



## BACKGROUND

The FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated (IUU) Fishing (PSMA)<sup>1</sup> is a powerful tool in the fight against illegal fishing. Port inspections of foreign vessels that engage in fishing or fishing related activities by state authorities are a critical component of this.

The Port State Measures to Stop Illegal Fishing project (PSM-SIF)<sup>2</sup> has been supporting African countries to develop monitoring, control, and surveillance (MCS) procedures and capacity to implement the PSMA. Mentoring multi-agency inspection teams has been a key element of this support. With the outbreak and spread of COVID-19 in 2020, in-person mentoring became difficult due to restrictions on working in enclosed spaces, shortages of personal protective equipment, and limitations on international travel. If the mentoring were to continue, an alternative way of providing support was urgently required.

# USING BODY WORN CAMERAS

To provide remote support for fisheries enforcement

## THE STORY

In July 2020, SIF embarked on a pilot project to evaluate the viability of online mentoring using live-streaming remote cameras, like the body worn cameras (also known as body-cams) used by security agencies, including police forces around the world. It was hoped this would enable SIF to continue to provide expert mentoring in real-time to frontline fisheries inspectors.

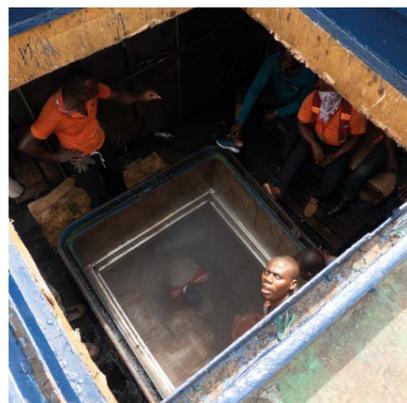
Body worn cameras were trialled in three countries: Ghana, Mozambique, and Madagascar. This resulted in some unexpected yet favourable consequences making it likely that their use will become a permanent feature of fisheries MCS long after the pandemic is over.

**STOP ILLEGAL FISHING CASE STUDIES** aim to define best practice by analysing practical examples of different approaches in the fight against illegal, unreported and unregulated (IUU) fishing. They also demonstrate the range of activities and partnerships underway to stop illegal fishing and provide the basis for policy advice.



The camera selected was the Onethingcam C310 body worn camera. This camera has Wi-Fi and 3G/4G capabilities. It streams audio and video live and enables communication between the individual wearing it and the remote receiver of the livestream, thus enabling mentoring during inspections. It also has recording capabilities, enabling videos to be uploaded to a secure cloud server for subsequent viewing.

Initially SIF ordered two cameras for viability testing. These arrived in South Africa in July 2020 and were successfully tested. It was established that with Wi-Fi the camera battery lasted for eight hours. If Wi-Fi was unavailable the camera switched to 3G/4G, reducing the battery time to around four hours, which was generally still enough time to undertake an inspection.



## TIMELINE OF THE PROJECT

<b>JULY 2020</b>	<ul style="list-style-type: none"> <li>SIF tested the operational features of two cameras in South Africa.</li> </ul>
<b>AUGUST 2020</b>	<ul style="list-style-type: none"> <li>One camera tested in Ghana.</li> <li>Training in camera use provided to members of the PTFG.</li> </ul>
<b>SEPTEMBER 2020</b>	<ul style="list-style-type: none"> <li>Two vessels inspected in Tema Fishing Port, Ghana with the body worn cameras active.</li> </ul>
<b>OCTOBER 2020</b>	<ul style="list-style-type: none"> <li>Four reefers inspected in Takoradi Port, Ghana with the body worn cameras active.</li> </ul>
<b>NOVEMBER 2020</b>	<ul style="list-style-type: none"> <li>Six vessels inspected in Tema Fishing Port, Ghana with the body worn cameras active.</li> <li>Second Camera sent to Ghana.</li> <li>Three cameras sent to Mozambique.</li> </ul>
<b>DECEMBER 2020</b>	<ul style="list-style-type: none"> <li>Training in camera use provided to fisheries inspectors in Mozambique.</li> <li>Two vessels inspected in Maputo, Mozambique with the body worn cameras active.</li> </ul>
<b>JANUARY 2021</b>	<ul style="list-style-type: none"> <li>Planned inspections in other Mozambican ports delayed due to cyclone.</li> <li>Five cameras deployed in Madagascar.</li> <li>Three vessels inspected in Tema Fishing Port, Ghana with the body worn cameras active.</li> <li>Five cameras sent to South Africa.</li> </ul>
<b>FEBRUARY/MARCH 2021</b>	<ul style="list-style-type: none"> <li>Testing of cameras in Cape Town and Durban, South Africa.</li> </ul>
<b>FEBRUARY 2021</b>	<ul style="list-style-type: none"> <li>Cameras tested in Antananarivo, Madagascar.</li> <li>Training in camera use provided to inspectors Madagascar.</li> </ul>
<b>MAY 2021</b>	<ul style="list-style-type: none"> <li>Use of cameras in inspections due to start in Madagascar to coincide with purse seiner port calls.</li> </ul>

One of the cameras was sent to the Ports Task Force Ghana (PTFG), an interagency group established to implement effective port State measures in Ghana. The system was tested by SIF in-country experts at Tema Port relaying the livestream to remotely located experts. Although the 3G/4G signal was weak and made the livestream lag, it was still feasible for real time mentoring support to be provided to the PTFG.

The first two vessels that were inspected using livestream body worn cameras were a fishing trawler and a reefer, in Tema in September 2020. This exercise showed that the concept worked in the field. The project was then expanded to Takoradi Port, Ghana.

Following the successful pilot in Ghana, three cameras were supplied to the Ministry of Sea, Inland Waters and Fisheries in Mozambique and five cameras were sent to the Ministry of Marine Resources and Fisheries, Madagascar. This provided a camera in each of the PSMA designated ports of Antsiranana, Mahajanga, Tulear, Tamatave and Taolagnaro in Madagascar and Maputo, Nacala and Beira in Mozambique.

It was quickly recognised that apart from enabling expert remote mentoring of inspections, the body worn camera system also provides the opportunity for colleagues and senior officers to watch and assist with inspections. This enabled supervisors to oversee inspections, even when based far from the port, offering an opportunity to provide expertise or additional information as needed, to evaluate performance and to give feedback. It was tested that the livestream could be sent to multiple receivers at the same time, enabling simultaneous support to the inspectors that were physically undertaking the inspection.

This use of technology has enabled mentoring of inspections to continue during the COVID-19 pandemic, and to expand as experts can engage in more than one port at once. This saves travel time and costs and so is expected to become a standard tool for support to fisheries MCS.

Many advantages of using body worn cameras have been identified, including that the quality of inspections improving due to remote oversight, opportunities for corruption, violence and confrontations being reduced, and recordings providing a valuable resource for training and case studies.

**The pilot project to test the viability of using remote cameras has provided good evidence that this is an excellent tool to provide support and build capacity in partner countries. Other potential applications have been identified for exploration including a pilot with an at-sea observer programme.**

## DRIVERS

Mentoring and training of inspectors to improve inspection practice and standards was identified as a key requirement by countries implementing port State measures in Africa and is an integral requirement of the PSMA for developing States. COVID-19 threatened the continuation of this support in a hands-on manner, so innovative approaches needed to be developed.

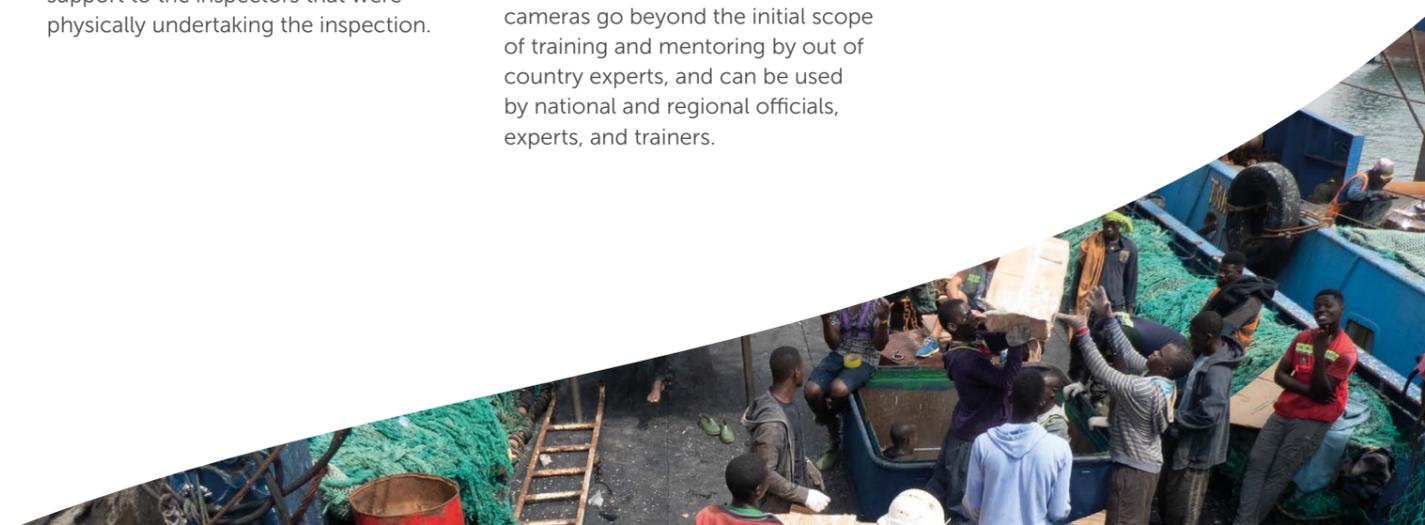
## LESSONS LEARNED

- Reduced time and expense due to not having to be physically present at inspections.
- Potential benefits of body worn cameras go beyond the initial scope of training and mentoring by out of country experts, and can be used by national and regional officials, experts, and trainers.

- Oversight offered by supported inspections reduces opportunities for corruption, and increases safety of fisheries inspectors.
- Recordings can provide a detailed record that may provide evidence for enforcement or legal action.
- Uses of body worn cameras are far wider than initially considered, include providing interpretation, translation of documents, or other expert advice.

## CHALLENGES

- Wi-Fi and 3G/4G signals are poor in many ports. However, even if live streaming is not possible, the recording of the inspection can be reviewed later for training and assessment purposes and may be useful as evidence.
- Video recordings take time to review and require strong commitment from senior officials.
- Ensuring experienced oversight, mentoring or training to support inspections is available to provide the inspectors on the ground with real confidence to do their work.
- The devices by themselves do not create more accountability and transparency, it is how they are used that matters. They need to be integrated into a robust system of port State measures with a professional culture and an up-to-date legal framework.



## PLAYERS INVOLVED

- Ministry of Fisheries and Aquaculture Development, Ghana
- Ministry of Sea, Inland Waters and Fisheries, Mozambique
- Ministry of Marine Resources and Fisheries, Madagascar
- Ministry of Forestry, Fisheries and the Environment, South Africa
- Ports Task Force Ghana
- Stop Illegal Fishing
- GIZ and the Waterloo Foundation



## POLICY IMPLICATIONS

- Body worn cameras will become part of the Standard Operating Procedures for fisheries inspections in some countries.
- Developing programmes to sit within regional MCS centres, linked to national MCS officials, will bring most benefit as they have access to region wide intelligence and this would develop regional capacity.
- Legislative changes may be required to enable videos taken during inspections to be used as evidence in court cases.

## NEXT STEPS



### TRAIN PERSONNEL IN THE USE OF CAMERAS

Introduce the use of body worn cameras more widely for use in ports and in other situations – e.g., for observers and during surveillance flights.



### ONGOING USE OF CAMERAS FOR INSPECTIONS

Project experts will continue to join inspections via remote cameras in each partner country. This will enable:

- Mentoring during briefing meetings for inspections.
- Recording of real time inspections.
- Provision of real time mentoring on activities during inspections.
- Support for post-inspection activities in the event that evidence of IUU fishing activity is found.



### EXPAND INTERAGENCY INVOLVEMENT

A potential use of the cameras is to enhance wider interagency involvement in inspections. This can be tested and demonstrated during interagency meetings, and then it may be agreed to share live or recorded access with other agencies to improve not only port State measures for fisheries compliance but also port State controls for detection of non-compliance in maritime, labour or other sectors.



### AWARENESS AND BEST PRACTICE

Sharing of the project experiences will include:

- Reviewing recordings of inspections and using these to finalise the Standard Operating Procedures for the implementation of PSMs.
- Creating awareness material and practical guidance through webinars, online tutorials or by posting materials on the SIF website on the use and implementation of body camera technology and the benefits from using remote mentoring to support PSM.

<sup>1</sup> The Food and Agriculture Organization (FAO) Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (PSMA) is the first binding international agreement to specifically target IUU fishing.

<sup>2</sup> Stop Illegal Fishing is working closely with the FAO Global Capacity Development Programme for the PSMA to implement a capacity building project, called Port State Measures to Stop Illegal Fishing, financed by the GIZ and commissioned by the Federal Republic of Germany. For more information visit: [www.stopillegalfishing.com/initiatives/implementing-port-state-measures](http://www.stopillegalfishing.com/initiatives/implementing-port-state-measures).



For more information on stopping illegal fishing visit [www.stopillegalfishing.org](http://www.stopillegalfishing.org)



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## ACKNOWLEDGEMENTS

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