



**CROSS/
ROADS**
LINKING MOBILITY SOLUTIONS



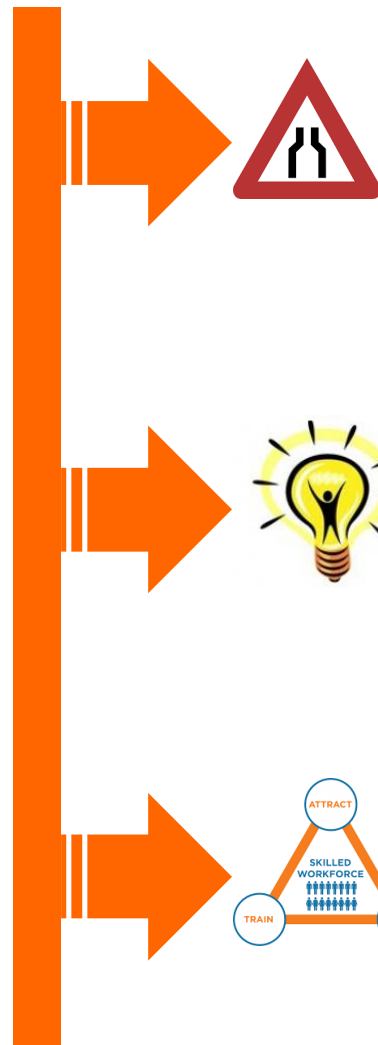
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Institutional Framework & Capacity Development: A Strategical Review of Skill Development in the Indian Road Sector

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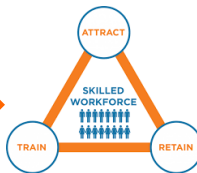
Objective



“Showcase the Bottlenecks in the Institutional Framework and Capacity Building in Road Construction Sector in skill development for the growth of the economy, social improvement, employment opportunity in India”



“Suggestions to the Stakeholders involved in the Skill Development and its Implementation with adoption of modern technologies”



“Today’s competitive world demands Trained, Certified and Skilled manpower to address the challenges of Sustainable Growth and converting them into Opportunities”

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Human Resource Related issue in Road Construction Sector

- India has a youth population of age between 15-50 (40 million people register for job) and 0.2 Million only gets job
- Educational system does not focus on training to impart skills



Youth Unemployment is growing and soon youth of age 20 will be 3 out of 4 people

Lack of knowledge learnt in school/College and unrealistic expectations

- Industry not able to impart training on skill gap although fulfill the requirement partly
- The existing Skills available with the stake holders are not suiting (out dated) to the new technology/mechanization

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Distribution of Human Resource by Education Level



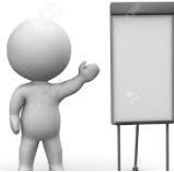
Graduate

0 - 5 %



Matriculate

10 – 15 %



Literate but Non Matriculate

50 – 55 %



Very Minimally Educated

20 – 25 %

Skill Gap in Road Construction Sector

Project Manager



- Inadequate knowledge of planning and scheduling software
- Inadequate project management skills
- Difficulty in controlling time overrun and cost overrun
- Poor project management and resource estimation skills
- Insufficient orientation towards project costing, efficient inventory management and adhering to deadlines
- Lack of communication and team building skills
- Insufficient ability to manage multiple contractors and resolve conflicts

Skill Gap in Road Construction Sector

Engineer / Supervisor



- Engineers hired for this role usually do not have sufficient ability to develop and comply to a Preventive Maintenance schedule
- Inadequate orientation to develop and adhere to safety norms at construction site
- Lack of communication and team management skills
- Incomplete knowledge of tendering processes
- Insufficient writing skills in English and documentation skills
- Incomplete understanding of risks associated with a project such as time/cost over-runs as well as legal aspects
- Lack of coordination & time management skills

Skill Gap in Road Construction Sector

Skilled Workman



- Knowledge of construction specific areas such as lining, leveling, and finishing skills in carpentry
- Availability of these personnel is an issue – it may be necessary to bring people with relevant skills from other parts of the country
- Lack of knowledge of basic machine operation – appropriate operation of cranes – lifting and placing
- Inadequate ability to understand instructions of supervisors/engineers

Skill Gap in Road Construction Sector

Unskilled Workman



- Very little safety orientation
- Inadequate workplace skills- discipline, cleanliness etc.,
- Inability to follow simple instructions
- Low job loyalty- very prone to leaving one construction company and joining another

Emerging trends driving human resource and skill requirements

Growth

Construction growth would be driven by GDP growth. If the economy has to grow by 8%, construction has to grow by a further 250 to 300 basis points

Manpower

While the workforce will increase in absolute terms, the number of persons required on a comparable site will go down but skill levels would go up

Complex with Machinery

Machinery would become increasingly complex - The construction site would become more complex and result in need for safety audits.

Productivity Improvement

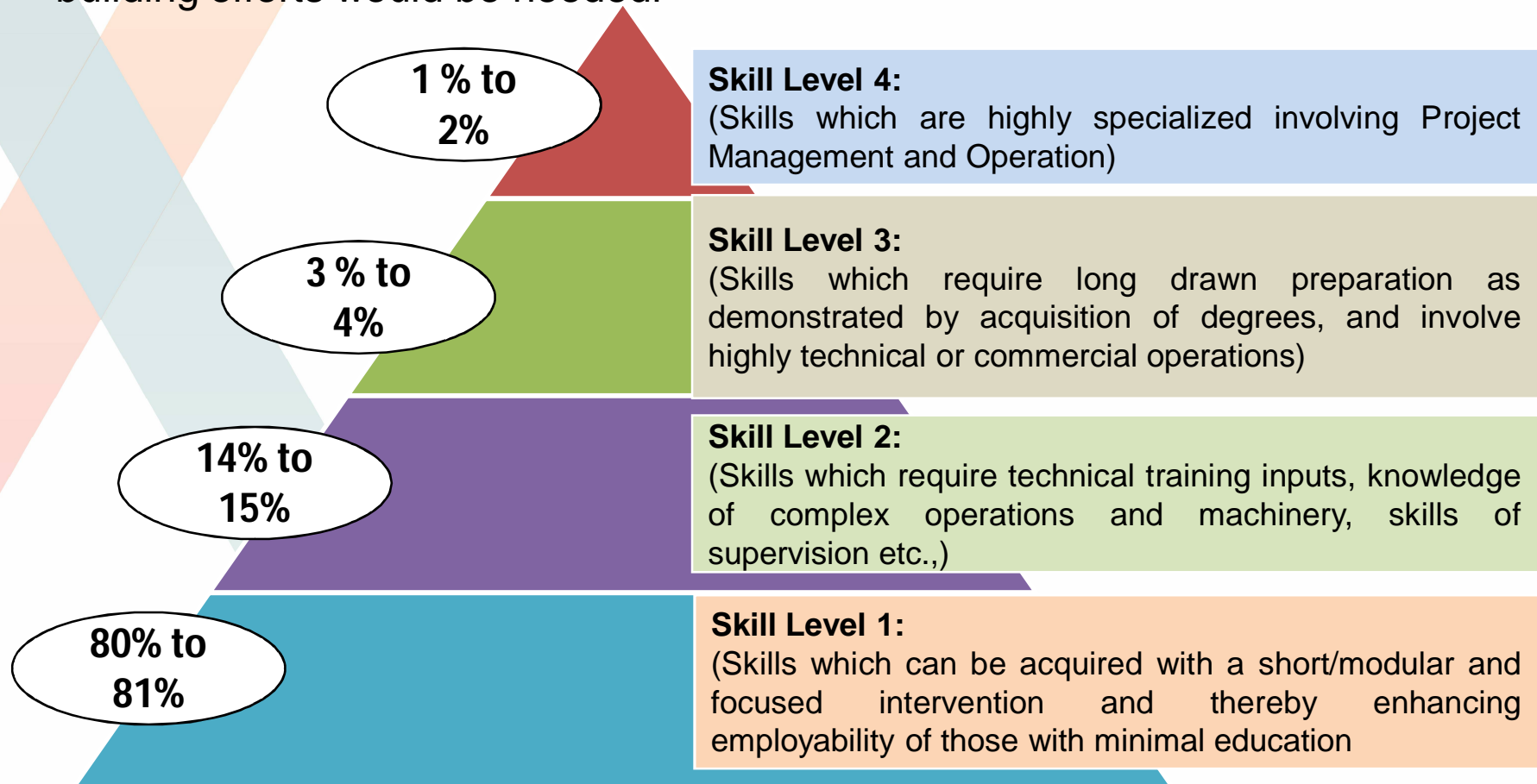
Increased scope for productivity catch-up – room for productivity to increase by at least 1.5 times in the next 12 to 15 years in India

Skill Building

Going forward, even the minimally skilled pool of persons would require some form of skill building.

Skill Pyramid

While a large proportion of the workforce falls in the lower portion of the pyramid, there would be skill building required at a workplace and construction-site level. This being said, the Skill Level 2 would be area where substantial skill building efforts would be needed.



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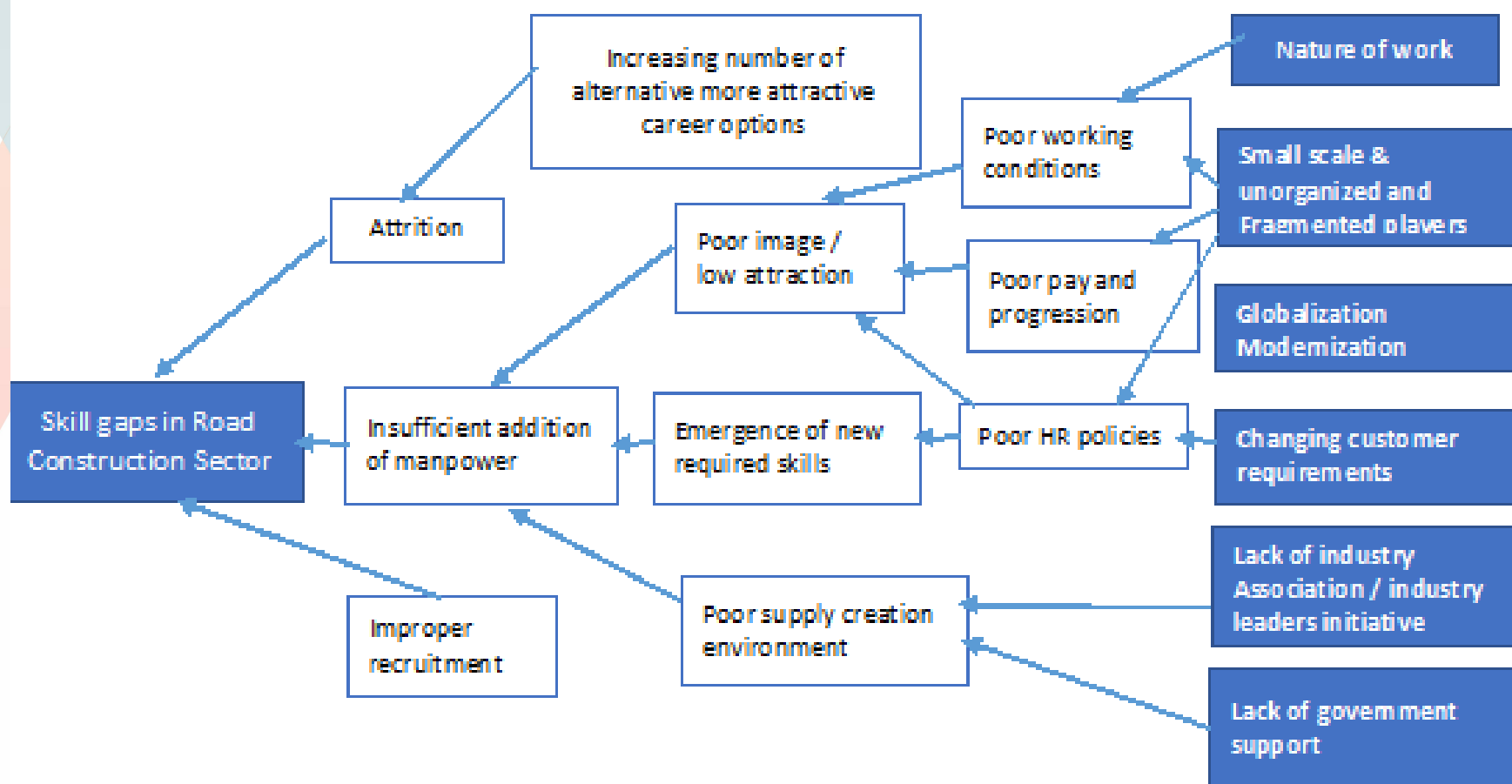
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Skill Gaps

- Addition of manpower is less than that required
- Exit of manpower (attrition) is greater than replacement
- Recruitment is not in alignment with requirement



Addition of manpower is less than that required

Basic human resource systems and policies are typically not in place in even reasonably large companies in the sector. The majority of players need to build capabilities in manpower development, training and welfare spends.



**HIGHLY SKILLED
TECHNICAL MANPOWER**

Attrition is greater than replacement

- Relative to these emerging sectors, the road construction has had lower pay scales, poor working conditions (both due to lack of overall infrastructure and company specific facilities)
- Low / no investment in staff welfare and lack of a clearly defined career path.
- Organized retail has the attraction of the better work environment and is leading to severe attrition from road construction.
- An indicator of the poor working conditions is the low participation of women in the road construction labor force.



Improper Recruitment

Fitment of the aptitude and preference of a candidate with the profile that he / she is recruited for does not necessarily happen in a lot of cases leading to a situation where the basic motivation and 'engagement' of the worker on the job may be limited.



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Skill Development in India

- Our Prime Minister has become the brand leader of skilling as he passionately mentions 'Skilling India' in each of his speeches without fail during his tours beyond the shores of the country.
- The new government has also been able to recognize the disparities in the extent to which young people have been able to acquire formal skills.



N · S · D · C
National
Skill Development
Corporation

Skill Development in India

- The Union Cabinet chaired by the Prime Minister, recently gave its approval for the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) with an outlay of Rs. 1500 crore.
- Our youth is our biggest strength and we have to entrench dignity for labor in the minds of Indians. As a country, India has a strong surplus in working population (age 15-50), which has helped the nation to maintain the momentum in the growth story.

SL.NO.	INITIATIVES	DISCRIPTION
01	Indian Institute of Skills (Six Nos.)	In association of Indian Institute of Technical Education, Singapore- Ministry of Skill Development & Entrepreneurship (MSDE)
02	Pradhanmantri Kaushal Kendra (PMKK)	Kaushal Pradarshini (Skill Exhibition) – Partnership with Industries for training 4 Lacs youths in 3 years
03	Skill India	MSDE & NSDC
04	Pradhanmantri Kaushal Vikas Yojana (PMKVY)	India's largest Skill Certification Scheme
05	National Apprentice Promotional Scheme (NAPS)	To promote Apprentice Training- From 2.30 lacs to 50 lacs by 2020

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Skill Development - Challenges

- The tragedy is that less than 2% of India's workforce has formal skills and even among those who have some sort of training or qualification, A trishul of talents need to coalesce before skills can be translated into gainful employment: technical skills, domain knowledge, and soft skills. The first two are a matter of training and application.
- But the biggest bottleneck in the skills space is getting the students to the classrooms and retaining them there. Government and training partners need to work together to ensure that the candidate is incentivized to attend classes through industry aligned courses, relevant training methodology, deeper connect with jobs and industry so that they themselves can see their career path ahead.
- The larger training players also need to harness technology wherever available -- digital solutions, smart tools, Internet-driven delivery -- to achieve the required scale and maybe even for large scale mobilization.

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- Creation of a robust institutional framework for creating road sector manpower
- Creation of incentives for development of skills for road sector employees
- Undertaking of initiatives to uplift the image of the industry
- Acceleration of the drivers of consolidation, integration and organization in the industry

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