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ENVIRONMENTAL TECHNOLOGY EGM

# MARINE/ PLASTIC WASTE IN MYANMAR

ミャンマーにおける海ごみ・プラスチックごみ問題

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# CONTENTS

- I. Global Context
- II. Marine and Plastic Waste
- III. Marine and Plastic Waste Issue in Myanmar
- IV. Importance of Tackling Plastic Pollution
- V. Geography of Myanmar
- VI. Demographics of Myanmar
- VII. Laws and Regulations in Myanmar
- VIII. Challenges

海洋プラスチックごみ問題・取り組み方・ミャンマーの地理、法整備・課題





# GLOBAL PLASTIC PRODUCTION AND WASTE GENERATION

世界のプラスチックごみの状況

Since its invention in 1907, **more than 8.3 billion metric tons** of plastic has been produced.

Of the 8.3 billion metric tons, **6.3 billion metric tons** has become **plastic waste**.

**79 per cent** of this waste **accumulates in landfills** or in the **natural environment** as litter, and eventually ends up in the **oceans**.

Plastic takes some 400 years to degrade, meaning **all the plastic that has ever been produced still exists in some form.**



1907年に発明されてから、プラスチックは83億mtン製造され、うち63億トンがゴミになっている。うち79%は処分場あるいは自然に投棄され、いずれ海洋流出するが、分解するのに400年かかるため、最初に作られたプラスチックはまだ存在すること





# MARINE & PLASTIC WASTE IS A GLOBAL ISSUE

世界のプラスチックごみの状況

URGENT ACTION SHOULD BE TAKEN

毎年3億トンのプラスチックが製造され、うち少なくとも800万トンが海に流れ着く。海洋ゴミのうち80%がプラスチックであり、海面から海底まで到達する。

Over **300 million tons** of plastic are produced every year. At least **8 million tons** of plastic end up in the oceans every year, and **make up 80% of all marine debris** from surface waters to deep-sea sediments.

➡ Estimated **1-5% decline** in the benefit (marine ecosystem value). Plastic waste is believed to **cost up to \$33,000 per ton** in reduced environmental value.

# MARINE/ PLASTIC WASTE IN MYANMAR

Plastic pollution piles the pressure  
on Myanmar

ミャンマーにおける海洋プラスチックごみの状況

ミャンマーで排出される日12,000トンのごみのうち  
15%がプラスチック  
首都ヤンゴン市では日1690トンのごみが排出、うち  
10%がプラスチック  
この5年でペットボトルの量は3倍に増加



Myanmar generates about **12,000 tons** of garbage every day, and **plastic waste accounts for 15 per cent** of the total waste.

Yangon city solely generates **1,690 tons** of garbage per day on the average from townships and **10 per cent of them are plastic waste.**

Plastic bottles and solid waste production has **tripled in the last 5 years.**



# COASTLINE OF MYANMAR

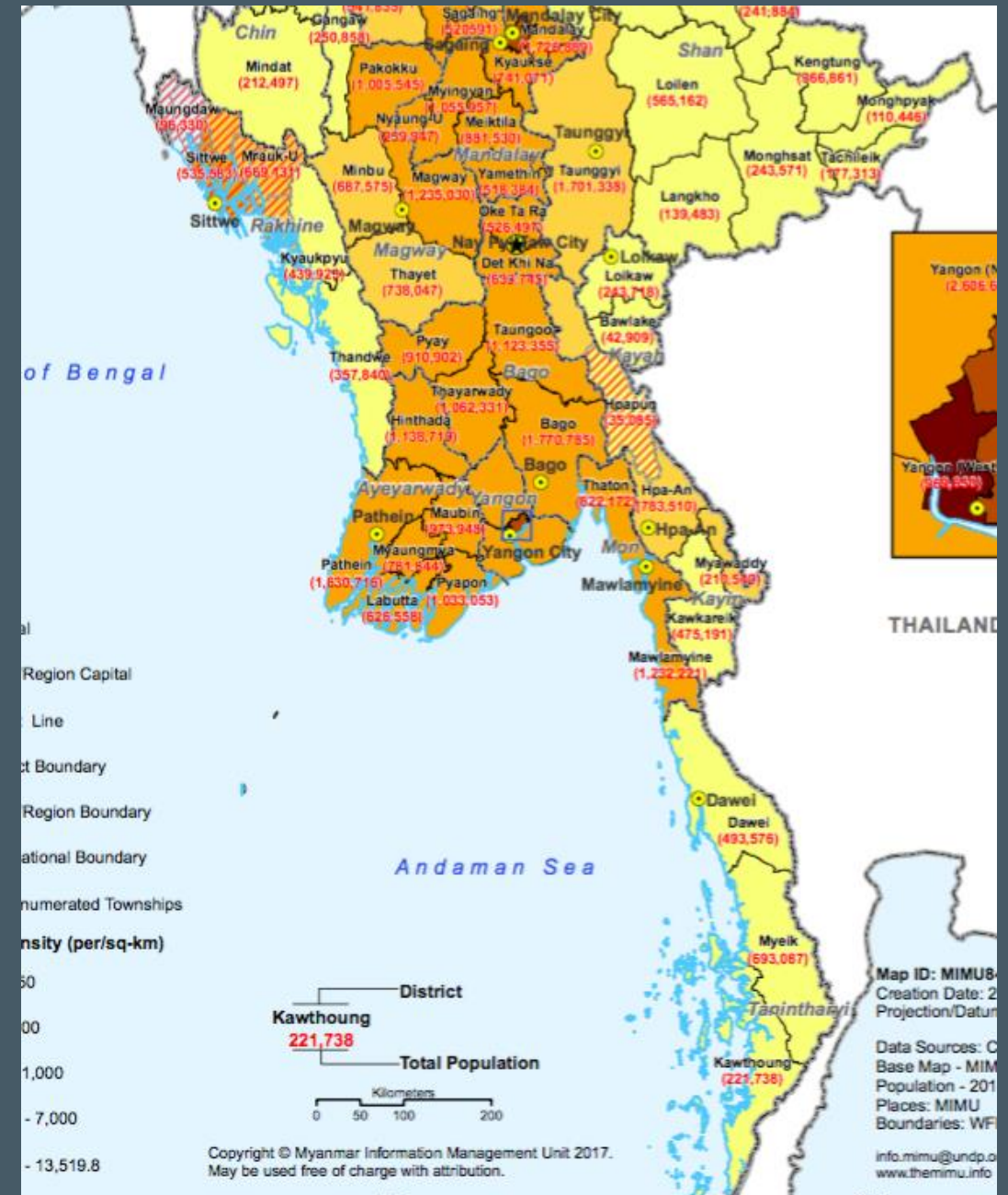
ミャンマーの海岸線

Myanmar is the largest country in mainland Southeast Asia with a **continuous coastline of approximately 1,930 km (1,200 miles)**. The country also has **hundreds of offshore islands**. ミャンマーの海岸線延長1930キロは東南アジア最大・また沿岸に多くの島を有する


Recent studies have found that 200 tons of plastic waste enters Myanmar's rivers every day. 毎日200トンのプラスチックごみがミャンマーの河川から入ってくるといわれる

- Beaches at the delta of the Irrawaddy river transport 119 tons of plastic pollution every day.

イラワディ河口の海岸線には毎日119トンのプラごみが流れ着く



MIMU (2014)



# DEMOGRAPHICS ALONGSIDE THE COASTLINE OF MYANMAR

ミャンマー沿岸部の人口の状況

In **almost all coastal areas** in Myanmar, there is **high human population pressure**.

**The most densely populated part** of the coastal zone is the Central Delta region.

**Large declines in numerous species of fish** are reported throughout Ayeyarwady River basin due to the **impacts of plastic pollution**, among other added economic stressors.

ミャンマー沿岸では急速な人口増加・最も人口密度が高いのは中央デルタ地域・プラごみの影響によって河川の魚の種類が減っているとされる





# WHY IS IT IMPORTANT TO TACKLE PLASTIC POLLUTION?

なぜプラごみ問題のかいけつが  
重要なのか？

## Impacts on Marine Environment

Ingestion, suffocation and entanglement of hundreds of marine species due to marine plastics.

## Impacts on Food and Health

Chemicals and toxic contaminants from plastic materials interfere with body's endocrine system.

## Impacts on Climate Change

Plastic, a petroleum product, contributes to global warming by releasing CO2 into the atmosphere when being incinerated.

## Impacts on Tourism

Decreased tourism-related incomes and increased economic costs related to the cleaning and maintenance of the sites.

海の環境や生物多様性への影響、食物や健康への影響、気候変動への影響、  
観光業への影響





# CHALLENGES

## 課題

### Lack of proper waste management

Rapidly increasing volume of waste.

Shortage of landfill space and technology.

増加するごみに対して、適切な廃棄物処理が行われていない

### Lack of policies, regulations and institutional arrangements

Absence of policy at both national and local levels.  
Weak enforcement of existing laws and regulations.

政策や規制がない、あっても実行力を伴わない

### Lack of public participation

Lack of awareness, Lack of participation and coordination among stakeholders.

市民の参加・意識の不足、利害関係者間の連携不足



## **Constitution of 2008, Sec. 45**

"The Union shall protect and conserve natural environment"

2008年憲法: 自然環境を保護し保全する

## **Constitution of 2008, Sec. 390**

"Every citizen has the duty to assist the Union carrying out the environmental conservation"

市民は自然環境の保護のために国家を卑賤する義務がある

## **Environmental Conservation Law (2012)**

2012年環境保護法

## **Myanmar Foreign Investment Law (2012)**

2012年新投資法

## **Environmental Impact Assessment Procedures (2016)**

2016年EIA(環境アセスメント)



# **LAWS AND REGULATIONS IN MYANMAR**

ミャンマーにおける法規制







# PRIORITY ACTIONS

優先課題

## Wide-reaching national level policies

政府レベルでの政策

- To impact waste separation and collection at the source  
ゴミの発生元からの分別と回収
- To set national recycling targets and complete waste collection coverage  
回収率を上げるための目標設定
- To implement a price incentive to boost the value chain  
バリューチェーンを強化するためのインセンティブを導入
- To include poor and marginalized communities in the narrative  
低所得者層などのコミュニティを忘れない

## Behavior-change education

行動を変えるための教育

- To reject the use of single-use plastic  
使い捨てプラスチックを拒否
- To enhance a sense of accountability  
行動責任をもつ

## Awareness campaigns

注意喚起のための啓発

## Aiming for a circular economy

循環経済を目指す





**THANK YOU FOR  
YOUR  
ATTENTION**