CSI-SDG Road map

K N Rao
Director - Energy & Environment
ACC Limited
Sustainable Development Goals
Sustainable Development Goals
SD 2030 Plan
The 2030 Plan of LH

We will generate 1/3 of our turnover from solutions with enhanced sustainability performance.

**Climate**
- We will reduce net specific CO₂ emissions by 40% per tonne of cement (vs. 1990).

**Circular Economy**
- We will use 80 million tonnes of waste-derived resources per year.
- We will implement The WASH Pledge on all sites.

**Water & Nature**
- We will reduce freshwater withdrawal in cement operations by 30%.
- We will make a positive impact on water in water-scarce areas.
- We will show a positive change for biodiversity.

**People & Communities**
- We want zero fatalities.
- We will reduce LTIFR < 0.20.
- We will reduce TIFR by 50%.
- We will reduce our disease rate < 0.1.
- We will have 30% minimum gender diversity at all management levels.
- We will develop initiatives to benefit 75 million people.
- We will engage in collective action to combat bribery & corruption in high risk countries.

**In house**
- We will help our customers avoid 10 million tonnes of CO₂ being released from buildings each year through our innovative solutions.

**Beyond our fence**
- We will provide end-of-life solutions for our products and will supply 4 times more recycled aggregates from CDW/RAP.
- We will make a positive impact on water in water-scarce areas.

**Innovative solutions**
- Low-carbon cement & concrete
- Insulating concrete
- Thermal-mass solutions
- Recycled aggregates
- Urban mining solutions
- Waste management services
- Rainwater harvesting
- Pervious concrete
- Stormwater protection
- Vertical green solutions
- Affordable housing materials and solutions
- Affordable sanitation solutions

**Note:** all targets are for 2030. Baseline year is 2015 unless stated otherwise.
ACC – SD 2030 Plan

**Climate**
- We will reduce net specific CO2 emissions by 34% per tonne of cement (vs. 1990)

**Circular Economy**
- We will use 9.6 million tonnes of waste-derived resources per year

**Water & Nature**
- We will reduce specific freshwater withdrawal in cement operations by 19%
- Complete BIRS baseline assessments at all quarries
- Have BMP for all quarries

**People & Communities**
- We will have zero onsite fatalities
- Reduce LTIFR < 0.50
- Reduce TIFR by 30%
- Benefit > 1 Mio people from our social programs
- Assess 80% high risk active suppliers

**2020**
- Reduce net specific CO2 emissions by 34% per tonne of cement (vs. 1990)
- Use 9.6 million tonnes of waste-derived resources per year
- Reduce specific freshwater withdrawal in cement operations by 19%
- Complete BIRS baseline assessments at all quarries
- Have BMP for all quarries
- Have zero onsite fatalities
- Reduce LTIFR < 0.50
- Reduce TIFR by 30%
- Benefit > 1 Mio people from our social programs
- Assess 80% high risk active suppliers

**2030**
- Reduce net specific CO2 emissions by 40% per tonne of cement (vs. 1990)
- Use 10.7 million tonnes of waste-derived resources per year
- Reduce specific freshwater withdrawal in cement operations by 30%
- Show a positive change for biodiversity
- Implement WASH pledge at all our sites
- Have zero fatalities
- Reduce LTIFR < 0.20
- Reduce TIFR by 50%
- Benefit 3.26 million people from our social programs
- Assess 100% high risk active suppliers+ Top sub-suppliers with high risk identified & assessed

Note: Baseline year is 2015 unless stated otherwise

WASH Pledge: Water, Sanitation and Hygiene Implementation at the Workplace, LTIFR: Lost Time Injury Frequency Rate, TIFR: Total Injury Frequency Rate
CSI SDG Roadmap
“Players in all sectors will benefit from developing detailed ‘roadmaps’ to guide their sector’s shift to sustainable development in line with the Global Goals.”
WBCSD SDG Sector Roadmap Framework

1. Establish current position
   - Map SDG impacts across the value chain
   - Prioritize SDGs for the sector

2. Identify key impact opportunities
   - Identify key opportunities to impact the SDGs
   - Assess sector apportionment

3. Call to action
   - Identify barriers, potential solutions and impact accelerators
   - Identify short-, medium- and long-term actions to advance SDG impact opportunities
   - Monitor, measure and report progress

Part 1: Sector & SDGs
Part 2: Impact Opportunities
Part 3: Pathways to Impact
Components of an SDG sector roadmap

**KEY COMPONENTS**

1. Articulate a common SDG vision for the sector
2. Demonstrate how the sector interacts with the SDGs
3. Identify opportunities for the sector to have the most significant impact
4. Explore actions sector can take to advance SDG impact opportunities
5. Identify common barriers and impact accelerators
6. Engage with key stakeholders across the value chain

**ENABLERS**

- Partnerships & collaboration
- Data aggregation
- Innovation
Criteria to help shortlist impact opportunities

1. **Additionality**
   1. Is this something the sector needs to start doing (beyond BAU) or are some initiatives already underway?
   2. Are there existing initiatives that need to be scaled or accelerated?

2. **Leadership and sector apportionment**
   3. Will the sector lead this action? Or do other stakeholders need to lead this? If yes, who?
   4. Would this happen without any activity from the sector?

3. **Collaboration and partnerships**
   5. What other partners are needed to make this happen or bring it to scale?
   6. Will peers, customers and other stakeholders support this?

4. **Barriers**
   7. What is the main barrier to realization?

5. **KPI**
   8. What Performance Indicators can be made that can be scaled at sector level?

6. **Business case**
   9. What broader business benefits could be achieved?
Series of sector specific SDG Roadmaps

- Published in Spring 2018
- Launched in July 2018
- To be launched in July
- To be launched in June 2019
- Zinc Sector to be launched in December 2019
- IPIECA O&G Sector to be launched in July 2020
Chemical sector SDG roadmap

• Led by leading chemical companies and industry associations to illustrate the potential of the chemical sector to significantly contribute to the SDGs agenda.
• Focus on areas where the sector can have the most impact and explore key opportunities and pathways to accelerate and optimize this impact on the road to 2030.
VISION
The Indian cement sector aspires to demonstrate leadership by identifying areas where the sector can have the most impact in realizing the SDGs by accelerating innovation, scaling successful stewardship initiatives, and creating new opportunities for collaboration.

MISSION
The Indian cement sector is committed to implementing the Roadmap, measuring progress with clear KPIs and seeking new partnerships to continually evolve and expand the sector’s contribution to the SDGs.
The **Cement Sustainability Initiative (CSI)** is a global effort by 23 major cement producers with operations in more than 100 countries. Collectively these companies account for around 30% of the world’s cement production and range in size from very large multinationals to smaller local producers. ([https://www.wbcsdcement.org/](https://www.wbcsdcement.org/)).

The following **9 companies** are participating in the SDG Cement Sector Roadmap in the Indian context:

As of 1 January 2019, the CSI program moved to the Global Cement and Concrete Association (GCCA). WBCSD continues to lead the work on SDGs and will collaborate with GCCA on the topic going forward.
Brief outcome of CSI SDG Roadmap

**Energy & Climate**
- Low Carbon Transportation and Logistics
- Energy efficiency
- Renewable energy
- Resilient and sustainable products

**People and Communities**
- Skill enhancement
- Diversity
- Inclusiveness
- Safety
- Livelihood creation

**Circular Economy**
- Utilization of waste as resource

**Water and Natural resources**
- Conserving natural resources
1. Low Carbon Transportation and Logistics
   ✓ ACC is long term contract with Indian Railways
   ✓ ACC’s transport mix includes ~45% through rail network
   ✓ ~50% ACC’s logistics is through bulk transportation
   ✓ Biofuels usage in mining equipment
   ✓ ACC sources majority of materials near to its plants
   ✓ Majority of ACC’s fleet is having RFID and GPS to improve logistics efficiency

2. Resilient and sustainable built environment
   ✓ ACC is having various climate resilient cement products as per the details given below
     - ACC Gold Water Shield – Shield against water seepage from all directions
     - ACC Suraksha Power – High strength, power and resistance to corrosion
     - ACC HPC Long life – Fights corrosion and resists cracks
     - ACC F2R superfast – Superior Strength and super fast setting
     - ACC Concrete+ , Xtra Strong – Foundation, Columns, beams & rods
2. Resilient and sustainable built environment
   ✓ ACC is having various climate resilient concrete products as per the details given below
     ☐ ACC Ecocrete – Chemical resistance, reduced shrinkage
     ☐ ACC Permecrete – Water harvesting while giving the desired strength for a given application
     ☐ ACC Jetsetcrete – Easy flow and faster strength
     ☐ ACC Feathercrete – Low Thermal conductivity and noise absorption
     ☐ ACC Thermocrete – Reduces air conditioning / cooling requirement

3. Energy efficiency and use of clean energy
   ✓ Captive generation of 19 MW wind power spread in three states i.e., Tamilnadu, Rajasthan & Maharashtra and generated 34.74 million units of wind energy
   ✓ Utilized 44 million units of solar energy through PPA
   ✓ 7.5 MW waste heat recovery power generation from two Cement Kilns in Himachal Pradesh
   ✓ Contracted over 68MW of Solar Power
   ✓ Use of Hydel power in Himachal Pradesh
ACC’s Efforts towards meeting SDGs – People & Communities

1. Skill enhancement
   ✓ 1930 nos youth benefitted through placement linked employability programs during the year 2018
   ✓ 2 Cement oriented training centers at Kymore and Jamul
   ✓ Regular mason training programs

2. Enhance diversity and inclusiveness
   ✓ During the year 2018, training exclusive 50 member female team for operations of Central Control Room
   ✓ Clear targets to improve gender ratio
   ✓ ACC encourages local hiring and sourcing

3. Transport Safety
   ✓ Drivers passport and Vehicle passport system
   ✓ Defense driving training for drivers through Driver Management Centres
   ✓ RFID and GPS to improve logistics efficiency
   ✓ Drivers Rest rooms which provide basic amenities like rest rooms, access for hygiene sanitation, food, saloon, recreation etc.,
ACC’s Efforts towards meeting SDGs – Circular Economy

1. Utilizing waste as a resource
   ✓ Utilized 5.91 million tons of Flyash and 3.25 tons of Slag in Cement manufacturing
   ✓ Utilized 0.37 million tons of waste material as alternative raw materials
   ✓ Utilized 1.49 million tons of crush rock fines in place of natural sand in Concrete operations
   ✓ Utilized 35,577 tons of flyash in our GBC operations and conserved 81,416 tons of top soil
ACC’s Efforts towards meeting SDGs
Water and Natural resources

1. Natural resource management
   ✓ We have assessed the biodiversity sensitivity of all our active operating mines by using BIRS tools
   ✓ Annual capacity building activity for all concerned employees conducted
   ✓ All our mines are having Biodiversity Management plans
   ✓ We conserve huge amount of rain water in our plant, colony and mined out pits, which provides us water security
   ✓ With the help of Mine Master, we carry out intelligent mining and utilize maximum amount of low grade limestone.
Thanks
Cement Sector Contribution in meeting SDGs
## Efforts towards meeting SDGs

<table>
<thead>
<tr>
<th>SDG</th>
<th>Cement Sector focused areas</th>
<th>ACC’s initiatives</th>
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| **1 NO POVERTY** | - Providing employment through skills development / enhancement through collaboration with academic institutions, NGOs etc.,  
- Vocational training program  
- Aligning company specific initiatives with national programs  
- Increasing diversity in its work force  
- Scaling existing measure  
- Mason training in sustainability construction practices | ACC VIDYA UTKARSH.  
ACC is LAADLI for Girls education  
Supported 160 schools through this initiative and total 31421 students got benefitted during 2018 |
| **2 ZERO HUNGER** | - Assisting local communities to meet their basic nutritional needs.  
- Supporting farmers for sustainable agriculture, organic farming and construction of farm ponds for water harvesting | Project LEISA (Low external input sustainable agriculture).  
Total 1290 farmers got benefitted during the year 2018 |
| **3 GOOD HEALTH AND WELL-BEING** | - Increased health & safety awareness  
- Medical facilities to communities  
- Contractor safety  
- Driver safety  
- Regular vehicle inspection, driver’s passport, drivers training, resting place for drivers | ACC Arogyam  
#SaveKidsLives  
During 2018, children from 116 schools benefitted through sanitation facilities and 12581 children got benefitted from other initiatives through Anganwadi centers |
## Efforts towards meeting SDGs

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<td>4</td>
<td>Promoting education, professional skills enhancement programs, technical apprenticeships to improve employability</td>
<td>ACC VIDYA UTKARSH. During the year 2018, 670 students provided scholarships under this scheme ACC is LAADLI for Girls education</td>
</tr>
<tr>
<td>5</td>
<td>Self help groups&lt;br&gt;Improving gender ratio&lt;br&gt;Non discrimination in workplace&lt;br&gt;Fair wages&lt;br&gt;Women empowerment programs</td>
<td>Project SWAVALAMBAN&lt;br&gt;Total 1562 Self Groups are operating and 5199 women got membership of NABARD ‘A” level rated SHGs</td>
</tr>
<tr>
<td>6</td>
<td>Reduced process water consumption&lt;br&gt;Increased rain water harvesting&lt;br&gt;Increased recycling and reusing treated water&lt;br&gt;Providing clean water to communities for drinking, agriculture and sanitation&lt;br&gt;Commitment to WBCSD WASH (Water, Sanitation and Hygiene)</td>
<td>ACC SANRAKSHIT PARYAVARAN&lt;br&gt;Water harvesting&lt;br&gt;Water conservation&lt;br&gt;Water metering&lt;br&gt;ACC AROGYAM&lt;br&gt;WASH</td>
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<td><strong>7. Affordable and clean energy</strong>&lt;br&gt;Energy efficiency through continual technological upgrades.&lt;br&gt;Scaling investment in renewable energy such as wind and solar energy.</td>
<td>Energy efficiency improvement projects &amp; energy conservation&lt;br&gt;19 MW Wind Power generation&lt;br&gt;Procured 44.48 million units of renewable energy through PPAs&lt;br&gt;Contracted over 68MW of Solar Power</td>
<td></td>
</tr>
<tr>
<td><strong>8. Decent work and economic growth</strong>&lt;br&gt;Safe production and management of cement&lt;br&gt;Upholding labour standards&lt;br&gt;Respecting human rights throughout entire value chain&lt;br&gt;Human development.&lt;br&gt;Skilling and employment</td>
<td></td>
<td>Project DISHA. During the year 2018, 1930 youth benefitted through placement linked employability</td>
</tr>
<tr>
<td><strong>9. Industry, innovation and infrastructure</strong>&lt;br&gt;Promoting industrial symbiosis for addressing environmental and resource concerns, reduce raw material and waste disposal costs&lt;br&gt;Support circular business models&lt;br&gt;Develop new business opportunities&lt;br&gt;Green product ratings and environment product declaration (EPD)</td>
<td></td>
<td>Adopting latest environmental regulatory requirement&lt;br&gt;Utilization of wastes from other industry through Co processing&lt;br&gt;Green product label and EPD for all ACC’s products</td>
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| 10  | Education – skill enhancement initiatives  
|     | Gender equality and women empowerment  
|     | Rural development and livelihoods  
|     | Recruitment of disabled workforce | ACC VIDYA UTKARSH  
|     | ACC is LAADLI for Girls education  
|     | Project SWAVALAMBN |
| 11  | Green Standards & labels for products.  
|     | Promoting Green construction  
|     | Adopting green practices on construction | Green product label and EPD for all ACC’s products  
|     | Supporting basic housing for all scheme through ACC’s Green Building Centers initiatives and sustainable cement and concrete products |
| 12  | Better water stewardship  
|     | Innovations in waste management systems  
|     | Reducing life cycle impacts of consumption.  
|     | Resource conservation  
|     | Production of blended cements  
|     | Enhanced blended cement portfolio  
|     | Recycling of construction demolition waste | Rain water harvesting, water conservation, recycle and reuse of water  
|     | Geocycle  
|     | Clinker Factor improvement  
|     | Utilization of low quality lime stone  
|     | Thermal and electrical energy efficiency |
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| 13  | Clearly defined targets for reducing CO2 emissions by exploring levers like:  
  ✓ Clinker factor  
  ✓ Reduced thermal and electrical energy  
  ✓ Thermal substitution rate  
  ✓ Waste heat recovery system  
  ✓ Enhanced renewable energy utilization  
  ✓ Continuous adoption of latest technologies | Reducing specific CO2 emissions by 40% by 2030 when compared with base year of 1990 |
| 14  | Not much relevance for Cement Sector | ---- |
| 15  | Adopting sustainable mining practices to mitigate negative  
  ✓ Afforestation  
  ✓ Structured mine rehabilitation plans |  
  ✓ Rapid biodiversity assessment of all active mines to assess biodiversity sensitivity  
  ✓ Continued green belt development  
  ✓ Scientific mines rehabilitation as per approved mining plan  
  ✓ Advanced Nonel blasting practices |
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| 16  | ![Image](image1.png) | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS  
- Maintaining ethical business  
- Engaging with local, regional, national and international bodies on societal structures and laws  
- Promoting responsible business practices (including anti-bribery and corruption)  
| 17  | ![Image](image2.png) | 17 PARTNERSHIPS FOR THE GOALS  
- Develop multi-stakeholder partnerships and agreements to achieve sustainable development  
- Collaborate with partners, Government organizations, NGO groups and other involved stakeholders working towards sustainable development;  
- Contribute to improving environmental and safety performance through capacity building  
|   | |  
- Strict enforcement of Anti Bribery and Corruption directive, Fraud risk management practices and ethical business  
- Enforcement of ethical business practices across supply chain  
- Continuous engagement with Government bodies like MoEF&CC, CPCB, SPCB, MNRE, BEE, MCA, IBM, BIS and industries bodies like CSI, CII, TERI, FICCI, IMC etc., |