectiveness.
- The purpose of the sessions is to ensure that seaweed farmers (as Participants) have the minimum necessary swimming knowledge and skills to survive aquatic risks associated with drowning, irritations, injuries at sea and perceptiveness of patterns and associated challenges
- This unit will start on day 3 (see the training phasing chart (fig 1) and end on day 10, but supported by code of conduct developed to undergird the training

SESSION 1:
INTRODUCTION TO SEA/WATER-SAFETY AND RISKS

PURPOSE: Understanding sea and water safety, as well as the potential risks involved

PROCESS & APPROACH:

- This is a theory-based session that borrows from MT expertise and collective experience of Participants. It will also reflect with Participants on the study findings around aquatic risks to seaweed farming (Oulu, Ahmed & TPP, 2020)
- Participants are taken through the risks involved (from knowledge of MTs) at sea/water and how to ensure safety when in water/at sea
- Participants are also apprised (and reflect) on the aquatic risks associated with seaweed farming and how best they can mitigate such risks at personal and collective level.
- Participants are reminded and observed on their readiness to use the necessary attire and equipments during the skills building and, any concerns they may have, are discussed and assuaged

SESSION 2:
ASSESSMENT & ALLOCATION OF MTS

PURPOSE: Assess inherent swimming skills and capacities, and allocate Participants to MTs based on their effective skills levels, for ease of customized skills building

PROCESS & APPROACH:

- Practical rapid assessment of Participants based on distance they can swim unaided, their health status and recording these and grouping them into the following categories (scale of 25M):
 - 1. Beginners:** Can swim unaided a distance of less than or equal to 6 meters.
 - 2. Intermediate:** Can swim unaided for a distance of between >6-15M. and
 - 3. Good:** Can swim unaided between >15-25M
- Master Trainers are allocated for each group (It is anticipated that a group will not exceed 5 Participants) based on MTs efficacy to build skills for a certain group
- Each MT develops a summary record of the key areas to focus on building the skills that each individual in his/her group needs to be effective in aquatic survival and resilience.
- MTs discuss these capacity gaps with each of the Participants (or as a group) depending on the sensitivities, and finds out about the background that has limited the personal initiative to bridge their capacity/skills gaps.

SESSION 3:
SAFE ENTRY AND EXIT

PURPOSE: To build confidence in water, risk awareness and perception and the strength and comfort of being alone and together in water/sea.

PROCESS & APPROACH: 3 MINS PER LESSON (30 MINS)

- The Participants walk together slowly into the shallow end of the sea to feel the water, terrain in water and confront some of their fears together, then they come back together to the training setting.
- Later each trainee attempts this (walk) alone, with the oversight of the Master Trainer, and returns back to base/setting.
- The group, in the presence of the MT, discusses their experiences, fears, feelings, concerns and how the skills building may/will help address such issues.

<p>SESSION 3: <i>MOVEMENT</i></p>	<p>PURPOSE: To build confidence in water, risk awareness and perception and the strength and comfort of being alone and together in water/sea. PROCESS & APPROACH: 10-15 MINS This involves two kinds of activities thus:</p> <ul style="list-style-type: none"> • Sorting the Participants based on height, so as to understand the depth of water each can handle at the beginning, but also • to give Participants (under supervision) an opportunity to practice walking fast, slowly and hopping in shallow waters. • The Participants come back to base/setting to discuss their experiences, fears, feelings, concerns and how the skills building may/will help address such issues <p>These activities can be paced as the MT deems fit and with the knowledge of capacities, experiences and fears of his/her group, but requires alot of creativity and adaptations on the part of MT, without underestimating the fears/concerns and anxieties of adult Participants.</p>
<p>SESSION 4: <i>BREATHING IN WATER</i></p>	<p>PURPOSE: To develop skills to manage capacity and methods to effectively breathe (hold breath) when in water or swimming PROCESS & APPROACH:</p> <ul style="list-style-type: none"> • Dipping and staying submerged under water • Holding breath for some time • Breathing when face down under water • Side breathing when in/under water • Assessing and building capacities of Participants on areas where there are gaps
<p>SESSION 5: <i>FLOATING / BUOYANCY</i></p>	<p>PURPOSE: To build skills and comfort for rest, staying in water for longer and develop balance when swimming. PROCESS & APPROACH:</p> <ul style="list-style-type: none"> • Learning on how to float: This involves practically helping Participants on the effective postures that enable floating/buoyancy: <ul style="list-style-type: none"> o Straightening and bending the limbs in water o spreading limbs so as to gain buoyancy in water o The MT helps initially provides help but those who take up the skill fast can also support their colleagues to build the confidence and buoyancy. • Floating face up: Assisting trainings to float with face up • Floating face down: Assisting Participants to float with face down • Turning and rolling in water: Assisting Participants to turn/rolls and take up the different positions and postures while floating

<p>SESSION 6: <i>PUSH & GLIDE</i></p>	<p>PURPOSE: To support with maintaining buoyancy, effective breathing in water and gaining the initial confidence to move while floating in water PROCESS & APPROACH:</p> <ul style="list-style-type: none"> • Pushing and gliding while face up • Pushing and gliding while face down • Pushing and gliding while balanced on the side
<p>SESSION 7: <i>KICKING</i></p>	<p>PURPOSE: To provide more traction when swimming while giving rest to the arms and other body parts for faster movement. PROCESS & APPROACH:</p> <ul style="list-style-type: none"> • Angling the body for effective use/push using the legs • Kicking (use of legs for traction) while face up • Kicking (use of legs for traction) while face down
<p>SESSION 8: <i>ARMS PEDALING</i></p>	<p>PURPOSE: To provide balanced force while using the hands and to gain more traction while swimming PROCESS & APPROACH:</p> <ul style="list-style-type: none"> • Pedaling forward using the hands while face down • Back pedaling using hands while face up • Using hands and pedaling to keep balance (horizontal and vertical)
<p>SESSION 9: <i>USING BOTH ARM & LEGS</i></p>	<p>PURPOSE: To engage both limbs while swimming to provide traction and balance in water. PROCESS & APPROACH:</p> <ul style="list-style-type: none"> • Using both arms and legs while face down • Using both arms and legs while face up • Using both hands and legs while on your side • Turning and rolling to take up any of the positions (horizontally and vertically) while swimming
<p>SESSION 10: <i>SELF-RESCUE</i></p>	<p>PURPOSE: To demonstrate skills necessary for an individual in water to survive and or call for help PROCESS & APPROACH:</p> <ol style="list-style-type: none"> Mastering the skills of turning/tossing in water from face up to face down and vice versa Standing, squatting and maintaining vertical balance in water while floating Pedaling using the legs in water while floating and maintaining the vertical balance <ul style="list-style-type: none"> • Rescuing oneself from hazards of drowning at sea (testing one's confidence of the skills gained) <p>NOTE: This session will be a simulation at this point and under strict supervision and oversight of the MTs</p>

SESSION 11:
*RESCUE OF/
WITH OTHERS*

PURPOSE: To provide/use rescue services to another individual at sea while you are at sea or on land

PROCESS & APPROACH:

- **While on land and the person is at sea:** Two aspects of the skills are needed here
 - a. throwing the rescue equipment to the person in distress,
 - b. determining the depth of water and distance to the person in distress by using a stick so as to determine the effort needed for rescue, without getting into sea
- **While both are at sea:** This is the most critical rescue effort as seaweed farmers will most likely be at sea while working. In this case, the following are to be considered:
 - o The effective capacities of the rescuer in saving the other without endangering his/her life
 - o The availability (or not) of other vessels or people who can assist the effort
 - o The condition of the distressed person at the time of rescue/distress
 - o The swimming skills that the person in distress has.
- **Signaling skills and devices:** It is important now to discuss issues about signaling at sea as a precondition for rescue. Some of the consideration to make are (i) what devices can be used, (ii) how can they be effectively used, and (iii) what are the challenges.
 - i. Which devices?
 - Whistles and drums (can be locally made), as sound as a signal system
 - Torches, Lanterns (Light as a source of signal, especially in the dark)
 - White and Red flags or scarfs (Color visuals as a signal system)
 - Mobile phones (in water proof carriers/covers)
 - ii. Effective use of devices
 - Effective use require that the community agree on which devices to be used, and how they can be effectively used to communicate distress and call for help.
 - Each seaweed farmer (and indeed fisherfolk) needs to carry at least one or more of these devices to sea, and know how to use it to communicate distress
 - The community needs to coordinate so that there are rescue and response teams that can pick up these signals and make haste to rescue those in distress
 - iii. Challenges to effectiveness and use
 - Strong winds and heavy rain can affect visibility and audibility of some of the devices both at night and during the day
 - Many people may not be used to carrying such devices into sea
 - Network challenges at sea may affect use of mobile phones

	<ul style="list-style-type: none"> • Providing first aid services to the rescued: This is tied to the next unit of first aid, however, basic skills (see theory part before swimming skills begin) can be adapted with support from Master Trainers. <p>NOTE: THIS SESSION WILL BE A SIMULATION AT THIS POINT AND UNDER STRICT SUPERVISION AND OVERSIGHT OF THE MTS</p>
<p>SESSION 12: <i>SWIMMING SKILLS ASSESSMENT</i></p>	<p>PURPOSE: To assess and document the effective skills gained through the skill building session, as well as effectiveness of MTs and the lessons learnt to inform the skills building.</p>

FRAMEWORK

The assessment framework will be based on levels of swimming skills/capacities assessed at entry, and will consider/compare the following variables:



- Ratio of MT to Participants should not have exceeded 1:5, during the sessions.
- MTs capacities to support the 3 different categories should be evaluated
- Skills to build/lacking by Participants at entry per category and whether they have been gained in totality or in part,
- Duration to proficiency per category/team/individual trainee (How long does it take each group to be proficient in swimming?)
- % per category completing the whole skill-building sessions (without missing a session)
- Effective distance swam (average) by category at end of skill-building compared to distance swam at start (in Meters)
- Effectiveness of MTs swimming training/skill building methods used
- Lessons learnt through final debriefs with Trainee teams and by MTs themselves

UNIT 3: BUILDING CONTEXT ADAPTED, SENSITIVE AND RESPONSIVE FIRST AID SKILLS

WHAT SKILLS TO BUILD & PROCESS

TIMELINE & RESPONSIBILITY

- 3 days, integrated between last two days of Swimming skills building and phased into 3 of the 4 days of canoeing skills
- TPP (Master Trainers)
- Session 1a, b and c, should go into the first 2 days of skills building training, and take ½ day (see Fig 1, 2c)

PURPOSE OF BUILDING FIRST AID SKILLS:

The purpose of this unit is to transform the conceptual, contextual and practice understanding and use of first aid as a core skill critical in aquatic survival and resilience among sea weed farmers.

- To facilitate this transformation (which will be demonstrated in the practice), the participants will not only need to engage with local knowledge but also with how they are used to perceiving first aid, and determine how to adapt what best works for their circumstances and context.

THE PROCESS AND APPROACH

SESSION 1 A.
WHAT IS FIRST AID? THE NEW CONCEPT!

- The first response or remedy performed on self and or other to alleviate injury, pain or malady at that particular circumstance as a result of excursions at sea, to reduce escalation of the problem before an expert takes over, or one is taken to a health facility.
- Important to understand that you should do this (first aid) to yourself, before you do it to/on others.
- It considers use of available remedies that work, and local remedies have shown efficacy, however, modern remedies are also as important in as long as they remedy the injury or circumstance.

SESSION 1B.
WHY FIRST AID?

- First aid is important because it reduces escalation of a problem
- It keeps one alive and in a stable condition before expert help is received
- First aid itself may be the only way to save a life, such as in cases of drowning or attack by poisonous ‘sea animals’

First aid at sea is greatly dependent on being able to identify and perceive that one or self is at risk (see signaling at sea in UNIT 2, Session 11)

SESSION 1C.
THE FIRST AID KIT- A NEW UNDERSTANDING!

- The conception of a first aid kit, stems from an understanding of the problem and choice of the appropriate remedy to manage the malady from escalating.
- In sea weed farming, the setting is the sea, and local knowledge has been collated on remedies that have been successfully used to address sea related (aquatic) risks. However, modern knowledge of remedies is equally important for integration into first aid responses
- The local and modern remedies need to be sourced and packaged in a simple and appropriate carrier (kit) so that seaweed farmers make it part and parcel of their seaweed farming paraphernalia
- The kit should contain remedies for the most common risks that sea weed farmers face (see UNIT 2(B), and there may be variations between sites on the composition of the kit
- The remedies should also be replenished over some time, so that the contents do not lose their potency and thus effectiveness as first aid remedies.
- The remedies should also be sourced in forms that are not bulky or cumbersome, that challenge the idea of going to sea ‘light’.

With this understanding, the kit needs to be co-created to morph the local knowledge systems with modern medicine, and also to be as economical as possible considering the socio-economic situation of most sea weed farmers.



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SESSION 2:
CO-CREATING THE KIT (THE CONTENTS AT A MINIMUM AND THE CARRIER/ KIT)

PURPOSE: The purpose of this session is to co-create a first aid kit (carrier and contents) that effectively addresses the risks that seaweed farmers may face at sea, using locally available remedies (traditional & modern), that are culturally accepted, sensitive and responsive, so as to sustain use and integration into the practice of seaweed farming.

PROCESS & APPROACH:

Practical session with local/traditional herbalists and medics, to jointly with participants co-create and iterate the kit (contents and carrier) with the following considerations:

- i. Common sea risks and injuries that require first aid
 - Participants to map the common sea risks and injuries that need first aid
 - Participants discuss the first aid skills that a seaweed farmer needs to have to manage the sea injury
 - What first aid remedies (local and modern) are effective and proven to work in their locality⁴
 - Forms and mechanisms to source the remedies so that they are made available and accessible and at a low cost (or free of charge)
- ii. Maintaining potency (reducing risk of expired remedies) for the kit/ contents
- iii. Replenishing the kit (after how long? for each remedy/equipment) to reduce maintaining remedies that are expired and thus ineffective
- iv. Keeping the kit light (not bulky)-What are the alternative carriers, that are waterproof, light and can easily be carried.

NOTE:

- During the training, it is important for the sea weed farmers to use the skills to build their own kits (based on sites), which will be used to demonstrate use of the remedies in the practical skill sessions.
- The MTs should document and update the following during this session:
 - a. an expanded list of equipment and remedies to include in the kit,
 - b. The type of carrier that participants prefer to use, and this can be locally designed by TPP,
 - c. Additional remedies and equipment that the medics and traditional herbalists add to the list, and
 - d. the people (sources) of the local remedies suggested and how best to access them.

SESSION 3.
PRACTICAL FIRST AID SKILLS

PURPOSE: The purpose of this sub-session is to build the practical first aid skills necessary to rescue self and others at sea, using the new understanding developed in the previous sessions.

PROCESS STEPS & APPROACH

1. Basic first aid skills training for participants (as relates to seaweed farmers). This should cover:

- Understanding the injury or situation you are in (individual) or of other (person in distress)
- Gaining knowledge and skills to address/aid the situation
- Looking at the tools and inherent skills at your disposal to provide the first aid
- Building an awareness of conditions to enable one or both to be safe
- Acting

2. Demonstrating use of the remedies/kit to address a challenge. This sub session should cover the following at the minimum:

- Practical sessions (or simulations) based on a specific risk/injury (or a range of risks/injuries) to be provided first aid on by separate groups
- Using the co-created first aid kit to address/remedy the risk/injury using the skills already provided in (1) above.
- Repeating the process for each individual member of the group, addressing a specific risk/injury, with the MTs, Traditional herbalist and Medic observing together
- Assessing the performance of each individual and providing feedback in a full session on the following (i) The skill gaps demonstrated by each of the participants and what need to be improved by participants as well as MTs, (ii) The challenges with the contents of the co-created kit used, and how best it should be improved/enhanced to suit the challenges of seaweed farmers
- The MTs documents these issues to use for improving the skills building of their participants, but also to enhance the effectiveness of the co-created first aid kit.

⁴ In the previous research study and training for Master Trainers, the following equipment and remedies were already identified to be a must-include in the co-created kits because of their necessity and efficacy: Painkiller, A piece of clean cloth/scarf, Ash, coconut oil, young coconut (water), clean drinking water, body oil (in jelly form/mafuta ya mgando), ginger (Tangawizi). Young papaw (pawpaw sap), bandage (waterproof) etc

3. The referral process/mechanism after first aid

This involves referring those injured/afflicted for further medical or psychological support post first aid responses.

The following questions need to be discussed and agreed on by participants

- o Is it better to have doctors/nurses that can be called immediately as first responders on referrals?
- o Do we have community health workers who are also part and parcel or members of the sea weed farmer groups to act as first responders and link with the health systems?
- o How far are the hospitals/health centers from the shore for effective referral and to ensure safety of those referred? What mechanisms need to be put in place to save lives?
- o Is it possible to have a systematic referral mechanism for those retrieved from the sea? How can this be coordinated?
- o Do the responding health centers/hospitals have the necessary commodities and equipment to treat the risks faced by seaweed farmers? (How can this be better coordinated and improved?)

4. Learning and iterating the kit and contents (appreciating new and emerging knowledge)

Over time, new knowledge based on experiences will come up. This is supposed to monitor and document the process of iterating and improving the first aid kit to support the needs of sea weed farmers. The following questions will need to be discussed and resolved:

- How best can the learnings be used to inform the iteration of the kit and its contents?
- After How long will this iteration, based on reflection and records of first aid responses and effectiveness be organized?
- Who is supposed to be in charge of this? (MT or leadership of seaweed farmer groups??)

**SESSION 4:
ASSESSMENT
AND
MONITORING
USE OF FIRST
AID SKILLS**

Item to prioritize	What to measure	How to measure
The co-created first aid kit	Inventory of the kit, when sourced, expected/ projected expiry and replenishment date	Developing a sheet for each participant to fill at end of first aid training
Thinking about (concept of) first aid	Has this thinking/ Concept changed among participants?	Scale: On a scale of 1-10 how would you rate the change in your conceptualization of first aid?
Practice of first aid by participants	Has it become more <ul style="list-style-type: none"> • Context situated • Self and other cognizant 	Scale: On a scale of 1-10 how would you rate (a) context situatedness, (b) Self & other cognizant
MTs pedagogic change	Has MTs positively changed the way they train on first aid?	<ul style="list-style-type: none"> • To what extent [i. To a great extent, ii. to some extent, iii. Moderately, iv. to a less extent/ minimally, v. Not at all • Explain the change you see (as a participant)
Referral system for first aid	Is it more organized and coordinated?	<ul style="list-style-type: none"> • Scale: 1. Excellent, 2. Good, 3. Fair, 5. Bad, 5. Very bad • Explain your choice [.....]

UNIT 4: BUILDING FUNCTIONAL SKILLS FOR EFFECTIVE CANOEING	
WHAT SKILLS TO BUILD & PROCESS	TIMELINE & RESPONSIBILITY <ul style="list-style-type: none"> • 4 days, starting after swimming skills, but interspersed with last 2 days of first aid skills • Master Trainers, Canoeing experts & Seasoned canoe users
PURPOSE OF BUILDING CANOEING SKILLS: To build minimum operational understanding and skills on steering and maneuvering sea vessels commonly used by the seaweed farmers and associated aquatic challenges it may bring.	
THE PROCESS AND APPROACH	
RESOURCE PERSONS TO FACILITATE THE UNIT	<ul style="list-style-type: none"> • MTs • Experts on different vessel types • Seasoned users including fisher-folk
SESSION 1: INTRODUCTION INTO RANGE OF SEA VESSELS IN CANOEING	<p>PURPOSE: To enable participants to understand, appreciate and see the different types of sea vessels that are (can be) used in sea weed farming</p> <p>PROCESS & APPROACH:</p> <p>a. Introduction:</p> <ul style="list-style-type: none"> • Participants are shown the different sea vessels that [are] can be used in sea weed farming • Participants are allowed to have a feel, touch and try sitting or standing on any of them, so as to start building confidence on their potentials to use • Participants are provided with a explanatory overview of the different ways these vessels are categorized, thus: <ol style="list-style-type: none"> There are vessels which are used while sitting on them and or while standing. There are vessels which have different carrying capacities and may carry one, two or more people at any one time There are vessels which are fitted with an engine (diesel or petrol) and the engine provides the propulsion power. There are vessels which are steered/rowed using oars of different designs and sizes Some vessels are steered and balanced using [long] poles, while standing Some vessels are also fitted with sails, and although they can be steered without the sails, the sails give them wind-speed in the sea.

SESSION 2: KEY SKILLS TO LEARN IN CANOEING

PURPOSE: The purpose of this session is to highlight the key skills that participants need to learn so as to enable them build effective capacities to canoeing

PROCESS & APPROACH:

- The key skills should be explained and demonstrated with the participants. They include:
 - Understanding and observing the different vessels in use and their capabilities
 - Checking that the vessel is in good condition, secure and has all the rowing devices and equipments needed for sea
 - Skills on entry and basic considerations including canoe capacity and efficacy for the kind of job it is intended for
 - Skills on balance and rowing (movement)
 - Skills on changing direction
 - Skills on stopping (keeping vessel stationery) at sea
- The key steps in learning canoeing skills for the different vessels and the risks/challenges in using the vessels

VESSEL TYPE (SOME EXAMPLES)	KEY STEPS	RISKS/CHALLENGES
Motorboat [Mashine]	<ul style="list-style-type: none"> • Checking weather patterns • Assessing vessel fitness • Checking the equipments in vessel 	<ul style="list-style-type: none"> • Fuel cost • Service costs • Propeller injuries • Stalling • Damage
[Upondo] can also use sail [Mitumbwi] etc	<ul style="list-style-type: none"> • Entering & getting used to vessel • Balancing [in] vessel • Standing on vessel • Turning the vessel • Reversing vessel • [Setting up sail] • Putting/parking luggage/seaweed 	<ul style="list-style-type: none"> • Breakages • May fall in the sea • Stuck in sea bed • Vessel capsizing • Person falls into the sea • Torn sail • Rope injuries • Sail costs

NOTE:

The MTs, Experts & Seasoned users can expand the vessel types, the steps (and re-order them) and expand on the risks and challenges, however, they must document these and update in this manual.



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SESSION 3:
PRACTICAL
SESSIONS ON
APPLYING
THE BASIC
KNOWLEDGE
AND SKILLS

PURPOSE: To build individual confidence and skills to actually steer and maneuver the different vessels discussed

PROCESS AND APPROACH

[Each individual/participant] and a MT/Expert/Seasoned user]

- Takes one of the vessels (in rotation) and accompanied by an expert into the sea
- The MT/Expert/Seasoned user guides her/him as s/he commands the vessel, through the different steps discussed thus:
 - o checking if all equipments are in place,
 - o entry into the sea and into the vessel,
 - o balance(ing),
 - o steering (rowing/movement),
 - o changing directions (turning) while in movement,
 - o stopping the vessel in water,
 - o making any additional maneuvers and
 - o returning to shore with the vessel and securing it
- The MT/Expert/Seasoned user, in the process, assess the capacities, skill gaps and challenges of the participant and also on the vessel and feeds back to the group/individual (as will be seen fit), but in the presence of an MT, who takes notes to use in supporting the participant in ensuing excursions into sea and training.
- All participants must have an opportunity to try use of each of the vessels available for training

NOTE:

This being a practical session, will be repeated more than once during each day of training, and the skills gaps filled by the MTs/Experts/Seasoned users, until most of the participants have developed effective capacities to use a range of vessels (at least 2)

SESSION 4.
SHARPENING AND MULTI-SKILLS INTEGRATION DURING SKILLS TRAINING

PURPOSE: To sharpen an integrated range of skills offered in the aquatic survival and resilience skills course so as to demonstrate multiple skills in all the units and sessions covered.

PROCESS AND APPROACH:

This depends on the skills which need additional capacity strengthening among the participants (based on the continuous assessments of skills gaps by MTs), and may be customized based on individual efficacy of the participants.

This skills integration should be cumulative as the skills building continues and based on the skills assessment of the participants by MTs, i.e

- Sharpening the swimming skills [During swimming, first aid, canoeing, and rescue operation units)
- Sharpening the [self-rescue and rescue of others] aspects of first aid skills (During first aid, canoeing and rescue operation units)
- Sharpening the canoeing skills (During canoeing, first aid and rescue operation units)
- Practically integrating different skills sets together (Starts at different points in the skills building calendar), i.e
 - o Swimming to a certain point to take charge of a vessel (from day 12)
 - o Swimming to go and rescue a person in distress (from day 9)
 - o Providing first aid to a person just (purportedly) retrieved from the sea (from day 9)
 - o Swimming to perform first aid to a person in the sea (from day 10)
 - o Swimming a short distance to take a vessel in the sea to go and support a person in sea (from day 12)
 - o Coordinating and participating in a simulated rescue operation involving other members of the team (from day 14)

NOTE:

The list of exercises can be adapted and innovated by the MTs depending on the skills gaps they intend to bridge, however with a goal to produce multi-skilled participants who can effectively mitigate challenges at sea



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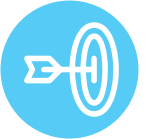


PHOTOGRAPH BY: ASH GALLERY

UNIT 5: RESCUE OPERATIONS AND COORDINATION

PURPOSE:

The purpose of this short session is to coordinate linkages with existing rescue and coordination teams in the community to facilitate knowledge and access to rescue operations in the event that any of the sea weed farmers are in distress.



RESOURCE PERSONS TO INVITE:

- Community leaders
- Sea safety and rescue committees of the village/shehia
- Disaster Management Teams (if available)
- Marine Department (if available)



KNOWLEDGE TO COMMUNICATE IN THE SESSION:

- Resource persons share their roles and how they coordinate their operations
- Participants share their challenges and concerns
- [All] discuss on how best to have a joint coordination mechanism for rescue operations and efforts for seaweed farmers (and fisher-folk)
- A simulated joint rescue coordination is conducted by the whole team of resource persons and participants, to get a feel of how it works and what the gaps may be.
- A joint platform is created together that can be used to notify the teams at once of distress at sea not only for seaweed farmers but also for fisher-folk
- Methods to communicate level of distress for appropriate rescue efforts are agreed on, and communicated to the community (through community leaders)



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UNIT 6: EVALUATION OF THE AQUATIC SURVIVAL AND RESILIENCE SKILLS BUILDING

UNIT COVERED	WHAT TO MEASURE (INDICATORS)	HOW TO MEASURE (METHOD)
IDENTIFICATION & SELECTION	<ol style="list-style-type: none"> 1. Number of participants selected (by gender and category⁵) 2. # of villages/shehia selected for project/initiative 3. % of seaweed farmer groups included in the project (by site/village) 	<p>Based on the selection and confirmation sheet of participants</p> <p>Based on the selection sheet for villages/shehia</p> <p>Based on proportion of seaweed farmer groups selected over all those considered/assessed in the village/shehia.</p>
SWIMMING SKILLS +	<ol style="list-style-type: none"> 4. % of participants/trainees capable of swimming comfortably >25M 5. Skill gaps that will require further coaching and support post training (by individual and type) 	<p>Based on (i) Yes, (ii) No</p> <p>Based on a listing of skills gaps per individual participant</p>
FIRST AID SKILLS	<ol style="list-style-type: none"> 6. Proportion of participants with adequate transformation in context sensitive, appropriate and responsive first aid skills 7. % of participants who completed the full first aid sessions 	<p>Based on scale of (i) excellent, (ii) good, (iii) fair, (iv) bad, (v) very bad</p> <p>Based on (i) completed all, (ii) completed some, (iii) completed little</p>
CANOING SKILLS	<ol style="list-style-type: none"> 8. % of participants who have effective & demonstrative capacities to steer and maneuver at least 2 sea vessels (by vessels used) 	<p>Based on MTs/Experts & seasoned users ratings on a scale of (i) Very effective, (ii) effective, (iii) fair, (iv) less effective, (v) not effective</p>
RESCUE OPERATIONS	<ol style="list-style-type: none"> 9. % of participants able to coordinate and perform rescue operations to standard 	<p>Average MTs ratings of individual participants based on observations on a scale of (i) very able, (ii) able, (iii) fair, (iv) less able, (v) not able</p>

⁵ Category here means (i) Beginners, (ii) intermediate, and (iii) good



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OVERALL AQUATIC SURVIVAL AND RESILIENCE SKILLS BUILDING	<ul style="list-style-type: none"> • % of participants who completed the full skills building sessions (by gender) • % of participants who have demonstrated use/application of more than one skill (multi-skilled) at sea (see UNIT 4, Session 4) • % of participants who qualified to get certificates (by gender) and become ToTs • Contents of first aid kit (co-created) approved for use (by name and description) • % of MTs who are rated excellent in training • Number (Average) of days it takes for participants to acquire effective skills expected in the skills building course (by level of trainees) as measured by MTs 	Those who attend all sessions against the total number of participants											
		<ul style="list-style-type: none"> • % of participants who are rated by MTs in the exercises as good or excellent on a scale of 1. Very Poor, 2. Poor, 3. Average, 4. Good, 5. Excellent 	Proportion who receive certificates because they participated in all sessions and qualified beyond 80% (according to MTs ratings)										
<ul style="list-style-type: none"> • % of participants who qualified to get certificates (by gender) and become ToTs 	Based on the contents approved to make the co-created kit for use												
<ul style="list-style-type: none"> • Contents of first aid kit (co-created) approved for use (by name and description) 	Based on the contents approved to make the co-created kit for use												
<ul style="list-style-type: none"> • % of MTs who are rated excellent in training 	Scale: 1. Excellent, 2. Good, 3. Fair, 4. Poor, 4. Very poor												
<ul style="list-style-type: none"> • Number (Average) of days it takes for participants to acquire effective skills expected in the skills building course (by level of trainees) as measured by MTs 	<table border="1"> <thead> <tr> <th>Level</th> <th># of days Per Unit</th> <th># of days for whole course (1. Unit 2, 2. Unit 3, 3. Unit 4, 4. Unit 5)</th> </tr> </thead> <tbody> <tr> <td>Beginners</td> <td></td> <td></td> </tr> <tr> <td>Intermediate</td> <td></td> <td></td> </tr> <tr> <td>Good</td> <td></td> <td></td> </tr> </tbody> </table>	Level	# of days Per Unit	# of days for whole course (1. Unit 2, 2. Unit 3, 3. Unit 4, 4. Unit 5)	Beginners			Intermediate			Good		
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Intermediate													
Good													



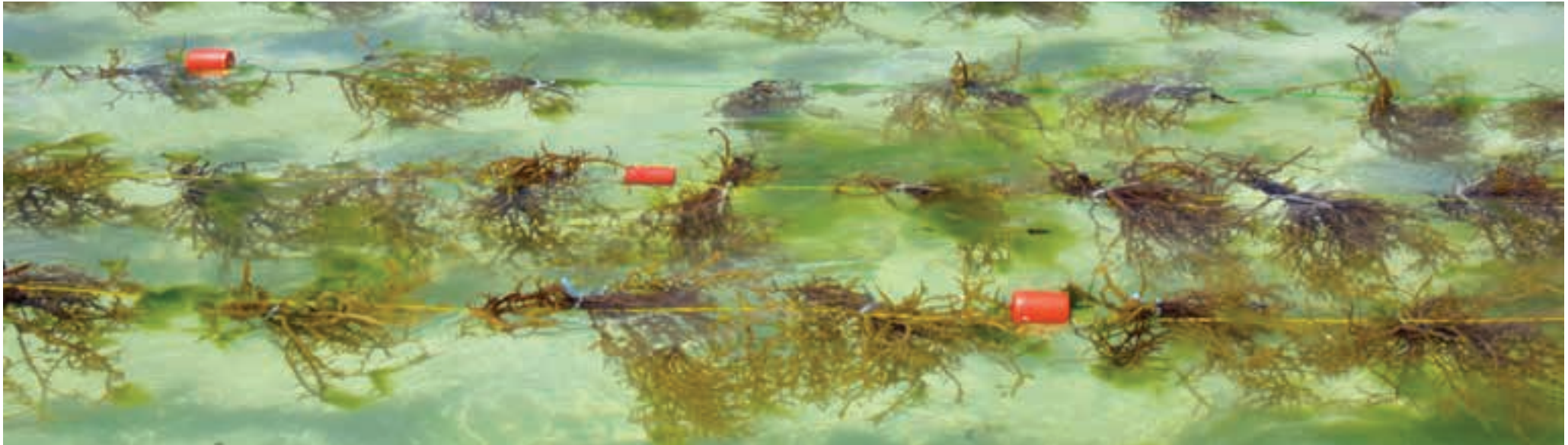
PHOTOGRAPHS BY: ASH GALLERY

CERTIFICATION OF PARTICIPANTS

Participants who have qualified based on the final evaluation should be awarded certificates. Those awarded certificates automatically graduates to be Trainers of Trainees (ToTs), and will be provided with mentoring and coaching, as well as a refresher course by TPP and Master Trainer, before they commence the new phase of skills buildings for sea weed farmers.



PHOTOGRAPH BY: MILELE ZANZIBAR FOUNDATION



PHOTOGRAPH BY: ASH GALLERY

3.0. REVIEW AND UPDATING THE MANUAL:

3.1. LEARNING AND ADAPTATION:

This manual is ground-breaking in a lot of aspects. Its implementation is therefore and continuous pilot within the context of Zanzibar, which will enable drawing of significant lessons. The implementation monitoring will therefore come up with lessons and adaptations, which will be documented to support any further review of the model. Learning will be done also with community and changes approved as they directly or indirectly affect balance and ownership at the community level.



At least semi-annually, a stakeholder learning session (encompassing TPP, MZF, RNLI, Seaweed farmers, fishers and Community (members & leaders) should be coordinated to among others (i) deliberate on the extent to which aquatic survival and resilience skills reduce aquatic risks, influence community norms and gender practices, enable effective benefit from seaweed value chains, (ii) Understand the gaps and issues for improvement of the manual and array of skills it should encompass.

These lessons will be documented and used to adapt the manual and its implementation

3.2. ANNUAL REVIEWS:

Every year, for the period of piloting this manual, an annual review that brings together implementing partners, government agencies with a role in aquatic management and seaweed farming, as well as private sector players shall be convened to bring together collective knowledge and learning towards improving the manual. This review will look at among others:

- The key adaptations made on the manual, its implementation and the justifications thereof
- Any significant changes resulting in the community and seaweed farming value chain as a result of the skills building and resilience manual and its implementation
- Deliberate on how best different stakeholders can support seaweed farmers to secure aquatic survival and resilience in their seaweed farming (aquatic practices) to benefit their and community livelihoods



3.3. PILOTING UPDATED MANUAL

The manual will be piloted from 2020/21-2022/23, after which the final manual will be updated based on learning, adaptations and reviews towards the end of 2022/23. The updated manual will therefore be evaluated and considered final, after which it can adapted for scale and or for use by others.





THE PANJE PROJECT
AQUATIC SURVIVAL & RESILIENCE
TRAINING MANUAL FOR SEA-WEED FARMERS

