

# PLASTIC GARBAGE CATCHER

THE RED TIDE TURNS: CRAFTING A SUSTAINABLE SOLUTION WITH TRASH CATCHERS

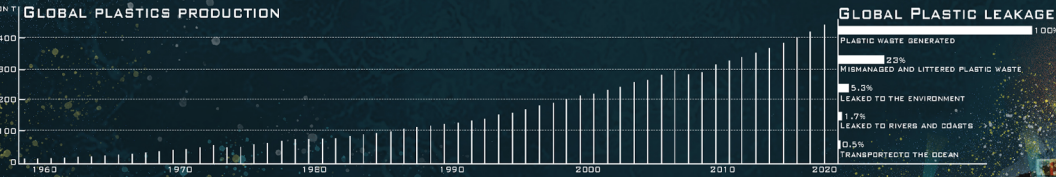
## DESIGN DESCRIPTION

THIS PROJECT AIMS TO EXPLORE HOW TO EFFECTIVELY SOLVE THE PROBLEM OF PLASTIC WASTE POLLUTION IN RIVERS USING LANDSCAPE DESIGN TECHNIQUES. THE MAIN NEWS ON THE UNITED NATIONS HOMEPAGE FOCUSES ON THE PLASTIC POLLUTION PROBLEM IN THE REPUBLIC OF TRINIDAD AND TOBAGO, SO WE HAVE CHOSEN THIS ISLAND COUNTRY LOCATED IN THE CARIBBEAN SEA AS THE VENUE. THE LOCAL PLASTIC PROBLEM IS TYPICAL, WITH TRINIDAD RECEIVING SEVERAL TONS OF PLASTIC EVERY YEAR. HOWEVER, AS A DEVELOPING COUNTRY, ITS ABILITY TO HANDLE GARBAGE IS LIMITED, LEADING TO SEVERE PLASTIC POLLUTION, DETERIORATION OF RIVER ENVIRONMENT, SERIOUS IMPACT ON TOURISM AND FISHING DEVELOPMENT, AND INCREASED FLOOD RISK. THEREFORE, WE ATTEMPT TO ADOPT LOW-COST AND EASY TO IMPLEMENT METHODS TO CAPTURE PLASTIC WASTE IN LOCAL RIVERS AS MUCH AS POSSIBLE AND SHAPE WARNING LANDSCAPES. THROUGH THE COUPLING OF HUMAN PARTICIPATION AND PROCESS LANDSCAPES, WE AIM TO RAISE AWARENESS OF THIS RED WARNING.

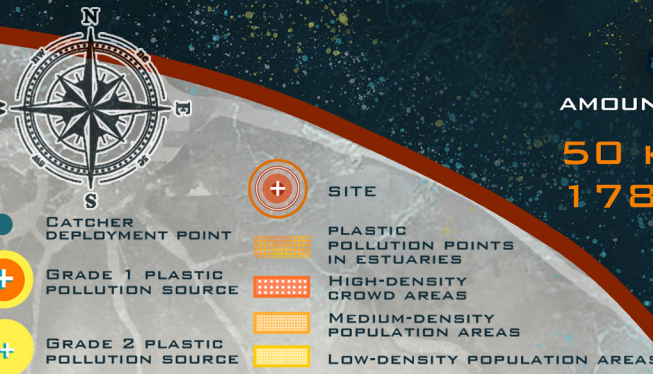
## GLOBAL PLASTIC POLLUTION



AROUND **19 MILLION TONNES** IS LEAKED TO THE ENVIRONMENT  
**1.7 MILLION TONNES** WAS TRANSPORTED TO THE OCEAN  
**4.3 MILLION TONNES** WAS DISCHARGED INTO RIVERS AND LAKES



BY **2040**  
**23 AND 37 MILLION** METRIC TONS  
FLOWING INTO THE OCEAN EVERY YEAR



26082.7T/A

3865.0T/A

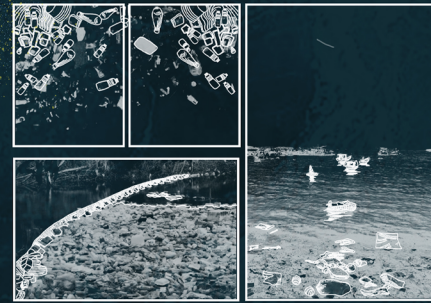
7539.3T/A

4205.4T/A

AMOUNTED TO  
**50 KILOGRAMS** OF PLASTICS PER METRE OF COASTLINE WORLDWIDE  
**178** SYMPHONY OF THE SEAS, THE LARGEST CRUISE SHIP IN THE WORLD

## STATUS OF RIVER POLLUTION

### POLLUTION FROM PLASTIC WASTE AT SEA ENTRANCES



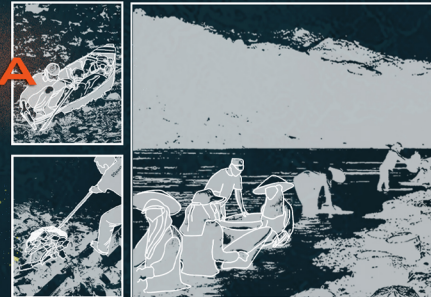
RIVERS ACT AS CONVEYOR BELTS FOR PLASTIC WASTE AND CARRY LARGE QUANTITIES OF PLASTIC WASTE INTO THE OCEANS, AND THESE POLLUTANTS NOT ONLY DAMAGE UNDERWATER ECOSYSTEMS BUT ALSO POSE A GREAT THREAT TO MARINE LIFE, WHICH URGENTLY REQUIRES EFFECTIVE MEASURES TO ADDRESS.

### PLASTIC WASTE POLLUTION IN RIVERS

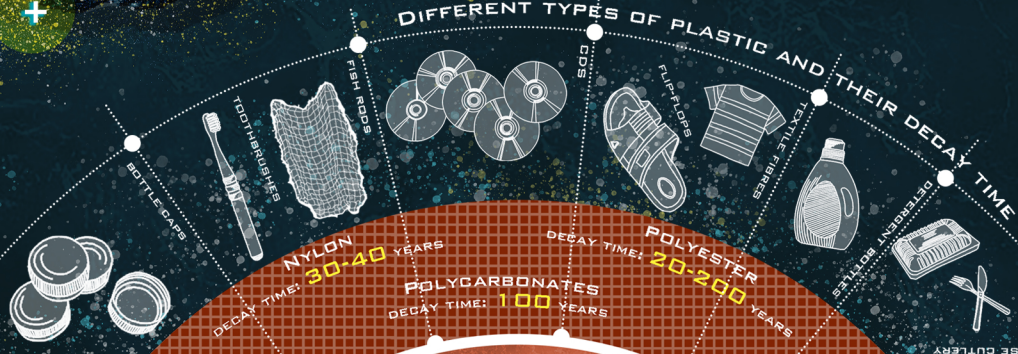


PLASTIC RIVER LITTER MAINLY STEMS FROM IMPROPER WASTE DISPOSAL AND LACK OF ENVIRONMENTAL AWARENESS AMONG LOCAL RESIDENTS. THESE PLASTICS NOT ONLY DAMAGE WATER FEATURES, BUT ARE ALSO EASILY INGESTED BY AQUATIC ORGANISMS, THREATENING THEIR HEALTH AND AFFECTING THE WIDER ECOSYSTEM THROUGH THE FOOD CHAIN.

### RESIDENTS VOLUNTEERED TO PICK UP RUBBISH



ALTHOUGH SOME RESIDENTS HAVE TAKEN THE INITIATIVE TO PICK UP PLASTIC WASTE FROM THE RIVERS, THESE EFFORTS HAVE NOT BEEN EFFECTIVE IN CURBING THE CONTINUED DETERIORATION OF PLASTIC POLLUTION IN THE RIVERS DUE TO LARGE-SCALE WASTE DISCHARGES AND A LACK OF PUBLIC AWARENESS OF ENVIRONMENTAL



Country/City Republic of Trinidad and Tobago  
University / School Beijing Forestry University School of Landscape Architecture  
Academic year 2024-2025  
Title of the project Plastic Garbage Catcher  
Authors Shang Zelin, Du Yifan, Yu Xi, Li Mengru, Lu Qingyu



Title of the project	Plastic Garbage Catcher
Authors	Shang Zelin, Du Yifan, Yu Xi, Li Mengru, Lu Qingyu
Title of the course	Landscape Design Studio
Academic year	2024-2025
Teaching Staff	Li Xiong
Department / Section / Program of belonging	Master of Landscape Architecture
University / School	Beijing Forestry University School of Landscape Architecture



Written statement, short description of the project in English, no more than 250 words

The goal of this project is to address the problem of river plastic pollution by creating a conceptual "Red Code" warning landscape.

The location of the site is in Trinidad and Tobago, a Caribbean country that receives tons of plastic garbage each year, which leads to serious contamination. Following the United Nations' recommendation, the installation of "trash barrier nets" has resulted in the creation of a recognizable "garbage line" in the local area. Therefore, we attempt to adopt low-cost and easy to implement methods to capture plastic waste in local rivers as much as possible and raise awareness of this red warning.

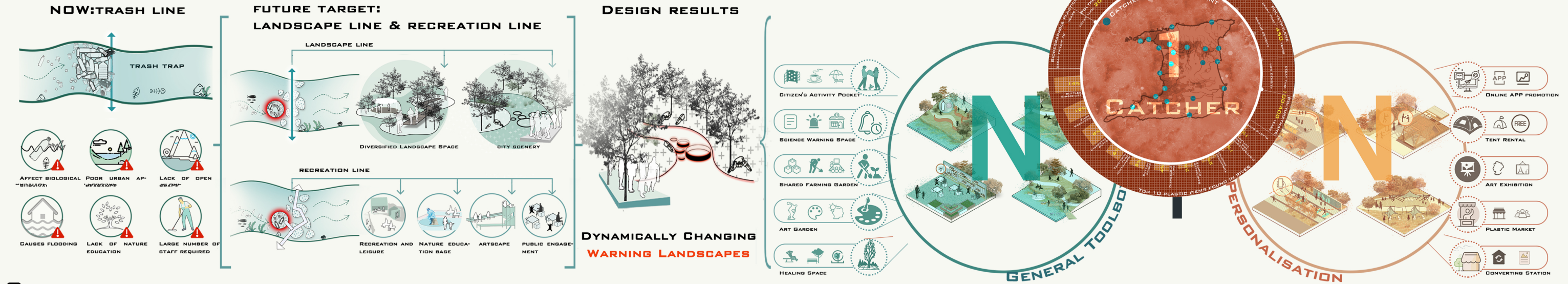
In response to the current situation, we designed a garbage catchers to transform the process of river garbage accumulation into a warning landscape in the form of land art, reminding people of the red code crisis of river pollution. By upgrading the "garbage line" to "landscape line" and "recreation line", we can guide public participation and awaken people's awareness of environmental protection, accelerating the shift from a "Red Code" crisis to a "Green Code" recovery.

Barcelona International Landscape Biennial

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GRAPHIC DESIGN SCHEME

