

# Environmental Damage Compensation in China following Ship-Sourced Oil Spills

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## 1. Introduction

As the world's largest net crude oil importer, largest exporter and second largest importer, China relies on shipping to sustain a major part of its trade and economy. The volumes of oil cargo and bunker fuel transported at sea, together with the numbers of ships in Chinese waters, present a risk of spills from collisions, groundings etc. Measures put in place by the international shipping community, through the IMO,<sup>1</sup> as well as by the Chinese authorities have addressed this risk in part and China has experienced few oil spills from ship in recent years.<sup>2</sup> Recognising the risk, China has ratified a number of international conventions relating to pollution liability arising from such incidents, i.e. 2001 Bunker Convention and 1992 Civil Liability Convention. Application of the 1992 Fund Convention is limited to the Hong Kong Special Administrative Region, and China established a separate domestic fund in 2012, the China Oil Pollution Compensation (COPC) Fund, which aims to provide additional compensation for pollution damage caused by a ship-source spill in the rest of China.

In addition, China has developed national legislation on ship-source pollution, response, and compensation. [1] More recently, considerable changes have been made to strengthen environmental legislation and enhance the technical protocols used to assess impacts and to implement restoration. The timeline of developments in this field is illustrated in Figure 1, which includes, but is not limited to, the pollution damage arising from ship-sourced spills.

This paper introduces the types of environmental damage claims typically presented following a substantial oil spill in China, and the basis for these damage claims. By discussing how these claims were quantified and eventually settled, this paper aims to illustrate how environmental damage has been interpreted in China, and how the concept has evolved over the years. This paper highlights a number of recent changes in legislation which can be expected to lead future discussion on environmental damage compensation into uncharted waters.

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<sup>1</sup> International Maritime Organisation [www.imo.org](http://www.imo.org)

<sup>2</sup> The collision involving SANCHI is a notable recent incident. The tanker was carrying 111,388 MT gas condensate as cargo, and had about 1,900 MT bunker fuel oil before the collision with bulk carrier CF CRYSTAL took place 6<sup>th</sup> January 2018 in East China Sea approximately 160 NM east of Shanghai. Following 8 days drifting at sea ablaze, she sank on 14<sup>th</sup> January approximately 400 km off east coast of China.

## **2. Main Results**

### **2.1 Typical Environmental Damage Claims in China**

Based on ITOPF's experience in the last 15 years, two types of damage claims with environmental elements are usually submitted by relevant public agencies following a substantial oil spill in China. The first is related to the potential impacts on future fisheries resources, as well as the estimated cost to reinstate affected natural habitats and species. Such claims are typically submitted by local Fisheries Administration Bureaus, an administrative body under the Ministry of Agriculture (MOA). Fisheries resource damage claims are typically submitted in addition to the direct economic loss claims submitted separately by fishermen. The second type of environmental damage claim is usually raised by a local administrative office of the State Oceanic Administration (SOA), which typically include the estimated impacts to marine ecology and the projected restoration costs.

Various claims submitted following the TASMAN SEA incident serve to illustrate the nature and quantum of these claims. Incidentally, this was also the first major tanker incident following China's ratification of CLC 92, and the first incident where SOA started to seek compensation following a ship-sourced pollution incident. In 2002, tanker TASMAN SEA was involved in a collision at the entrance to the port of Tianjin, spilling over 200 tonnes of Champion Export crude. Following the incident, Tianjin Fisheries Administration Bureau submitted CN¥ 18.3 million fisheries resource damage claims, which included CN¥ 4.4 million for direct economic loss of fisheries resources (particularly, finfish, shellfish and cephalopods), a projected future loss of CN¥ 13.4 million over the following three years, and a CN¥ 0.48 million appraisal fee. This was in addition to the CN¥ 17 million economic loss claims submitted by those engaged in capture fishing and aquaculture activities. Separately, Tianjin Oceanic Bureau submitted a claim of CN¥ 94.8 million, which included CN¥ 7.6 million for ecological damage to seawater, intertidal zone and ocean sediment, CN¥ 84 million for estimated remediation costs, and CN¥ 3 million under monitoring and evaluation.

The litigation of this case went on for eight years. The court of first instance, i.e. Tianjin Maritime Court, awarded CN¥ 15 million to Tianjin Fisheries Administration Bureau, and CN¥ 9.9 million to Tianjin Oceanic Bureau in 2004. Nonetheless, the Court of Appeal (Tianjin High Court) and the Supreme Court of China considered that many environmental items claimed here were not in line with the principles stipulated in CLC '92. As such, a final settlement of approximately CN¥ 24 million was made in 2010, including lost income and environmental damage. It is understood that Tianjin Oceanic Bureau received CN¥ 3 million compensation, primarily for the monitoring costs incurred. As part of the settlement, Tianjin Fisheries Administration Bureau received CN¥ 5.8 million for damage to fisheries resources.<sup>3</sup>

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<sup>3</sup> Figures provided by Hai Tong Law

Following the TASMAN SEA incident, a technical branch under SOA produced a guidance document in 2007 on quantifying ecological damage. This technical guidance suggests that the scope of marine environment damage compensation shall include the environment capacity loss, the loss of habitat service, relevant restoration costs on sediment, intertidal zone, phytoplankton, as well as the monitoring and assessment costs. This 2007 guidance has become an essential basis for many ecological damage claims in subsequent cases.

At the same time, discussion and debate over the TASMAN SEA incident also formed an important foundation for the Supreme Court's 2011 Notice on Provisions on issues concerning compensation for oil pollution damage from vessels. Among other provisions, this 2011 Notice reinforced that where the CLC '92 or Bunker Convention is applicable, these Conventions would supersede national legislation and relevant technical guidance. Particularly, the scope of environmental damage compensation under these international conventions is limited to reinstatement measures already taken or planned to take place. Since its issuance, this 2011 Notice has served as an important legal reference for the Chinese Courts when hearing pollution damage claims arising from shipping incidents.

## **2.2 Quantifying the Damage**

Under the International Regime of damage compensation following ship-source oil spill, only costs relating to post-spill studies and reinstatement measures are admissible under the umbrella of 'environmental damage'. Nevertheless, technical guidelines have been developed by different Chinese public agencies as an attempt to quantify a range of damage in monetary terms (as shown in Figure 1). It is worth highlighting that these technical guidelines were not specifically developed for shipping incidents, but have been applied to calculate claims with environmental elements following ship-source spills. Some recent examples to which these guidelines have been applied include TRANS SUMMER (2013), DA QING 75 (2012), BARELI (2012), BRIGHT CENTURY (2010), AGIOS DIMITRIOS I (2009), ZOORIK (2009), all in Chinese waters.

In China, technical guidelines to calculate natural fisheries resources damages are produced under the initiatives of the MOA. The MOA's 2008 Calculation Method listed 11 methods to quantify the damages to natural fisheries resources, impacts on eggs and juveniles, as well as adverse impacts on cultured species, termed as 'direct losses'. These methods usually involve an assumed abundance of various marine organisms and their juveniles, respective susceptibility to the substance spilled, and hypothetical market prices (including the prices for unmarketable organisms such as plankton). In addition, this Calculation Method suggests that projected long-term impacts on natural fisheries resources would be at least three times the value of 'direct losses'. [2]

Separately, a number of technical guidelines to quantify marine ecological damage have been issued by SOA. While the initial guidelines were drafted following the TASMAN SEA incident, the current version, released in late 2017, outlines damage assessment for general impact assessment for projects and incidents (Part I), as well as oil pollution (Part II). This guideline provides detailed recommendations on the sampling of sea water, sediment, marine biota, and the intertidal zone, as well as appropriate reference sites. This 2017 guideline suggests damage assessment to include the losses of marine ecological service and environmental capacity, costs for restoring affected habitats and species, as well as the costs from post-spill studies in the damage assessment. In particular, the environmental capacity loss is quantified as the cost for treating the same amount of water, potentially affected by the spill, at a local water treatment plant. Meanwhile, ecological service loss would be calculated using a formula with a series of indices, including the area affected, level of impacts on the environment, sensitivity conversion rate, whether dispersant was used during response (the use of dispersant is considered to introduce a threefold increase of toxicity, and consequently, the overall impact), etc. It has also been suggested that where the ecological service is too complex to be quantified, an approximation of its monetary value could be made based on the type of habitat affected. This 2017 Guideline provides reference monetary values for six habitats, ranging from CN¥ 12,644 per hectare per year for the continental shelf, to CN¥ 182,950 per hectare per year for an estuary. [3]

### **2.3 Admissible Environmental Claims under COPC Fund**

By levying the receivers of persistent oil cargo in China, the COPC Fund provides compensation of up to CNY 30 million per incident in China. COPC Fund provides compensation when Owner's liability limit is exceeded, when Owner is exempt from such liability or when Owner is financially incapable, and for mystery oil spill from ships. To a large extent, it plays a similar role as IOPC Funds applicable in HKSAR of China.<sup>4</sup>

In addition to the substantial difference in the liability limit with the IOPC Funds, the COPC Fund also covers pollution damage caused by both persistent and non-persistent cargo and bunker fuel. Furthermore, COPC Fund provides compensation in the following order: (1) emergency response taken by authorities, (2) other clean-up activities, (3) direct economic losses in fisheries, tourism, etc. (4) expenses already incurred to restore marine ecology and natural fishery resources. Therefore, items with lower priority, e.g. environmental restoration, is only compensated when all claims with higher priorities are paid in full, and that the CNY 30 million is not reached. [4] The IOPC Fund gives equal treatment to all claimants and does not prioritise certain claimants.

The COPC Fund published a Claims Manual and Guidelines for Claimants in 2016, which provide detailed clarification on the admissibility of environmental damage claims. The manual emphasises that

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<sup>4</sup> International Oil Pollution Compensation Funds (IOPC) Funds, <http://www.iopcfunds.org/>

only reasonable and effective restoration measures already taken by relevant authorities would be considered for compensation, along with reasonable costs for monitoring and studies of affected areas. In addition to the principles recommended under the international compensation regime, which aim to accelerate natural recovery without introducing adverse effects, the COPC Fund also suggests that environment reinstatement should focus on damaged species with shorter life cycles, and that the method has a track record of success. Where fisheries enhancement through hatchery release is taken as a reinstatement measure, only the economic species affected by the spill shall be considered. However, where this is not possible, the species released shall have a similar ecological function. [5]

The COPC Fund manual further specifies that restoration measures shall not affect the stability of the ecological community, and that the costs for reinstatement measures should not be higher than the losses of marine ecology and natural fisheries resources. For marine ecology reinstatement measures, an appraisal report at the end of the project should be submitted to confirm that the expected targets have been achieved. Duplicated effort to restore marine ecology and natural fisheries resources will not be compensated. [4, 5]

As such, it is clear the COPC Fund take s similar, if not more stringent, stance on environmental damage claims with IOPC Funds.

## **2.4 Recent Legislation Changes**

In January 2018, Supreme Court of China published the full text of Provisions on Court Hearing of Cases concerning Marine Natural Resource Loss and Ecological Damages, which came into effect on 15th January. This provision stipulates that the scope of ecological and natural resources damages should include preventive measures, reinstatement costs, relevant monitoring and assessment, as well as interim losses before the habitat and ecosystem reach a full recovery. It also specifies that the costs for reinstatement measures taken or estimated, and interim losses, shall be assessed in accordance with the applicable technical guidelines issued by relevant authorities. As such, this 2018 Provision provides the technical guidelines issued by SOA, MOA and MEP with a valid technical basis for quantifying environmental damage in monetary terms. It also formally establishes the concept of ‘interim loss’ in the context of legal compensation in China.

Nevertheless, it is worth noting that this 2018 Provision is a general guide for all sources of marine ecological damage, including incidents from oil platforms, constructions, etc. More specifically, for environmental damage caused by ships, this 2018 Provision suggests that where special legislation and provisions exist, these provisions shall continue to be followed. Such legal framework include the two international conventions, i.e. CLC 92 and Bunker Convention, the Supreme Court’s 2011 Notice, as well as other domestic legislation, such as the Maritime Code of China, Regulation on the Prevention and Control of Vessel-induced Pollution to Marine Environment, etc. It would be interesting to see how

these legislation changes would affect the future appraisal of environmental damage associated with shipping incidents.

In addition to the development on quantifying and assessing environmental damage claims as part of civil liability in China, significant changes have been made to the administrative penalty levied for marine pollution incidents. The revised Marine Environment Protection Law of China (2016) removed the RMB 300,000 cap on the administrative penalty that could be levied for marine pollution incidents. Instead, the liable parties would be issued an administrative penalty of 20% or 30% of the ‘direct loss’, with the percentage levied dependent upon the severity of the incident. This ‘direct loss’ could include economic impacts to capture fisheries, aquaculture, tourism, etc. as well as the total costs of preventive measure (clean-up) and reinstatement measures. Detailed requisites are in place for administrative penalties, such as the time bar for submission of claim, which do not fall within the scope of this paper, and are not discussed here. This legislative change was partly driven by a series of oil spills in 2011 from production platforms in Bohai Bay, in the hope that a severe penalty could curb subsequent pollution incidents.

## **2.5 Case Studies**

### **ARTEAGA**

Tanker ARTEAGA ran aground outside the port of Dalian on 3rd April 2005, and spilled Marib light crude cargo. Dalian Oceanic and Fishery Bureau (OFB) lodged a damage claim of CN¥ 59 million at Dalian Maritime Court in May 2005, reportedly for damage caused to the marine environment and impacts on the habitat service function. This claim was lodged despite evidence provided by the local SOA branch that recovery took place within 25 days following the incident. This CN¥ 59 million claim included CN¥ 55.2 million for the hypothetical cost for treating the sea water affected by the incident at a water treatment plant, CN¥ 2.6 million for monitoring and assessment cost, etc.<sup>5</sup>

After ten years litigation, the Supreme Court of China provided a final judgment in December 2015, which supported the previous rulings by Dalian Maritime Court and Liaoning Provincial High Court, that the environmental damage claimed by OFB Dalian shall not be supported. This final ruling is based on the fact that China is a contracting state of CLC ‘92. The court noted that within CLC ‘92, compensation for impairment of the environment other than loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken. As a full recovery had been recorded before any meaningful intervention from Dalian OFB could be implemented, their environmental damage claims could not be supported. This case highlighted the fact

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<sup>5</sup> Figures provided by Heng Xin Law

that, where applicable, international conventions shall supersede national legislation and various technical guidelines.

## **SHAN HONG 12**

Small tanker SHAN HON 12 (336 GT) sank at the mouth of the Yangtze River on 30th December 2012, while carrying approximately 400 MT of sludge oil cargo. Spilled sludge drifted downstream, and stranded on the southwestern coast of Chongming Island, an alluvial island off Shanghai. Initial site surveys suggested that the incident caused severe oiling of the south coast of Chongming Island, with an area approximately 20 km long and 80 m wide affected. It was estimated that 1,728,560 m<sup>2</sup> of Yangtze River and intertidal zone were heavily oiled.

The clean-up and restoration work in the affected mudflats were primarily carried out by Tidal Zone Management Office of the Chongming Island Government. Early work on site focused on removing bulk oil from the mudflat, cleaning oiled infrastructure, and cutting heavily oiled reeds. The initial disposal strategy for the oily waste collected was to bury in situ. A total of CN¥ 2.9 million was claimed by the Tidal Zone Management Office for work carried out in this phase.

However, a subsequent environment monitoring revealed that 9 out of the 28 sampling stations showed elevated hydrocarbons and PAHs concentration, exceeding the acceptable level. As a result, decisions were made by the local government to excavate all the oily waste, and arrange for final disposal at a kiln incineration plant in Jiangsu Province. Most of the work carried out in this phase was subcontracted, at a cost of CN¥ 10.4 million. Separately, restoration work was arranged onsite, mainly to replant reeds and trees affected by the incident and the associated clean-up, at a cost of CN¥ 0.92 million.

Shortly after the incident, Shanghai Maritime Court confirmed the owner of SAN HONG 12 was financially incapable to meet the financial liability for pollution damage. As such, claims for clean-up and restoration costs were submitted to the COPC Fund. After careful investigation, COPC Fund's Claim Centre recommended that most of the claims put forward by Tidal Zone Management Office were admissible, except for the costs relating to excavating the buried oily waste in the following year, which was considered as a duplicated effort with final waste disposal.

Therefore, a total of CN¥ 13.27 million was reimbursed to Tidal Zone Management Office of Chongming Island Government by COPC Fund in July 2017, including all costs relating to environment monitoring and reedbed restoration. These payments make SHAN HONG 12 the first case received compensation for coastal environmental restoration work following a shipping incident in China. 6

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<sup>6</sup> All figures and details were provided by COPC Fund Claim Centre

### 3. Conclusion

Attitudes to environmental damage and approaches to restoration and compensation for such damage in China have changed over the years. In the past 10 years, considerable efforts have been made by relevant public agencies to quantify different types of environment damage in monetary terms, as well as to estimate reinstatement costs. Based on ITOPF's experience in China in the last 15 years, the technical guidelines governing these activities have played a central role in negotiating the quantum of environmental damage claims at court, as well as value of settlements outside court. Nonetheless, a recent ruling by the Supreme Court of China, along with their 2011 Notice and 2018 Provision, suggest that the principles under CLC '92 and the Bunkers Convention would supersede the practices suggested in these technical guidelines. Furthermore, the COPC Fund's stance on environmental damage claims is aligned with the practices promoted by IOPC Funds under the international compensation regime. This alignment between the approaches of the two compensation funds to environmental damage may serve to simplify matters should a future incident affect both Hong Kong and other areas of China.

However, considerable changes have been implemented recently by the Chinese authorities to strengthen environmental legislation and regulations, as an effort to control chronic and accidental pollution. For the liable parties involved in ship-source pollution incidents, these changes have implications to both Chinese civil liability and administrative penalties. Recently, various technical guidelines for quantifying environmental damage claims have been formally established as the basis for calculating relevant damages and reinstatement costs. The extent to which these changes would affect future dialogue on environmental damage compensation following shipping incidents in China is yet to be demonstrated.

### References

- [1] Mans Jacobsson, *Liability and compensation for ship-source oil pollution in China*, The Journal of International Maritime Law, 2013, I9, P142 - 164
- [2] Calculating Economic Loss of Fisheries from Pollution Accidents, Ministry of Agriculture of China, 2008
- [3] Technical Guides for Marine Ecological Damage Assessment, State Oceanic Administration, 2017
- [4] COPC Fund Claims Manual, available at <http://www.shmsa.gov.cn/copcfund/>
- [5] COPC Fund Claims Guidelines, available at <http://www.shmsa.gov.cn/copcfund/>



## Supporting Images or Graphs

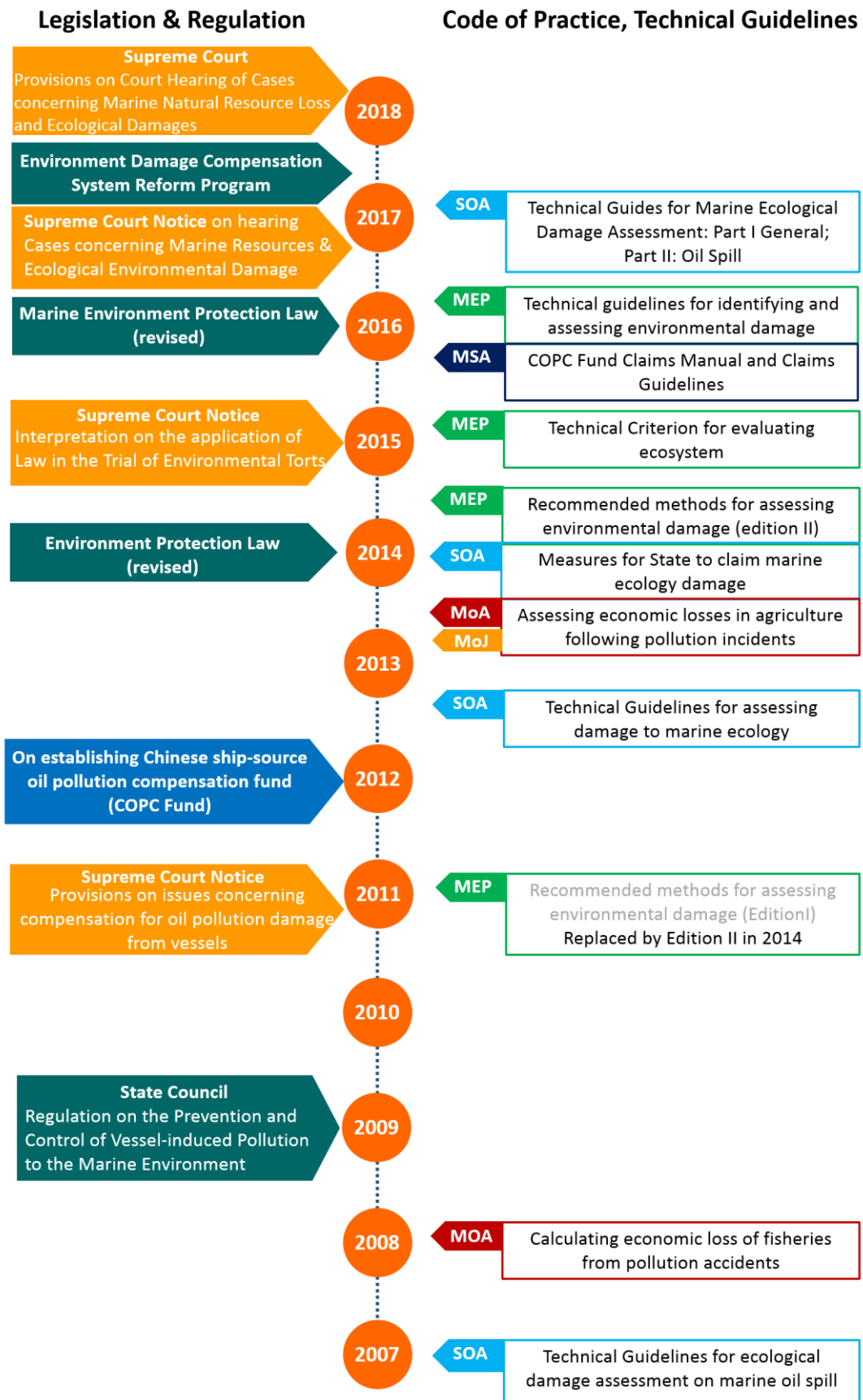


Figure 1 Summary of recent development in legislation and code of practice on environment damage and assessment (Including, but not limited to the pollution damage arising from ship-sourced spill)

SOA - State Oceanic Administration, MEP – Ministry of Environmental Protection, MSA – Maritime Safety Administration, MOA – Ministry of Agriculture, MoJ – Ministry of Justice