



STRATHMORE BUSINESS SCHOOL

MASTER OF SCIENCE IN DEVELOPMENT FINANCE

END OF SEMESTER EXAMINATION

MDF 8203: SUSTAINABLE FINANCE FOR DEVELOPMENT

Date: Monday 16th December 2024

Time: 3 Hours

Instructions

- a) The examination consists of FOUR questions
- b) Answer question **ONE (COMPULSORY)** and any other **TWO** questions in the Answer Booklet provided

Question 1 (Compulsory) (30 marks)

PART A

Read the case on Tata Nano's Execution Failure and answer the following questions:

- a) Analyze the Tata Nano project from a Blue Ocean Strategy perspective and suggest how Tata Motors could have repositioned the Nano to attract both sustainable asset managers and non-traditional car buyers. **(8 marks)**
- b) Discuss the importance of balancing short-term economic returns with long-term stakeholder expectations. How can companies like Tata Motors integrate these goals without sacrificing sustainability? In your answer, analyze the trade-offs Tata Motors faced when relocating its plant from Singur to Sanand. **(7 marks)**

PART B

- a) Briefly distinguish between the true value approach and public value. **(4 marks)**
- b) In your opinion, which type of investor has the most influence on the sustainability performance of companies and why? Hedge funds, retail investors, high-frequency traders or pension funds? **(4 marks)**
- c) The planetary boundaries of land-system change and climate change are related. A relevant factor within one boundary can be linked to a factor within the other boundary. Provide an example of a positive link (i.e. factors that reinforce each other with a positive impact on the environment) and another example of a negative link (factors that reinforce each other with a negative impact). Your answer should make reference to Kate Raworth's TED Talk on Doughnut Economics. **(7 marks)**

Question 2 (15 marks)

- a) Circular business models such as those used by certain sustainable fashion brands such as LVMH are becoming increasingly mainstream and demonstrate a clear business case. However, financing circular companies is still not a popular option for several banking institutions. Why is this the case? **(3 marks)**
- b) Using THREE examples, distinguish between ESG, best-in-class and impact investing. **(6 marks)**
- c) In developing and emerging markets, climate finance flows are crucial for addressing the impacts of climate change. These countries often require external funding for both adaptation and mitigation projects. Using examples, discuss why adaptation projects are considered riskier than mitigation projects in these markets and provide recommendations on what types of financial instruments can mitigate these risks? **(4 marks)**
- d) Briefly explain the concept of ‘double materiality’ and how it shapes the ESG investment process. **(2 marks)**

Question 3 (15 marks)

- a) Read the extract below on GreenTech Solar and answer the questions that follow:

GreenTech Solar Inc., a renewable energy startup, was founded in 2010 with the mission of providing affordable solar energy solutions. At launch, the company gained significant investor interest, driven by expectations of high returns as global demand for green energy surged. GreenTech issued an IPO, and its stock price quickly appreciated, reflecting market optimism about the green energy sector. Analysts cited GreenTech’s strategic alignment with market efficiency as the main driver of its success. However, the company soon encountered operational setbacks—such as supply chain disruptions, delays in government subsidies, and fluctuating demand for solar panels—causing earnings to fall below expectations. GreenTech’s share price dropped sharply, despite the firm’s long-term potential to capitalize on renewable energy trends. Management realized that the company needed to adapt its strategy to evolving conditions, such as diversifying into energy storage systems and collaborating with electric vehicle manufacturers. GreenTech shifted from a purely solar-panel business to a hybrid business model that included energy storage and partnerships with other renewable energy providers. This shift was based on a belief that markets are not always efficient, and firms must evolve in response to changing customer preferences, regulatory frameworks, and technological advances.

- i. Evaluate the limitations of EMH in explaining GreenTech’s initial market challenges and stock price volatility. **(3 marks)**
 - ii. Provide recommendations on how companies in emerging industries can use principles of AMH to align stakeholder expectations with sustainable long-term value creation. **(5 marks)**
- b) Kenya has recently gained significant attention for its participation in voluntary carbon markets (VCMs). With the amendment of its Climate Change Act and the introduction of new Carbon Markets Regulations in 2024, Kenya is positioning itself as a leader in

carbon trading in Africa. In a major milestone, Kenya hosted the largest-ever auction of voluntary carbon credits in Nairobi, selling over 2.2 million tonnes of carbon credits for approximately KSh 1.9 billion (USD 13 million). This auction highlighted the growing interest from global companies, especially those from Saudi Arabia, in using carbon offsets to meet emissions reduction goals. Assume you are advising a Kenyan task force responsible for ensuring that the voluntary carbon market contributes meaningfully to both national climate goals and local socio-economic development.

Required: Provide a brief report to the taskforce covering the following:

- i. Mechanisms that Kenya should put in place to address concerns about greenwashing and ensure that carbon credits represent real emissions reductions. **(4 marks)**
- ii. Mechanisms the government should implement to ensure that local communities benefit fairly from carbon credit projects. **(3 marks)**

Question 4 (15 marks)

- a) Read the case study on AgroPure Ld below and address the following questions:

AgroPure Ltd. is a Kenyan agro-processing company founded in 2014. The company specializes in organic food products such as dried fruits, nuts, and spices for both local and export markets. AgroPure sources most of its raw materials from smallholder farmers and aims to promote sustainable agricultural practices across Kenya.

The company is now planning to expand its product line by introducing plant-based protein snacks to meet the growing demand for healthy and sustainable foods. AgroPure has approached a development finance institution (DFI) for a \$15 million loan to finance its expansion strategy. The DFI requires a thorough analysis of both AgroPure's financial health and sustainability performance to determine whether to approve the loan.

Key Financial and Sustainability Data (2023)

Metrics	2021	2022	2023
Revenue (USD)	8 million	10 million	12 million
Net Profit (USD)	0.6 million	0.9 million	1.1 million
Profit Margin	7.5%	9.0%	9.2%
Debt-to-Equity Ratio	2.0	1.8	1.4
Current Ratio	1.3	1.6	2.0
Farmer Partners Supported	800	1,000	1,300
Organic Certifications Earned	2	4	6
Water Usage (liters/ton processed)	900	850	780
Carbon Emission Reduction (tons)	6,000	7,500	9,000
Female Employment (%)	35%	38%	42%
Community Investment (USD)	200,000	300,000	400,000

Additional information:

AgroPure's transition to organic farming practices has increased operating expenses, creating financial pressure on the company. Additionally, its reliance on agriculture exposes it to seasonal revenue fluctuations, leading to cash flow challenges during off-peak seasons. As AgroPure exports a significant portion of its products, exchange rate volatility introduces further risk, affecting overall profitability. Moreover, the company incurs substantial compliance costs to meet international organic certification standards, which are essential for maintaining competitiveness in the export market but add to operational expenses.

Required:

Assume you are an investment analyst working with the DFI's sustainability and finance team. Evaluate AgroPure's proposal for the \$15 million loan and provide a recommendation on whether or not to invest in the company. **(10 marks)**

- b) In your opinion, is the skepticism around the claim that sustainable asset management leads to higher stock returns warranted? Why or why not? Use examples to support your answer. **(5 marks)**