MONITORING AND ASSESSMENT PROGRAMME ON PLASTIC LITTER IN THE COASTAL AREAS OF VIET NAM

INTRODUCTION

Plastic waste in the oceans is now one of the most serious environmental problems, and Vietnam is one of the countries with the highest amounts of plastic waste discharged into the sea. Among the 20 countries studied, the amount of plastic waste from Vietnam to the sea ranged from 0.28 to 0.73 million tons/year, equivalent to 6% of the total plastic waste to the sea and ranked 4th in the top 20 countries.

Recognizing the serious risk of plastic waste to the environment, many initiatives, plans and regulatory documents have been issued. Many coastal provinces and cities also integrate pollution and disposal of marine plastic waste into local socio-economic development plans. However, in reality Vietnam does not have adequate national data characterizing plastic sources in the mainland or the sea and minimal quantitative research or statistics on the amount of plastic waste in coastal areas, including its sensitive Marine Protected Areas, which can be seriously affected by waste pollution.

To build a general method which can be applied to all locations on Vietnam's coast, IUCN Vietnam cooperated with GreenHub to develop "Guidelines for Plastic pollution shoreline survey and monitoring and coastal plastic pollution" based on guidelines of the National Oceanic and Atmospheric Administration (NOAA) and United Nations Environment Programme (UNEP), with adjustments to the concrete conditions in Vietnam.

The monitoring results will be analyzed. We will use this to share and recommend for general application to collect national datasets for marine waste monitoring in Vietnam which can be used as inputs for governmental policy recommendation.

PROGRAM

IUCN Vietnam with financial support from US Fish and Wildlife Service (FWS) collaborating with GreenHub (with financial support from Coca-Cola and USAID) will conduct trainings and supervision twice per year at 36 points of 12 Marine Protected Areas (MPAs), National Parks (NPs) and some other coastal localities.

The program prioritizes selected coastal MPAs and NPs of Vietnam because these are areas established to protect and key ecosystems for Vietnam and globally. In addition, MPAs management boards and NPs are also facing problems of plastic waste pollution within the boundaries of their management area. Therefore, long-term, repeated monitoring results will be able to support the following purposes:

• Determining the composition and quantities of plastic waste and its origin;

• Recommending waste pollution hot spots for local authorities, and safe waste collection method in order to minimize adverse impacts on ecosystems and biodiversity during the clean up event;

• Contributing to national policy recommendations based of scientifically-based data collection;

• Using effectively the human and financial resources to minimize and prevent the impacts of marine waste; plastic pollution

• Fundraising for conservation management activites which are associated with minimizing plastic pollution.

METHODOLOGY OVERVIEW

The background of plastic pollution shoreline survey and monitoring methodology development in Vietnam

- Marine Debris Monitoring Method, NOAA (2012, 2013, Lipiatt) - Shoreline;
- Method of the Marine Debris Assessment Survey, UNEP (2013, 2019 - Plastic - Cheshire and Adler);
- Korean implementation experience (10-year program of 2008-2018);
- Experience in implementing Quantitative Pollution of Plastic Pollution from Land which is relative to the Ocean, CSIRO Program, Australian Government in Vietnam (2018, D.Hardesty, CSIRO & GreenHub).

Deployment method

1 Selecting a surveying beach with the following criterias:
- Sandy beaches, gravel rolls or dead coral debris
- Easy to access, not divided by seasons
- Having at least 100m of beach length
- No regular cleanup (or cleaning at least 3 months from the survey time)
- The beaches having fauna preservations like turtles, corals, etc.; bird migatory areas; marine animal; etc.

2 Measuring a width of 100m along each beach.
Each beach is divided into 20 equally divided sections, each with a width of 5m and perpendicular to the shore.

3 Selecting 4 random numbers for the 20 sections above marked with numbers
to eliminate subjective and biased factors of samplers implementing the survey.

4 Collecting waste in each section (4 selected cells)
then sorting, counting and recording data include the number and weight of each type of waste on the indicated list. Garbage on these 4 sections accounts for 20% of the beach length selected for monitoring.

PHOTO STORY

Bai Tu Long
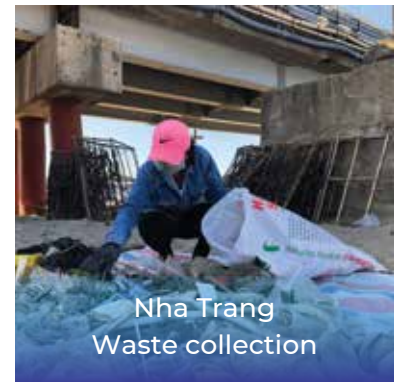Waste classification

Con Co
Waste collection

Con Dao
Transporting waste

Nui Chua
Waste packaging
with labels
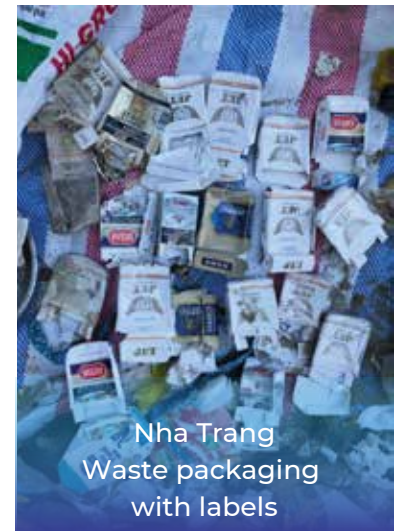

Con Dao
Waste classification

Nha Trang
Waste collection

Nui Chua
Training

Hon Cau
Training

Nha Trang
Waste packaging
with labels

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