

AUUDIO Analysis

03 BRAND ANALYSIS

Barbie

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CHALLENGES	ASPECT	UPSTREAM	USER	DOWNSTREAM	ISSUES	OBJECTIVES
CLIMATE CHANGE	Raw material - plastic(PVC,ABS), extract from fossil fuels and generate greenhouse gas emissions	Packaging boxes contained timber products, destroys Indonesia's natural forests.	Improper disposal of undesired Barbie dolls, packaging	Energy Consumption in Manufacturing Methane produced by non-recycled dolls and accessories in landfills Waste Generation and Disposal	Barbie dolls are primarily made of plastic, which contributes to the accumulation of non-biodegradable waste,	Reduce or offset its carbon footprint by implementing strategies to minimize greenhouse gas emissions across its supply chain and operations.
ENERGY	Electricity use across production, manufacturing, office, Barbie (Mattel) retail stores	Electricity use in Plastic, - Colorant and packaging material production and logistic	Transportation to and from retail stores	Shipping by sea, air, land over the world Energy use in distribution, operating retail and online store, waste disposal	Expensive storage of clean energy The price of fossil oil will remain high in future	To minimize waste generation throughout its manufacturing, packaging, and distribution processes. This can involve optimizing production methods, implementing efficient packaging designs, and reducing excess materials.
WATER	Water consumption and pollution from manufacturing process(cooling, cleaning, dilution and mixing) Water consumption from employees and operation	Water contamination from raw material supplier	Water consumption while touring in retail store		Increased water consumption caused by expanded production	
BIO-DIVERSITY	The Barbie company's choice of raw materials, such as plastics and packaging, involve extraction or harvesting processes that disrupt ecosystems	Packaging material production indirectly contributes to habitats of endangered rare species like Sumatran tigers. Petroleum-based plastics contribute to habitat destruction	dolls or accessories, are discarded improperly, for example by littering or disposing of them in natural environments	Plastic pollution from dolls and other Barbie products and its packaging kill marine mammals	Plastic debris indirectly flows into the ecosystem	Source materials for their products from sustainable and responsibly managed sources & minimizing the footprint of their operations, including transportation, distribution, and packaging
CHEMICALS	Improper manage of paint and dyes use can leading water and soil pollution	Compounds released during plastic manufacturing		Packaging improper disposal Micro-plastic particles in the ocean and soil	Cost of managing chemical in production is high	Low-cost eco-friendly material Recycling management
AIR POLLUTION	Energy-inventive operations and utilize machinery Emission from factories	Raw Material Extraction and Processing (Release VOCs, particulate matter, and greenhouse gases.) Packaging Material Production & Disposal	Improper Disposal, Barbie sets end up in waste incinerators, Plastic combustion	Toxic emissions from the incineration of PVC recyclables Transportation-related emissions	Toxic release and emission Low efficiency energy use Raw material disposal	Conduct regular air quality assessments, monitor manufacture emission, optimize energy efficiency,
WASTE MANAGEMENT	Soil waste & toxic waste: Poor management of waste generated during manufacturing	Inefficient packaging design and utilization Suboptimal logistics practices, such as inefficient shipping routes	Product disposal and packaging disposal; Lack of awareness or neglecting proper sorting and recycling of Barbie's product at the end of their lifecycle.	Retail waste in handling, packaging and display of Barbie dolls.	Increased consumption of plastic materials, contributing to plastic pollution and waste in landfills or oceans.	Waste reduction, recycling programs, responsible sourcing, promote responsible disposal
OZONE	Improper disposal of solvents or blowing agents used in the production may cause ozone-depleting	N/A	Improper disposal of undesired Barbie dolls	N/A	Improper disposal of chemicals in the production process Improper disposal of undesired dolls	Proper chemical management Promoting awareness Responsible product disposal and recycling
OCEAN	Barbie's product can take hundreds of years to break down in the ocean, contributing to marine pollution	Extraction and processing of materials like plastics and resins harm to the ocean through waste disposal and runoff.	Barbies end up in waterways, ultimately reaching the ocean Failure to recycle or repurpose	Improper disposal of Barbie dolls and packaging can contribute to plastic waste	Plastic pollution: Barbie's extensive use of plastic materials and improper disposal of Barbie dolls	Reducing single-use plastics and plastic waste; Responsible waste management and plastic recycling
DEFORESTATION	N/A	Packaging boxes contained timber products from Asia Pulp and Paper (APP). It destroys Indonesia's natural forests. Fabrics made from cotton cause excessive farming	Irresponsible disposal of undesired Barbie dolls	N/A	Packaging materials come from wood in natural forests	Prioritize responsible sourcing practices
SOCIAL	Unrealistic body ideals and perpetuating gender stereotypes	Poor working conditions in the supply chain; Displacement of indigenous communities; violation of human rights	N/A	N/A	Unsatisfied staff	Gender diversity across all product line Co

Areas of Improvement



Increased **consumption of plastic** materials, contributing to plastic pollution and waste in landfills or oceans.



Improper disposal of chemicals in the production process & Improper **disposal of undesired dolls**



Not all packaging is recyclable and all contain **chemical inks** that can leak into landfills and oceans



Use of **virgin material** in manufacturing



Encouraging consumers to adopt **sustainable practices**



Consumer behavior toward keeping a **closed loop**