

### Lessons learned from the gap analysis

Several limitations and gaps were identified from e-logbook pilot projects, including communication among actors, technology adoption, and the participation of different actors engaged in the supply chain.

Fields	Main contents	Gaps	Responsible Parties							Lesson learned		
			Fishermen	Traders	Enterprises	Port entry management	Fisheries management	DFISH/MARD	Technology			
Policy	Policy and sanction applied when the traceability electronic application in fisheries is violated	There are no solid legal basis for regulations and sanction on violating traceability electronic application in fisheries						x	x		Relevant policy and sanctuary should be consulted and updated frequently by all related sectors.	
	Investing and supporting the pioneers in applying traceability technology	There is lack of suitable investment and support policy (especially in terms of finance and equipment) for technology suppliers and pioneers in the supply chain of seafood products that apply traceability technology and to replicate the pilot model								x	There are needs to be attention, appropriate investment and information sharing from the state to support participants in the piloting practice and replication of effective models.	
Cooperation	The cooperation between software company and management bodies	There was no strictly supervision of specialists and between parties during equipment installation process due to the social distance of COVID 19					x	x		x	Actors should work closely during pilot demonstration and strictly follow agreements.	
	Training, guidance, information sharing between state and technology providers	Collaboration on training, guidance and database sharing between state management agencies and technology providers is not efficient							x	x	This needs to be improved for making the application to be deployed widely, economically and efficiently	
Practice	Motivation	The main motivation of parties is from legal aspect	x	x							The awareness of benefits from applying traceability electronic application in fisheries should be enhanced in combination with consolidation of legal documents as the basis.	
	Required expenses	The subscription cost for sea communication is still charged without using after landing								x	The telecommunication company should consider providing separate communication packages for fishermen.	
	Enterprise participation	There was no participation yet from enterprises in the demonstration					x				The enterprise participation and their role in traceability electronic application system in fisheries should be strengthening. The technology application should be designed and extended to business actors through value links.	
	Promoting the application of eCDT technology in practical	There was not yet formal coordination based on PPP mechanism between the government and the private sector					x	x	x	x	A PPP coordinating mechanism should be developed; enterprises should participate in supporting fishermen with techniques and technologies.	
	Practical pilot	Electronic traceability software/applications need to be fully applied across all stages in the fishery product supply chain.		x	x	x	x	x	x	x	The application needs to be practically implemented in a locality and applied by a specific product across the whole supply chain to address remaining gaps	
Communication	The connection between the technology supplier and government officials/officers	Connecting and updating information of changes in state management policies related to technology in a timely manner will prevent the technology improvement to catch up with reality.							x	x	x	Communication and timely updating of information for stakeholders, especially the technology supplier, on state management policies is one of the decisive factors for the applicability of the technology in practice, especially in the synchronous development phase towards sustainable fisheries.