

Workshop Report

Low-cost Data Collections and MCS tools in South West Indian Ocean



**Three-Day Workshop organized by WWF and
SADC Secretariat**

15-17 November 2022

Cape Town, South Africa

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Executive Summary

The World Wide Fund for Nature (WWF) and SADC secretariat (South African Development Cooperation) held a technical workshop on low-cost data collection systems and MCS tools for small-scale fisheries in the South West Indian Ocean (SWIO) region from 15-17 November 2022 in Cape Town, South Africa. The workshop was attended by 66 participants, including representatives from 15 countries, independent experts, Civil Society Organizations (CSOs) and technology companies (Annex I, list of participants).

The objectives of the workshop were to:

1. foster deeper understanding on low-cost data collection systems applicable for small-scale/artisanal fisheries which can address some of the challenges facing national monitoring, control and surveillance (MCS) systems in SWIO region
2. discuss their applicability in small-scale fisheries (SSFs) of the South Western Indian Ocean
3. advance the development of roadmaps for participating countries to expand the use of electronic tools

To achieve these, participants made a start at developing pilot project proposals, including expressions of needs that such tools could fill, and identification of potential pilot sites/fisheries for at least two target countries (amongst Kenya, Madagascar, Mozambique, South Africa and Tanzania), with an emphasis on fleets targeting tuna and tuna like species and/or shrimp fisheries. The pathway to achieving the intended outcomes allowed for multiple sub-objectives to be achieved:

1. making the case for change (i.e. national descriptions of current needs and challenges)
2. sharing information regarding the types of technological solutions available and their potential (i.e. obtaining maximum mileage)
3. demonstrating how various technological solutions can improve data or address IUU fishing in the SWIO region

The workshop design (including agenda, participants and curriculum) was developed with support from external facilitator, and Mr Umair Shahid (WWF) convened and co-facilitated the workshop with Dr Ross Wanless (Petrichor Africa). The packed agenda (Annex II) was carefully designed to create enabling conditions for realistic expressions of needs while simultaneously providing participants with practical opportunities to better understand the nature of technological solutions that can meet those needs. This allowed workshop participants to understand the current state of play on fisheries governance and evaluate gaps. A technology showcase gave participants time to explore tools with service providers. This was furthered through a field visit where the participants could witness operations of such systems in practice and gain an organic understanding of how these tools bring data and traceability into supply chains. The workshop agenda was further tailored and adapted for countries to express some of the major barriers to change and challenges that must be overcome before adopting new technologies. The facilitator analyzed national approaches in greater detail, using a Systems Thinking approach which provided a framework in which roadmaps for uptake of new tools could be structured. The workshop participants

1. Recognized the urgent need for substantial improvements to the collection of catch and effort data in national tuna fisheries and submission of such to the Indian Ocean Tuna Commission.
2. Affirmed the sovereign nature of managing national fisheries, particularly with respect to data confidentiality
3. Further recognized that the tools for data collection from small-scale fisheries can be applied in different contexts
4. Acknowledged that without improved data, the current challenges facing the management of small-scale fisheries will remain, and recommended that funding be made available to improve critical national data infrastructure for fisheries
5. Recommended that alternative data collection mechanisms (such as the use of crew-based or other self-reported data, electronic monitoring of fishing, and the use of electronic tools for recording landed catches) should be evaluated against triple bottom line impacts (financial, environmental and social), ensuring incentives are identified for participation of fishers through value addition in value and supply chains
6. Recommended that WWF convene country-specific workshops to complete the development of proposals to implement pilot projects that can inform and adapt roadmaps for the national-level uptake of low-cost data collection and MCS tools
7. Expressed support for strengthening an incipient partnership between WWF and the SADC Secretariat to roll out the action plans/pilot projects in the SWIO region and beyond; participants additionally called for national coordination with SADC structures for MCS-related information and exchanges
8. Concluded that pilot projects with national governments
 - i. require a “champion” decision-maker within the civil service to be successful
 - ii. would benefit from including a mix of expertise and contributions (from multiple national departments, CSOs, donors and multilateral bodies such as SADC and IOTC), and that such arrangements are appropriate
 - iii. will have a higher probability of success if participatory and/or co-management approaches to fisheries management are meaningfully woven into pilots

Opening of the Workshop

Opening remarks and welcome notes were provided by the representatives of the Government of South Africa, SADC and WWF. WWF deployed a team of logistics and technical support personnel, and brought multiple experts from around the world. This comprehensive coverage of workshop functions and expertise ensured a logistically smooth and well-managed event. SADC’s involvement greatly increased national participation, from the targeted five (5) to 15 countries. Most participants were from states that are members of Indian Ocean Tuna Commission (IOTC) and Southwest Indian Ocean Fisheries Commission (SWIOFC); neither secretariat had the capacity to participate directly, but since each entity is the sum of its members, the national representation provides a default pathway to keeping those regional bodies informed and engaged.

Proceedings of the workshop:

Summary of Day One (15 November 2022)

The workshop was preceded by a day of sharing results from WWF’s Sustainable Blue Economy (SBE) and Fisheries Program amongst the same 66 participants. The seamless transition from the SBE to MCS workshops obviated the need for formal welcomes and a round of introductions. This freed up time to accommodate the additional national presentations.

Expectation management was done through an interactive online tool, mentimeter.com. Participants were invited to list three words or phrases to reflect what they understood the workshop was about or what they wanted to explore. The resultant word-cloud confirmed that the themes and expectations from participants were aligned with those of WWF (Fig. 1). Following that, the workshop proceeded to make the case for change. Representatives from fisheries administrations of all participating countries were invited to present an overview of national SSFs (available [here](#)), and were requested to focus on the use of paper or electronic data, the size of Compliance officer cadre, and related matters that have bearing on MCS needs and opportunities. A template PowerPoint presentation (Appendix 1) was provided to each national department. These provided insights into the national frameworks in which new MCS tools must be considered, and also hinted at needs/challenges, through presenting data on the size, scale and nature of national SSFs, the capacity and reach of compliance programs, and where withing the information flow are paper data captured into a database.



Figure 1: Word-cloud output of the workshop participants' expectations and thematic interest

Making the case for addressing IUU, improving data collection and MCS systems and finding scalable electronic tools continued with a regional perspective: SADC’s MCS Control Centre and MCS aspects of relevance to tuna and IOTC. After the lunch break, WWF’s Mr Bubba Cook provided an overview of eFIS systems and international processes, which set the scene for diving into specifics of eFIS MCS tools. The rest of day 1 was given over to a deep dive into the granular details and functionality of a diversity of eFIS solutions, presented by tech developers/representatives. This continued through the evening via a

cocktail reception and Tech Expo – in which service providers set up displays and participants could engage in detail in a more convivial and informal setting. The Expo generated a lot of engagement (fig 2) and was therefore a huge success, with both exhibitors and participants expressing appreciation for the opportunity and its impacts in deepening understanding and networking opportunities. A high-level summary of the technology providers who presented their systems at the workshop is as follows;

Table 1: High level summary of the technology solution in relation to SSF, showcased at the workshop

Solutions are categorized according to key criteria (column headings) where **green** = high, **amber** = medium and **red** = low.

Technology Provider	Relevance to target SSFs	Cost effectiveness and efficiency	Comprehensiveness	Sustainability after initial setup
ABALOBI	Green	Green	Amber	Green
Satlink	Amber	Red	Red	Amber
Shellcatch	Green	Green	Green	Green
SRT	Amber	Amber	Red	Amber
S3C	Green	Green	Red	Green
TrazApp	Green	Amber	Amber	Amber
Mahigeer-App	Amber	Green	Red	Amber



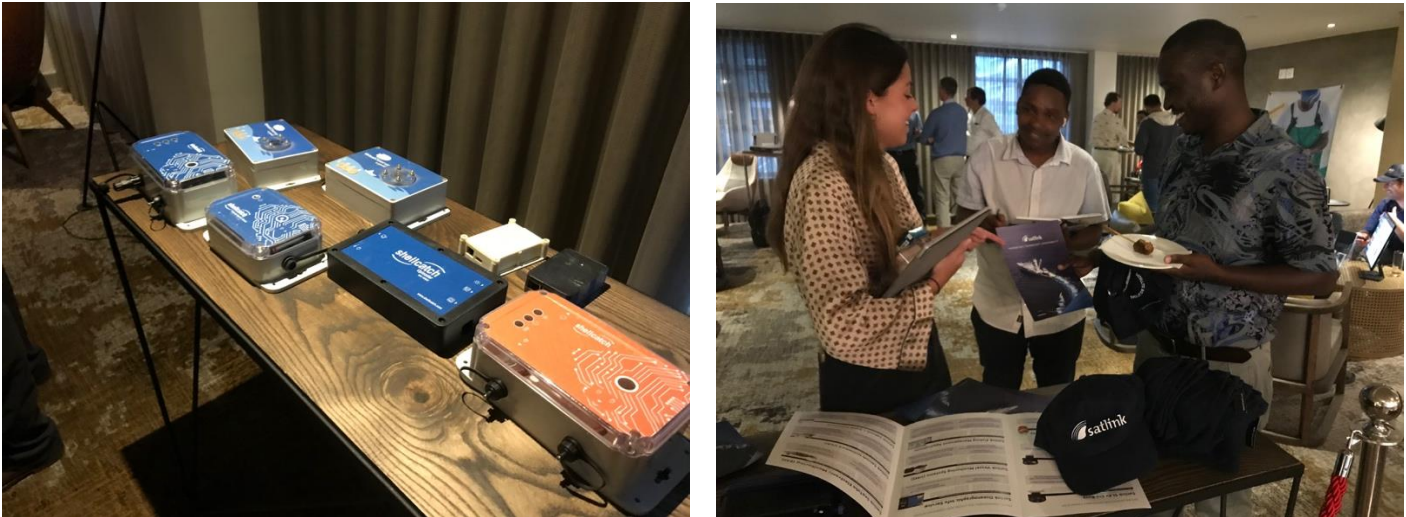


Figure 2: Glimpses of the workshop and a tech expo-cum-cocktail reception gave all participants the chance to engage with multiple eFIS solutions, including ABALOBI (top), S3C systems (middle) and Satlink (bottom), in a relaxed and informal setting.

Summary of Day 2 (16 November 2022):

The first half of the day was given over to a field trip at ABALOBI's distribution centre, where staff explained non-technological aspects to their holistic, fisher-centric ecosystem of electronic tools and processes. The site visit allowed the participants to learn on how a social enterprise/tech company such as ABALOBI engages fishers and partners, and how web-based platforms improve data collection, track fishing trips, and record important information at landing, storage, processing and sale. It also demonstrated the importance of collaboration with communities and showed how technology serves data to consumers, including allowing them to trace fish to the fisher.

In the afternoon session, with learning from the morning's field trip front-of-mind, facilitated group work was undertaken to help participants elucidate and codify SSF challenges in relation to data and MCS. Participants were divided into four break-out groups of equal sizes and collectively shared thoughts and information on the transition to eFIS. because while each group was required to consider eFIS from a particular, seemingly different, aspect, in reality many of the same things were expressed in the groups.

Discussion groups:

1. Sovereignty and data issues
2. Current needs in and challenges facing SSFs
3. Problems and solutions facing eFIS
4. Needs of compliance officials in adopting and using eFIS

Each group was tasked with considering the basic issue from a different perspective or lens, in an attempt to paint a holistic and complete picture of the needs, processes, challenges and considerations. The high levels of commonalities across the groups were evident from the plenary feedback and serve to reinforce one another. A final, brief discussion and close-out for the day provided deeper perspectives on where bottlenecks exist in governance.

Table 2: High-level summary of discussions from break-out groups

Areas and/or issues unpacked	Discussion Points (summary)
Sovereignty and data issues	<p>Lack of funding for data, and a need for platforms that can share data with other platforms. External communication would help make the case for these tools, such as communicating membership of or accession to groups that bring benefits to a country or fishery as a result of taking up new technology. Internal communications should strive to improve public awareness and perceptions of actual improved transparency.</p> <p>Challenges that prevent progress were discussed:</p> <ol style="list-style-type: none"> 1. internal conflicts 2. lack of training 3. lack of trust, or fear of creating conflicts when data are shared (the siege mentality). Additionally, it is increasingly challenging to call something out if only a select group knows what's happening 4. Capacity constraints prevent funded projects from being deployed, or even from accessing finance for pilots
Current needs in and challenges facing SSFs	<p>Problems that eFIS can address:</p> <ol style="list-style-type: none"> 1. Lack of catch and effort data 2. There's conflict around how data are analysed 3. Many SSFs are open access leading to the tragedy of the commons 4. Many SSF sectors are overwhelming large and geographically very dispersed 5. SSFs are characterized by poor market access
Problems with uptake of mobile and low-cost data collection systems	<p>Resistance (or inertia) to taking up eFIS. Some relate to well-grounded fears of change – fishers know that once EM is in place some problems will be exposed. Keeping things the way they are feels more comfortable. Resistance to eFIS can come from the following:</p> <ol style="list-style-type: none"> 1. Communication gap between fishers and govt 2. Fishers often lack basic business skills 3. EM struggles to easily account for post-harvest losses 4. High levels of ETP catches creates resistance to tech because those in that fishery know trouble is coming 5. Low education levels in fishers 6. Overfishing is already happening, so anything that potentially reduces catches will be resisted 7. Fishers face financial constraints and cannot take on any additional costs 8. Climate change impacts already being felt 9. Fishers are often/usually excluded from decision-making 10. There is awareness of destructive practices which EM will expose
Compliance system and eFIS	<p>There is a lack of catch and effort data from SSFs. This is consistently due to low capacity and poor communication among different government/respective departments and agencies engaged in data collection. A major roadblock to</p>

	<p>implementing eFIS solutions in SSFs is a lack of a sustainable business model</p> <p>Certain data traces of data are recorded they are not formal, and national administrations are reticent to accept data from third parties without a comprehensive system in place to manage rights, access, etc.</p> <p>Almost universally, small-scale fishers are “managed” by middlemen and long supply chains. These put enormous downward pressure on prices that fishers receive. Disruptive solutions are required to emancipate fishers from the stranglehold of unregulated markets. To be effective, these ‘disruptive’ solutions should simultaneously provide robust traceability data beyond the first point of sale</p>
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Summary of Day 3 (17 November 2022)

It is important to recognize that implementing a new eFIS solution will require onboarding, which itself entails discussions with stakeholders. Not all parties will be enthused by proposals to change the status quo. Indeed, hidden agendas must be expected – because there are elements within all SSFs that **benefit from the status quo** and which will resist, either overtly or covertly, attempts to change the status through introducing eFIS solutions. To simulate this necessary step in the path to implementing eFIS, Day three kicked off with a role-play exercise (see annex III) in a fishery commission setting. Participants were grouped at random into countries or other member bodies. In advance of the formal negotiation session, each group was given a policy brief with explicit, required outcomes, yet the briefs were deliberately designed to be mutually incompatible. This represented the various competing interests within a fishery – profit, sustainability, affordability, etc. All final decisions required consensus, which provided a mechanism for more intense discussions (given the time available during the workshop). Bribery and corruption elements were also inserted into the process. The resultant session generated a great deal of interactions, but more importantly the facilitators were then able to draw out the parallels between the fictitious commission setting and the reality that might be encountered when engaging the sector back home. The role-play exercise highlights how discussions on SSF technologies can be upended and progress either dramatically slowed or entirely halted when stakeholders deploy rhetorical techniques/negotiation tactics:

1. Stirring up controversy (which can completely derail discussions)
2. Leveling evidence-free, spurious or irrelevant accusations against other parties
3. Making unsupported statements of ‘fact’. A very important particular case of this generic point is claims of financial loss/hardship – there are never, ever any supporting facts that accompany such claims, but frequently simply making such a claim is sufficient to prevent progress
4. Misrepresenting or exaggerating things to create a specific perception
5. Pointing out problems with no attempt to
 - a. propose a way forward
 - b. explaining what requirements must be met or which rights/opportunities are impacted
6. Making non-specific points that vaguely suggest a problem
7. ‘Running down the clock’ through making long-winded, complex and/or recursive interventions
8. Outright bribery to get one's way

Despite the time pressure that the extended role-play session had placed, time was created for the final three national presentations to be made. Dr Wanless then presented a 'systems thinking' framework for consideration during the final act of the workshop, highlighting the pros and cons of the four basic business models in which national procurement for MCS tools must operate. Participants then grouped themselves by country, with a technical expert to support them, and began to develop national plans for pilot projects. Structure was provided through a template outlining critical components of a plan to be completed. The first task in the planning process was to define the problem that was to be addressed. Next was context (i.e. the details underlying the problem statement), a description of the solution(s), and finally considerations for implementing the proposed solutions. A framework to specify the envisaged timeline for implementation was also provided but there was insufficient time to complete these in most instances. As the final act of the workshop's formal activities, a representative from each country summarized the key points of their plans in plenary. The consolidated work plan for SWIO countries is provided below, whereas, the consolidated plans from the workshop for all participating countries can be found in annex IV.

Table 3: Consolidated SWIO countries roadmap

Country	Implementation	Timeline
Kenya	Sensitization and awareness creation on importance of data to BMUs	Jan - March 2023
	Capacity building of BMU officials to enhance electronic data collection	Quarterly 2023
	Procure and supply electronic data collection tools	
	Sensitization and awareness creation on IUU activities	Jan - June 2023
	Mobilization of BMUs and agencies for collaboration	Jan - April 2023
	Carry out enforcement for voluntary compliance	Quarterly 2023
	Procure and install low cost VMS on pilot fishing vessels	July - September 2023
Madagascar	Etudes au préalables: Identification des sites pilote	January 2023
	Recensement des pêcheurs dans chaque village	February 2023
	Appui à la structure de regroupement des pêcheurs	March 2023
	Acquisition des moyens (équipement, humain)	April 2023

	Implication les groupements de pêcheurs dans l'établissement de registres de collecte de données	April - May 2023
	Renforcement de capacités des membres des associations (par ex: digitalisation des données)	June - December 2023
South Africa	Electronic permit system (long term). Access to an official database system. Logging information on the day of landing (more than one landing per day). Realtime reconciliation by the system (allocation vs landing)	
	The roll-out of a fully automated electronic system. Strategic buy in, budget (National or Donor), Key steps (Explore solutions for new database that incorporate blockchain or similar tools, Cloud computing for the data coming, Designing, pilot, adopting and adapting from other countries, Upscale and make use of the systems that exist within the Government)	
	Officials at the point of export having access to the data to make decisions on whether the particular export is within the allocation or is exceeding the allocation	
Tanzania	Conduct due diligence analysis on available MCS tech solutions Sign agreement with the developer Implement the MCS tech solution for SSF	Jan - February 2023
	e-data capture gap analysis Training material and content development Training of participants - MCS officials Establish on-job mentorship program Roll-out on-job mentorship program	February - September 2023
	Infrastructural needs assessment Renovate and rehabilitate non-functional MCS vessels/facilities/equipment Procure MCS equipment and software based on needs assessment	April - July 2023
	Plan advocacy agenda on budgetary allocations and implement an advocacy initiatives to influence increase in budget allocations specifically for MCS activities/endeavors	Feb - November 2023
Mozambique	Catch up on where the artfish online pilot was left. Improve artfish electronic version + some features of pescart	January 2023

	Review artfish to aggregate data of interest of different fishing sectors	
	Discussion with government and service providers to develop a tors for the recreation of online artfish electronic	Feb - March 2023
	Bidding to recreate artfish electronic	Jun - August 2023
	Pilot in a geographic region	Oct - December 2023

Reflections/Discussion

The workshop followed a fluid, adaptive management approach, and maintained a collegial and somewhat informal ethos conducive towards lively and positive engagement by participants. Further, despite needing to achieve the objective of raising awareness and providing detailed information, another explicit strategy was to avoid death-by-presentation. These choices were made because participation in the workshop was mostly voluntary, yet the workshop was being driven towards a clear and explicit goal. It was critical to ensure that participants felt valued, heard, and motivated to contribute and develop the best plans possible. Techniques such as requesting that questions for presenters be addressed in the margins of the meeting, doing away with regular check-ins, daily wraps, among others, were used so as to not give information overload, keep to time as best possible, while still meeting core objectives rather than adhering rigidly to the predetermined agenda. The more relaxed nature of the event was emphasized with the hosted cocktail function and tech expo – a very interactive way to exchange information in a focused and targeted way without boring presentations. There were no indications that participants felt intimidated, pressured, or unable to make contributions.

All participants publicly agreed that current MCS systems are inadequate in various ways. Further, and despite the diplomatically delicate nature of publicly expressing such things, officials and other participants confirmed short-comings and that IUU fishing is a reality. No dissenting voices were heard regarding the value that electronic tools can offer.

The time that certain agenda points took to complete created substantive challenges, somewhat mitigated by late withdrawals of some presenters. Nevertheless, Day 3 was only scheduled for a half-day, but it was clear that participants wanted more time to get more details into the pilot project work plans, and also provide a brief overview in plenary. The fact that those desires could not be fully accommodated was not problematic, but has left quite some work ahead to bring those incipient plans into a more coherent and fundable form.

The workshop was evidently highly successful, having achieved all the aims, largely met expectations, and resulted in the development of roadmaps for introducing tech solutions into the MCS systems of a dozen countries. It could rightly be argued that the outcomes exceeded the original expectations, since road maps were developed for improving MCS tools in the SSFs of non-target countries, including for freshwater fisheries in landlocked countries (Zimbabwe, Eswatini and Malawi). The bigger process that

WWF is driving within the SWIO region (of which this workshop was a part) has the potential to be a remarkable catalyst. Not only did officials from a dozen African and island states work collaboratively with NGO personnel and technology experts to codify the nature of the problems their current systems face and propose solutions, they wholeheartedly advocated for the implementation of electronic tools for MCS in their national SSFs. In conclusion, nine recommendations arose from the workshop:

1. Recognized the urgent need for substantial improvements to the collection of catch and effort data in national tuna fisheries and submission of such to the Indian Ocean Tuna Commission.
2. Affirmed the sovereign nature of managing national fisheries, particularly with respect to data confidentiality
3. Further recognized that the tools for data collection from small-scale fisheries can be applied in different contexts
4. Acknowledged that without improved data, the current challenges facing the management of small-scale fisheries will remain, and recommended that funding be made available to improve critical national data infrastructure for fisheries
5. Recommended that alternative data collection mechanisms (such as the use of crew-based or other self-reported data, electronic monitoring of fishing, and the use of electronic tools for recording landed catches) should be evaluated against triple bottom line impacts (financial, environmental and social), ensuring incentives are identified for participation of fishers through value addition in value and supply chains
6. Recommended that WWF convene country-specific workshops to complete the development of proposals to implement pilot projects that can inform and adapt roadmaps for the national-level uptake of low-cost data collection and MCS tools
7. Expressed support for strengthening an incipient partnership between WWF and the SADC Secretariat to roll out the action plans/pilot projects in the SWIO region and beyond; participants additionally called for national coordination with SADC structures for MCS-related information and exchanges
8. Concluded that pilot projects with national governments
 - a. require a “champion” decision-maker within the civil service to be successful
 - b. would benefit from including a mix of expertise and contributions (from multiple national departments, CSOs, donors and multilateral bodies such as SADC and IOTC), and that such arrangements are appropriate
 - c. will have a higher probability of success if participatory and/or co-management approaches to fisheries management are meaningfully woven into pilots

Close of the Workshop

The workshop closed with a thank you note by a representative of WWF, all materials have been posted and shared with the participants. The workshop report will be adopted internationally.

Annex I - List of Participants of the Workshop

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Annex II - Agenda of the Workshop

Day One – 15 November 2022		
Session I – Inaugural Session		
Time	Agenda item	Lead/Responsibility
0830 – 0900	Registration of the participants	WWF
0900 – 0910	Welcome Note	Facilitator
0910 – 0920	Introductions and expectations of workshop	Facilitator
0920 - 10:30	Open discussion Questions and Clarifications a. Why do we need this? b. Why do these tools not get adopted? c. Goal-line technology example d. What is taking so long for uptake? In fisheries – discuss obstacles e. Consider socio-political/economics both pros and cons f. Performing a litmus test	Facilitator
1030 – 1100	Coffee Break and Group Photo	WWF
Session II – Current state of play for data collection and MCS technology in SWIO region		
1100 – 1230	National Presentations (10 minutes each)	State of play for SSF MCS and plans/potential/interest in progress
1230 – 1330	Lunch	
1330 – 1400	Introduction to IOTC and state CPCs data collection in small-scale/artisanal tuna fisheries	WWF
Session III – Deep Dive in low-cost data collection and MCS tools		
1400 – 1415	Introduction to WWF eFIS (costs, utility, sustainability)	Bubba Cook, WWF (tbc)

1415 – 1430	Case study on the use of EMS in small-scale fisheries from Peru/Chile?	Alfredo Sfeir, Shellcatch
1430 – 1440	Case study from IPNLF on low-cost data collection and MCS tools in pole-and-line fishing	IPNLF
1440 – 1500	The intersection between eFIS and IUU: case study in SA's West Coast Rock Lobster fishery	ABALOBI
1500 – 1530	Coffee Break	
1530 – 1600	A new generation of satellite technology and a case study of real-time monitoring of small-scale vessels from the Philippines	SRT (tbc)
1600 – 1620	A comparison of EM and ER from large-scale to small-scale fishing vessels	SATLink
1620 – 1640	Case studies from Pakistan: a. Skipper based reporting b. Mobile data application to connect fishers and buyers	WWF
1640 – 1700	Trazzapp and its applications for eCDS	WWF
	Closeout Day 1	Facilitator
1830 – 2100	Technology showcase and cocktail reception/dinner	Technology providers/WWF
-----DAY END-----		

Day Two 16 November 2022 (Field visit)

GROUP - 1 (20-25 participants)

0800 – 1330	NOTE: Participants of each group are requested to assemble at departure point (TBD) on time. Transport will leave at Sharp Given Time.
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Time	Field Visit	Facilitator
0830 - 0900	Delegates arrive at ABALOBI site	
0845 - 0900	Coffee/Tea & Biscuits	
0900 - 0920	Welcome and overview of ABALOBI by with a short Q&A session	Matt Richardson
0920 - 0940	View the video "A Day In The Life Of An ABALOBI Fisher" with a short Q&A	Hahn Goliath
0940 - 1000	Presentation of one component of the ABALOBI E-Learning content with short Quiz	Eben Newman
1000 - 1020	Tour of ABALOBI Processing Container, opportunity to scan Fish With A Story QR Code on ABALOBI Deli Products	Hahn Goliath and Mark Williams
1020 - 1030	Present each delegate with an ABALOBI Cap and take a group photo outside in front of branded ABALOBI Truck	
1030 - 1045	Delegates depart though designated Transport	

GROUP - 2 (20-25 participants)

1000 – 1215

Time	Field Visit	Facilitator
1000 - 1015	Delegates arrive at ABALOBI site	
1015 - 1030	Coffee/Tea & Biscuits	
1030 - 1050	Welcome and overview of ABALOBI with a short Q&A	Matt Richardson
1050 - 1110	View the video "A Day In The Life Of An ABALOBI Fisher" with a short Q&A	Hahn Goliath
1110 - 1130	Presentation of one component of the ABALOBI E-Learning content with short Quiz	Eben Newman

1130 - 1150	Tour of ABALOBI Processing Container, opportunity to scan Fish With A Story QR Code on ABALOBI Deli Products	Hahn Goliath and Mark Williams
1150 - 1200	Present each delegate with an ABALOBI Cap and take a group photo outside in front of branded ABALOBI Truck	
1200 - 1215	Delegates depart though designated Transport	
GROUP - 3 (20-25 participants)		
1100 – 1230		
Time	Field Visit	Facilitator
1130 - 1145	Delegates arrive at ABALOBI site	
1145 - 1200	Coffee/Tea & Biscuits	
1200 - 1220	Welcome and overview of ABALOBI with a short Q&A	Matt Richardson
1220 - 1240	View the video "A Day In The Life Of An ABALOBI Fisher" with a short Q&A	Hahn Goliath
1240 - 1300	Presentation of one component of the ABALOBI E-Learning content with short Quiz	Eben Newman
1300 - 1320	Tour of ABALOBI Processing Container, opportunity to scan Fish With A Story QR Code on ABALOBI Deli Products	Hahn Goliath and Mark Williams
1320 - 1330	Present each delegate with an ABALOBI Cap and take a group photo outside in front of branded ABALOBI Truck	
1330 - 1345	Delegates depart though designated Transport	
1230 – 1330	Lunch	

Four breakout groups in carousel format, 15-20 minutes/station

1330 – 1500	<p>Group 1: Sovereignty and data issues</p> <p>Group 2: Electronic monitoring and reporting</p> <p>Group 3: Mobile and low-cost electronic data collection systems</p> <p>Group 4: Compliance systems and eFIS</p>	<p>Third party service providers, agencies etc. who owns the data, or makes it available? Can it be used in the court of law?</p> <p>How to move away from paper-based reporting or no reporting to ER. What information/trail of information is required? What are issues/problems are expected when deploying EM in SSF? What fundamental issues that need rectification?</p> <p>AIS/VMS – locations – based on how do these systems look like – how do we do this at scale? Fishing in MPAs - ? What solutions exist and how do we manage it?</p> <p>What data do compliance officers need, to stop IUU, and when do they need it? What is needed to facilitate compliance officers to engage with electronic data?</p>
1500 – 1530	Coffee break	
1530 - 1630	Reporting back from the groups and discussion	
1630 – 1700	Closeout Day 2 and plan for Day 3	Facilitator
----- Day END -----		
Day Three 17 November 2022		
Session IV – Setting up Recommendations and work plan in SWIO		
Time	Agenda	Lead/Responsibility
0900 – 0915	Recap of Day 1 and 2.	Facilitator

0915 – 0930	Systems thinking	Facilitator
0930 – 1100	Breakout groups to develop pilot studies and tech scale up – each country to develop a work plan, WWF FP to facilitate groups	WWF
1100 – 1200	Open Discussion	Facilitator
1030 – 1100	Coffee Break	
1200 – 1230	Adoption of recommendations and work plan	Group Leaders
1230 – 1300	Vote of Thanks and Close of Workshop	WWF