



Fig 1 Map of 10 communes of Abidjan. Left: Abidjan, the Côte d'Ivoire's economic capital, shown in red. Right: 10 communes of Abidjan.

BEYOND THE DUMP: THE ROOTS OF INEFFICIENT WASTE MANAGEMENT IN ABIDJAN

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Details, Data, and Analysis

Abstract

The city of Abidjan generates around 1.2 to 1.7 million tons of waste a year. Since 1960, the waste management policy implemented by the various contracting authorities has not provided for a specific waste treatment sector. Projects that aim to tackle waste management in the city seem to stagnate or downright fail. This case study aims to investigate the reasons behind the multiple failures to tackle the waste issues in Abidjan, Cote d'Ivoire, and ultimately the consequences engendered by inaction.

Background

Despite its impressive economic and industrial development, like many big African cities, Abidjan struggles with sustainability and environmental efforts. The city shows unbearable realities: tentacular urban developments, whole districts excluded from urban services, overwhelmed and ineffective municipal teams, urban landscapes marked by piles of garbage, and living environments particularly unhealthy.

Stakeholders	Reason
Environmental groups and organizations	Working to contribute to more sustainable practices within communities, as well as developing projects with the government toward cleaner goals. E.g: Climate & Clean Air Coalition
Ivorian Government and Municipalities	Concerned about their resident's health but struggling to reach an understanding and agreement with all stakeholders
Abidjan residents	Concerned about environmental degradation, health, hazardous incidents, landscape...
Waste pickers, Women residents	Make a living out of informal waste picking and selling.
Water seller's Union and Craftspeople	Make a living and operate their business through buying from informal waste pickers
Public and private corporations	Unwilling to invest in proper initiatives for project, infrastructures or education.

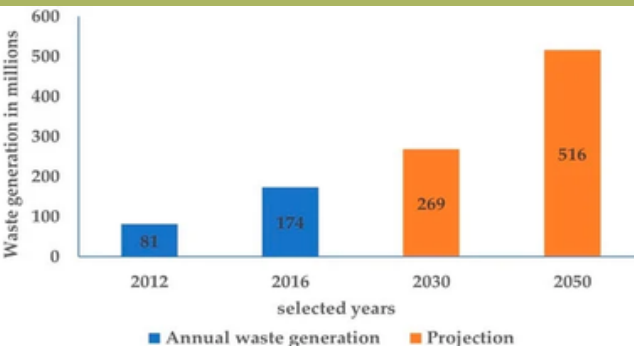


Fig 2: Municipal Annual waste rates in sub-Saharan African countries showing an expected growth rate from 2016 to 2050

- Strong growth of the population (from 3,6 in 1960 to 27 million inhabitants in 2021) + rapid urbanization. → Substantial increase in production. → Not followed by an increase in the quantities collected. Despite the increase in waste, no infrastructure has been put in place to collect and dispose of more.
- Despite waste-pickers efforts, of the 280 tons of plastic waste produced every day in Abidjan, only 5% is recycled
- Air pollution is a serious health concern in Cote D'Ivoire, responsible for an estimated 34,000 premature deaths in 2016, which included 8,000 children's deaths from respiratory infection.

The 2006 Toxic Waste dump incident

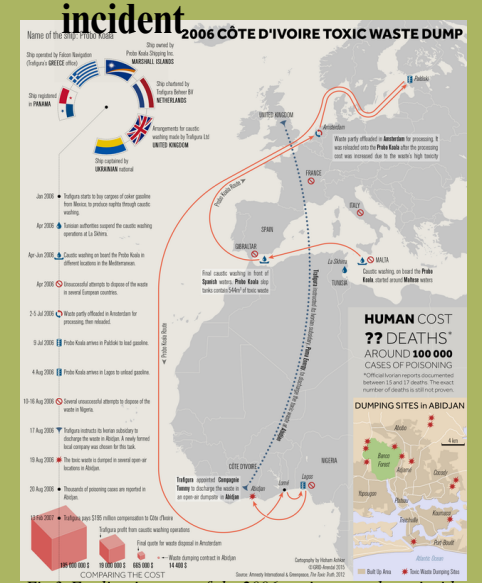


Fig 3: Explicative map of the 2006 toxic waste dump incident

- A ship registered in Panama, offloaded toxic waste to an Ivorian waste-handling company which disposed of it all around the city
- Over 100,000 people sought medical assistance and extensive clean-up and decontamination were required. 17 people died as a result
- **WHAT DOES THIS SHOW?** The lack of government-enforced environmental regulations and a lack of oversight and monitoring by authorities on environmental issues.
- The inadequate emergency response is also an indicator of the alarming limitation in transparent communication with the public

The Akouedo dump and its controversy

- The environment around the Akouédo dump, especially around the Ebrié lagoon area has become severely polluted and affected the health of residents of Akouédo.
- However, for hundreds of waste pickers in Akouédo, the announced plans to close the dumpsite in 2015 sparked a revolt a the prospect of losing their jobs.



Fig 4: Akouedo landfill dump in Abidjan, Cote d'Ivoire before closure. (2019)

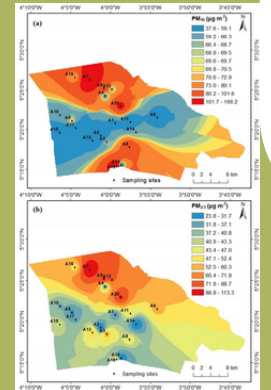


Fig 5: Particulate Air pollution in Abidjan and Korogho during the dry season (2020)

Discussion+ Conclusion

- In 2015, CACC enabled Côte d'Ivoire to become one of 15 African countries to specifically address Short-lived climate pollutants (SLCPs), and air pollution as well as commit to developing a national action plan to mitigate them. However no initiatives towards a proper formalization waste management have yet been made.
- The biggest concern is the health of Ivorian Residents. The inadequate waste management practices can lead to a range of health hazards, affecting both the environment and the residents themselves as seen in 2006.
- An overall lack of education among the population on proper waste disposal and the failure of an operational recycling facility contribute to the issue.
- The informal waste collectors as well as craftspeople are also important to keep in mind when thinking about the formalization and industrialization of waste collection. Their financial assistance and rehabilitation in the labor market should also be a priority in the decision-making process.
- It is possible to help improve waste management in Côte d'Ivoire while fighting poverty by creating a model that generates many jobs. However a structuring of the waste sector is necessary to allow a better organization of the people or the networks concerned, the management being mostly informal. Addressing these challenges requires a comprehensive and multi-stakeholder approach involving government agencies, local communities, private sector partners, and international organizations. Strategies should include improved infrastructure development, effective regulatory frameworks, community education, and sustainable funding mechanisms.

Teaching the Case

- Pre-Class**
 - Different groups read and learn about different specic cases of waste management project in Abidjan. They study and answer question on why they failed/ are stagnating
- In class**
 - People from different groups come together and discuss the complexities of each case. Then research other African/West African cities where recycling/controlling of waste dumping projects have been successful. Compare this with the projects in the city of Abidjan. Propose solutions/ ideas on how to keep projects from failing altogether in Abidjan
- Objectives**
 - 1: For students to learn what sustainability looks like in a developing country
 - 2: For students to learn how waste can be managed with limited resources

Sources

1. https://www.researchgate.net/figure/Map-of-10-communes-of-Abidjan-Left-Abidjan-the-Cote-dIvoires-economic-capital-shown-fig1_335640852
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