Information regarding Tata Chemicals' key risks and their mitigation strategies are as follows:

Sustainability risk

1. Sustainability risk

Failure to address climate change related risks with aim to reduce carbon emissions, be a pioneer in circular economy and preserve nature and bio diversity

Linkage to Capital

Natural capital,
Social and relationship capital

Mitigation plans

- Focus on Green Chemistry
- Regular monitoring of sustainability risks against sustainability targets of all business units
- Key focus areas include climate change, circular economy and biodiversity
- Roadmap developed for SBTi (Science Based Target Initiatives) to meet the carbon emission targets
- Focussed implementation of the solutions identified to reduce carbon emissions and carbon capture across the manufacturing facilities
- Working closely with the supply chain partners to reduce carbon footprint of the entire value chain
- Dedicated investment to appropriately balance environmental targets and long term, sustainable business growth
- Board-level quarterly review of Sustainability Roadmap and Environmental Compliance Status
- Signatory to Responsible Care as well as CORE certified
- EPR (Extended Producer Responsibility) compliance on plastic waste as per EPR action plan
- Engaging with regulatory authorities, assisting the community on various COVID-related initiatives including funding support to government, manufacture and distribution of hand sanitisers and Sodium Hypochlorite, production and distribution of masks, earmarking isolation ward at Mithapur

Strategic risk

2. Digitalisation risk

Failure to embrace digitalisation as a key lever of Business Growth

Linkage to Capital

Intellectual capital

Mitigation plans

- IT strategy and IT roadmap are reviewed and updated on a regular basis as per evolving business needs and industry trends
- Enterprise Reference Architecture is used for decision-making in IT and digital solution design to drive synergies and bring in harmonisation
- Various digital initiatives are undertaken to improve operational productivity, enhance user experience, serve the customers in a better way, collaborate with suppliers and other business partners and meet the requirements of safety, health, environment and sustainability
- Implementation of key digital initiatives by way of digital value assessment (DVA). This helps to zero down on the right use cases which will give maximum benefits in terms of variability reduction, efficiency improvement, yield improvement, reduction in downtime and cost reduction. The choice of approach and technologies such as analytics, IIoT, RPA, etc. is also governed by DVA
- To enhance the understanding of Industry 4.0 amongst targeted employees, a collaboration has been undertaken with a group digital office and includes conducting focussed workshops on IIoT and Analytics. Use cases identified during the workshops will be implemented in the identified areas. Further, a Gartner advisory is subscribed to enhance the understanding of technologies amongst the IT/Digital teams
- Initiatives are reviewed weekly, monthly and quarterly as part of the governance process. Progress on digital initiatives is monitored and reported to management regularly
- The adoption of key projects is tracked on a periodic basis to monitor the benefits
- Assessments are done for data maturity and digital maturity levels of the company and actions are taken to improve the levels

Operational risks

3. Cyber risk

Loss of data and compromised operations resulting from Cyber attacks

Linkage to Capital

Manufactured capital

Mitigation plans

- Managed Security Services (MSS) have been taken from a third party to ensure 24x7 monitoring of security logs and management of security incidents

- Regular Vulnerability Assessment & Penetration Testing (VAPT) is conducted on devices to enhance the overall security posture

- The Endpoint Detection and Response (EDR) system is implemented at Rallis, Tata Chemicals Magadi Limited (TCML) & TCL India to monitor the cyber threats and timely corrective actions are taken to safeguard the IT systems

- Privileged Access Management (PAM) is implemented for all users and vendors who have remote access to servers for routine activity or application management. Two factor authentication is implemented for PAM

- Firewall management and monitoring is part of MSS. Automated firewalls ruleset review is done through Algosec platform and necessary actions are taken as required

- Enabled Multi-Factor Authentication (MFA) on remote access VPN to secure the access of the applications which are not exposed on the internet

- Prisma cloud firewall is implemented for centralised network policy management for internet links across locations

- Conducted phishing exercises for selected users of TCL, TCML, Tata Chemicals North America Inc. (TCNA) & Rallis

- Conducted cyber security awareness sessions for employees

- Subscribed to cyber insurance policy at corporate level

- Periodic review of cyber security risks by the Risk Management Committee of the Board

- IT policies have been updated based on ISO & Information Technology Infrastructure Library (ITIL) standards

4. High energy costs risk

High prices of energy sources like Oil, Natural Gas, Coal impacting variable costs

Linkage to Capital

Natural capital, Manufactured capital

Opportunities arising from risks

Diversify the Supply Sources for each critical Raw-Materials

Mitigation plans

- Diversify the energy sourcing (Kazakhstan/Australia) in addition to current sources viz. Indonesia & South Africa to improve sourcing flexibility

- Explore/maximise the use of alternate energy sources e.g. anthracite coal fines, coke breeze, biomass briquettes, etc. in power and cement plants to reduce dependency on fossil fuels

- Cover optimal stock volumes and closed contracts to ensure stability and flexibility

- Continue with commodity hedging / advance fixing of prices

Operational risks

5. Supply chain constraints risk

Higher freight costs and longer delivery cycles

Linkage to Capital

Manufactured capital

Opportunities arising from risks

Long Term Contract of Affreightment.

Mitigation plans

- Shift the import material flow at Mithapur to bigger vessels i.e. Panamax / Cape vessels for thermal coal in order to optimise freight cost and to reduce the number of vessels required

- Enter into Annual COA (Contract of Affreightment) for predictable and steady requirements viz. Limestone from UAE

- Maintain adequate inventory levels to avoid supply chain disruptions

6. Talent risk

Upskilling/reskilling of employees to contain attrition of talent

Linkage to Capital

Human capital

Opportunities arising from risks

This gives an opportunity to develop the future-ready skills/competencies in the organisation.

Mitigation plans

- Create and execute the career development plan (CDP) backed with individual development plans for a select set of population in the organisation

- Enrich the job through job rotations, exposure and participation in CFTs

- Provide avenues for growth through internal job postings

- Create a talent pipeline by identifying emerging talent for potential leadership roles in future backed with an individual developmental plan

Financial risks

7. Debt & Unfunded Pension risk

Managing debt & unfunded pension liabilities of overseas subsidiaries

Linkage to Capital

Financial Capital

Mitigation plans

Managing Debt

- Regular review of the Company's debt profile

- Re-alignment of the quantum, repayment, prepayment and need for refinance, in line with overall long term business plans / strategy of the Company

- Maximise free cash flows to repay debt

Unfunded Pension Liabilities

- The defined benefit pension schemes are closed to new hires in the US and pension schemes are closed for further accruals in the UK beyond defined period

Regulatory and Policy risks

8. Regulatory & Policy risk

Policy changes which could impact the Company's operations at large

Linkage to Capital

Social and Relationship capital, Manufactured capital, Intellectual capital and Natural capital

Mitigation plans

- Monitoring of compliances through an e-enabled compliance management framework which is used in periodic reporting and reviews at leadership forums. Senior leaders' active participation in various committees and sub committees formed by various bodies to ensure adequate early knowledge and policy advocacy

- Ongoing dialogue, liaison meetings and conversations with regulatory authorities and attendance at seminars, memberships with Government and Industry Bodies, specifically those that take industry voice (thereby Company's voice) to the Ministries who finally issue regulations/notifications

- Providing inputs in policy formulation and devising the policies beneficial for the industry and the country at large, understanding upcoming policy changes with an endeavour to mitigate emerging risks

- Keeping a track of the draft notifications, proposals both from the government and/or industry recommendations as well as risks that may arise by way of a structured process

Reputational risks

9. Safety risk

Failure to ensure containment of safety hazards (Behaviour, Workplace, Process and Product) including containment of infectious diseases/impact of COVID-19

Linkage to Capital

Human capital

Mitigation plans

- Safety risk mitigation plans are regularly reviewed by the Risk Management Committee of the Board

- Achieve Zero Harm by following world-class standards of SHE Management systems, responsible care initiatives, good maintenance practices, enhancement strategies for the environment and prevention of pollution

- On-site and Off-site emergency plans are in place in case of failure to localise containment of hazards

- Table top Drill exercise for Emergency Preparedness

- Member of Nicer globe initiative for addressing transportation-related hazards

- Various Safety improvement initiatives covering Behavioural Safety, Structural Safety, Long term Asset Management Plan (LAMP), Mine Safety and Process Safety & Risk Management (PSRM), management of hazardous chemicals, workplace environment improvement, preventive maintenance and aspects are continuously evaluated for effectiveness

- Hazards identified using techniques such as Job Safety Analysis (JSA), Hazard and Operability Study (HAZOP), Hazard Identification and Risk Analysis (HIRA), What-if-Analysis, Failure Mode Effect Analysis, etc. and addressed by following hierarchy of risk control. E-enabled portal 'MDO' is implemented across the operations to capture near-misses and unsafe conditions

- Migrated to ISO tankers with the GPS system for transporting bromine and chlorine; for product safety and transportation of hazardous chemicals

- Provision of safety kits and awareness sessions for farmers through the "You are Safe" initiative focussed on the safe use of the products

- In relation to COVID-19 situation, various actions including following are undertaken to ensure safe operations:

  - Vaccination camps at site and ensuring 100% coverage of workforce for the same

  - Relevant SOPs with do's and don'ts ensuring safety of employees and continuity of operations in place, dedicated 24/7 helpline number to address medical-related queries