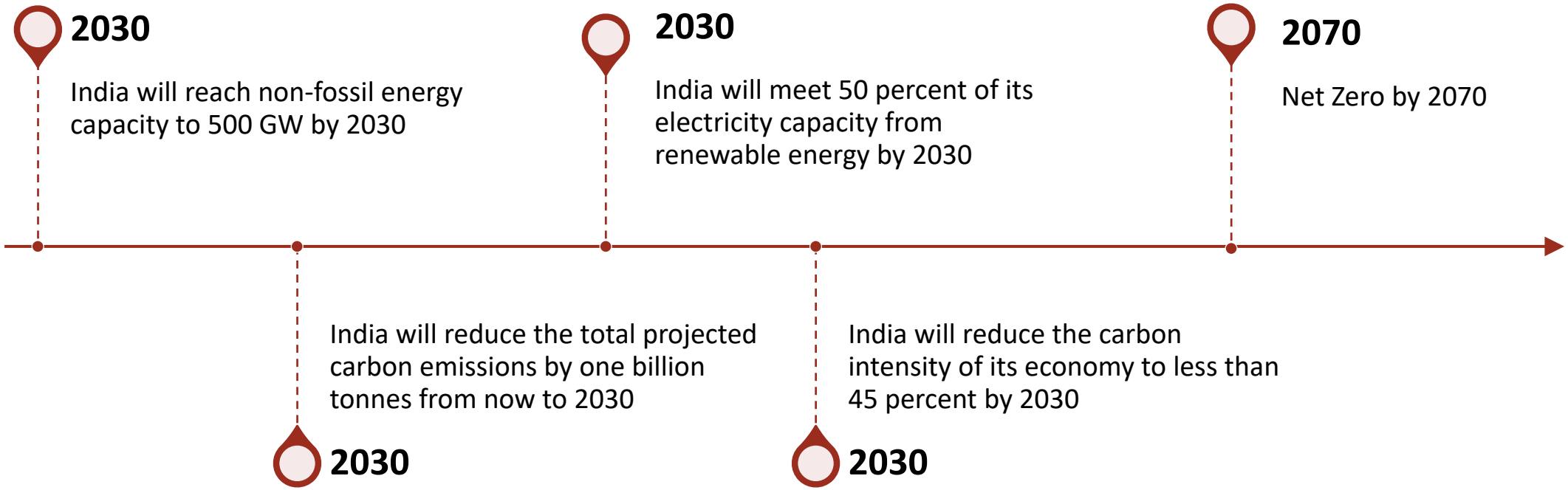
SHAKTI
SUSTAINABLE ENERGY
FOUNDATION

Work Plan 2022

India's Road to Net Zero



Policy Levers for Net Zero (India)

Sector	Policy Lever	High-Ambition Scenario (NZ by ~2060-65)	Net-Zero Scenario (2050)
Industries	Electrification and hydrogen	50%	80%
	Hydrogen production from electrolysis	100%	100%
	Material efficiency, longevity and reuse	Cement: 15% Iron and Steel: 25% Waste: 20%	Cement: 35% Iron and Steel: 35% Waste: 35%
Electric Vehicles	EV sales mandate (% of new sales)	Passenger HDV: 50% Freight HDV: 30%	Passenger HDV: 75% Freight HDV: 50%
Power Generation	% of fossil-free sources in electricity generation	92%	99%
Market Mechanisms	Carbon tax per tonne of CO_2 in 2050 (linearly increasing from 2020)	11423.13	6140.66

$ 5.6 trillion in upfront capital cost required for a Net Zero transition by 2050

Ensuring a Just Transition

Meeting the 2030 targets will require stronger decarbonization action and transitioning to a net-zero developmental path will have widespread social and economic impacts for India.

Keys to a Just Transition for India

Building the resilience of vulnerable communities

Ensuring mineral security

Mitigating the impact of low-carbon policies on fossil-fuel related job losses

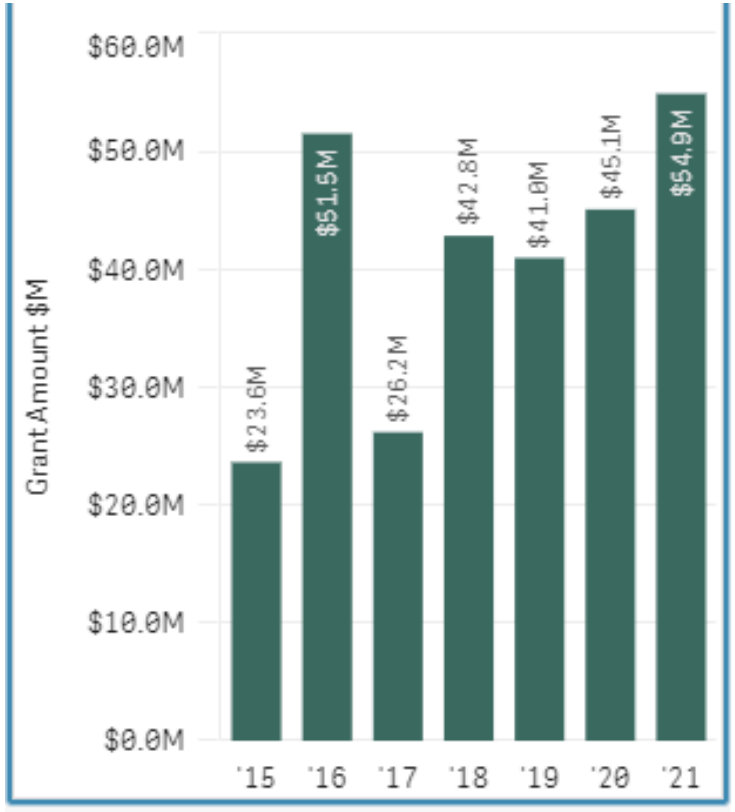
Ensuring judicious use of land

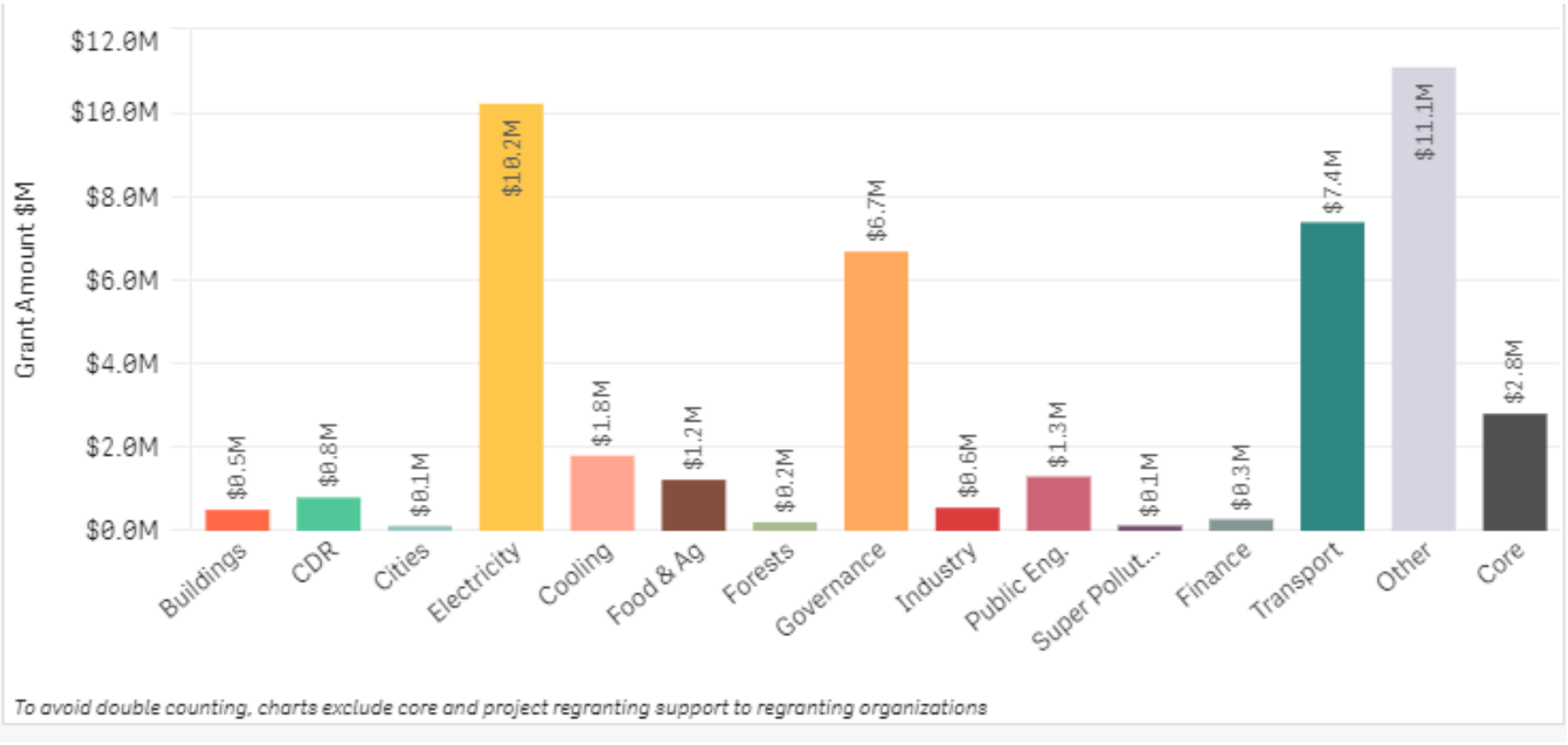
Ensuring coordinated just transition policies from all Indian states

Ameliorating regional and gendered disparities in access to skills and finance for new green livelihood opportunities

Climate Philanthropic Grants To India

Some Sectors Not Sufficiently Covered





Source – Climateworks Global Intelligence

Our Guiding Principles

- Our work on mitigation will continue to remain a high priority for us, and the programmes we are running will continue to be part of our strategy.

- But we also recognize the fact that climate change is here and now, and its impacts are already beginning to be felt across communities.

- It is therefore critical that we act not only to mitigate emissions but also to build the resilience of communities which are being hit by the impacts of the changing climate.

Shakti's Way Forward

- Shakti's ToC is already aligned with the 1.5C by 2050 scenario
- Clear net zero policy direction of the government--> more ambitious interventions from Shakti and ecosystem partners
- Raising policy ambition further and supporting effective implementation
- Building the resilience of communities to deal with climate change
- Focus on high-impact, cross-sectoral programmes
- Many sectors like agriculture, access for development, cities important from both mitigation and adaptation angles

Strategic Priorities

Net Zero Transitions

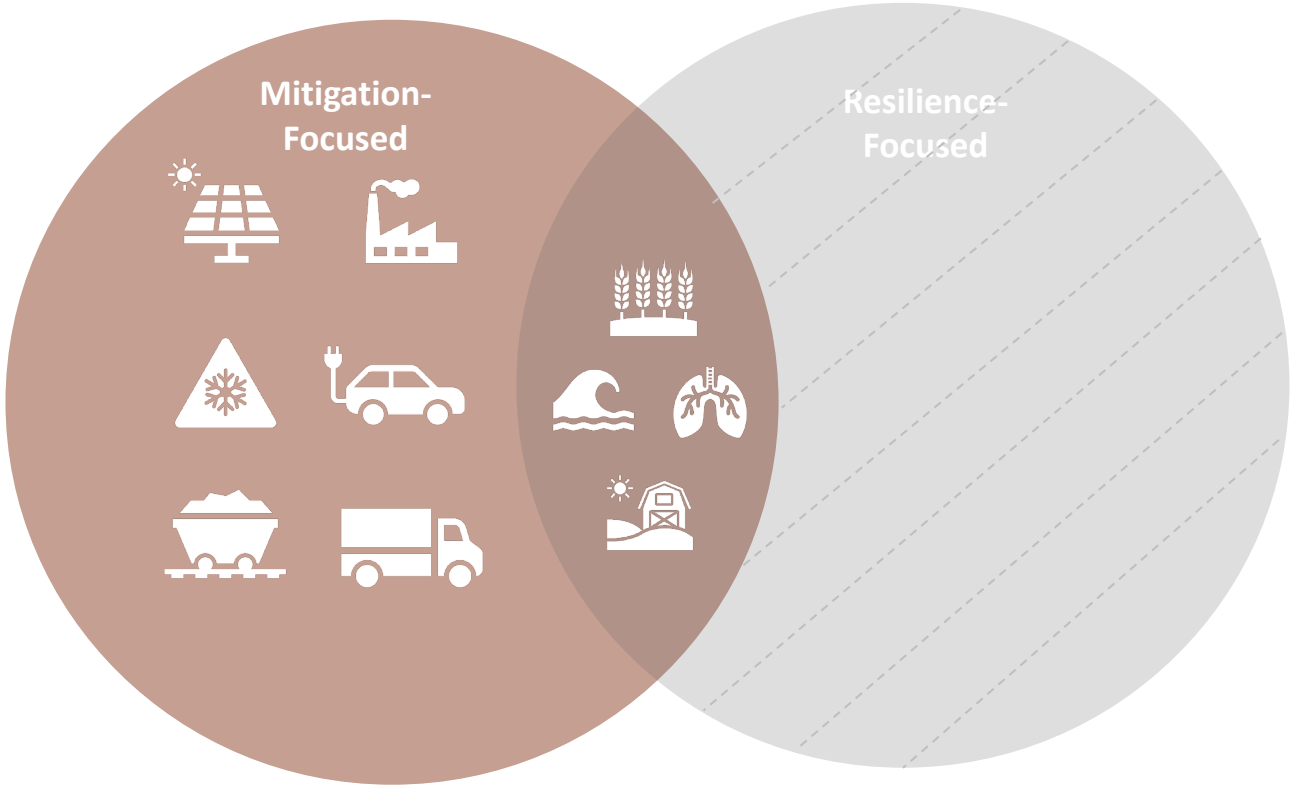
Resilience

Air Quality

Our Programmatic Focus

Net Zero Transitions (Mitigation)

- High RE Pathways
- Industrial Decarbonization
- Cooling
- Electric Mobility
- Critical Raw Materials & Supply Chains
- Clean Freight



Mitigation and Resilience

- Air Quality
- Access for Development
- Sustainable Food, Land Use & Agriculture
- Blue Climate Solutions

Cross-Programmatic

- AI and Climate Change
- Modelling Net Zero Transitions
- Cities and Climate Action
- Climate Finance

● New programme areas

Programmatic Work Plans

Net Zero Transitions

High RE Pathways

Rationale

- 450+ GW high RE goal by 2030 demands synergistic actions across the power sector value-chain

- Data analytics and resource planning critical to increase share of RE in generation-mix and proactively address grid stability

- The pace of innovation across the power eco-system is high (Smart Grid, Smart Metering, Digital Transformation etc.) However, legacy electricity networks are too debt ridden to embrace such innovations. Customer awareness is also low.

High RE Pathways

Need for a 3-Pronged Approach

Ensuring Systemic Stability

- Existing network needs to be shielded and supported for an orderly transition.
- Activating and generating consensus on the political economy of the transition (State and Sectoral) shall be a key enabler.

Technological Potential

- Harnessing the disruptive potential of technology is critical
- Programmatic approach needs to be crafted for visible on-ground implementation and catalytic sectoral transition

Distributed Energy Solutions

- Distributed energy solutions required at scale to deliver power to low income/ remote consumers through deployment of technology, aligned policy and blended impact capital

High RE Pathways

Programmatic Approach

Outcomes

- ❖Knowledge / capacity support increases share of RE in generation-mix with grid stability
- ❖Demonstrated success models for scale

Strategies

- ❖ Work closely with key stakeholders like MNRE/MoP/State Energy Deptt. etc.
- ❖ Identify RE resource potential in states/sites, reliable data forecasting and scheduling to meet demands, assist states in translating RE ambition to actionable roadmaps.
- ❖ Identify interventions for promotion of Domestic manufacturing in RE landscape
- ❖Harness the disruptive potential of technology

High RE Pathways

Priorities for 2022

- Operationalize Research Innovation Shakti Expert (RISE) program with MNRE
- Capacity building support for decision makers at State level working for clean energy transition
- Steer grid modelling studies to support decisions for network reliability and augmentation requirements under High RE pathway
- Support Financing for High RE [Impediments to Impact]

PoC: manu@shaktifoundation.in

Technology & Innovation

Rationale

New Programme

- Staying on the high RE course requires massive deployment of technologies.
- System will require increased flexibility in electrical systems, and innovations for enhanced affordability to bridge RE intermittency and delivering firm power.
- A successful energy transition will involve interventions in not just the power sector but require broad based interventions across use sectors such as agriculture, transport, industries, cities and forestry.
- Focused efforts required on scaling technologies for scale and promote innovations based on open-source digitization, IOT and AI

Technology & Innovation

Programmatic Approach

Outcomes

❖Long term Programmatic technology shifts enabled- example Green hydrogen mission

❖Activate technology and ecosystem transition towards high impact technologies

Strategies

❖ Support analytical thinking to place technology innovation central to RE ecosystem value chain modelling

❖Identify interventions for smoother technology integration, including showcase initiatives

Technology & Innovation

Priorities for 2022

- Develop innovation platform for RE ecosystem with policy actors
- Conduct studies identifying new technologies relevant to high RE integration such as Offshore wind, Energy Storage, Green Hydrogen
- Regulatory Sandbox approach to test new technologies and innovative models
- Programmatic showcase for ecosystem actors, licensees, etc. to harness Digitization

PoC: manu@shaktifoundation.in

Access for Development

Programmatic Approach

Outcomes

- ❖Support under-served / non-grid communities and regions to benefit from RE transition
- ❖Raise quality and reliability of clean power supply to enhance productivity, incomes and co-benefits (resilience, social protection)

Strategies

- ❖ Conceptualize studies to capture current, latent and aspirational rural electricity demand
- ❖ Seek utilization of 'Blended Capital' in the areas like mini grid, water-energy nexus, etc.
- ❖Support creation of collaborative platforms to translate cross-sectoral policy and regulations towards synergistic practice by energy, health and livelihood actors for strong implementation

Access for Development

Priorities for 2022

- Develop programmatic approaches to deepen the initiatives on health-education-livelihoods sectors
- Collaborate with state actors and policy networks (e.g., AREAS) to activate clean energy technology push at sub-national level to enhance affordability, accessibility, and availability
- Develop innovative financing structures such as revolving bonds to support the upscaling of distributed RE

PoC: manu@shaktifoundation.in

Electric Mobility Initiatives (EMI)

Programmatic Approach

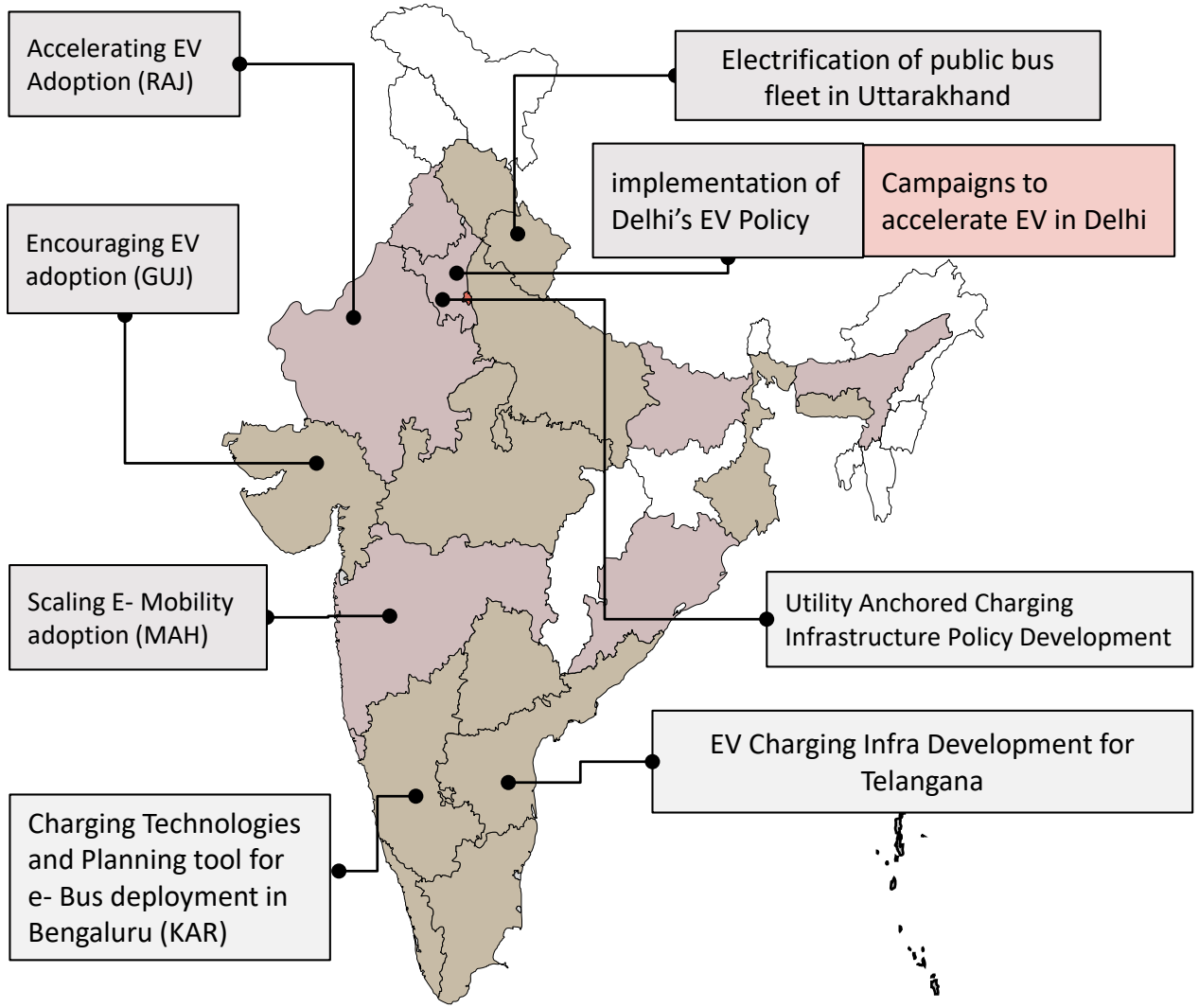
- Multi-funder philanthropic initiative to accelerate electrification & decarbonize transport by 2050
- Engages with key stakeholders, CSOs, government, regulators and industries
- Promotes cross-learnings through national and subnational engagement, & international best practices

Strategic Pillars:

- Policies supporting EV Manufacturing Ecosystem
- Incentivize EV Adoption
- Accessible EV Charging infrastructure
- Increase EV Awareness

Electric Mobility Initiatives (EMI)

Select Projects



Electrification of IPT and PT in city clusters in India

Enabling mechanisms to advance electric bus adoption in India

Supporting Phase-2 of the Electric Mobility Forum

Targets and trade-offs in EV Transition for India

Zero emissions mandate and incentive structure for faster EV transition

EV charging patterns and impact on DISCOM

Supporting **Cities** to take leadership in Electric Mobility through **Adoption**

Accelerate EV uptake through **Strategic Communication** and engagement across **States**

Strategic areas:

- **Manufacturing**
- **Adoption**
- **EV Charging Infra**
- **Awareness**

Electric Mobility Initiatives (EMI)

Strengths and Accomplishments

Program Design

- ❖Unique platform for Project ideation, planning and execution
- ❖Deepened state specific actions
- ❖Developed capacity in CSO ecosystem

International Cooperation

- ❖Collaborating with Drive Electric (Global) Campaign

Policy Engagement

- ❖NITI Aayog - Battery Recycling: Circular Economy of Lithium-Ion Batteries
- ❖NITI Aayog - Developing E-Mobility Index development (State level)
- ❖Bihar – Transport decarbonization with EV adoption
- ❖MNRE & NITI - Hydrogen energy mission

Electric Mobility Initiatives (EMI)

Priorities for 2022

- ❖Implement EMI strategies and enhance partner network, especially sub-national level
- ❖Focus more on electrification of CVs; electrify a few HDV fleets in specific application/ geographies
- ❖Support building momentum and policies on supply side
- ❖Increase participation of States, Cities and freight corridors in overall EV value stream, policies and RE use
- ❖Build consensus among large users/ corporates, take pledge for using EVs and ensure implantation
- ❖ Create financing options for few critical applications eg. CVs and freight electrification
- ❖Domestic supply chain of EV parts, especially for critical materials in India, and circularity

PoC: ruchir@shaktifoundation.in

Clean Freight

Rationale

New Programme

- GHG emissions from freight transport is responsible for **~40% of transport sector emissions**. By 2047, freight activity is expected to increase five times from 2017 levels, increasing to 50% of transport GHG emissions.[1]
- HDVs predominantly responsible for the long-haul leg of the freight journey, while LCVs are utilized in the first and last leg of freight delivery.
- Electrification of light commercial vehicles -2Ws and 3Ws for freight operations have already begun but needs to scale rapidly.
- **HDV electrification** for long haul freight applications are considered the toughest segments to electrify but also has some of the **highest decarbonization potential among vehicles**.
- Focus on measures that can reduce emissions through fuel efficiency norms, energy conservation act, and emission norms.
- Incentives for the shift target the entire ecosystem of shippers and freight carriers

Some of the challenges that this program will attempt to address

- **Lack of policy and regulatory measures supporting Clean freight**
- **Absence of incentive mechanisms**
- **Lack of data on fuel efficiency, consumption in fleets**
- **Lack of incentives for fleet modernization**
- **Lack of local success stories**

Clean Freight

Programme Approach

Outcomes

- A National Clean Freight Program with the objective of reducing 30-50% fossil fuel use by 2030 and a trajectory for eliminating fossil fuel use in freight by 2050.

Strategies

- Support to establish a National level Clean Freight Program, with long-term policy roadmap
- Incentives for shippers and carriers to adopt fuel efficient technologies
- Support development of zero emission freight hubs
- Platform for technology exchange and raising ambition
- Incentivize Fleet modernization of freight vehicles (especially HDVs)

Clean Freight

Priorities for 2022

- Overall Clean Freight program design
- Identification of early use cases
- Design of technology trading platform
- Assessments for policy incentives and regulatory mechanisms
- Assessment of mechanisms for fleet modernization
- Platform to raise ambitions of freight ecosystem [bring together technology providers (manufacturers) and adopters (carriers)]

PoC: vivek@shaktifoundation.in

Clean Freight

Outputs and Interventions

Outputs	Interventions
Program Design	i. Building evidence for a national program, defining components, program management ii. Build consensus on benefits within National stakeholders
Policy and regulatory interventions	Assessment of various policy and regulatory mechanisms for the program and provide suitable recommendations
Financial mechanisms for Shippers and Carriers	Assessment of financial requirements for the program, various incentive mechanisms and provide recommendations
Baselining and identification of early use cases	i. Baseline study of shippers and carriers and authentication of data ii. Analysis to identify early use cases for electrification.
Trade platform	Platform to bring together technology providers (manufacturers) and adopters (carriers)
Platform of Shippers and Carriers	Platform to bring forward looking companies to raise ambition
Subsidies/Incentives for Fleet modernization	Assessment of various policy mechanisms and incentives to integrate fleet modernization

Critical Raw Materials (CRM) & Supply Chain

Rationale

New Programme

- Mineral demand for clean energy technologies is expected to **rise by at least four times by 2040 to meet climate goals**[1]
- Supply side variabilities expected to increase in future, due to long gestation periods of mining projects, lack of long-term supply signals, concentration of resources and production within few geographies, and environmental and social concerns related to mining.
- Shortages and increase in price can slow down the transition, which **jeopardizes the achievement of global climate goals**
- Predicable and dependable **supply chains and procurement market mechanisms** for minerals not available domestically which becomes important for India's energy security
- It is necessary for India to understand which raw materials are critical for its net-zero transition and to take early and **timely efforts to secure long-term raw material supply**.

[1] International Energy Agency (IEA). "The Role of Critical Minerals in Clean Energy Transitions." IEA Publications, 2021.

Critical Raw Materials (CRM) & Supply Chain

Programme Approach

Outcomes

- By 2030, India secures reliable access to Critical Raw Materials for a net zero transition

Strategies

- Build evidence for India and make a case for India to take actions to secure critical raw materials for a net zero transition
- Make a case for a National mission on Critical Raw Materials for low carbon technologies
- Make a case for and support a National Critical Raw Materials Alliance of all stakeholders
- Build evidence on solutions: clear long-term demand for new mining, international partnerships, processing and manufacturing value chain, substitution and recycling

Critical Raw Materials (CRM) & Supply Chain

Priorities for 2022

- Identification of Critical Raw Materials (CRM) for a net zero transition in India
- Data and Analytical capabilities in CRM analysis
- Recommendations for an Industry Alliance
- Recommendations for a National Mission on Critical Raw Materials
- Solutions for a secured supply of CRMs in India
- Evidence for Industries to act on CRM

PoC: vivek@shaktifoundation.in

Critical Raw Materials (CRM) & Supply Chain

Outputs and Interventions

Outputs	Inputs
National mission on Critical Raw Materials and augmenting National Mineral Policy	1. Evidence for India to look into Criticality of raw materials for net zero transition 2. Research study on CRM for net-zero transition 3. Recommendations for a national mission
National Raw Materials Alliance	1. Research and Advocacy for Industry to look into CRM 2. Recommendations for a national alliance on CRM 3. Building an alliance of stakeholders' - industry, academia, CSO, public undertakings etc.
Solutions for secured supply of CRMs in India	1. Research into solutions for India to secure supply of CRMs in India

Cities and Climate Action

Rationale

New Programme

- Indian cities contribute to nearly 63% of the GDP and 25% of all Energy related CO_2 Emissions in the country
- With increasing urbanization, and a greater share of GDP, Indian cities would be responsible for a greater share of India's GHG emissions.
- Cities are most vulnerable to the impacts of climate change and poor air quality
- Potential to reduce 2050 GHG emissions by 89% (1.7 Gt CO_2-e) using existing low carbon measures
- Decisive decade for urban climate actions, that can support early demand for climate solutions, while preventing lock-ins to high emission pathways
- Climate actions in Indian cities require an investment of $ 3.6 Trillion by 2050, and create 11.2 Million green jobs

Cities and Climate Action

Programme Approach

Outcomes

- By 2030-35, new buildings are net-zero carbon and resilient. 2050, 100% buildings are net-zero carbon
- By 2030, large parts of cities are under Zero Emission Zones. By 2050 whole cities are covered under Zero Emission Zones
- By 2030, 50% reduction in embodied energy in construction and infrastructure
- By 2050, zero biodegradable waste to landfills

Strategies

- Build evidence in favour of high impact city (state) climate actions, their cost and benefits
- Raise ambition in cities (and states) to work towards net-zero targets
- Support Cities (and states) build, execute and report ambitious climate action plans
- Advocate for central government plans, policies and finances for cities climate actions
- Support mechanisms to raise awareness, capacity and to scale climate actions across cities

Cities and Climate Action

Priorities for 2022

- ❖Studies on high impact city climate actions: Cost-Benefits, Implementation, MythBusters
- ❖Studies on role of central/state support on city climate action: Plans, Policy and Finance
- ❖Studies on systemic capacities required: institutional mechanisms, data, accountability
- ❖City Climate Action support: planning, reporting and implementation
- ❖Communications and advocacy platform/s to raise city climate ambition: National and State
- ❖Coalition of national partners, platform for solution providers

PoC: vivek@shaktifoundation.in

Cities and Climate Action

Outputs and Interventions

Outputs	Inputs
Studies on high impact city climate actions: Cost-Benefits, Implementation, MythBusters	Cost-benefit studies and implementation plans for Net Zero Buildings Strategy, Zero Emission Zones strategy, Zero Waste strategy, Construction and Infra Strategy, etc.
Studies on role of central/state support on city climate action: Plans, Policy and Finance	Research and analysis building a case for a national mission/capacity on city climate action, and for dedicated finance mechanisms – MoEFCC, MoHUA, FC.
Studies on systemic capacities required: institutional mechanisms, data, accountability	Research and advocacy for transparency on city energy data, analytics and management Research and advocacy for improvement in capacities of city institutions, fixing accountability National platform on City Climate Action – advocacy, capacity building
City Climate Action support: planning, reporting and implementation	Climate Action Planning; Annual Reporting of progress; Implementation support on major strategies and city systems; Local stakeholder engagement, coordination and communications
Communications and advocacy platform/s to raise city climate ambition: National and State	National level platform, State-city level platform Stakeholder engagement: narratives to justify climate actions and counter myths Communications and outreach capacity
Coalition of national partners, platform for solution providers	Coalition design and management Design, and management of solution providers (industry) platform Strategy and Capacity building workshops

Modelling Net Zero Transitions

Programme Approach

- Crucial competencies
  - Climate science and its impact on economic sectors including extreme events
  - Detailed economic modelling (GDP, jobs, investment, sectors etc.)
  - Regulations and fiscal issues (carbon tax)
  - Detailed sectoral plans
- Open-source data and peer review of analysis
- Knowledge transfer- linking between leading international agencies
- More institutions required especially at sub-national level

Need for long-term investments on capacity building

Modelling Net Zero Transitions

Priorities for 2022

- Develop a consortium of institutions with analytical competence
- Mix of academic institutions and policy think tanks
- Shakti to support this consortium for at least 4 years
- Engage with key decision makers at the central and state levels

PoC: shubhashis@shaktifoundation.in

Climate Finance

Programme Approach

- Financing Green - augment capability of financial institutions (FIs) to scale up the overall quantum of climate finance
- Greening finance - aligning portfolios of business and FIs with climate risk & env. protection.
- Build narrative which supports cohesive policy making
- Legacy ecosystem challenges impacting climate finance – regulation, accountability and disclosure
- Sector focused studies to help overcome sectoral hurdles – power, transport, industry, buildings
- Green or climate budget for state

Climate Finance

Priorities for 2022

- Greening financial policy
- Building subnational capacity
- Building awareness and capacity amongst financial institutions
- Spurring corporate climate leadership
- Developing domestic research capability
- Supporting a network of innovators

PoC: shubhashis@shaktifoundation.in

AI and Climate Change

Programme Approach

Outcomes

- Development of a programme strategy for AI and Climate Change

Strategies

- Mapping use-cases and associated impact
- Build capability within CSO community
- Build policy - technology interface
- Align activities with allied ministries (example - science and technologies) and other donors
- Develop state level and state focused programs

AI and Climate Change

Priorities for 2022

- Conduct feasibility study and define scalability with AI. Evaluate data infrastructure requirement
- Research and deep-dive into prioritized focus areas like water, agriculture, transport, cities, energy, adaptation etc.
- Policy outreach including development of state level programs
- Capability building by identifying tie-ups with universities and research organisations
- Enabling AI-ecosystem development by targeting bottlenecks
- Implementation and solution support

PoC: shubhashis@shaktifoundation.in

Industrial Decarbonization

Programme Approach

- Strategy for a early peaking (~ 2040) of industrial GHG emission and restricting the GHG emission from Indian industries within XX MT CO_2e by 2070 (align with India's Net Zero commitment)
- Develop sectoral (Steel, Cement, Aluminium, Fertilizer, Petrochemical, etc) strategies focusing on energy efficiency, fuel change, demand management, capacity building & technology leap-frog. Understand the dynamics of large industries and SMEs in the country.
- Create new low-carbon coalition for industries (including buyers club) or align with the existing coalitions. Build industry champions
- Deep-dive projects focusing on industrial decarbonization (including small and medium scale industries)
- Low carbon industrial policy development and policy implementation
- Just transition for industry sectors – focus on small and medium scale industries

Industrial Decarbonization

Priorities for 2022

- Align our TOC to enable industrial transition in line with India's net zero commitment
- Support research and create evidence – focus on hard to abate sectors like steel, cement, fertilizers, petrochemicals, aluminum etc.
- Capacity building of national as well as state-level actors
- Identify and build Industry champions

PoC: sachin@shaktifoundation.in

Cooling

Programme Approach

- Increased access of environment friendly cooling
- Higher market penetration of super-efficient and affordable technologies and appliances
- All new buildings adopt passive cooling technology
- Increased access of clean cold chain for agricultural and healthcare sectors
- Complementary public and private funding is easily available
- Elevate cooling to a priority development issue for states
- Platform for knowledge sharing and advocacy – India cooling coalition

Cooling

Priorities for 2022

- Establish an India secretariat for cooling to align philanthropic support in cooling
- Make clean cooling a developmental and climate priority
- Support implementation of India Cooling Action Plan – at state and sectoral level
- Create evidence and plan policy advocacy to action plans

PoC: sachin@shaktifoundation.in

Resilience

Sustainable Food, Agriculture and Land Use

Rationale

New Programme

Over 700 million people in rural India depend on agriculture and forests for their livelihoods

- AFOLU sector responsible for ~10% of India's GHG emissions
- Land net remover of GHG. India's NDC commitment ~3bt CO_2 through forest cover
- Impacts of climate change are already beginning to be felt- Noticeable reduction in crop yields, nutritional quality of crops, and decreasing livestock
- Annual agricultural income losses due to climate change:
  Irrigated Areas- 15%–18;
  Unirrigated Areas- 20%–25%
- Extensive land degradation- leading to reduced forest cover, reduced water table levels, shortage of drinking water, fuel, and fodder.
- Unsustainable agricultural, livestock, and forestry practices- direct drivers of degradation.

Need to establish an inclusive approach based on sound science considering environmental and developmental trade-offs

Sustainable Food, Agriculture and Land Use

Programme Approach

Outcomes

- Scaling integrated land use practices in India
- Mainstreaming of sustainable agricultural practices by incorporating integrated landscape planning with government schemes like MNREGA and NMSA

Strategies

- Bio-Region Based Interventions
- Planning and Mapping Using GIS-Mapping and Drones
- Promoting Sustainable Agricultural and NTFP Practices
- Monitoring and Evaluation of interventions at national and regional levels
- Coalitions and Capacity Building

Sustainable Food, Agriculture and Land Use

Priorities for 2022

- Identification of bioregions and projects to be supported and augmented
- Engagement with the Ministry of. Rural Development and state governments to explore synergies
- Undertake studies to build evidence towards mainstreaming climate action into existing programmes including MGNREGA, National Mission on Sustainable Agriculture, National Rural Livelihood Mission
- Capacity building of local NGOs on climate mitigation and resilience
- Creation of cross-sectoral coalitions for capacity development of implementing actors

PoC: shubhashis@shaktifoundation.in

Air Quality

Air Quality

Programme Approach

Capacity building
Capacity building across sectors and different actors

Eco system building

Create new avenues that facilitate alignment, coordination and collaboration; Development of robust local and sectoral ecosystem

Communication
Support more voices and perspectives for air pollution

Data and knowledge

Aggregate actionable knowledge and assemble more complete data sets to aid informed decision making

Health

Strengthen the link between AQ and health through creation of new evidence and better messaging

AQ governance and management

Regulation and management of regional pollution

Compliance

Augment compliance to emission standards across polluters in different sectors

AQ Finance

Strengthening financing landscape for tackling air pollution

Air Quality

Priorities for 2022

- Support implementation of National Clean Air Program – align with national knowledge network
- Build capacity for state and city level actors
- Support opportunities for engagement of private actors/ social enterprises/start-ups with government
- Create city, regional, national and sector champions and/or coalitions to drive collective action
- Increase participation of vulnerable groups such as citizens, school children, marginalized communities
- Support forums for the medical community to be vocal advocates of public health

PoC: shubhashis@shaktifoundation.in

Air Quality

Priorities for 2022

- Build a unified data and knowledge directory
- Aggregate and simplify learnings from health impact studies
- Support studies to develop strategies on regional air- shed management
- Engage with government and private stakeholders to ensure compliance
- Create a funding pool to support high risk and high return ideas for the AQ sector
- Explore market mechanisms to air quality management, e.g. emissions trading scheme, financing facility

PoC: shubhashis@shaktifoundation.in

Programme Leads

Programme	PoC	Email Address
High RE Pathways	Manu Maudgal	manu@shaktifoundation.in
Technology and Innovation		
Access for Development		
Industrial Decarbonization	Sachin Kumar	sachin@shaktifoundation.in
Cooling		
Cities and Climate Action	Vivek Chandran	vivek@shaktifoundationin
Critical Raw Materials and Supply Chains		
Clean Freight		
Electric Mobility Initiatives	Ruchir Shukla	ruchir@shaktifoundation.in
Modelling Net Zero Transitions	Shubhashis Dey	Shubhashis@shaktifoundation.in
Air Quality		
Climate Finance		
Artificial Intelligence and Climate Change		
Sustainable Food, Land Use and Agriculture		