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INDUSTRY STATUS REPORT

BASED ON THE ONLY COMPREHENSIVE QUARTERLY INDUSTRIAL SURVEY OF NEPAL

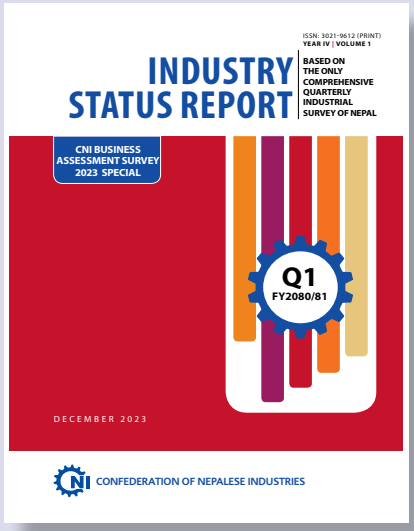
NEPAL INFRASTRUCTURE SUMMIT 2024

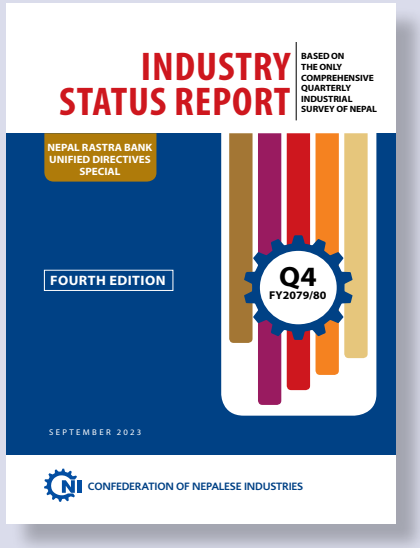
SEPTEMBER 2024

CONFEDERATION OF NEPALESE INDUSTRIES

स्वदेशी
हाम्रो सामान, हाम्रै स्वाभिमान

INDUSTRY STATUS REPORT (PREVIOUS EDITIONS)





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ACKNOWLEDGMENTS

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The team would like to extend sincere gratitude towards CNI Director General Dr. Ghanashyam Ojha for his valuable insights. Also, many thanks to Moti Marasini for designing the ISRs impeccably.

About Industry Status Report

The Industry Status Report (ISR) provides a comprehensive analysis on the state of various industries in Nepal, leveraging an in-house survey. In Nepal, what explains misdirected policy interventions aimed at private sector growth? The absence of periodically available primary data on Nepali industries is one of the key reasons. Against this backdrop, ISR is produced as an effort to promote evidence-based policy-making. Each quarter, CNI Research Cell conducts an industrial survey and publishes this report to tease out changes across critical variables that either promote or stifle growth in industries.

What does the survey cover?

1. **Business Performance:** industry capacity utilization, revenue trends, demand in domestic market and market competition, trade
2. **Finance:** interest rates, the share of the loan, access to finance
3. **Skills and Employment:** employment, share of employees that received training
4. **Industrial Ecosystem:** regulation and industry administration, transportation and infrastructure
5. **Business Outlook:** confidence in the industrial sector, new investment plans.
6. **Nepal Infrastructure Summit 2024**

Industry Status Report (FY 2080/81, Q4 Edition)

The Industry Status Report (FY 2080/81, Q4 Edition) has the benefit of comparing survey data from four consecutive quarters. The current report covers the fourth quarter of the fiscal year 2080/81. (i.e Baisakh to Asar 2081). The data was gathered from the survey conducted from 25 July to 01 October 2024.

Apart from presenting the findings of the survey, each ISR covers one theme in depth. The First Edition of FY 2079/80 focused on the CNI Business Assessment Survey. The Second Edition of FY 2079/80 covered the Comparison Study of Rigid Pavement and Flexible Pavement. The Third Edition covered CNI's suggestions on Federal Budget 2080/81. The Fourth Edition covered Nepal Rastra Bank's Unified Directives. The First Edition of Fiscal Year 2080/81 discussed the CNI Business Assessment Survey 2023, a follow-up to the previous year's survey to analyze YoY status. The Second Edition of Fiscal Year 2080/81 covers Suggestions for Policy and Programmes of Fiscal Year 2081/82 presented by CNI to the Government of Nepal. Third Edition of Fiscal Year 2080/81 covers Private Sector in Industrial District (ID).This Fourth Edition of Fiscal Year 2080/81 covers 'Nepal Infrastructure Summit 2024'.

KEY STATISTICS (FY 2080/81, Q4 EDITION)

Number of surveyed industries:

62 ↑ (*Q3* 61)

Total employees covered:

15205 ↑ (*Q3* 14430)

Average employment per company:

245.25 ↑ (Q3 236.56)

Average operational capacity utilization:

60.82% ↑ (*Q3* 58.47%)

Share of loan on working capital:

41.34% ↓ (Q3 42.74%)

Average interest rate on loans:

10.52% ↓ (*Q3* 11.50%)

Average revenue growth rate:

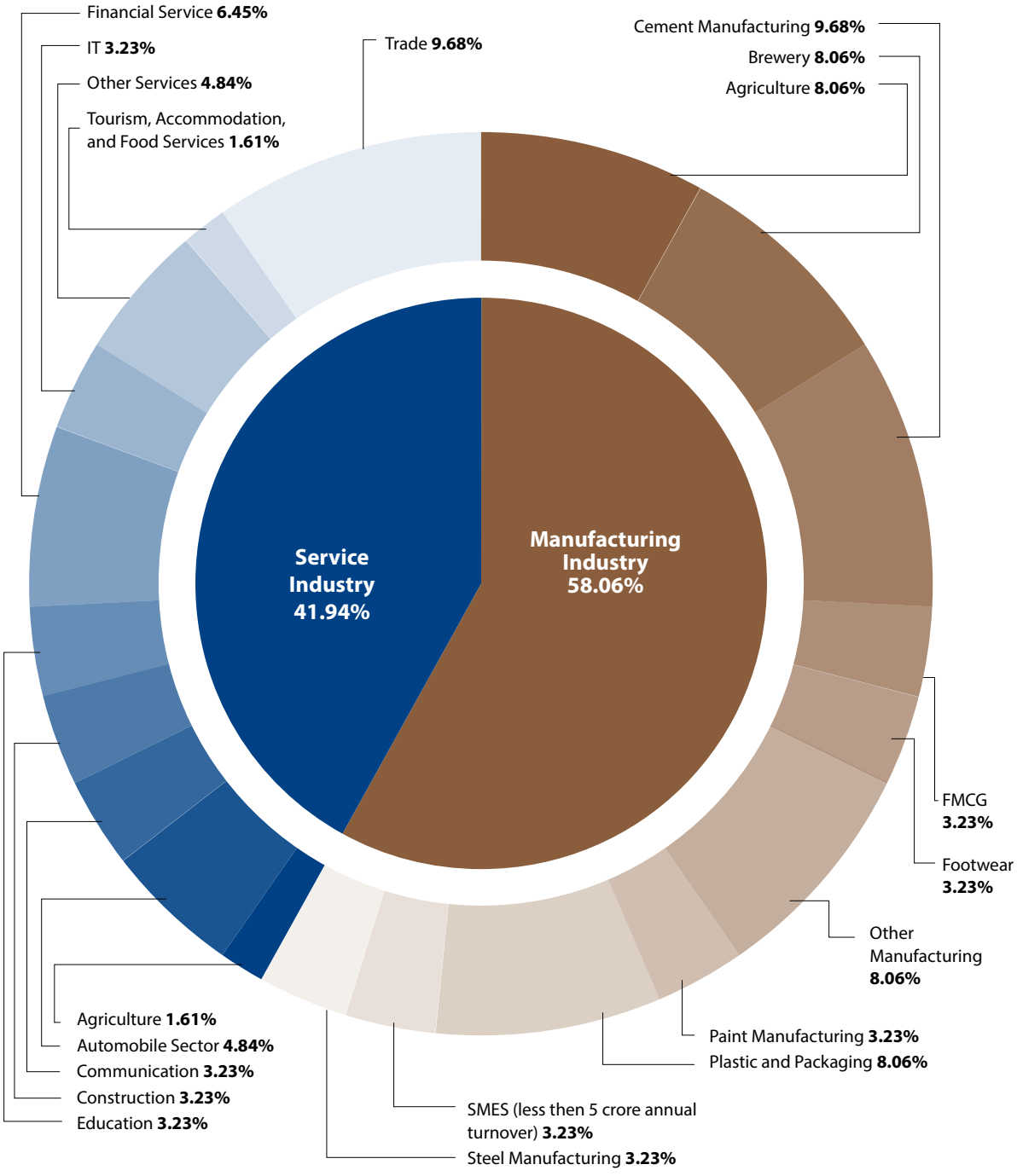
4.96% ↑ (*Q3* -3.87%)

Average share of imported raw materials by the manufacturing industry:

39.68% ↓ (*Q3* 58.47%)

Note: Q3 in the parenthesis denotes the third quarter of the FY 2080/81

COMPOSITION OF THE INDUSTRIES SURVEYED



METHODOLOGY

The Industrial Status Report (FY 2080/81, Q4 Edition) is based on a quarterly survey of 62 industries.

The respondents are categorised under the Nepal Standard Industrial Classification (NSIC) Code for the purpose of the survey and further aggregated into two distinct industrial sectors: the manufacturing industry, and the service industry. Since most of the agro-based industries in the survey sample were involved in the agro-processing business, they have been subsumed under the manufacturing category.

The sample was drawn from CNI member's network located across Nepal.

Questions are tailored to specific industries. Respondents were asked questions, depending on their respective industries, using a survey platform called KoBoToolbox. The survey questions are available online.

The basic assumption in this report rests on the fact that the respondents have provided correct information.

THE UNIT OF ANALYSIS

The unit of analysis is one industrial establishment.

BUSINESS PERFORMANCE

Periodic performance measurement is a vital part of monitoring the growth and progress of any business. This section summarises the performance of industries within key variables in Q4 2080/81 and compares it with the survey responses from previous quarters.

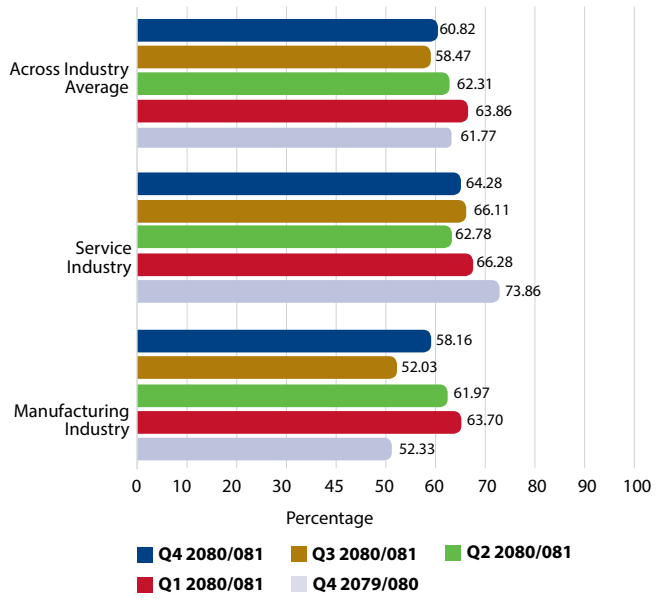
INDUSTRY CAPACITY UTILISATION: 60.82%

KEY INDUSTRY INSIGHT I

On average, the industries were operating at **60.82%** in Q4 80/81 whereas they were operating at 58.47% in Q3 80/81. During Q4 80/81, the service industry was operating at **64.28%,** which has decreased from 66.11% in Q3 80/81.

The capacity utilisation of the manufacturing industry in Q4 80/81 remained at **58.16%** while it was 52.03% in Q3 80/81.

INDUSTRY CAPACITY UTILIZATION

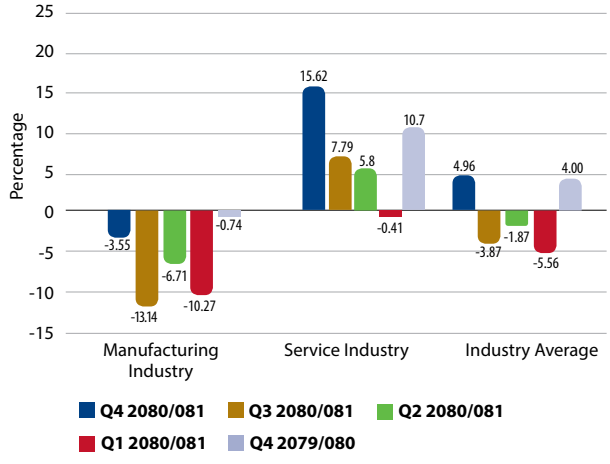


REVENUE TRENDS: REVENUE GROWTH: 4.96%

KEY INDUSTRY INSIGHT II

In Q4 80/81, the across-industry-average revenue growth rate was **4.96%,** whereas it was -3.87% in Q3 80/81. The revenue growth in the manufacturing sector in Q4 80/81 experienced a decline of **3.55%.** It was -13.14% in Q3 80/81.

REVENUE GROWTH RATE



GROWTH IN MARKET DEMAND 5.77% AND *MARKET COMPETITION 60% (*Perception-based question)

KEY INDICATOR III & IV

The survey result shows that the average growth of demand for goods and services was **5.77%.** The highest recorded growth rate was an impressive **60%,** while the largest decline observed was a significant **81%.** The demand of manufacturing industries has decreased by **3.09%.**

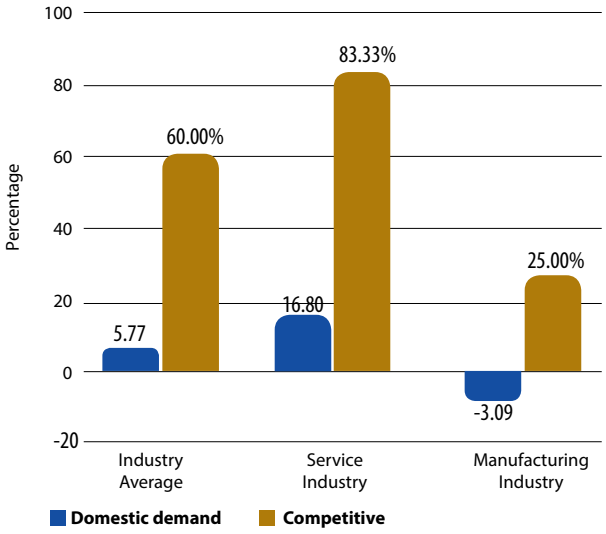
Furthermore, on average **60%** of the surveyed industries perceived their goods to be competitive in the market in relation to imported goods, which gives optimism to the domestic industries. The confidence among the domestic businesses regarding their competitiveness and sufficient market demand for domestic products is a critical factor for expanding a broader industrial base in Nepal.

SHARE OF RAW MATERIALS IMPORTED: 39.68%

KEY INDUSTRY INSIGHT V

The survey results show that manufacturing industries significantly rely on raw materials sourced from global markets. Out of the total raw material required, on average **39.68%** of raw materials was imported from the global market in Q4 80/81. There has been an increase in imports of raw materials as compared to Q3 80/81 which was 35.58%.

DOMESTIC MARKET DEMAND AND COMPETITIVENESS

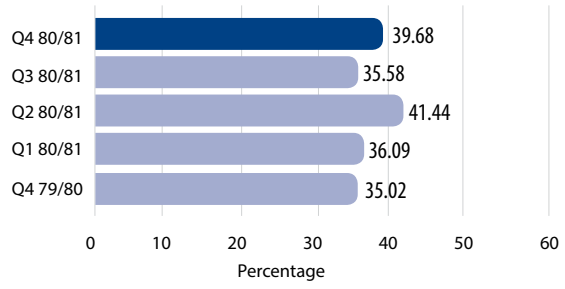


EXPORT: 23.53%

KEY INDUSTRY INSIGHT VI

In Q4 80/81, **23.53%** of the respondent manufacturing industries successfully exported their goods. Compared to the previous quarter, which recorded an export rate of 17%, the export in this quarter has increased. The average proportion of exports out of their production has increased from 30.44% in Q3 80/81 to **31.73%** in Q4 80/81. These findings suggest that firms are engaging in exporting their products, the overall share of exports is experiencing a rise.

RAW MATERIALS IMPORTED



FINANCE

This section provides insights into the ability of industries to access credit and prevailing interest rates.

SHARE OF LOAN ON WORKING CAPITAL: 41.34%

KEY INDUSTRY INSIGHT VII

The result of the survey shows that in Q4 80/81, **41.34%** of working capital was met through credit from banks and financial institutions whereas it was **42.74%** in Q3 80/81.

The average rate of interest in working capital loan stands at **10.32%** in Q4 80/81 which is a decrease from 11.28% in Q3 80/81.

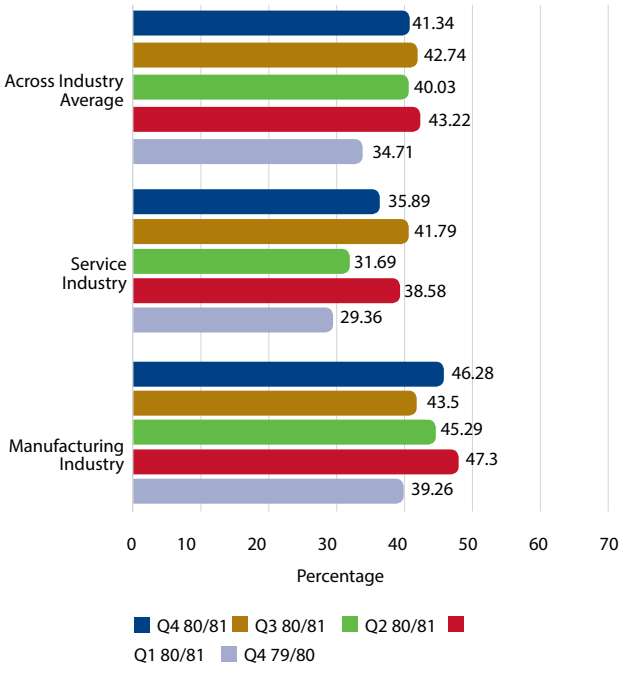
AVERAGE INTEREST RATE: 10.52%

KEY INDUSTRY INSIGHT VIII

In Q4 80/81, the average interest rate on loans was **10.52%** whereas it was 11.5% in Q3 80/81.

In Q4 2080/81, average interest rates on loans for manufacturing industries was 10.59% while for service industries it was **10.52%.**

SHARE OF LOAN ON WORKING CAPITAL



AVERAGE INTEREST RATE

	Q4 79/80	Q1 80/81	Q2 80/81	Q3 80/81	Q4 80/81	WCL Interest
Across Industry Average	12.51	11.49	11.63	11.5	10.52	10.32
Service	12.69	11	11.41	11.24	10.52	9.98
Manufacturing	12.41	11.91	11.77	11.71	10.59	10.57

SKILLS AND EMPLOYMENT

This section highlights the trends in employment and skills of the employees in the industries.

TOTAL EMPLOYMENT: 15205

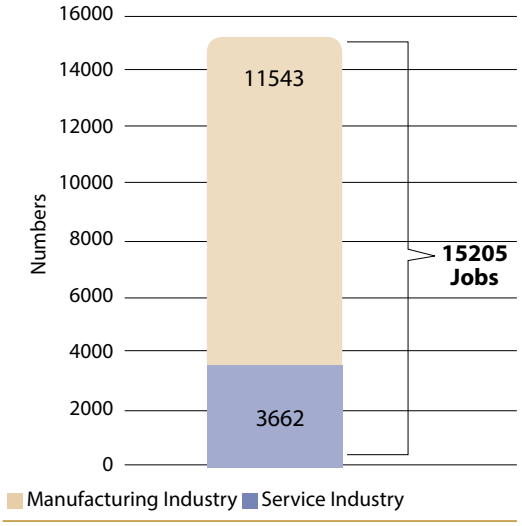
KEY INDUSTRY INSIGHT IX

The surveyed industries employed **15205** staff in total. On average, an industry establishment employed **245.24** individuals, with the range being 2-4500. This indicates, on average, CNI member networks comprise large business enterprises.

With **11543** employees, the manufacturing industry is the largest employing sector, followed by the service sector with **3662** employees.

Average employment among sectors: The manufacturing industries was at the top with **320.64** jobs while the service sector was right behind with **146.32** jobs.

EMPLOYMENT IN SURVEYED INDUSTRIES



New Hiring: 409

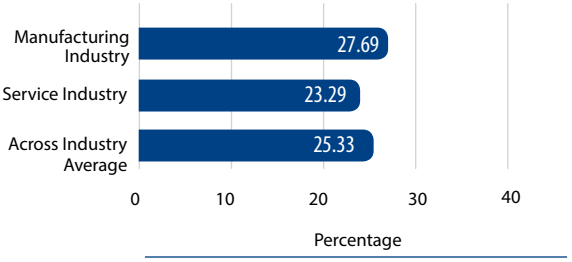
The surveyed industries collectively hired a total of **409** new staff members, while the number of applicants were 2853. This indicates that, on average, more than 6.98 individuals applied for one announced position.

SKILL GAP AND TRAINING: 25.33% RECEIVED TRAINING

KEY INDUSTRY INSIGHT X

The survey result shows that across sectors **25.33%** of the total employees received training during Q4 of FY 80/81. The service industry sector trained around **23.29%** of the total workforce, while the manufacturing industry sector provided training to **27.69%** of its employees.

SHARE OF EMPLOYEE THAT RECEIVED TRAINING



INDUSTRIAL ECOSYSTEM

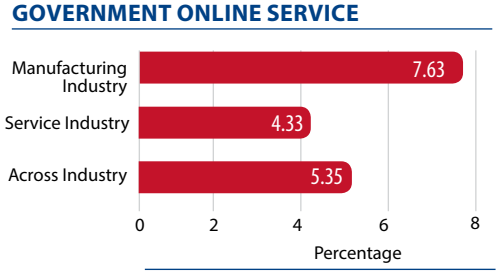
This section focuses on the various aspects of the regulatory environment, transportation and infrastructure that have a direct bearing on the competitiveness of industries.

EXPERIENCE WITH GOVERNMENT ONLINE SERVICE

KEY INDUSTRY INSIGHT XI

Although the government has been prioritising digitization of the economy, the survey results reveal that respondents on average were not delighted with the quality of online services provided by various public entities. When asked to rank the quality of services on a scale of 1 to 10 (with 1 being the lowest and 10 being the highest) 11 respondents ranked the service. The average score of respondents was **5.35.** Manufacturing-industry responded with a score of **7.63,** while the service industry with an average score of **4.33.**

Government online service	Q4 80/81
Manufacturing Industry	7.63
Service Industry	4.33
Across Industry Average	5.35



CONSTRAINT TO CURRENT OPERATIONS OF BUSINESS

KEY INDUSTRY INSIGHT XII

The surveyed respondents identified that the top three constraints for the business operations in the Q4 of FY 80/81 were, political instability, prevailing tax rates and corruption.

For the manufacturing and service sector the top issue was **political instability.**

Major Constraints

- **Political instability,**
- **Prevailing tax rates,**
- **Corruption**

UTILITIES

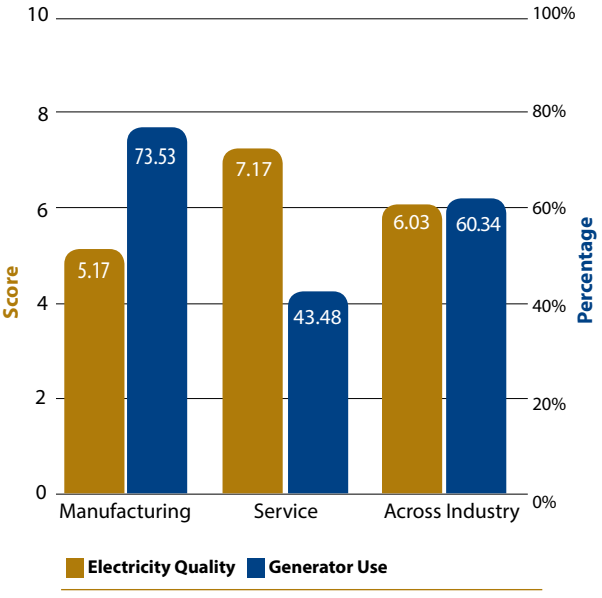
ELECTRICITY: 6.03 OUT OF 10 FOR QUALITY OF ELECTRICITY SUPPLIED

KEY INDUSTRY INSIGHT XIII

The survey result showed **60.34%** of the industries still use generators as the quality of electricity is not reliable. The respondents also mentioned, since the electricity supply provided by NEA is from a common feeder for an area, this reduces the reliability so a separate feeder is essential for commercial purposes. Those manufacturing industries using generators as alternative sources of energy stated there is an additional **9.19%** of cost increase due to the use of generators.

In response to the question that was asked to the respondents to rate the quality of electricity provided in the scale of 1 to 10, with one being the worst and 10 being the best, the average response was **6.03.**

ELECTRICITY QUALITY AND USE OF GENERATOR



MAJOR CHALLENGES

Out of the **62** respondents, **42** responded to the question, and they had the option to select up to 3 choices from a total of 11 options regarding major challenges of business. Among the responses, excess competition affecting price margins, unauthorized goods in the market, low disposable income among Nepali consumers and access to finance were the most common responses that respondents wanted to solve.

Major Challenges
Excess Competition Affecting Price Margins
Unauthorized Goods in the Market
Low Disposable Income Among Nepali Consumers
Access to Finance

TRANSPORTATION AND LOGISTIC HURDLES

The respondents identified major challenges of transportation and logistics as quality of roads, administrative hassles on road and arbitrary prices.

Transportation and Logistic Hurdles
Quality of Roads
Administrative Hassels on Road
Arbitrary Prices

BUSINESS OUTLOOK

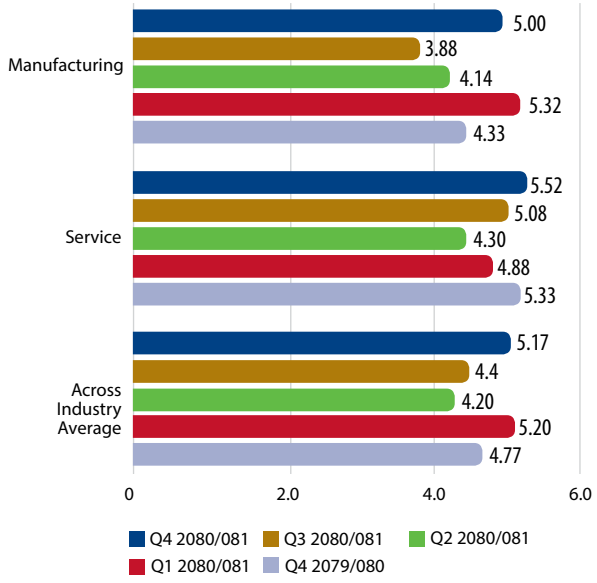
This section presents the confidence level of surveyed industries for their own business and aggregates responses regarding investment plans for the next quarter.

BUSINESS CONFIDENCE: MODERATE

KEY INDUSTRY INSIGHT XIV

On the whole, industrialists are not optimistic that their business is going to perform well for the next 3 months. When asked to rank the favorability (confidence measures) for their business on a scale of 1 to 10 (with 1 being the least favourable and 10 being the most favourable) in terms of revenue and investment opportunities, regulatory environment, access to finance, labour and better utility facilities, the across-industry-average score is **5.17.** The manufacturing industry is comparatively less confident as per the survey respondents. This can be a result of the unfavourable macroeconomic situation. Key Indicator XIV does not paint a conducive environment for businesses currently.

HOW FAVORABLE IS REST OF THE FISCAL YEAR FOR YOUR OWN BUSINESS?

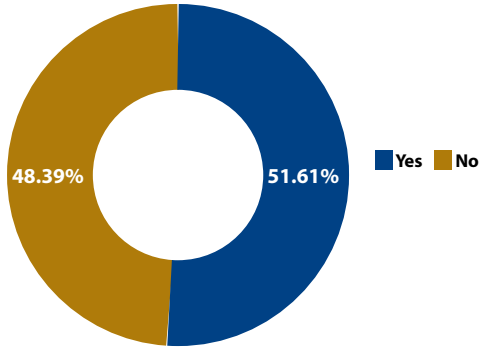


51.61% HAVE NEW INVESTMENT PLANS

KEY INDUSTRY INSIGHT XV

The survey result shows that **51.61%** of respondents have new investment plans for the upcoming quarter. Among respondents from the manufacturing sector, **44.44%** have a new investment plan. Similarly, among respondents from the service sector **60%** have planned for new investment. However, **48.39%** of respondents said they do not have any plans for new investment in the upcoming quarter.

NEW INVESTMENT PLANS



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NEPAL INFRASTRUCTURE SUMMIT 2024

Driving Sustainable Development through Strategic Investment

Built & Trust with SHIVAM CEMENT

12 - 13 September 2024

The Soaltee Kathmandu

NEPAL INFRASTRUCTURE SUMMIT 2024

Nepal stands at a pivotal juncture in its journey towards economic prosperity, sustainability, and environmental responsibility. As the nation endeavors to realize its developmental aspirations, the role of infrastructure investment emerges as a linchpin for progress. CNI, in collaboration with the Government of Nepal and Youth Community for Nepalese Contractors (YCNC), has been biennially hosting the event in the country 'Nepal Infrastructure Summit (NIS)' since 2014. CNI has successfully organized five editions of this summit thus far in 2014, 2017, 2019, 2022 and 2024. These summits have served as a platform for dialogue and collaboration among government bodies, private sectors, and international stakeholders, focusing on the nation's infrastructure development.

Infrastructure investment attracts private capital- both foreign and domestic, reduces economic disparities such as the rural-urban divide, and serves as a catalyst for structural changes in the economy. In Nepal's case, an absence of adequate and quality infrastructure has been a significant barrier to sustainable economic growth and development.

A World Bank study (2019) recommends that countries invest 10-15% of GDP in infrastructure annually, yet Nepal invests just 4%, lagging behind South Asian and low-income nations. As per combined

study of CNI and IIDS study report of 2019 Nepal needs USD 16.54-20.54 billion annually in key sectors like transport, energy, urban development and water and sanitation to meet SDG target. There is an immense infrastructure investment gap which is clearly highlighted by Nepal's infrastructure investment trend.

HIGHLIGHTS OF NEPAL INFRASTRUCTURE SUMMIT 2024

Nepal Infrastructure Summit (NIS) 2024 was held on 12-13 September, 2024 with a theme of "Driving Sustainable Development through Strategic Investment" at The Soaltee Kathmandu.

The event was graced by Rt. Hon'ble KP Sharma Oli, in the inaugural ceremony after exemplary plenary sessions on various themes.

There were 4 plenary sessions and 8 parallel sessions besides the inaugural and closing session.

The plenary sessions of day one were

1. Sustainable Development,
2. Regional Infrastructure and Integration,
3. Private Sector Engagement and
4. Fiscal and Monetary, and Regulatory Policies.

Similarly the parallel sessions of day two were

1. Energy and Water Resources,
2. Urban Development and Affordable Housing,
3. Transport Infrastructure,
4. Construction Industry Perspective,
5. Creating Opportunities for Women in Infrastructure Space,
6. Waste Management,
7. Role of Provincial and Local Government, and
8. Digital, ICT & Technology.

The event attracted over 1,300 participants, including prominent global investors and stakeholders. Attendees had the chance to engage in Business-to-Business (B2B) meetings, participate in sideline discussions, and explore project showcases that highlighted Nepal's latest infrastructure initiatives. The event also featured 20 stalls dedicated to construction, automobile, transport, and provincial projects, showcasing the latest innovations and advancements in these sectors.

KEY TAKEAWAYS AND ACTION POINTS

The summit emphasized the critical role of infrastructure in driving economic growth and fostering long-term sustainability. Given Nepal's strategic location between two large economies and its significant untapped potential in energy, tourism, and natural resources, there are numerous opportunities for development. However, the country faces substantial challenges, such as inadequate transmission infrastructure, regulatory barriers, and difficulties in balancing economic relations with neighboring countries. One of the core messages from the summit was the need for innovative financing tools beyond traditional government funding, with a focus on public-private partnerships

(PPPs), infrastructure equity fund, special project vehicle, blended finance models, and attracting institutional investors.

A key theme of the discussions was the importance of building green, climate-friendly and resilient infrastructure to support sustainable development. Nepal is particularly vulnerable to climate change risks including as glacial melt, which poses long-term threats to its economy. The summit urged investments in smart grids, renewable energy, clean transport, water security and nature-based solutions to ensure that future infrastructure is both sustainable and climate-resilient. Global experiences in areas like hydropower, mass transit, tourism, and urban planning offered valuable lessons for Nepal to follow. The integration of digital technologies in infrastructure development and management and leapfrogging was highlighted as critical for overcoming the country's infrastructure deficits.

Regional connectivity emerged as another major topic, with a focus on improving energy, transport and digital networks. Nepal faces a significant infrastructure investment gap that hampers its ability to connect with regional markets. Enhancing cross-border transportation, modernizing aviation infrastructure, and expanding electricity transmission with India and Bangladesh were identified as key priorities. These initiatives would not only boost trade but also promote energy cooperation and tourism, helping Nepal integrate more deeply into the regional economy. Importance of both "hard infrastructure "and "soft infrastructure "was emphasized.

The role of the private sector was widely discussed, with the acknowledgment that private investment in Nepal's infrastructure remains insufficient. Currently, only 1-2% of Nepal's GDP is invested in infrastructure, far below the USD 77 billion needed by 2030. Bureaucratic inefficiencies, political instability, unfriendly policies, and corruption are major impediments to progress. For Nepal to increase private sector engagement, it must streamline approval processes, a functioning "one stop "center, improving risk allocation and risk sharing arrangement, and adopting best practices from international PPP models. Strengthening the country's policy and institutional frameworks is critical to creating an investment-friendly environment.

Nepal also faces significant fiscal and regulatory challenges. With declining revenues and rising expenditures, the government is heavily reliant on borrowing to fund its infrastructure projects. Additionally, land acquisition difficulties, inefficient government coordination, and stringent financial regulations further complicate the process. Participants in the summit proposed adopting digital tools, such as India's Gatishakti initiative, to improve project tracking and enhance coordination. There were also calls for reviewing monetary and fiscal policies to better engage the private sector and explore innovative financing models o address infrastructure funding gaps.

Key sectors like energy, water resources, urban development, and transportation were deeply analyzed during the summit.

Despite Nepal's immense hydropower potential, the country struggles with inadequate transmission infrastructure and limited access to regional energy markets. In the water sector, underutilization of resources and poor coordination hamper progress, with only a fraction of the population having access to fresh water and threatening water security Urban development challenges, such as rapid population growth and unplanned urbanization, were also discussed, with suggestions to strengthen PPPs and offer incentives to the private sector to address housing deficits and infrastructure needs. A special focus is needed to ensure that the cities are livable, green, clean, climate friendly and resilient to ensure continued economic growth and employment.

Lessons from other countries were also a focal point of the summit. Countries like Japan, China, India and selected South -east countries offered valuable insights into infrastructure development, particularly in areas such as railway technology transfer, urban transportation, digital infrastructure, and innovative financing. These experiences underscored the need for Nepal to invest in domestic capacity building, technology transfer, and efficient project management to address challenges like cost overruns and delays.

Looking ahead, the summit outlined several key action points. To accelerate infrastructure development, Nepal must prioritize the establishment of integrated transport policies, enhance quality, improve road maintenance, and foster greater private sector involvement in public transportation projects. Expanding digital connectivity and strengthening cybersecurity will also be vital for future economic growth. In terms of governance, there were calls for better coordination between federal, provincial, and local governments, with an emphasis on fiscal independence for provincial and local governments. This decentralization would allow for more effective and timely infrastructure development.

The summit also highlighted the importance of addressing gender disparities in the infrastructure sector. Women remain underrepresented in decision-making roles and technical positions. Encouraging women's participation through gender-inclusive policies, technical training, and greater involvement in leadership roles was seen as essential for creating a more equitable and effective infrastructure sector.

In conclusion, the Nepal Infrastructure Summit 2024 provided a comprehensive roadmap for addressing the country's infrastructure challenges and unlocking its potential for sustainable growth. The summit underscored the need for strategic investments, innovative financing, and stronger private sector engagement, while also emphasizing the importance of sustainability and resilience. The responsible institutions for implementing these recommendations include the Government of Nepal, the private sector, international development partners, and provincial and local governments. With coordinated efforts, Nepal can overcome its infrastructure bottlenecks and embark on a path toward long-term, sustainable development.

ACTION POINTS

POLICY AND REGULATORY FRAMEWORK

Problems and Challenges	Way Forward
■ **Outdated Legislation and Fragmented Governance:** Nepal's infrastructure development is hindered by outdated laws such as Electricity Act 1992, Solid Waste Management Act (2011), which doesn't align with the federal system. This creates confusion at local and provincial levels, making it difficult to implement modern solutions for waste management and other sectors.	■ **Update and Harmonize Policy Frameworks:** Nepal needs to modernize key regulations like the Industrial Enterprise Act, Electricity Act and Solid Waste Management Act and improve its trade and logistics policies. Aligning these frameworks with current federal structures and international standards will foster better governance and improve the implementation of infrastructure projects, especially in waste management and trade. Also introduce the concept of circular economy .
■ **Trade Regulations and Logistics Bottlenecks:** Inconsistent trade regulations, especially regarding cross-border trade with India and Bangladesh, combined with outdated warehousing infrastructure, slow down trade facilitation. This hampers regional integration and reduces Nepal's competitiveness in South Asian trade.	■ **Strengthen PPP Frameworks for Better Risk Allocation:** Though there have been recent amendments in Public Private Partnership and Investment Act, to boost private sector engagement Nepal should further reform its PPP framework, incorporating clearer risk-sharing mechanisms, streamlined approval processes, and better enforcement of contracts. This is essential for attracting investment in sectors like road transport, urban infrastructure, and aviation.
■ **Bureaucratic Delays and Inefficiencies:** Major infrastructure projects like the Narayanghat-Butwal road, Muglin-Pokhara highway, Terai Madhesh fast track and the Melamchi water project suffer from bureaucratic hurdles, inefficient approval processes, and political instability. These factors lead to time and cost overruns, significantly delaying project completion.	■ **Empower Local Governments and Improve Coordination:** Decentralizing fiscal responsibilities and improving institutional coordination between federal, provincial, and local governments will be crucial. A clear framework for fiscal transfers and capacity building at local levels can enhance project execution, especially in infrastructure-heavy sectors like roads, bridges, and waste management.
■ **Fiscal Constraints and Weak Coordination at Provincial and Local Levels:** Despite implementation of federal system, provincial and local governments still lack fiscal autonomy, with over 80% of finances centralized at the federal level. This creates a dependency on the central government, limiting the capacity of local governments to undertake significant infrastructure projects.	■ **Streamline Procurement Processes and Sector-Specific Investment Plans:** Introducing reforms in the procurement process and creating detailed, sector-specific investment plans can reduce project delays and inefficiencies. Clear timelines, transparency in bidding, and proper monitoring will help accelerate the completion of key infrastructure projects.

PRIVATE SECTOR ENGAGEMENT

Problems and Challenges	Way Forward
■ **Limited Private Sector Participation in Non-Energy Sectors:** While the energy sector has seen success with PPP models, private sector involvement in other areas like road transport, urban development, and aviation is still lacking. Poor risk allocation, weak returns on investment (ROI), and slow approval processes deter private investment. ■ **Underutilization of Private Sector Expertise:** While successful PPPs in the energy sector, such as Khimti and Bhotekoshi, demonstrate the potential for private sector involvement, this expertise remains underutilized in other areas. Sectors like road transport, urban development, and waste management could benefit from private sector innovation and efficiency but currently lack engagement. ■ **Limited Private Sector Participation in Riskier Sectors:** The private sector's involvement is limited in high-risk infrastructure projects, including those affected by environmental risks or requiring significant upfront investment, such as climate-resilient infrastructure and multi-modal transport systems. This underrepresentation in riskier areas restricts the overall capacity and scope of infrastructure development. ■ **Lack of Clear Incentives and Support Mechanisms:** The absence of well-defined incentives, such as tax breaks, subsidies, or financial guarantees, makes private sector participation less attractive. Without these supports, private firms may be reluctant to invest in sectors like urban development or aviation infrastructure, which require substantial capital and long-term commitment.	■ **Expand Private Sector Involvement Across Sectors:** To address the underutilization of private sector expertise, Nepal should expand engagement beyond the energy sector. Encouraging private sector participation in high-impact areas such as multi-modal transport systems and climate-resilient infrastructure through targeted incentives and support will leverage their expertise and innovation. ■ **Introduce Incentives and Support Mechanisms:** The government should establish financial incentives, such as tax breaks, subsidies, viability gaps or guarantees, to attract private sector investment. These mechanisms can help mitigate risks and provide assurance to private investors, particularly in high-risk infrastructure projects like climate resilience and technology integration. ■ **Streamline Approval Processes and Reduce Bureaucracy:** Simplifying and accelerating the approval processes for infrastructure projects will help mitigate delays and lower costs. Implementing reforms to reduce bureaucratic red tape and improve project management efficiency and making stop " one stop center" work, private sector engagement more feasible and attractive. ■ **Mobilize Private Sector in Renewable Energy and Transmission:** Encourage the domestic private and financial sectors to lead the development of small hydropower, solar, and wind energy projects. Mobilize private investments in transmission infrastructure, with the public sector playing a key role in structuring projects and leveraging long-term public financing and risk mitigation instruments to attract local and international investors.

FINANCING AND INVESTMENT

Problems and Challenges	Way Forward
■ **Limited Access to Long-Term Financing:** Nepal faces a shortage of long-term financing options for infrastructure projects, particularly in sectors outside of energy. Commercial banks often have short lending horizons, making it difficult to finance large-scale projects like roads, airports, and urban infrastructure, which require sustained investment over many years.	■ **Domestic Banking Sector Capacity:** Stimulate consolidation of the local private commercial bank market by increasing paid-up capital requirements. Develop the capacity of domestic banks through training and the implementation of a best-practice code for infrastructure financing. Increase availability of long-term financing by allowing state-owned banks to offer partially amortizing loans with government-backed guarantees.
■ **High Perception of Risk Among Investors:** Both domestic and foreign investors perceive high risks due to political instability, regulatory uncertainties, and the lack of credit guarantees. This risk perception discourages private investment in large infrastructure projects, such as transport networks or climate-resilient infrastructure, where returns are less certain.	■ **Facilitate Foreign Investment:** Encourage participation of foreign lenders by offering pari-passu treatment with local lenders, easing entry and exit restrictions through amendments to FITTA and the Foreign Exchange Regulation Act, and establishing a hedging facility to mitigate currency risks. Create a one-stop window for government clearances on large private investments and strengthen foreign investors' rights regarding collateral and foreign currency borrowings.
■ **Underdeveloped Capital Markets:** Nepal's capital markets are not fully developed to support infrastructure financing at the scale required. There is limited availability of instruments like infrastructure bonds or public-private investment funds that could pool resources from both public and private sectors for large-scale development.	■ **Develop Alternative Financing Sources:** Explore the establishment of instruments and modalities like a Nepal Infrastructure Development Finance Institution (NIDFI) , Infrastructure Equity Fund , special project facility to provide debt, equity financing, and risk management instruments. Issue guidelines for hybrid financial instruments to stimulate investment and support hydropower projects through institutions like the Hydroelectric Investment Development Company Limited (HIDCL) and others.
■ **Insufficient Government Budget and Inefficient Public Spending:** The government's budget allocation for infrastructure is limited, and public spending on infrastructure is often inefficient due to bureaucratic delays and cost overruns. This leads to a reliance on foreign aid or development loans, which come with conditions that may not always align with national priorities.	■ **Improve Creditworthiness of Local Governments and Electricity Sector:** Focus on enhancing the financial viability of local governments and the electricity sector by improving creditworthiness, implementing cost-reflective tariffs, and reducing transmission and distribution losses. Strengthen the enabling environment for electricity trade and deepen domestic capital markets to increase long-term financing options for infrastructure projects.

TECHNOLOGICAL INTEGRATION AND INNOVATION

Problems and Challenges

- **Limited Digital Literacy and Workforce Skills:** Despite growing internet penetration, a significant portion of Nepal's population lacks the necessary digital literacy and technical skills to fully leverage advanced technologies like AI, automation, and smart infrastructure solutions. This limits the adoption of modern technologies across infrastructure projects.
- **Inadequate Cybersecurity Infrastructure:** Nepal ranks low globally in cybersecurity, which presents a significant challenge for integrating digital technologies in infrastructure. The lack of robust cybersecurity measures creates vulnerabilities, particularly in sectors like energy and transportation, where digital systems play a critical role.
- **Low Adoption of Smart Technologies in Key Sectors:** Key infrastructure sectors, such as transport and construction, have been slow to adopt smart technologies like AI, IoT, and digital platforms for project management. This leads to inefficiencies, higher project costs, and poor management of resources, which hinder overall infrastructure development.
- **Fragmented IT and Data Systems:** The lack of coordinated digital platforms and real-time data integration for infrastructure planning and project management leads to inefficiencies. For instance, transport infrastructure and waste management sectors suffer from outdated systems, resulting in poor tracking, delayed decision-making, and fragmented execution.

Way Forward

- **Innovative Financing and Technology Solutions:** Engaging the private sector through viability gap funding, hybrid annuity models, and guarantees can incentivize investment in roads, aviation, and urban development. Additionally, integrating technology solutions like smart grids in energy, GIS-based project tracking, and AI-driven planning in construction will improve project efficiency, reduce costs, and ensure long-term sustainability.
- **Establish a Centralized Digital Platform for Project Coordination:** Creating a national digital platform similar to India's Gatishakti will integrate data sources, enhance real-time tracking of infrastructure projects, and improve inter-agency coordination. This will reduce delays, optimize resource allocation, and ensure more transparent infrastructure development processes.
- **Strengthen Cybersecurity Measures:** Building robust cybersecurity infrastructure must be a priority. Nepal should implement enhanced cybersecurity frameworks and protocols, especially in sectors such as energy, transportation, and finance, to protect the integrity of digital systems and support safe technological integration.
- **Invest in Digital Literacy and Technical Training:** Nepal should prioritize workforce development by providing digital literacy programs and technical training in AI, automation, and other smart infrastructure solutions. This will create a skilled labor force ready to support the growing needs of tech-integrated projects.

CAPACITY BUILDING AND INSTITUTIONAL COORDINATION

Problems and Challenges	Way Forward
■ **Fragmented Institutional Framework:** The roles and responsibilities of different agencies and ministries involved in infrastructure development are often unclear and overlapping. This results in inefficiencies and delays in decision-making, with various bodies working in silos rather than in coordinated efforts. ■ **Limited Technical and Managerial Expertise:** Many government agencies and local bodies involved in infrastructure projects lack the technical expertise and managerial skills to effectively plan, execute, and monitor large-scale projects. This is particularly evident in specialized sectors like urban development, ICT integration, and sustainable infrastructure. ■ **Insufficient Focus on Long-Term Capacity Building:** Current capacity-building initiatives are often short-term, project-specific, and lack continuity. Without sustained efforts to build institutional capacity, the knowledge and skills gained from one project do not get transferred to future initiatives, leading to repeated inefficiencies. ■ **Weak Public-Private Collaboration:** Coordination between public institutions and the private sector is weak, leading to challenges in aligning goals, sharing resources, and ensuring smooth implementation of Public-Private Partnerships (PPPs). This disconnect hampers the overall efficiency and success of infrastructure projects.	■ **Establish a Centralized Coordinating Body:** Create a national-level infrastructure coordination body to oversee and streamline the efforts of various ministries and agencies. This would reduce duplication of roles, improve communication, and ensure that different sectors and projects are aligned with national development goals. ■ **Focus on Continuous, Sector-Specific Capacity Building:** Implement long-term, sector-specific capacity-building programs for government officials, local bodies, and private stakeholders. Continuous training in project management, technology integration, and climate-resilient infrastructure will enhance their ability to manage complex projects effectively. ■ **Promote Knowledge Transfer and Institutional Learning:** Institutionalize processes for documenting lessons learned from completed infrastructure projects and ensure that knowledge is shared across agencies. This can be achieved through regular workshops, peer learning, and the establishment of knowledge-sharing platforms. ■ **Strengthen Public-Private Coordination Mechanisms:** Enhance institutional mechanisms for collaboration between public entities and the private sector. This can include setting up joint task forces, improving frameworks for PPP agreements, and establishing clear guidelines for private sector engagement to foster better alignment of goals and resource allocation.

NOTE:

Please follow the link or scan the QR code for the full Summary Report

https://cni.org.np/publication/nis-2024-summary-report


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About CNI

The Confederation of Nepalese Industries (CNI) was established by the captains of Nepal's industrial and corporate sector on April 17, 2002. Its core mandate is to help enhance the business environment for the private sector.

It has a membership base consisting of nearly all of the big corporate houses of Nepal, Nepali blue-chip companies, joint venture companies, etc. spread across a wide and diversified spectrum of industries.

About CRC

CNI Research Cell was established due to a dearth of evidence-based research on Nepali industries, especially based on primary data. CNI aspires to be a trusted development partner of the Government of Nepal. The data and research generated by CRC is transparent, unbiased and will be kept confidential. The team comprises Director Mr. Ravi Kumar Prajapati, Senior Officer Ms. Rashmi Poudyal, Officer Ms. Shrijya Kafle and Executive Mr. Chetman Syangtan.

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