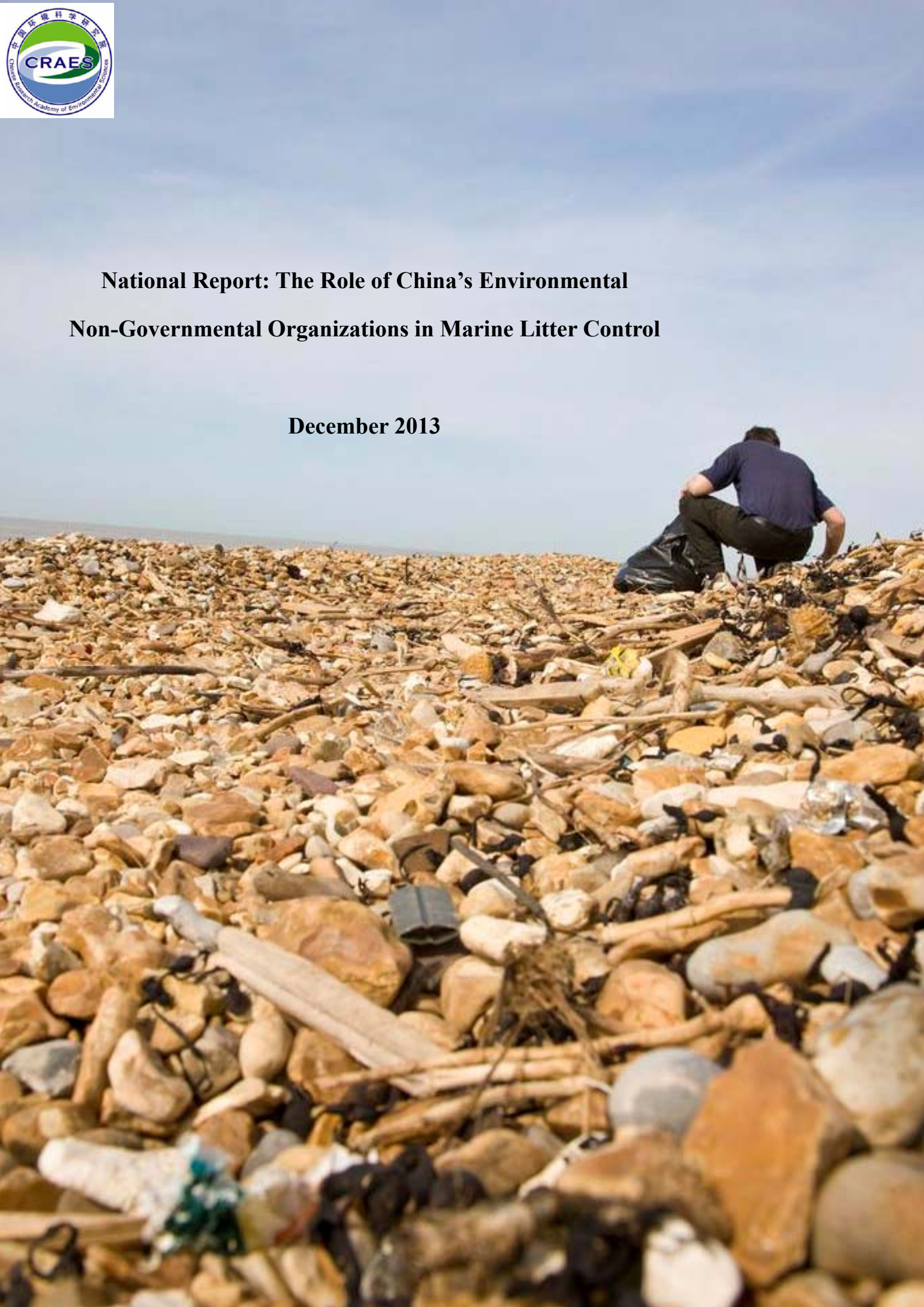
National Report: The Role of China's Environmental Non-Governmental Organizations in Marine Litter Control

December 2013



National Report: The Role of China's Environmental Non-Governmental Organizations in Marine Litter Control

December 2013

Preparation of this report was supported by the Global Programme of Action for the Protection of Marine Environment from Land-based Activities (GPA) through the Northwest Pacific Action Plan (NOWPAP) of UNEP. The report was prepared by the Institute of Water Environment, Chinese Research Academy of Environment Sciences (CRAES), a national multi-disciplinary research institution in the field of environmental science and technology (8 Dayangfang Beiyuan Road, Chaoyang District, Beijing 100012, China). The document was drafted by Dr. Hao Chen who is the NOWPAP marine litter focal point of China.

Contents

1. Introduction 1
2. Legal status of China's Environmental NGOs 3
3. ICC events and public awareness of marine litter control 7
3.1 Distribution 7
3.2 ICC events 9
3.3 Education and outreach 15
4. Collaboration and communication among Environmental NGOs 21
4.1 Overview 21
4.2 The First Workshop On the Role of Chinese Environmental NGOs (ENGOs) In Marine Litter Control 23
5. Collaboration and communication with governments 35
6. Collaboration and communication with international ENGOs 39
7. Future development 41

1. Introduction

Marine litter has been defined as any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine and coastal environment. Marine litter can be found on beaches and shores, on the water surface, in the water column and on sea beds around the world. Marine litter is now recognized globally as one of the most pressing environmental issues, as it can pose a significant threat to ecosystems in the marine and coastal environment.

Marine litter has been of great concern to many nations worldwide. It has been widely accepted that a Global Partnership on Marine Litter (GPML) launched during the Rio+20 should play an important role to better address marine litter issues on a local, national, regional, and global scale. Within the framework of GPML, environmental non-governmental organizations (NGOs) are playing an increasingly important role in controlling marine litter.

A number of ENGOs have taken substantial measures to control marine litter in China. However, in comparison to other member states within and outside of the region, Chinese ENGO activities have been relatively under-recognized by the public, the local government, and regional and international organizations. In order to facilitate the communication and collaboration of other partners (e.g. governments, regional and international organizations, private sectors and the public) with Chinese ENGOs

under the GPML framework, the author presents this national report on the work of Chinese ENGOs in marine litter control under the SSFA signed between CRAES and NOWPAP RCU. This report aims to provide the most up-to-date information regarding their activities and an in-depth analysis of their legal status, which is highly relevant to their development.

2. Legal status of China's Environmental NGOs

Like other NGOs in China, an ENGO will not be considered a legally independent non-governmental organization by the government unless the ENGO is associated with a pair of government-related "parent" organizations – the Ministry of Civilian Affairs or its local branches, and any organization which specializes in the working field of the ENGO, supervising and guiding its activity. For example, a given ENGO focusing on marine environmental protection should be registered to a mother organization, such as the Ministry of Environmental Protection (MEP) or the State Oceanic Administration (SOA). If the ENGO focuses on shipping-related issues, it would be more suitable to register with local maritime departments within the Ministry of Transportation. If the ENGO focuses on aquaculture-related issues, the local fishing departments of Ministry of Agriculture would be deemed more appropriate. Only after this partnership is formed will the Ministry of Civilian Affairs (or its local branches) consider the registration of the candidate ENGO.

In reality, it is usually quite difficult for an ENGO to find a proper parent organization willing to supervise its work; most are reluctant to accept responsibility for any sociopolitical consequences and impacts of any activity the ENGO undertakes. On the other hand, many ENGOs are unwilling to have a parent organization supervise their activities. Additionally, the current law in China requires that an organization should have at least more than 50 individual members or more than 30 group members before

it is qualified to apply for registration. All of these factors combined prevent many ENGOs (and other NGOs) from legally registering with the Ministry of Civilian Affairs.

An alternative method is to register the ENGO as a commercial entity, such as a limited liability company (LLC.). Such registration is markedly easier to approve than registration with the Ministry of Civil Affairs. However, any ENGO registered under this process is considered a for-profit organization, despite actually undertaking non-profit activities. Such registered ENGOs have an internal management framework very different from those employed ENGOs registered as non-profit organizations with the Ministry of Civilian Affairs. This commercial role also makes impedes collaboration and communication between commercially registered ENGOs and other non-profit organizations.

In contrast to the previously described registration methods, some ENGOs (such as campus-based student organizations) either exist as a dependent entity within a parent organization (e.g. a college), or exist very independently while having no any affiliation or registration to other organizations. These two dependent ENGO subtypes are not eligible to apply for bank accounts and organization stamps, which may hamper their long-term development.

At present, the number and registration status of ENGOs in China are still unclear. A nationwide survey is required in order to collect the necessary information. A survey of ENGOs in China was first conducted from July 2005 through December 2012 by the All-China Environment Federation, an ENGO under the supervision of the MEP. Subsequently, a report entitled “The Development Report of China’s Environmental NGOs” was released on April 22, 2006. Two years later, the All-China Environment Federation released an updated version of their previous report, the “2008 Environmental Bluebook”. These two reports are the only two published reports on Chinese ENGO number and registration to date. As indicated in the 2008 report, by October 2008, 3539 ENGOs were registered in China (including Hong Kong, Macao and Taiwan). Among these, 1309 were established by government officials and their associates (e.g. All-China Environment Federation), 1382 were established in universities/colleges, 508 were established by private sectors and civilians, and 90 were the Chinese branches of international ENGOs (e.g. Greenpeace). Notably, registration of Chinese branches of international ENGOs is a difficult task.

As shown in Fig. 1, 38.9% of the 3539 ENGOs were registered with the Ministry of Civilian Affairs and local branches, 4.4% were registered as commercial entities, 37.2% were present as dependent entities in colleges/universities and state-owned public service units, while the remaining organizations comprise 19.5% of the total ENGOs.

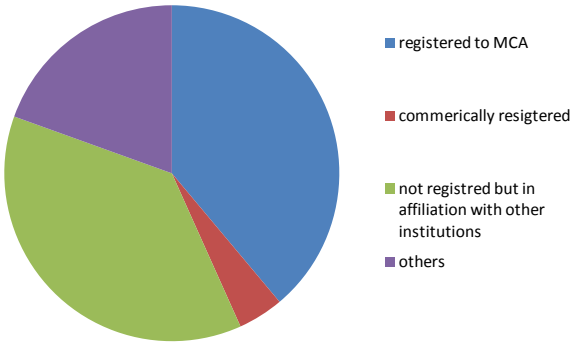


Fig. 1. Registration status of ENGOs in China. Data is adapted from the 2008 Environment Bluebook published by the All-China Environment Federation.

It is commonly acknowledged within the community of ENGOs that registration is a key step in development, and many ENGOs are placing a great deal of effort to register with the Ministry of Civilian Affairs. One example is the Shanghai Rendu Ocean NPO Development Center (SRONDC), which has just changed its status from a commercially registered entity to a NPO registered with the Ministry of Civilian Affairs in September 2013, 6 years after its foundation in 2007.

3. ICC events and public awareness of marine litter control

3.1 Distribution

As shown in Fig. 2, only a small fraction of the known Chinese coastal ENGOs are located in the NOWPAP region, while most organizations are located outside the NOWPAP region. This might be due to the fact that the section of the Chinese coastline located within the NOWPAP region comprises a relatively small fraction of the total coastline of China. The number of ENGOs labeled in the map of Fig. 6 appears small in comparison to the long coastline of the Chinese mainland (18,000 km) and local islands (14,000 km). Another reason is that many ENGOs are not well known to the public because their activities are 'underground' and sporadic, with very limited impact. The contact information of these ENGOs is in Table 1.

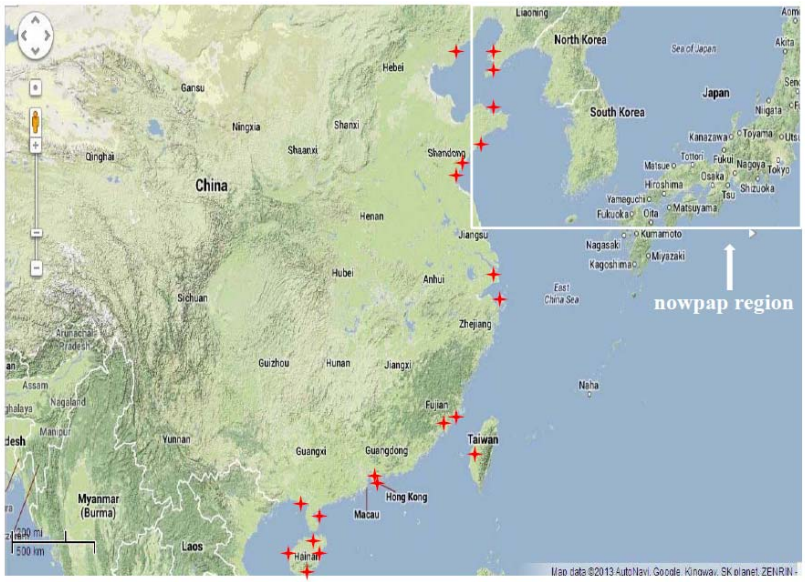


Fig. 2. Spatial distribution of ENGOs (labeled with red stars) along the coastline of China. The region defined in the white frame denotes the NOWPAP region.

ENGO Abbreviation	Location	Website	Founding Year	Registration Status	Involved in Coastal Cleanup and/or Outreach (Yes or Not Yet)
DEPVA	Dalian City, Liaoning Province	http://www.depv.org/	2003	registered to MCA	Y
BD	Dalian City, Liaoning Province	http://www.bluedalian.org/	2007	Not registered College-student based ENGO	Y
PHSPVA	Panjin City, Liaoning Province	http://www.pjbhbxh.com/	2007	registered to MCA	N
SRONDC	Shanghai City	http://renducsr.blog.sohu.com/	2007	registered to MCA	Y
SGOECCC	Shanghai City	htpp://www.oasiseco.org	2005	registered to MCA	Y
GZ	Hangzhou City, Zhejiang Province	http://www.greenzj.com	2000	registered to MCA	Y
XMGCA	Xiamen City, Fujian Province	http://www.xmgca.cn/	1999	registered to MCA	Y
NMEPVA	Dingde City, Fujian Province	http://www.mecva.org/	2012	registered to MCA	Y
SBOCA	Shenzhen City, Guangdong Province	http://www.szboca.org/	2002	registered to MCA	Y
SENGO	Shenzhen City, Guangdong Province	http://www.szhb.org/	2010	registered to MCA	Y
BEPVA	Beihai City, Guangxi Province	http://zyz.beihai365.com/	2004	registered to MCA	Y
BROCS	Sanya City, Hainan Province	http://www.ch-blueocean.org/	2007	registered to MCA	Y
HMEPA	Haikou City, Hainan Province	http://www.hmepa.org/	2009	registered to MCA	Y
HKMCS	Hong Kong	http://www.hkmcs.org	1991	not registered to MCA	Y
TOCA	Taiwan	http://www.icctaiwan.org.tw/	2010	not registered to MCA	Y

Table 1. Chinese ENGOs located along the coastline of China. This list only contains well-established and organized ENGOs that have been conducting activities on regular basis. The loosely organized and sporadic activities of volunteers without a regular organization were not taken into consideration when compiling this list.

3.2 ICC events

The year 2005 was a milestone in Chinese marine litter control, when the Ministry of Environmental Protection (MEP), on behalf of the Chinese government, participated in the framework of the Marine Litter Action Plan (MALITA) of NOWPAP. The concept of marine litter control was then explicitly introduced into China, raising public awareness and prompting massive growth in ENGO activity. The MALITA was implemented from 2005 to 2007, when it was replaced by the Regional Action Plan of Marine Litter (RAP MALI).

During the implementation of MALITA, International Costal Cleanup (ICC) was introduced into China. The Shanghai Rendu Ocean NPO Development Center (SRONDC), formerly known as Shanghai Rendu (SR), began to organize ICC campaigns and contact Ocean Conservancy (OC), a non-profit environmental advocacy group based in Washington, D.C., United States which serves as a sponsor of ICC events.

MEP and NOWPAP RCU organized a marine litter workshop and ICC event in Rizhao City, Shandong Province, in 2007. It was the first marine litter activity organized in mainland China by MEP under the framework of NOWPAP. The local ENGOs in Rizhao City participated in the activity. In the same year, SRONDC organized the first ICC event in Shanghai with the help of the East China Sea Branch

of the State Oceanic Administration (SOA) of China situated in Shanghai. Subsequent ICC events in Shanghai have been conducted annually (Fig. 4). Among all the ENGOs located within the Chinese mainland, SRONDC was among the first to conduct ICC events using the ICC data method (as described later in this report), and was thus nominated in 2009 by OC to serve as the ICC coordinator in mainland China. As outlined in Fig. 3, the number of participants and amount of marine litter collected in SRONDC ICC events vary from year to year.

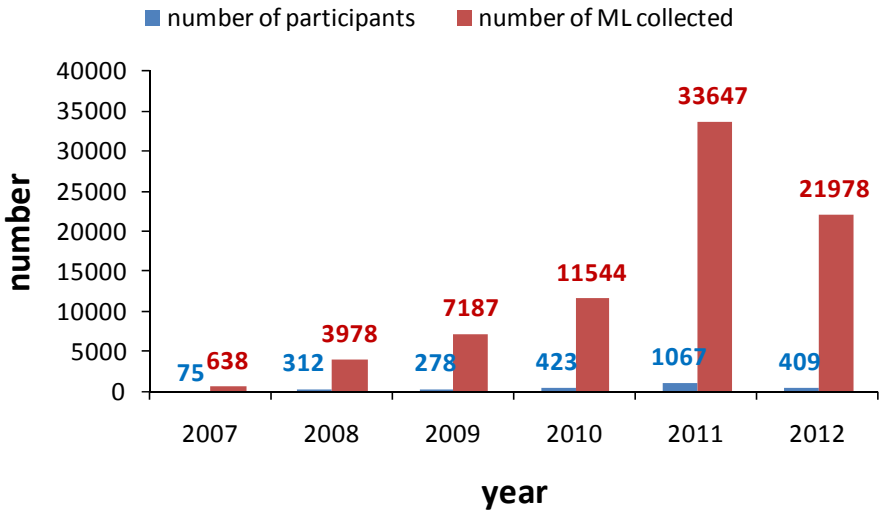


Fig. 3. Number of participants and amount of marine litter collected in ICC events organized by SRONDC during the period 2007—2012. Data is provided courtesy of SRONDC.

Fig. 4. ICC events in Shanghai organized by Shanghai Rendu. Photos are provided courtesy of SRONDC.

As the ICC coordinator, SRONDC has also helped organize ICC events in up to five cities to date: Dalian City (Liaoning Province, 2007), Qingdao City (Shandong Province, 2008), Xiamen City (Fujian Province, 2009), Lianyungang City (Jiangsu Province, 2011) and Putian City (Fujian Province, 2012).

Established in June 2003, the Dalian Environment Protection Volunteers Association (DEPVA) is among the first Chinese mainland ENGOs to conduct ICC-equivalent marine litter removal events on an annual basis. The dates for conducting ICC events include globally established dates, such as Earth Day on April 22nd, World Environment Day on June 5th and ICC Day on the third Saturday in September each year, in addition to other dates established by local ENGOs. DEPVA has also organized or co-organized a special ICC event, “The Joint ICC event of 10 Cities in China, Japan and Korea,” mandated by “The Organization For The East Asia Economic Development”, an international and inter-governmental organization aiming to promote economic collaboration among the ten participating cities (Fig. 5) located around the Yellow Sea Economic Circle. Dalian City, Yantai City, Tianjin City and Qingdao City are currently participating in the three-country framework. All ten cities will be conducting ICC events simultaneously on the Joint ICC Day. Since 2009, Dalian City has conducted this joint ICC event (Fig. 6).

Fig. 5. Ten cities participating in The Organization for the East Asia Economic Development.

Fig. 6. Dalian City participation in the ten-city joint ICC event, 2009.

The ICC events in Dalian City have much in common with those in Shanghai City, with the exception of two aspects. Firstly, divers participate in ICC events to collect seabed marine litter in Dalian City, but they are generally not present at events in Shanghai. This is due to the fact that DEPVA has a strong affiliation with industry, and thus professional support from industrial members is available. Secondly, as discussed later, DEPVA uses two methods for marine litter classification and data collection: the ICC data card and a DEPVA-modified method to adapt to the local conditions of Dalian City. These contrasting elements strongly indicate that DEPVA is playing an essential role in local ICC events – not just serving as an organizer. It also acts as a research organization, capable of conducting marine litter research to some degree - an uncommon trait among Chinese ENGOs. This may be accounted for by the fact that DEPVA was started by pre-employees and pre-staff from the local department of MEP in Dalian City. As a result, DEPVA maintains a strong connection with the local government. This connection in turn attracts a large number of individuals and industrial entities to participate in the organization as members. Therefore, although DEPVA is an ENGO, it is not a truly grassroots ENGO (like SRONDC) which only originates from civilian and private sectors.

Note that DEPVA is a typical ENGO conducting activities in the NOWPAP region, which thus bears special importance to Chinese governments within the framework of NOWPAP - RAP MALI. In addition, Dalian City *per se* is a special city in terms of its shoreline. The total shoreline length of Dalian City is 2,211 km, 10 percent of the total

shoreline of China, and 73 percent of that of Liaoning Province, giving rise to 29,000 square km of oceanic area. Consequently, marine litter control by ENGOs in Dalian City is especially important for China. Notably, the beach is largely comprised of sand and stone, which thus enables much easier marine access than the muddy flat located adjacent to Shanghai City.

Another ENGO involved in ICC events is the Shenzhen Blue Ocean Conservation Association (SBOCA), established by local aquarium divers in 2002 and registered to MCA in 2005. The first ICC Day in Shenzhen City was held that same year. As of September 2013, ICC Day events have been conducted 9 times in Shenzen City by SBOCA. The recently-held 9th ICC Day event was conducted simultaneously on 12 beaches with more than 2000 participants (Fig. 7).

Fig. 7. The 9th ICC Day event organized by SBOCA in Shenzhen City, 2013.

3.3 Education and outreach

Besides organizing or participating in ICC events, ENGOs conduct several activities relevant to education and outreach, in order to raise public awareness of marine litter issues. For example, DEPVA places a great deal of effort in training volunteers and civilians about marine litter survey and control techniques (Fig. 8). These trained volunteers and civilians have been actively involved in ICC events.

Fig. 8. Workshops organized by DEPVA to train volunteers and civilians for marine litter survey and ICC.

As shown in Fig. 9, DEPVA produces posters and collaborates with the media to report ICC events in local newspapers，websites, and TV. Members of the general public attended the discussion, which allowed for direct interactions with members of the ENGO. These efforts informed the public of the environmentally adverse effects of marine litter on marine ecosystems, and effectively enhanced public awareness of and participation in marine litter control events held in Dalian City.

Fig. 9. Posters and media-related publicity events intended to educate the public on marine litter issues in Dalian City.

Public awareness could also be raised by cultural activities organized by ENGOs. One very influential example was a national marine conservation photography contest organized by BRCOS between 1 August 2007 and 31 January 2008 (Fig. 10). During the contest, many photographs related to marine environmental issues were presented in an exhibit, greatly raising the public awareness of marine litter issues.

Fig. 10. A national marine conservation photography contest organized by BRCOS.

Another event with nationwide reach was a campaign organized by BRCOS in 2010 (Fig. 11). The campaign was kicked off in Sanya City, Hainan Province on 8 June, 2010, and ended in Dandong City, Liaoning Province. It lasted 28 days and covered 14 coastal cities with a total distance of 180,000 km. The event was supported by

three organizations: SOA, The Alumni Association of Cheung Kong Graduate School of Business and The Travel Channel (http://www.tctc.com.cn/). During the survey, the ideology of marine environment protection was widely promoted by sending out pamphlets and blue ribbons to the public. Members of BRCOS participated in TV shows and large ceremonies chaired by celebrities who were invited to help promote the events.

Fig. 11. A coastal 14-city survey organized by BRCOS to promote marine environmental protection in 2010.

In addition to posters and media reports, another effective way to raise public awareness of marine litter is to circulate arts and crafts with relevant logos to the public. XMGCA designed bags (Fig. 12) carrying a logo with the message, “It’s Our World Don’t Trash It.” The bags were used as souvenirs for participants in ICC events.

Fig. 12. A bag designed by XMGCA for raising public awareness of marine litter issues.

The above-mentioned events commonly require substantial funding, and thus not all the ENGOs could implement these events. However, there are some lower-cost alternative strategies available. One good example involves trash classification education in local communities. Trash deposits in near-shore and coastal marine litters are largely derived from land-based anthropogenic activities. Urban and rural household waste may be transported by surface run-off and eventually enter estuaries, beaches, and near-shore seawaters. Collection and disposal of waste before it enters surface waters is a prerequisite step in marine litter control.

Traditionally, the collected waste is buried. However, the increasing amount solid waste present in the coastal area in China is becoming challenge to control, as landfill sites in the coastal regions are rapidly becoming completed. Therefore, China is turning to the incineration of solid waste. As indicated by the approved and currently implemented "The 12th 5-year Plan on Urban Household Waste Disposal" of China, incineration is supposed to show a substantial increase from 2010 levels in the coastal provinces and cities in China mainland by the end of 2015 (Fig. 13 and 14).

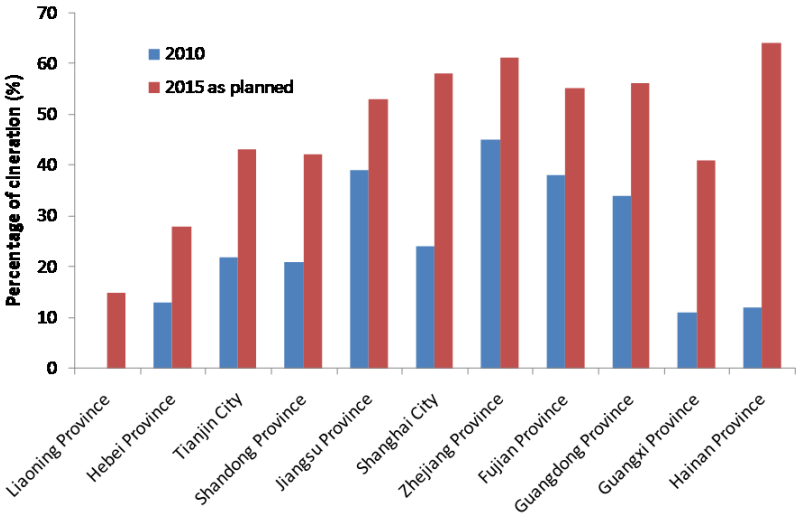


Fig. 13. Relative percentages of solid waste incineration between 2015 and 2010 in 11 coastal cities and provinces in mainland China. This figure was generated based on data released by "The 12th 5-year Plan on Urban Household Waste Disposal" of China. Note that the data for Liaoning Province in 2010 was zero.

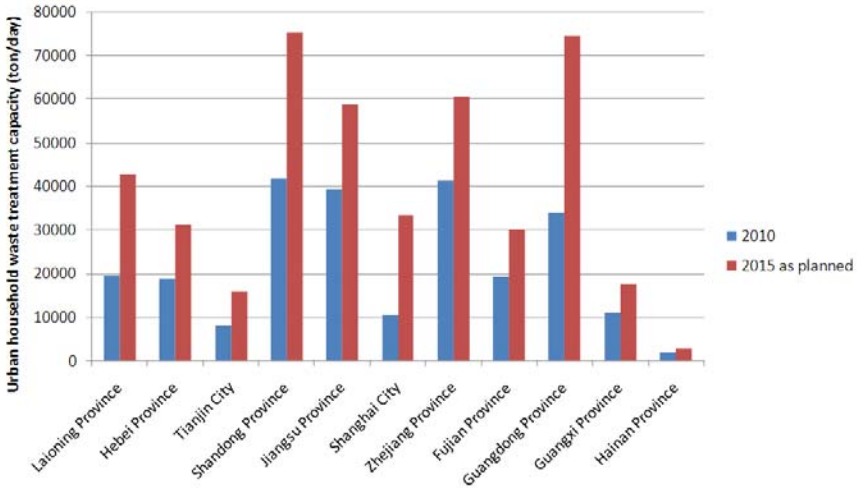


Fig. 14. Relative incineration capacity (tonnage/day) between 2015 and 2010 in 11 coastal cities and provinces in mainland China. This figure was generated based on data released by "The 12th 5-year Plan on Urban Household Waste Disposal" of China.

Prior to incineration, solid waste must be classified and separated accordingly. SRONDC was an advocate of implementing household waste classification when disposing of trash. SRONDC has been promulgating household waste classification in communities within Shanghai City. Volunteers from SRONDC enter give free classes to community residents about the importance of household waste classification, and train them in the classification process (Fig. 15).

Fig. 15. A volunteer from SRONDC educating residents about household waste classification in a Shanghai City community.

SRONDC is also recruiting volunteers to help residents group household waste and place the grouped trash in proper trash bins. Wet and dry trash are separated, then divided into sub-groups, i.e. recyclable vs. non-recyclable. Due to the continuous efforts of several organizations, waste classification has been gradually accepted in Shanghai. By the end of 2012, 2300 communities had implemented waste classification, and 1700 more communities will be joining the actions as planned.

4. Collaboration and communication among Environmental NGOs

4.1 Overview

Collaboration and communication among ENGOs is facilitated by information sharing, and joint activities.

To date, information sharing is achieved by posting information on internet forums, or by disseminating information via computer or mobile-phone based chat platforms such as Wechat, QQ, and Weibo. Through this sharing of information, ENGOs have become tightly connected to each other. Further details regarding information sharing and communication among but not limited to ENGOs can be found at http://www.lvngo.com and http://www.chinadevelopmentbrief.org.cn. Notably, details regarding Shanghai Workshop in 2003 (as elaborated later) were posted on these two websites by SRONDC in order to recruit volunteers. As a result, many ENGOs and volunteers heard about the workshop and eventually decided to participate.

As shown in Table 1, many ENGOs have webpages which can be readily found and accessed by the public and other ENGOs. Some ENGOs have produced their own working reports, such as newsletters, and distribute these to people of interest on a regular basis. For example, SRONDC produces a newsletter (Fig. 16) which provides a

monthly update on its activities, ranging from ICC events to education and outreach issues. The recipients of the newsletter include members of ENGOs as well as government officials, including the marine litter focal point of China.

上海仁渡

还海洋以清蓝

工作简报

（2013 年 10 月）

海洋课程启动

10 月 10 日，与上海福山外国语小学的海洋课程合作项目正式启动，完成了前测调查，即将开始项目实施。

净滩活动延续

10 月 12 日，上海仁渡和来自英特尔公司的 56 名志愿者在南汇海滩进行了今年的第四次净滩活动。本次活动共计清理垃圾 52 袋，重量 115.2 公斤。净滩活动除了清理垃圾，还依照 ICC 数据卡对垃圾进行了分类汇总。生态讲解员在现场为大家讲解海洋生态知识，帮助大家更好地了解海洋生态环境。

垃圾分类宣讲进社区

10 月 15 日，来自上海大学的志愿者谢韩鑫同学走进世博一居委，40 余名社区居民来到宣讲会的现场。谢同学为社区的居民们讲解如何进行垃圾的分类、垃圾分类的意义何在。居民们不但积极听讲，还提出了一些很有建设性的问题。

Fig. 16. A snapshot of the newsletter distributed by SRONDC in October 2013.

Joint activities include participation in ICC events and workshops. For ICC events, SRONDC has sent staff to attend ICC events in five cities outside of Shanghai. By working together with local ENGOs, knowledge and experience on marine litter collection, classification and reporting was shared. Joint ICC events may include participants from outside of the Chinese mainland. For example, volunteers from Hong Kong, which is adjacent to Shenzhen City, participate in the ICC events organized by SBOCA every year. However, joint ICC events are not frequent on a national scale. Cost is an important concern for inter-city collaboration among

ENGOs in ICC events.

Communication among ENGOs is strengthened by co-participation during workshops or working meetings. Most workshops or working meetings among ENGOs are sporadic, and usually take place on a local scale. Topics discussed at the workshops or working meetings may be very diverse, ranging from sea bird control to urban household waste disposal in. However, no national platform had focused on marine litter issues until the Shanghai Workshop.

The Shanghai Workshop was financially supported by UNEP as part of the small scale funding agreement (SSFA). The workshop was intended to gather relevant information for the national report on the role of Chinese ENGOs in marine litter control. The details of the workshop are presented as follows.

4.2 The First Workshop On the Role of Chinese Environmental NGOs (ENGOs) In Marine Litter Control

This workshop was held in Shanghai, China, on 24 August 2013 (Fig. 17). The workshop was organized by CRAES and technically supported by three NGOs: SRONDC, The NPO Development Center of Shanghai (NDCS) and The Youth Development Center of Shanghai Pudong District (YDCSPD).

The primary objective of the workshop was to provide a platform for ENGOs in mainland China to share information with others. As a marine litter expert forum, the

workshop was attended by a wide range of participants: (a) members of mainland China ENGOs representing those who have been involved in marine litter activities, including ICC and/or public awareness and outreach, (2) research universities and institutes (e.g. CRAES) representing academic activities that are relevant to marine litter issues, (3) the East China Sea Branch of State Oceanic Administration (SOA) of China, representing relevant Chinese government organizations that have conducted marine litter monitoring and collaborated with ENGOs in the past, and (4) television and newspaper reporters.

Fig. 17. The 1st Workshop on China's Environmental NGOs (ENGOs) Role in Marine Litter Control. Photos are provided courtesy of SRONDC.

At the workshop, the NGOs not only shared their past experiences, but also presented their viewpoints regarding the future development of ENGOs. The primary theme of the workshop was comprised of four topics as follows:

(1) The "Honolulu Strategy" and how it may be adapted by Chinese mainland NGOs

The marine litter focal point of China delivered a presentation giving a brief introduction of the Honolulu Strategy (HS). HS was first drafted during the 5th Global Marine Litter Meeting in May 2011, and was approved during the 3rd Intergovernmental Review Meeting of Global Programme of Action in January 2012. HS was a brand new framework that had not been explicitly introduced to the community of Chinese ENGOs until this workshop. The three primary goals of HS were introduced in the workshop: (a) reduction of land-based marine litter, (b) reduction of sea-based marine litter, (c) reduction of marine litter in coastal areas, benthic environments and pelagic waters. The strategies proposed by HS to achieve each goal were introduced by the presentation; those strategies relevant to ENGOs were outlined as below and discussed in the workshop panel discussion session.

- ✓ For goal (a), industry should collaborate closely with governments and NGOs to strengthen marine litter reduction (referred to as strategy 1 hereafter in this report)
- ✓ For goal (a), industry should collaborate closely with governments and NGOs to strengthen the recycling and re-use of marine litter, especially plastic debris (referred to as strategy 2 hereafter in this report)
- ✓ For goal (b), NGOs should be involved alongside other partners (e.g. governments) in the enforcement of the 5th amendment of "The International Convention for the Prevention of Pollution From Ships (MARPOL)" (referred to

as strategy 3 hereafter in this report)

- ✓ For goal (b), NGOs should be involved alongside other partners (e.g. governments) in the reduction of aquaculture-related marine litter (referred to as strategy 4 hereafter in this report)
- ✓ For goal (b), NGOs should be involved alongside other partners (e.g. governments) in the procedures of law and policy making aimed at reducing marine litter generation from off-sea infrastructure (referred to as strategy 5 hereafter in this report)

The panel discussion was related to how Chinese ENGOs may adapt the above-mentioned strategies. Thus far, only strategy 1 has been partially undertaken at ICC events. The current events are largely aimed at raising public awareness and outreach/education. Most ICC event participants are volunteers primarily from universities/colleges, high schools/primary schools, industry and academia and private sectors firms. Some local ENGOs are currently working with local governments. For example, SRONDC has been collaborating with MEP since 2007. SRONDC has been the OC's ICC coordinator in mainland China since this time.

As the ICC coordinator, SRONDC has helped organize ICC events in five cities to date, and has been collecting and compiling ICC data before submission to OC and the marine litter focal point of China. The ICC data flow path of Chinese ICC events is outlined in Fig. 18.

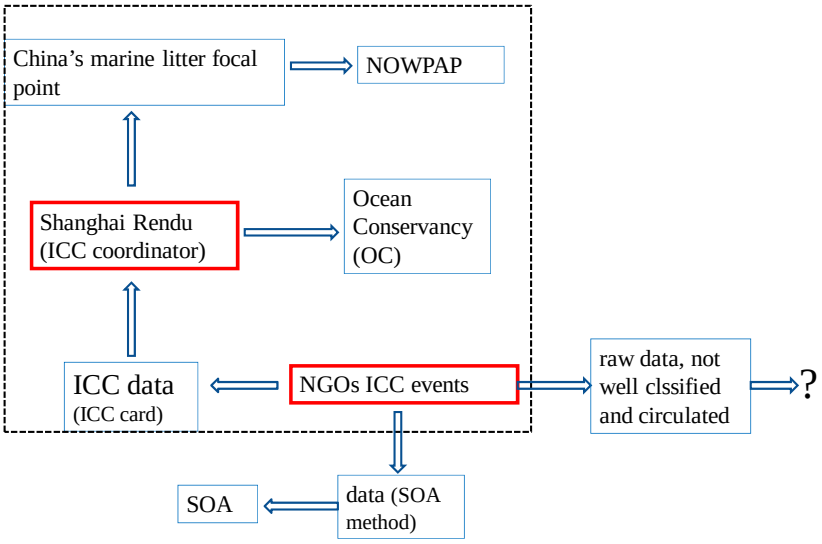


Fig. 18. The ICC data flow chart in mainland China.

As shown in Fig. 18, data submitted to the marine litter focal point will be forwarded to NOWPAP for further compilation and review before publication of the final report. Since the marine litter focal point is affiliated with CRAES (which is under the supervision of MEP), the processes outlined in Fig. 18 demonstrate that SRONDC is involved in the collaboration with MEP. In addition to MEP, SOA also collected a portion of the ICC data from ENGO-organized ICC events in some cities, but these data have not been well shared with MEP and NOWPAP.

In addition to working with local governments, ENGOs are also working with industry to deal with marine litter issues. There are two common types of collaboration in this regard: one exemplified by DEPVA in Dalian City, and the other exemplified by SRONDC. DEPVA has 12 group members from industry and academia, 600 individual members, as well as more than 20,000 volunteers. Industrial

group members support the activities of DEPVA by paying membership fees, and providing technical and logistical support. For example, sea-bed marine litter was collected in almost every ICC event annually conducted by DEPVA since 2003. Some of the diving equipment and relevant technical support were provided by group members of the local industry in Dalian City.

On the other hand, SRONDC organizes ICC events in conjunction with the intramural cultural activities of local companies. SRONDC helps select the beach and provides technical support for marine litter collection, classification and use of ICC data cards, while the companies provide financial support and send employees to attend the events. ICC events are considered by the companies to be a social platform, where internal culture may be strengthened and shared among the employees of each respective company. To date, only a few large international companies with strong aspirations for internal company culture development are willing to support and attend ICC events in Shanghai. On the contrary, small local companies are seldom self-motivated for such events.

In contrast to strategy 1, the remaining HS strategies have not been well undertaken. A main reason for this is the fact that ENGOs have very limited opportunities to put these strategies into action. For example, almost none of the ENGOs have enough sources and capabilities to deal with marine litter generated from ships; thus, ENGO activities are limited to nearshore coastline areas, including beaches and sea-beds. To

date, ENGO involvement in policy and law-making is still very limited. It is therefore impractical for ENGOs to act under the framework of MARPOL.

(2) The contribution of Chinese NGOs towards the Global Partnership of Marine Litter (GPML)

The GPML was introduced to other fellow ENGOs by SRONDC at the workshop. Most of the ENGOs attending the workshop had not previously heard of GPML, because it was launched only recently (18 June 2012). GMPL application submission methods were also introduced and discussed at the workshop. In order to be involved with GPML, applicants must submit applications on behalf of their organizations to GPA office (that serves as the secretariat to GPML), specifying working areas of interest (e.g. land-based vs. sea-based marine litter sources) and the role/responsibility (e.g. organizer of ICC events vs. support of expertise) the applicants' organizations would like to take.

SRONDC showed a strong interest in joining GPML, and had already applied before the workshop, but it has not received a response yet to date. The marine litter focal point of China also shared his experience and knowledge in the GPML application process, while he has not received any response yet to date.

Many other ENGOs present in the workshop also showed strong interest in joining GPML. They expected to conduct activities in conjunction with international

organizations and UNEP under the framework of GPML. Moreover, they wished that that local governments would be more actively involved in GPML. It was expected that the participation of governments in GPML would eventually be of benefit to solving the two largest problems for the ENGOs in mainland China: (1) how to fill funding gap and (2) how to become legally registered with local governments.

(3) Standardization of in marine litter monitoring and data reporting methodologies in mainland China

As outlined in Fig. 19, two methods are currently being employed in Chinese ICC events: ICC card method introduced by OC, and the SOA method. The ICC card has been translated into Chinese and circulated at SRONDC-hosted ICC events in Shanghai. Based on modifications of the method proposed by NOWPAP, SOA has developed its own waste classification method. Under the SOA method, marine litter is classified into 9 groups according to material type: plastics, styrene foam, glass, metals, rubber, texture, wooden, paper, and other, all of which are comprised of 150 sub-types in total. In contrast, the ICC data card method classifies marine litter according to the original trash sources and is comprised of 41 sub-types in total, as shown in Fig. 20.

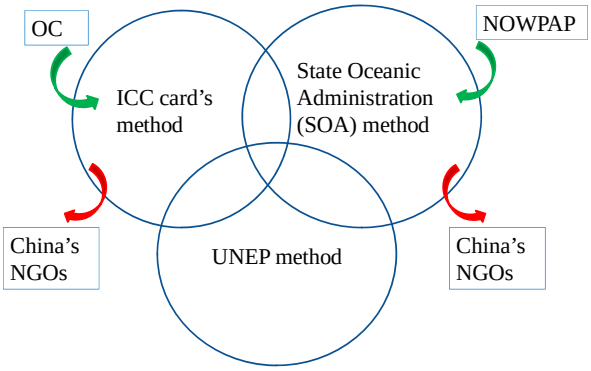


Fig. 19. Schematic illustration of the methods currently employed at China ICC events.

INTERNATIONAL COASTAL CLEANUP DATA CARD

Ocean Conservancy
Start a Sea Change

Thank you for participating in Ocean Conservancy's International Coastal Cleanup (ICC). The commitment you have made today is the first step to ensuring we can enjoy a cleaner ocean all year-round. The data you collect during the Cleanup is invaluable to Ocean Conservancy's effort to start a sea change every day; helping us educate public, business, and government officials about the scale and serious consequences of the global marine debris problem. Thank you. We could not do it without your help!

1. CLEANUP SITE INFORMATION

Category of Cleanup (choose one): ☐ Coastal ☐ Inland Waterway (River/Stream/Tributary/Lake)
Type of Cleanup (choose one): ☐ Beach/Shoreline ☐ Underwater ☐ Watercraft (powerboat, sailboat, kayak or canoe)
Location of Cleanup: State _____ Country _____
Province _____ Zone or County Cleaned _____
Cleanup Site Name (beach, park, etc.) _____
Today's Date: Month: _____ Day _____ Year _____ Name of Coordinator _____
Number of People Working on This Card _____ Distance Cleaned _____ miles or _____ km
Number of Trash Bags Filled _____ Total Estimated Weight Collected _____ lbs. or _____ kgs.
Estimated Time Spent on Cleanup _____

2. CONTACT INFORMATION (EACH INDIVIDUAL TEAM MEMBER)

1. Name _____ Email Address _____
2. Name _____ Email Address _____
3. Name _____ Email Address _____
4. Name _____ Email Address _____

3. ENTANGLED ANIMALS

List all entangled animals found during the Cleanup. Record the type of debris they were entangled in, for example: fishing line, fishing nets, balloon string/ribbon, crab/lobster/fish traps, plastic bags, rope, six-pack rings, wire and other items (please specify).

Animal	Alive/Released or Dead	Entanglement Debris

4. WHAT WAS THE MOST PECULIAR ITEM YOU COLLECTED? _____

The following national and international organizations endorse and/or support the International Coastal Cleanup
• NOAA Marine Debris Program
• U.S. Environmental Protection Agency
• UNEP – United Nations Environment Programme
• IUCN The World Conservation Union
• Intergovernmental Oceanographic Commission (IOC) of the United Nations' Educational, Scientific, and Cultural Organization (UNESCO)

Please return this card to your area coordinator or mail it to:
Ocean Conservancy
1300 19th Street, NW
8th Floor
Washington, DC 20036
www.oceanconservancy.org

OCEAN CONSERVANCY'S International Coastal Cleanup

ITEMS COLLECTED

Please pick up ALL debris that you find. Only record information for the items listed below. Keep a count of your items using tick marks and enter the item totals in the box.

Example: 8 Beverage Cans 𝍸 III

SHORELINE AND RECREATIONAL ACTIVITIES
Debris from fast food, beach-goers, sports/games, festivals; litter from streets/storm drains, etc.

☐ Bags (Paper) _____
☐ Bags (Plastic) _____
☐ Balloons _____
☐ Beverage Bottles (Plastic) 2 liters or less _____
☐ Glass Beverage Bottles _____
☐ Beverage Cans _____
☐ Caps, Lids _____
☐ Clothing, Shoes _____
☐ Cups, Plates, Forks, Knives, Spoons _____
☐ Food Wrappers/Containers _____
☐ Pull Tabs _____
☐ 6-Pack Holders _____
☐ Shotgun Shells/Wadding _____
☐ Straws, Stirrers _____
☐ Toys _____

OCEAN/WATERWAY ACTIVITIES
Debris from recreational/commercial fishing and boat/vessel operations

☐ Bait Containers/Packaging _____
☐ Bleach/Cleaner Bottles _____
☐ Buoys/Floats _____
☐ Crab/Lobster/Fish Traps _____
☐ Crates _____
☐ Fishing Line _____
☐ Fishing Lures/Light Sticks _____
☐ Fishing Nets _____
☐ Light Bulbs/Tubes _____
☐ Oil/Lube Bottles _____
☐ Pallets _____
☐ Plastic Sheeting/Tarps _____
☐ Rope _____
☐ Strapping Bands _____

SMOKING-RELATED ACTIVITIES

☐ Cigarettes/Cigarette Filters _____
☐ Cigarette Lighters _____
☐ Cigar Tips _____
☐ Tobacco Packaging/Wrappers _____

DUMPING ACTIVITIES

☐ Appliances (refrigerators, washers, etc.) _____
☐ Batteries _____
☐ Building Materials _____
☐ Cars/Car Parts _____
☐ 55-Gal. Drums _____
☐ Tires _____

MEDICAL/PERSONAL HYGIENE

☐ Condoms _____
☐ Diapers _____
☐ Syringes _____
☐ Tampons/Tampon Applicators _____

DEBRIS ITEMS OF LOCAL CONCERN

Identify and count 3 other items found that concern you

☐ _____
☐ _____
☐ _____

Fig. 20. ICC data card employed by OC.

The SOA method is also employed by some ENGOs at ICC events. Marine litter monitoring data annually released from SOA only reports collected marine litter "density" (either by number per unit collection area or weight per unit collection area), while the data submitted by the marine litter focal point to NOWPAP shows the absolute abundance of marine litter. Consequently, only the data compiled in the ICC

data card format is usable to NOWPAP. Note that these two methods overlap with the UNEP method, which is not used at Chinese ICC events.

Several ENGOs do not use any of these methods. Instead, the marine litter classification and data reporting methods employed are preliminary and inconsistent among ENGOs, making it difficult to share the data with other ENGOs. Participants in the Shanghai Workshop agreed that a standard methodology for marine litter data collection should be developed for better communication and data sharing among regional and international ENGOs, but no agreement upon a standard methodology has been reached. One prevailing opinion among ICC proponents is that although ICC events may suffice for raising public awareness, the obtained data is not scientifically robust enough for pure research purposes. Therefore, it may not be necessary to design a very rigorous and complicated data collection method for ENGOs, and the ICC method is suggested as the standard.

(4) Establishment of a communications platform, data sharing, and joint actions among ENGOs working on marine litter control in mainland China

The participants agreed to strengthen communication among ENGOs. However, two opposing opinions were presented. One opinion was that it was necessary to establish a large umbrella organization which jointly publishes reports and news, organize events, and calls upon participants to conduct activities. However, due to the special cultural and political conditions in China, it would be quite politically sensitive to

establish such an organization., A contrasting opinion suggested that the ENGOs should conduct activities loosely, independently, and locally, while maintaining active communication via e-forums and other internet tools.

Nonetheless, the participants in this workshop agreed that a meeting mechanism should be established for convening workshops annually. After much discussion, it was decided that SRONDC would be responsible for convening next year's workshop, which will discuss a number of issues outside of marine litter.

It was also acknowledged that joint actions may involve sharing data obtained through ICC events. However, no consensus on data sharing mechanisms among ENGOs was reached at the Shanghai workshop, and has not been reached as of publication of this report. This is largely due to two reasons. Firstly, a standard and widely accepted methodology for ICC among ENGOs is still lacking. More effort should have been placed into methodology standardization. Secondly, a well-defined framework to guide the use of shared/compiled data for joint project applications, and to allocate approved project tasks among different ENGOs is far from feasible.

A highlight of the Shanghai workshop was the presence of the press. Reporters came from Beijing and Shanghai in affiliation with 8 newspapers and a local TV station, covering both traditional media and internet-based media. Media has long been involved in ENGO activities, as illustrated by the following two examples.

One example is the Blue Ocean Protection Association (BOPA), from Sanya City, China. From December 2009 to March 2010, BOPA performed a marine litter survey along 100 km of coastline, and found severe marine litter pollution. The campaign was widely reported by the media and its local impact was quite influential. After compiling the campaign results into a report, BOPA submitted it to the local government, which gave a positive response by accepting the criticisms raised and disclosing the report on the local governmental website. This event pressed the local government to place a high priority on marine litter control in Sanya City. Collaboration among ENGOs, the government and the media has substantially raised the public awareness of marine litter issues in Sanya City. Blue ribbons are placed in many hotels in Sanya City as a warm reminder to tourists to protect the blue seas. Another example was the aforementioned 14-city survey organized by BRCOS in 2010, with extensive reporting by TV stations and newspapers.

In short, the above-mentioned actions are practically equivalent, to some degree, to the implementation of GPML in China. However, the concept of GPML was only introduced recently to the community of Chinese ENGOs.

5. Collaboration and communication with governments

The ENGOs discussed in this report are working closely with local governments. As stated earlier in this report, each registered ENGO has a mother organization which guides the technical aspects of the activities undertaken by that ENGO. In most cases, the mother organization is the local office of SOA or MEP. However, the mother organization may be another governmental organization. For instance, HMEPVA (Table 1) is technically registered to the office of Marine and Fishery Bureau of Hainan Province, which is under the supervision of Ministry of Agriculture (MOA).

On one hand, technical support from governments provided at ICC events is the dominant type of collaboration. For example, when SRONDC began to conduct ICC events in 2007, it invited the scientists of the East China Sea Branch of State Oceanic Administration (SOA) to give hands-on tutorials on marine litter survey methods. Since then, a stable and long-term collaboration relationship between SRONDC and the SOA local branch has been established. At the Shanghai Workshop in 2013, a representative of the SOA local branch was invited to give a presentation on marine litter monitoring conducted by SOA in the East China Sea. Technical assistance from SOA was also present for DEPVA at earlier ICC events, although DEPVA was registered to MEP. This is because among ministry-level governments of China, SOA was the first to conduct marine litter surveys and had gathered a great deal of knowledge and experience.

On the other hand, ENGOs may compile marine litter survey data for government reports. The most famous example is SRONDC, which collects ICC data from organizations using the ICC data card format, and reports the data to the marine litter focal point of China who, as a representative of MEP, further delivers the data to NOWPAP for data compiling.

Some ENGOs also participated in ICC events organized by local governments. As early as in 2007, the local ENGOs in Rizhao City participated in the ICC event organized by the local government, MEP and NOWPAP RCU. The latest example is that the local ENGOs in Lianyungang City joined an ICC event organized by the Lianyungang City government, MEP and NOWPAP RCU in 2011. Besides supporting ICC events, representatives from ENGOs joined a Chinese delegate group to attend marine litter workshops and ICC events convened in other countries (Japan, South Korea and Russia). These representatives were financially supported by the NOWPAP RCU. ENGOs representatives presented the organizational activities by either attending panel discussions, or giving presentations at these events. To date, three ENGOs have been presented at events convened in countries other than China. A DEPVA representative, along with representatives from MEP, joined an event held in Toyama, Japan, on 28-29 March 2007 (Fig. 21). An SRONDC representative joined events in Vladivostok, Russia, on 17-19 July 2012, and in Okinawa, Japan, on 24-26 October 2013.

Fig. 21. DEPVA's representative (the leftmost figure) joining the 2nd NOWPAP Workshop on Marine Litter in Toyama, Japan, on 28-29 March 2007.

DEPVA was selected to present in the Toyama event in 2007 because of the greater influence of its activities in Dalian City, as compared with other Chinese mainland cities. As the ICC coordinator in China mainland, SRONDC was a natural choice for representation, although Shanghai City is not within the NOWPAP region.

Communication and collaboration among ENGOs and governments benefit both sides. For the ENGOs, their efforts in marine litter control are more credited and acknowledged by governments, which in turn may provide more financial or political support to these efforts. For local governments, collaboration will facilitate organization of successful marine litter ICC events with the help of ENGOs. For example, DEPVA helped the local government in Dalian City and NOWPAP RCU organize an event in Dalian City in September 2008 (Fig. 22).

Fig. 22. The NOWPAP marine litter ICC event in Dalian City, Liaoning Province, on 11 September 2008.

Chinese mainland ENGOs other than DEPVA and SRONDC are not as closely connected to MEP. However, they do interact with the local SOA or municipal governments. As stated earlier in this report, the 14-city survey organized by BRCOS was supported by SOA. A good example of interaction with local governments was a BOPA survey report, submitted to the local government in Sanya City, Hainan Province. The local government has since acted upon the suggestions placed in the report. After several of these effective collaborations, marine litter issues have been widely recognized in Sanya City, and an increasing number of actions have been undertaken to reduce marine litter pollution.

6. Collaboration and communication with international ENGOs

One of the most important collaborations was between SRONDC, the ICC coordinator in mainland China, and the Ocean Conservancy (OC). OC helped to introduce the 'standard' marine litter classification method to Chinese ICC events, and as such, the data obtained from China mainland ICC events has been indexed in an international mega-database.

It is noteworthy that there is a newsletter, called "Marine Litter News," jointly published by four ENGOs: the Japan Environmental Action Network (JEAN) in Japan, the Our Sea East Asia Network (OSEAN) in Korea, the Green Fins Association in Thailand, and the Taiwan Ocean Cleanup Alliances (TOCA) in Taiwan Province, China. The newsletter is released periodically, reporting news and activities relevant to marine litter issues.

Chinese ENGOs may visit other ENGOs worldwide. For example, the Korea Marine Environment Management Corporation (KOEM) sponsored and invited deputy directors of DEPVA and SRONDC to attend a marine litter NGO expert forum in Busan, South Korea, on 16-17 November 2012. On 25 September 2013, Mr. Kodera Masaaki, an expert from the International Institute of Environmental Japan visited SRONDC (Fig. 23) to understand the development of SRONDC and The First Workshop On the Role of Chinese Environmental NGOs In Marine Litter Control,

which was held in Shanghai on 24 August 2013.

Fig. 23. The visit of Mr. Kodera Masaaki (the middle figure), an expert from the International Institute of Environmental Japan.

7. Future development

Although ENGOs still have a great deal of difficulties in development, e.g. lack of financial support, the overall future of ENGOs in China is becoming brighter than the past. The importance of the ENGOs in dealing with environmental issues, including but not limited to marine litter issues, has been gradually realized and acknowledged by several governmental organizations, among which the Ministry of Environmental Protection (MEP) may be the most supportive. In 2011, MEP released a policy guideline about how to promote the development of NGOs. MEP expressed a strong willingness to collaborate and communicate with ENGOs in China. The Department of Education and Communications in MEP invited representatives from 45 ENGOs to join a workshop on 31 July 2013.

Besides MEP, representatives from Ministry of Civil Affairs also joined the workshop. This was the first (also the highest profile to date) workshop organized by central governments of China, aiming at communication with ENGOs. At the workshop, the ENGO concerns about financial support were presented and discussed. A likely solution to this problem may be the provision of 3rd party services by ENGOs, which governments can pay to purchase. Local governments may entrust ENGOs to organize marine litter survey and collection events on a routine basis; consequently, the ENGOs would provide the collected data to local governments which purchase the service. This may become a future trend, and it may be a good solution to the current

funding problems faced by ENGOs. Within a broad context of China's political conditions, the purchase of services from 3rd party organizations (e.g. companies or NGOs) by the government has been placed higher in their respective agendas. For example, Chinese Premier Li Keqing presided over a working meeting in the State Council on 31 July 2013, discussing how to promote 3rd party service purchases for local governments.

It is expected that ICC events will be held in more coastal regions in the future. Communications and collaborations among ENGOs will be strengthened as more events are held. It is noteworthy that Chinese mainland ENGOs may have more communication and collaboration with other ENGOs in Taiwan Province, Macao and Hong Kong, as well as in other countries like Japan and South Korea. More ENGOs in China would participate in GPML and conduct marine litter activities in conjunction with international ENGOs and UNEP.

A probable bottleneck for the development of ENGOs is their lack of strong support from professionals. Most ENGO members are not from research academia and do not have strong backgrounds in natural sciences, but rather social sciences (e.g. law). A typical example is SRONDC, none of whose founders has a natural science background. Instead, the founders have law or economics degrees. ENGOs have a great deal of difficulty in trying to recruit full-time employees with natural science backgrounds, due in part to the low income offered to these prospective employees.

However, situations are changing, although slowly. More and more scientists from academia, especially those with doctorate degrees in the natural sciences, are attracted to the recent actions of ENGOs in the field marine litter. These individuals become involved, either as volunteers or as part-time employees, in ENGO activities. It has been widely accepted that the marine litter pollution is becoming a very urgent issue on a global scale, and requires multi-disciplinary collaboration to deal with it.