



GIGATONNE VIZAG

CASE STUDY

MAY 2023



GIGATONNE SEED

SHEKAR, AJAY, LAXMAN, RAMU & PRASHANT,

TRANSPORTING THE COLLECTED WASTE IN ONE OF THE 3 ELECTRIC VEHICLES OWNED BY THE GIGATONNE SEED TEAM IN VIZAG. EVS ARE ALSO A SHARED COMMUNITY ASSET. [23 JANUARY 2023]

■ GIGATONNE

PROBLEM STATEMENT

Over 120,000 tonnes of greenhouse gases are emitted every 2 minutes. This will cumulatively set us on track for catastrophic climate change where it is too hot to farm, grow crops and be outdoors; the effect of climate change and global warming will be felt everywhere. We have observed two key issues in tackling climate change.

Despite a large and growing youth population (projected to reach 1.29 billion by 2030), they are not effectively employed and do not benefit from climate action in terms of utilizing their ideas or generating income. **PROBLEM 1**

Carbon markets for financing climate action are underdeveloped, where cheap carbon credits serve as greenwashing, failing to meet both science-based targets and an equity-based approach to addressing the climate crisis. Current responses focus on nature-based or tech-based solutions (carbon sweatshops or robotic vacuum cleaners). **PROBLEM 2**



SAI,

**COLLECTING VEGETABLE WASTE FROM THE MARKET
DESTINED FOR THE LANDFILL. [22 FEBRUARY 2023]**

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GIGATONNE: AN EQUITY-BASED CLIMATE PLATFORM

An effective solution requires collaboration across sectors and the involvement of the most affected communities to co-invest in and benefit from strategic responses. The Gigatonne Challenge (Gigatonne) is an at-scale, grassroots, massively distributed, strategic response aimed to demonstrate in practice how global CO₂e emissions can peak and decline by one gigatonne (a billion tonnes) a year after 48-60 months of efforts. Thus, our mission is to build the world's most effective response to the global climate crisis and shift the direction of the crisis in 60 months, while benefiting one billion of the poorest families on the planet. Our approach to reducing greenhouse gas (GHG) emissions includes creating and providing direct benefits to the bottom 20% income bracket.

GIGATONNE: AN EQUITY-BASED CLIMATE PLATFORM

To tackle Problem 1, we mobilise and support teams across the world to im- **GIGATONNE TEAMS**
plement practical, context-specific initiatives for reducing carbon emissions at speed, at scale, and equitably. These teams come from various backgrounds including local communities, organisations, governments and informal groups who want to start a climate initiative. The Open Gigatonne Protocol provides teams with the operational requirements to become part of this strategic response, including critically, the requirements to access financial resources via super credits.

Gigatonne teams undertake direct emissions reductions, usually starting with diverting food waste from landfills. They diversify into food production, zero-emission transportation, renewable energy (biogas and solar), land rejuvenation, and carbon sequestration. These activities reduce greenhouse gas emissions and benefit the communities in the bottom 20% through

GIGATONNE: AN EQUITY-BASED CLIMATE PLATFORM

part-time employment, food security and energy security that further unlock pathways to sustainable living. We also invest in their capacity building via bespoke training initiatives as well as dedicated Gigatonne coaches. Teams capture their performance and impact data via the Gigatonne Open Monitoring Platform.

The Gigatonne Open Monitoring Platform (built on the blockchain) collects high-integrity, audit quality performance data, verified by third parties. This makes the super-credit transparent and reduces transaction costs dramatically. AI tools help to generate reports in multiple formats, thereby lowering the transaction costs for reporting significantly. We generate and sell high-integrity premium 'Gigatonne Super Credits' for the voluntary carbon market, connecting buyers with the Gigatonne teams' impact.

THE GIGATONNE PLATFORM



FRESH VEGETABLE HARVEST DISTRIBUTION

TO COMMUNITY'S MARGINALIZED FAMILIES. TEAM: SANDHYA, PRASANNA, PAVANI, YAMUNA, RAJANI, RAGHU, MOHAN, TEJA, SHEKAR, YESHWANT, AMMORU, PRASHANT, RAMESH, BALA & RAVI. [11 SEPTEMBER 2022]

■ GIGATONNE

APPROACH

We operationalise intersectionality in two dimensions. In the horizontal dimension we build multi-sectoral teams, involving civil society organisations and NGOs, businesses and the corporate sector and the government. In the vertical dimension, we work at the grassroots level, ensuring participation from a wide range of stakeholders, as well as working with high-level supporters and champions. Our approach involves building highly diverse teams of unlikely allies.

Located on India's eastern coast, on the Bay of Bengal, Vizag – or Visakhapatnam – is one of India's industrial engines and the ninth largest contributor to India's gross domestic product. Being a coastal town and an industrial hub, Vizag is vulnerable to the effects of climate change. Our team in Vizag is a local sports team, made up of previous blue-collar workers. They have

APPROACH

been working with us since 2020 where we have helped them to launch an innovative waste management business.

Our journey started in October 2020 and by June 2022, they had successfully abated 131 tonnes of CO₂e emissions using a budget of \$36,000. They began by focusing on collecting, segregating and composting food waste, and eventually diversified into building zero emissions transport networks (3 e-auto rickshaws with carriers were purchased to support their work). During this period, they employed 19 full-time team members. They further supported 200+ families from the bottom 20% socio-economic bracket in their area by providing partial employment to about 150 and distributing free food packages to another 50 families.

APPROACH

The next phase spanned from September 2022 to March 2023, where they leased 6 acres of land and installed 3 biogas units. Their work reduced emissions by an additional 878 tonnes of CO₂e emissions during this period. The team is processing on average 110 tonnes of organic waste a month, employing a core team of 50, as well as 80 part-time members from within the community, while also providing benefits to 1180+ vulnerable families in their community, including providing employment opportunities for the women in these communities.



TEJA, LAXMAN, RAMU & KRISHNA,

FILLING AND LAYERING THE COMPOST PITS WITH COLLECTED WASTE.

[20 JANUARY 2023]

■ GIGATONNE

INTERSECTIONALITY

With the use of a small budget of approximately \$120,000, the team implemented effective interventions with measurable impacts on the environment and the community within a defined period of time. The impacts on the environment were observed in terms of reduced carbon emissions as well as diverting waste from the landfill. In the process, the team created employment opportunities for youth and women and increased income of households within the community. Additionally, food grown was distributed to the community that works in manual labour (earth works, construction etc.) as well as widows and the elderly in the community who are unable to provide for themselves.

As the number of teams grows in the region and their impact scales, we will see the growth of sustainable food systems, accessibility to renewable energy, and the emergence of a new green economy.



RAJANI & YAMUNA,

DISTRIBUTING FRESH VEGETABLES AS PART OF OUR EFFORTS
IN FOOD SECURITY FOR THE WEAKEST MEMBERS OF THE COMMUNITY.
[11 SEPTEMBER 2022]

■ GIGATONNE

ADDRESSING SCALABILITY

Our role is to build the social, operational, reporting and financial infrastructure of the Gigatonne strategy. Our goal is to establish 1,000 teams worldwide, located in strategic climate flashpoints. In aggregate, these teams working together will provide an at-scale response to the climate crisis as well as a pathway to a green economy for millions that are most climate vulnerable. The Gigatonne Open Protocol will guide teams in developing their prototypes while the Gigatonne Open Monitoring Platform collects, audits and shares impact and performance data to ensure measurable impacts and accountability.

THE GIGATONNE TEAM

The Gigatonne strategy arises from a deep understanding of the nature of complex Challenges. Our team has extensive experience across philanthropy, civil society, the private and public sectors. We are former CEOs, strategists, researchers, project managers, and community organisers. We have managed multi-billion-dollar foundations and agile start-ups as well as collectively supported thousands of people in tackling complex challenges, from global food systems to youth unemployment. Therefore, given our deep sectoral expertise and wide networks of relationships to draw on, we are confident in the upscaling of our programme.

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GIGATONNE

A NEXT-GENERATION PLATFORM FOR RAPIDLY, FAIRLY,
AND EFFECTIVELY, TACKLING THE CLIMATE CRISIS.

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