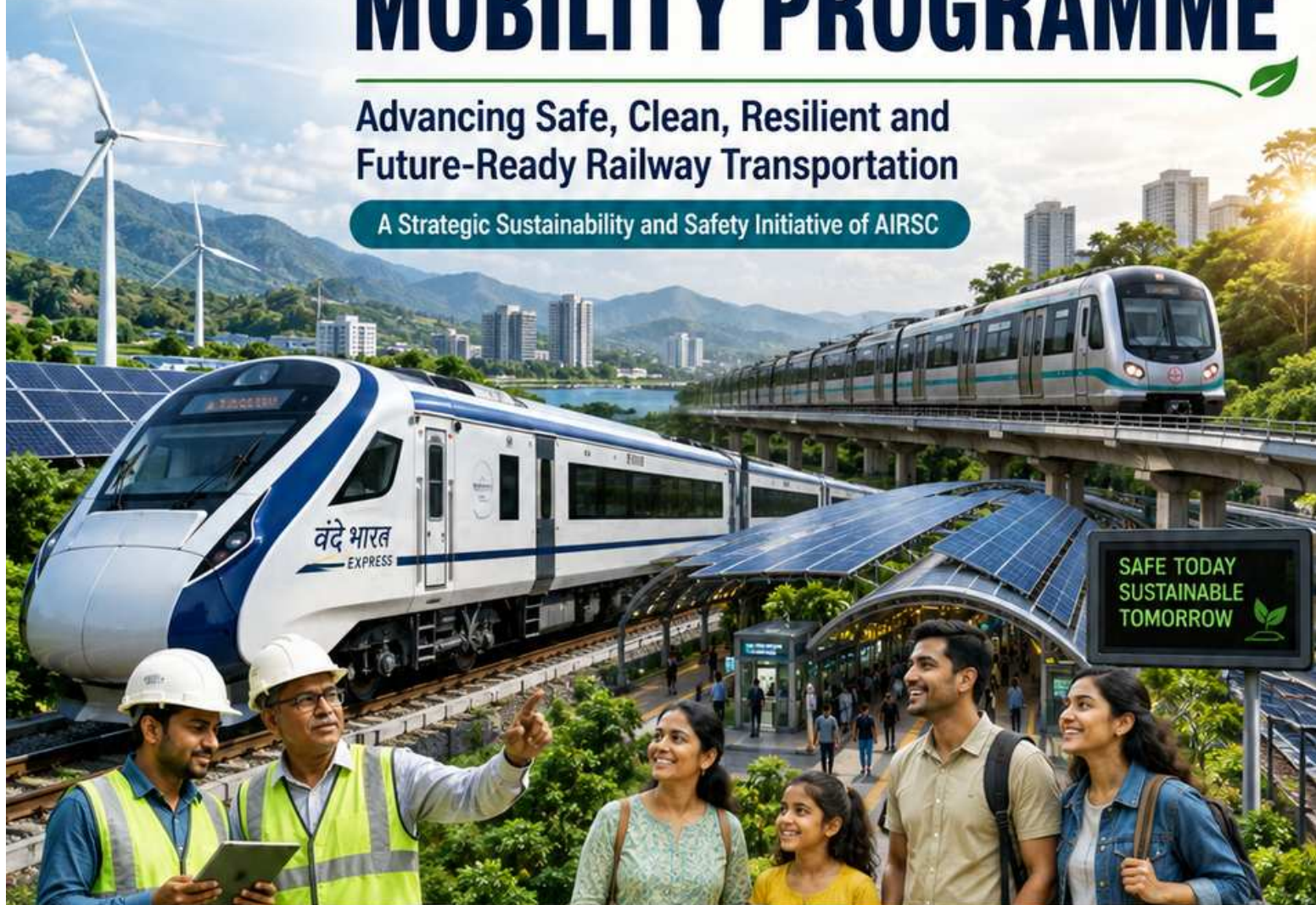




GREEN RAILWAY SAFETY & SUSTAINABLE MOBILITY PROGRAMME

Advancing Safe, Clean, Resilient and
Future-Ready Railway Transportation

A Strategic Sustainability and Safety Initiative of AIRSC



SAFE TODAY
SUSTAINABLE
TOMORROW



SAFE & GREEN RAILWAYS

Safety and sustainability—
one integrated vision



HUMAN WELLBEING

Protect passengers •
employees • communities



FUTURE-READY MOBILITY

Clean energy • resilient
infrastructure •
responsible innovation

SAFETY FOR PEOPLE • PROTECTION FOR THE PLANET • PROGRESS FOR THE NATION



RAILWAY
VISION 2047



ATMANIRBHAR
BHARAT



VIKSIT
BHARAT 2047



DIGITAL
INDIA



MAKE IN
INDIA



SKILL
INDIA



SUSTAINABLE &
GREEN MOBILITY



GREEN INFRASTRUCTURE • SUSTAINABLE STATIONS

Efficient Resources • Inclusive Design • Safety Throughout the Lifecycle



SOLAR POWER

Clean energy
Lower emissions



RAINWATER HARVESTING

Capture • Store • Reuse
Water positive stations



DAYLIGHT & NATURAL VENTILATION

Reduced energy
Better comfort



GREEN ROOFS & LANDSCAPING

Thermal comfort
Biodiversity boost



Accessible Pathways

Tactile Guidance

Lifts & Ramps

NATURAL VENTILATION

RAINWATER STORAGE

WATER TREATMENT & REUSE

SAFE MOVEMENT & EVACUATION

Clear signage • Wide paths
Emergency readiness



ENERGY-EFFICIENT DESIGN

Solar power • daylight • ventilation



WATER STEWARDSHIP

Harvest • conserve • recycle safely



ACCESSIBLE & SAFE

Barrier-free movement • fire safety • crowd management



LIFECYCLE ASSURANCE

Design • construct • operate • maintain responsibly

GREEN DESIGN MUST STRENGTHEN—NOT DILUTE—STATION SAFETY

ALL INDIA RAIL SAFETY COUNCIL

Railways—The Lifeline of Our Nation

• Safety First • Sustainability Always •

WWW.RAILSAFETY.CO.IN





SAFE ELECTRIFICATION • RENEWABLE ENERGY • ENERGY EFFICIENCY

Cleaner Power with Engineering Assurance
and Workforce Protection



ELECTRICAL SAFETY

Isolation • permits •
earthing • competent
supervision



RENEWABLE POWER

Solar • storage •
validated integration



ENERGY RECOVERY

Regenerative braking •
reliable protection



PUBLIC AWARENESS

Stay clear of overhead
lines and restricted
equipment



CLEAN ENERGY MUST ALWAYS BE SAFE ENERGY

ALL INDIA RAIL SAFETY COUNCIL

Railways—The Lifeline of Our Nation • Safety First • Sustainability Always • WWW.RAILSAFETY.CO.IN



Railway
Vision
2047



Atmanirbhar
Bharat



Viksit
Bharat
2047



Digital
India



Make in
India



Skill
India



Sustainable
& Green
Mobility



HYDROGEN • BATTERY • CLEAN PROPULSION SAFETY

Innovate Responsibly • Validate Engineering • Prepare for Emergencies



LEAK DETECTION
Safety at every step



THERMAL MONITORING
Continuous • Intelligent • Reliable



TRAINED RESPONSE
Prepared • Practised • Proficient



REAL-TIME MONITORING
Detect • Alert • Act



HYDROGEN SAFETY

- Leak detection
- ventilation
- controlled access
- trained response



BATTERY SAFETY

- Thermal monitoring
- isolation
- fire detection
- safe disposal



LIFECYCLE ASSESSMENT

- Energy source
- reliability
- maintenance
- environmental impact



HUMAN OVERSIGHT

- Authorised testing
- competent personnel
- safety assurance



LOW EMISSIONS MUST NEVER MEAN LOWER SAFETY.

ALL INDIA RAIL SAFETY COUNCIL

Railways—The Lifeline of Our Nation

Safety First • Sustainability Always

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**DIGITAL
INDIA**



**MAKE IN
INDIA**



**SKILL
INDIA**



**SUSTAINABLE
& GREEN
MOBILITY**



CLIMATE-RESILIENT RAILWAY INFRASTRUCTURE

— Anticipate Hazards • Strengthen Assets • Protect Operations —



LANDSLIDE RISK



HEATWAVE



EXTREME RAINFALL & FLOOD



CYCLONE & STORM SURGE



FLOOD & DRAINAGE

Culverts • embankments •
early warning



HEAT & THERMAL RISK

Track monitoring •
equipment protection •
worker wellbeing



SLOPE & LANDSLIDE

Sensors • inspections •
stabilisation



CYCLONE & COASTAL RISK

Resilient design •
response readiness



BUILD BACK BETTER

Inspect • restore safely •
improve resilience



**INFRASTRUCTURE DESIGNED FOR THE PAST
MAY NOT WITHSTAND THE FUTURE.**

ALL INDIA RAIL SAFETY COUNCIL (AIRSC)

Railways—The Lifeline of Our Nation

Safety First • Sustainability Always

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**RAILWAY
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**DIGITAL
INDIA**



**MAKE IN
INDIA**



**SKILL
INDIA**



**SUSTAINABLE
& GREEN
MOBILITY**





CONSERVE RESOURCES

- PREVENT POLLUTION
- PROTECT NATURE

Water • Waste • Circular Economy • Green Construction • Biodiversity



WATER CONSERVATION

Harvest • detect leaks • reuse safely



RESPONSIBLE WASTE

Segregate • label • recycle • authorised disposal



CIRCULAR ECONOMY

Extend asset life without compromising safety



GREEN CONSTRUCTION

Quality engineering • worker safety • lower impact



ECOLOGICAL PROTECTION

Wildlife movement • drainage • scientific mitigation



**RESOURCE EFFICIENCY AND RAILWAY SAFETY
MUST ADVANCE TOGETHER**



ALL INDIA RAIL SAFETY COUNCIL

Railways—The Lifeline of Our Nation

Safety First • Sustainability Always

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Atmanirbhar
Bharat



Viksit
Bharat 2047



Digital
India



Make in
India



Skill
India



Sustainable &
Green Mobility



SUSTAINABLE PASSENGER MOBILITY & GREEN RAIL LOGISTICS

Connected Cities • Responsible Travel • Efficient Freight • Inclusive Access



METRO & URBAN MOBILITY

Safe interchange • crowd management •
first-and-last-mile access



PASSENGER PARTICIPATION

Use public transport • save water •
dispose waste responsibly



SUSTAINABLE FREIGHT

Efficient terminals • secure cargo •
emergency readiness



INCLUSIVE MOBILITY

Accessible information • dignified travel •
people first



MILLIONS OF RESPONSIBLE JOURNEYS CREATE NATIONAL IMPACT



ALL INDIA RAIL SAFETY COUNCIL

Railways—The Lifeline of Our Nation

Safety First • Sustainability Always

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Atmanirbhar
Bharat



Viksit Bharat
2047



Digital
India



Make in
India



Skill
India



Sustainable &
Green Mobility



GREEN SKILLS • SMART TECHNOLOGY • INDIGENOUS INNOVATION

Research • Education • Professional Competence • Measurable Impact

GREEN WORKFORCE



Renewable-energy
safety • climate risk •
environmental
management

SMART MANAGEMENT



AI • IoT • sensors •
Digital Twins •
human oversight

RESEARCH & MAKE IN INDIA



Affordable • reliable •
scalable solutions for
Indian conditions

MEASURE WHAT MATTERS



Energy • water •
waste • resilience •
safety performance



 CLEANER OPERATIONS •  SAFER TECHNOLOGIES •  RESILIENT INFRASTRUCTURE •  STRONGER INDIA

“ GREEN RAILWAYS • SAFE JOURNEYS •
SUSTAINABLE MOBILITY • STRONGER INDIA ”

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