CarrefourSADouble Materiality Analysis



DOUBLE MATERIALITY

Identifying Impacts, Risks and Opportunities

We conducted a comprehensive Double Materiality assessment to analyze our sustainability issues at every stage of our value chain, taking The Türkiye Sustainability Reporting Standards TSRS) framework as reference. We assessed environmental, social and governance aspects from the Impact Materiality and Financial Materiality perspectives. Throughout the process, we addressed our positive and negative impacts, dependencies, risks and opportunities in the short, medium and long term.

In the materiality assessment, the process launched according to the Implementation Guide of the European Financial Reporting Advisory Group (EFRAG) was based on the TNFD LEAP (Locate, Evaluate, Assess, Prepare) approach. In assessing social impacts, we benefited from the UN's Guiding Principles on Business and Human Rights and the OECD's (Organisation for Economic Cooperation and Development) Guidelines for Multinational Enterprises. We also used all reasonable and supporting data available to CarrefourSA for the materiality assessment, while industry reports from indirect sources provided complementary content.

Aiming to better understand our potential impact across different stages of our value chain, we leveraged the findings in CarrefourSA's 2022 Sustainability Report as a primary source for insights about affected stakeholders. The expectations of users who reference CarrefourSA's general financial statements have also been addressed based on feedback from the relevant teams. However, no special assessment such as a stakeholder engagement plan was conducted during the preliminary studies. CarrefourSA's business model, supply chain and impact across stages of the value chain were scored and evaluated according to the Environmental Impact, Social Impact and Risk & Opportunity tables to determine key risks and opportunities. While ESG topics were addressed according to criteria such as scale, scope and reversibility according to the ESRS I standards, a more sensitive approach was adopted in social areas such as human rights.

All findings were analyzed in light of the financial and operational criteria defined by the CarrefourSA Early Detection of Risk Committee. Acceptances on issues such as risk maturity, risk impact and scope determined in CarrefourSA's risk assessment processes provided context. Accordingly, impacts, risks and opportunities were categorized as short-term (0-3 years), medium-term (3-10 years) and long-term (10 > years). Out of the 122 impacts and 112 risks & opportunities identified as a result of the assessments, 40 impacts and 23 risks & opportunities were defined as CarrefourSA's Double Materiality Topics. Once these were combined according to their content, a total of 28 material topics emerged. The scope of our study will expand further with additional assessments to be conducted in the coming years. The next process will involve detailed interviews with the relevant CarrefourSA functions for each identified risk and opportunity, thus helping us evaluate the materiality of our risks and opportunities in full compliance with the standard methodology. Furthermore, financial impacts will also be analyzed and reported for possible material topics. This analysis will guide our sustainability strategy, enabling us to manage sustainability risks within our business processes and seize opportunities more effectively.

We carefully analyze potential risks and opportunities based on global and local developments. As we shape our strategies, we adopt a comprehensive approach by considering sustainability principles and the contributions of different teams. CarrefourSA's sustainability risks and opportunities have not yet been integrated into the overall risk management process. The integration will be initiated in 2025 in full compliance with The Türkiye Sustainability Reporting Standards.

Торіс	Sub- topic	Sub-sub- topic	Dependency	Risk	Opportunity	Upstream	Direct Operations	Downstream	Short	Medium	Long
		Climate Change Adaptation	Shelf Life	Temperature changes due to climate change may negatively affect the shelf life of products sold by CarrefourSA.							
		Climate Change Adaptation	Raw Material And Product Supply	Extreme events caused by climate change may impact the productivity of products sold and raw materials supplied by CarrefourSA.							
E1 - Climate Change	Climate Change	Climate Change Adaptation	Energy Consumption	Due to temperature increases caused by climate change, CarrefourSA's energy consumption could rise significantly.	CarrefourSA's investment in cleaner energy sources and improvement in energy efficiency enables it to be preferred primarily by environmentally conscious consumers.						
		Climate Change Mitigation	Reputation	Failure to comply with global and national emission reduction strategies could increase stakeholder concerns or lead to negative feedback for CarrefourSA.							

Topic	Sub- topic	Sub-sub- topic	Dependency	Risk	Opportunity	Upstream	Direct Operations	Downstream	Short	Medium	Long
E2 - Pollution	Pollution	Pollution of living organisms and food resources	Consumer Confidence	Pesticide and herbicide residues in food products pose serious health risks. Selling such products may lead to product recalls, legal sanctions, and a loss of consumer trust for CarrefourSA.							

Торіс	Sub- topic	Sub-sub- topic	Dependency	Risk	Opportunity	Upstream	Direct Operations	Downstream	Short	Medium	Long
E3 - Water and Marine	Water and	Extraction and use of marine resources	Marine Biodiversity	If the seafood CarrefourSA sources is obtained using unsustainable methods, this may lead to reduced biodiversity and long-term supply chain disruptions, increased costs, and reputational damage							
Resources	marine resources	Water Consumption	Water Resources	High water consumption, particularly in water-scarce regions, puts pressure on local water resources and can restrict access to water. This could directly affect CarrefourSA's store operations and cause supply chain disruptions and cost increases.							

Торіс	Sub-topic	Sub-sub-topic	Dependency	Risk	Opportunity	Upstream	Direct Operations	Downstream	Short	Medium	Long
	Direct impact drivers of	Fresh water- use change	Freshwater Ecosystems	The decline in water resources may require investment in more expensive water management technologies to ensure efficient use in agriculture. Additionally, agricultural production costs in water-scarce regions may increase due to rising water prices. All these factors could raise CarrefourSA's overall operational costs and negatively impact profitability.							
E4 - Biodiversity & Ecosystems	biodiversit y loss	Pollution	Raw Material And Product Supply	Environmental pollution from industrial production processes— especially chemical waste and uncontrolled emissions—can degrade natural resources and reduce raw material quality. For CarrefourSA, this could result in failure to meet quality standards, weakened supply security, and public pressure regarding environmental responsibilities.	Collaborating with suppliers who use environmentally friendly production processes and sustainable raw material sources offers CarrefourSA the opportunity to secure quality and supply continuity in nonfood products, strengthen brand reputation, and attract a customer base with environmental awareness.						
	Impacts on the extent and condition of ecosystems	Examples: Land degradation – Desertification - Soil sealing	Soil Health	Agricultural practices involving intensive pesticide and herbicide use cause water and soil pollution, harm ecosystems, reduce biodiversity, and negatively impact agricultural production. This may lead to reduced quality and supply interruptions in CarrefourSA's fresh food and seafood supply chains. It also raises food safety risks, which may result in legal sanctions, cost increases, and damage to brand reputation.	Sustainable agricultural practices ensure the protection of natural resources, securing the sustainable supply of products in the long term. Protecting natural resources can increase CarrefourSA's financial resilience by preventing future cost fluctuations and product shortages.						

Topic	Sub-topic	Sub-sub- topic	Dependency	Risk	Opportunity	Upstream	Direct Operations	Downstream	Short	Medium	Long
	Circular Economy	Resources inflows, including resource use	Packaging Material	The use of fossil-based packaging leads to rapid depletion of natural resources. Combined with regulatory pressures, this could increase risks and costs related to raw material access. Failure to implement necessary transformations may negatively impact brand reputation and competitiveness.	Transitioning to recyclable and reusable packaging can increase resource efficiency and provide cost savings. Developing innovative packaging solutions, as well as adopting circular business models within the supply chain, offers strategic value for longterm resource security and business continuity, creating a competitive advantage.						
E5 - Circular Economy	Leonomy	Waste	Waste Management	Due to its large volume and diversity, packaging waste poses a significant environmental and operational issue for CarrefourSA. Failure to integrate recyclable waste into the circular economy could increase waste management costs and lead to regulatory non-compliance and brand reputation damage.	The recovery of economically valuable waste into the circular economy can positively contribute to the company's revenues. Evaluating products such as packaging materials, electronic waste, or scrap equipment generated after operations within this scope can benefit both the environment and the company's income.						
	Food Waste	Waste	Food Waste	An increase in food waste across the supply chain and decreased participation in the circular economy could result in economic losses for CarrefourSA. This situation may raise costs, reduce operational efficiency, and erode CarrefourSA's competitive advantage.	Food products can be reintegrated into the economy through projects such as resale and food donation to prevent them from becoming waste. In the medium and long term, by acting according to sustainability principles and preventing waste, CarrefourSA may find it easier to access financing.						

Торіс	Sub-topic	Sub-sub- topic	Dependency	Risk	Opportunity	Upstream	Direct Operations	Downstream	Short	Medium	Long
			Workforce	In an inflationary economy, continuously rising wages can significantly increase CarrefourSA's labor costs in the short term. In the medium to long term, if inflation continues to rise, sustaining regular salary increases may become unsustainable, placing CarrefourSA under financial pressure.							
S1 - Own Workforce	Working Conditions	Adequate Wages	Workforce	If the wages of subcontracted employees are not increased or remain insufficient against inflation, this may result in strikes and work stoppages in the short term. This can disrupt CarrefourSA's supply chain and cause difficulties in stock management. These operational disruptions may lead to revenue loss and increased supply costs.							
			Workforce	Deficiencies in occupational health and safety practices may lead to workplace accidents. Especially in stores, accidents that occur during physically demanding tasks—such as lifting heavy loads or stocking shelves—can result in labor loss and operational disruptions. These accidents may also lead to compensation claims and legal proceedings.							

Topic	Sub-topic	Sub-sub- topic	Dependency	Risk	Opportunity	Upstream	Direct Operations	Downstream	Short	Medium	Long
S3 - Affected Communites	Communities' economic, social, and cultural rights	Adequate food	Local Producers		CarrefourSA's Urban Agriculture Project supports sustainable food production by collaborating with local farmers while providing consumers with fresher and safer food. This approach can create financial benefits in the long term by reducing logistics costs. At the same time, it can offer local producers regular income, market access, and collaboration opportunities.						
			Food Donation		Donations made through food banking support communities' access to basic needs, thereby enhancing social inclusion. This practice can reduce food waste while offering CarrefourSA an opportunity to strengthen its social impact and reputation.						

Торіс	Sub-topic	Sub-sub- topic	Dependency	Risk	Opportunity	Upstream	Direct Operations	Downstream	Short	Medium	Long
	Personal safety of	Security of a	Compliance	Accidents inside the store can lead to personal injury lawsuits and compensation claims, resulting in legal costs and compensation payments for CarrefourSA. Additionally, this situation may cause a loss of customer trust, damaging the company's reputation.							
S4 - Consumers and End- Users	consumers and/or end- users	person	Structural Resilience	If sufficient safety measures are not taken to mitigate the effects of a potential earthquake, serious injuries or fatalities may occur. This situation could expose CarrefourSA to severe legal consequences and financial penalties. Additionally, such events may cause property damage and business interruptions, affecting the company's operational activities. Temporary store closures may lead to revenue loss and increased repair costs.							
	Information for consumers and/or end- users		Loyal Customer	A decline in customer satisfaction across all of CarrefourSA's processes and the failure of strategies that consider social and environmental responsibilities may undermine customer trust. This situation can lead to an increase in complaints and a loss of loyalty. As a result, sales may be negatively affected, and legal and financial risks may arise.							
G1 - Business Conduct	Management of relationships with suppliers including payment practices	Managemer	Certifications and Standar		own t in of						

				Actual,	/Potential	Upstr	eam	Dire Opera		Downs	stream			
Topic	Sub-topic	Sub-sub- topic	Impact	Actual	Potential	Neg	Pos	Neg	Pos	Neg	Pos	Short	Medium	Long
E1 - Climate	Climate Change Mitigation	-	The activities carried out by CarrefourSA throughout its value chain may directly and indirectly contribute to greenhouse gas emissions											
Change	Energy Consumption	-	The energy, fossil fuels, refrigerant gases, and similar resources used by CarrefourSA to maintain its daily operations directly contribute to greenhouse gas emissions.											
	Direct Impact Drivers of	Climate Change	Supply chain activities—including agricultural production, packaging, and logistics processes—place significant stress on biodiversity. Additionally, supply chains based on agricultural production, due to their high water consumption, can lead to degradation of soil and water ecosystems, resulting in a decline in species diversity.											
E4 - Biodiversity & Ecosystems	Biodiversity Loss	Direct exploitation	CarrefourSA strengthens responsible sourcing practices in seafood procurement through audits aligned with international standards and analyses conducted by accredited laboratories. This approach supports the sustainable management of marine resources, contributing positively to the preservation of marine ecosystems and the continuity of biodiversity.											
	Impacts on the state of species	Examples: Species population size - Species global extinction risk	By offering geographically indicated products on its shelves, CarrefourSA promotes local production and preserves Anatolia's agricultural heritage. This approach can contribute to the sustainability of local biodiversity and support the transmission of cultural values to future generations.											

				Actual	/Potential	Upstr	eam	Direct O	perations	Downst	ream			
Topic	Sub-topic	Sub-sub-topic	Impact	Actual	Potential	Neg	Pos	Neg	Pos	Neg	Pos	Short	Medium	Long
S1 - Own Workforce	Equal treatment and opportuniti es for all	a. Gender equality and equal pay for work of equal value	CarrefourSA is transforming its human resources processes to strengthen female representation and ensure gender balance in leadership positions. This approach reflects the company's commitment to promoting gender equality and building an inclusive organizational structure.											
S2 - Employees in the Value Chain	Other work- related rights	a. Child Labour	CarrefourSA conducts regular social compliance audits to ensure ethical working conditions throughout its supply chain. By supporting responsible suppliers in line with BSCI principles, the company contributes to the prevention of practices such as child labor and forced labor.											

				Actual/F	Potential	Upst	ream	Dire Operal		Downs	tream			
Торіс	Sub-topic	Sub-sub- topic	Impact	Actual	Potential	Neg	Pos	Neg	Pos	Neg	Pos	Short	Medium	Long
	Communities' economic, social, and cultural rights	b. Adequate food	Through resale campaigns, CarrefourSA offers visually imperfect products and/or foods with short shelf lives at affordable prices, thereby reducing food waste and contributing to the community's access to adequate nutrition. This approach promotes sustainable consumption while also creating social value.											
S3 - Affected Communites	Personal safety of consumers and/or end- users	a. Health and safety	The higher nutritional value of organic products offered under the Carrefour BIO brand compared to conventional products contributes to healthier and more balanced diets for consumers.											
	Social inclusion of consumers and/or end- users	b. Access to products and services	CarrefourSA's healthy living portfolio, consisting of gluten-free, vegan, lowfat, low-salt, and low-sugar products, as well as organic foods, offers a more inclusive and accessible shopping experience for consumers with special dietary needs. This diversity provides a significant accessibility advantage for customers with specific dietary requirements.											

				Actual/	Potential	Upstr	eam		ect ations	Downs	stream			
Торіс	Sub-topic	Sub-sub- topic	Impact	Actual	Potential	Neg	Pos	Neg	Pos	Neg	Pos	Short	Medium	Long
S1 - Own Workforce	Working Conditions	h. Health and safety	The use of electrical equipment in CarrefourSA's store and warehouse operations, loading and unloading processes, and risks such as falls from heights are critically important for occupational health and safety. If proper measures are not taken, these risks can lead to serious workplace accidents, occupational diseases, and negatively affect employees' physical and psychosocial health. Repetitive and heavy workloads can pose a significant threat to employee productivity and sustainability.											
S4 - Consumers and End- Users	Information-related impacts for consumers and/or end-users	a. Privacy	The continuously increasing threats of data breaches or cyberattacks have the potential to directly impact CarrefourSA customers despite security measures being in place. Customer trust is a critical priority; incidents such as data theft and identity theft can lead to financial losses and unauthorized disclosure of personal information.											

				Actual/Potential		Upstream		Direct Operations		Downstream				
Topic	Sub-topic	Sub-sub- topic	Impact	Actual	Potential	Neg	Pos	Neg	Pos	Neg	Pos	Short	Mediu m	Long
G1 - Business Conduct	Animal Welfare	-	CarrefourSA, as a company that has long supported organic and free-range chicken eggs as well as cage-free egg systems under its animal welfare policy, is taking a leading role in the industry with its commitment to 100% cage-free eggs by 2030. This approach can contribute to strengthening ethical and environmental standards within the supply chain.											
G1 - Business Conduct	Management of relationships with suppliers including payment practices	-	Lack of transparency in social compliance audits and corrective actions can weaken stakeholders' trust in CarrefourSA's responsible resource use. Additionally, failure to ensure suppliers' effective compliance with social and environmental standards increases the risk of environmental damage and ethical violations within the supply chain, negatively impacting the company's reputation and sustainability goals.											