

Developthon 2022 - Code for Social Impact

“Smart and connected Villages”

The soul of India lives in its villages - Mahatma Gandhi



65.07 % of India's population lives in its rural area. Indian villages are a tight knit community with unique problems and issues endemic to the specific region. The youth from the rural areas have been migrating to cities in search of work due to the absence or rarity of opportunities for employment in rural areas. They leave a good quality life in a village for a penurious quality of life in cities.

Smart and Connected Villages will not just impact 65% of Indians but also set a chain reaction catapulting a major porting of '**Bharat**' towards development and progress. For the development to percolate to the grass root level, focus must be devoted to the progress of villages.

Today's Developthon will be part of the same effort towards the soul of India and the solutions you will hack your way towards will impact **1.1 Billion lives**.

The basic concept of smart villages is to gather the efforts and strengths of people from different streams and integrate them with information technology to benefit the rural communities.

According to Mahatma Gandhi's philosophy and thought, Smart village projects provide, "**Global means, Local needs**".

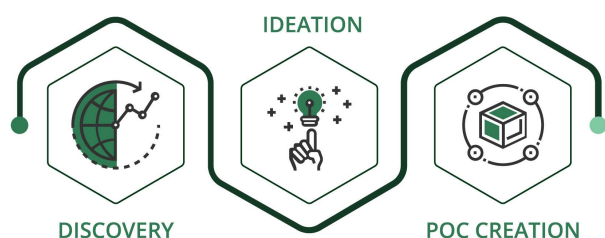
Services needed for smart & connected villages:

1. Food security.
2. Community Engagement –
 - Good governance,
 - Social development.
3. Health Care –
 - Animal Healthcare.
 - Personal Healthcare.
4. Education - The basic knowledge for awareness.
5. Local business - economic development
6. Other Initiatives - New and Innovative Solutions

Requirements of Smart & Connected Villages:

1. Last mile delivery
2. Access to smart & affordable transport system
3. Access to smart and affordable medical facilities
4. Smart solutions related to agriculture & market connect
5. Smart Public infrastructure maintenance
6. Smart Management of solid and liquid waste.
7. Access to need & skill based education
8. Access to right information and awareness on governance
9. Many other rural problems

ROADMAP



Brainstorming session - Research & Discovery

Code session 01 - Ideation

Code session 02 - Formulation

Code session 03 - Structuration

Code session 04 - Proof of Concept

Final code session - Pitch deck preparation

*This roadmap is only for reference and not a fixed rule

Problem Statement Buckets

1. Geo Data Solutions
2. Last Mile Delivery
3. Village Infotainment system
4. Good Governance
5. Village Logistics
6. Smart rural health systems
7. Smart rural Agri systems
8. Smart and connected school system

Geo Data Solutions

Description

Geo spatial data plays a crucial role in today's development and infrastructure projects. The Indian rural masses have been extensively mapped and surveyed. The Indian GIS initiative provides an entire sector to explore and utilize for the betterment of the rural masses. Developers can use the vast resources listed in the resources section to come up with innovative solutions.

Category

Database management, Algorithm, Data analysis, App development.

Examples

Precision farming, Real time crop monitoring, Independent crop management systems.

Last Mile Delivery

Description

Today's connected world provides us with limitless possibilities paving innovation. India's delivery market peaks with \$6 billion focused on urban masses, now the wait is for it to trickle into the rural masses. Developers can explore delivery issues of the rural customers ranging from simple fertilizers to complex services panning remote places of India.

Category

Service based, problem solving, App development, Web development.

Examples

Agri E Commerce, On farm services.

Village Infotainment System

Description

The Smartphone penetration into the rural masses clocked 69% in 2021 opening up an unprecedented opportunity to reach these masses. While a lot of information exists online, it still is unreachable to these masses due to lack of awareness or reachability. Developers can play with the methods of delivery for crucial information through a refreshing and entertaining platform.

Category

Application development, content creation, creative delivery methods, web development.

Examples

Gamified applications for English training.

Good Governance

Description

Governance plays a crucial role for the development and progress of rural sectors. Although the current systems and panchayat have come a long way yet they are far away from perfection. Good governance systems require superior transparency, connectivity, and reach of information. Developers can work on platforms and models to make governance more accessible and simpler for the rural masses.

Category

Database management systems, Web development, App development.

Examples

Welfare scheme info delivery systems.

Village Logistics

Description

Indian is a vast country and logistics is the gear keeping it moving. Although a version of logistics exists in the rural masses, it still remains budget driven rather than optimisation. Logistics in some sectors are practically nonexistent in rural masses. Developers can brainstorm smart and cost effective logistical solutions for transport of necessary essentials such as farm produce, handmade craft work and groceries.

Category

Logistics solutions, App development, Data management, Prediction models.

Examples

Emergency transportation, cattle transportation.

Smart Rural Health Systems

Description

In India one of the prevalent issues regarding health inequalities is regional or geographical disparities (Rural and Urban area) especially in terms of access to quality health care facilities or even just for health care facilities. A person living in an urban or city region always has the advantages of accessing better health care due to better socio-economic status, dense network of health institutions and transportation network within reach, developed infrastructure and so on. Developers can bring such solutions to the rural masses through smart and innovative solutions

Category

Health tech, application, data management, App development, Web development.

Examples

Easy doctor access, Pharma inventory management.

Smart Rural Agri systems

Description

Although a significant portion of the Indian agriculture sector is modernized to a certain degree. There still exists a dire need for smart solutions to aid the independent and small scale farmers. Any attempt to transform the agriculture sector needs to imbibe an ecosystem thinking and a digital ecosystem. The agriculture value chain extends from crop selection to crop management and the market. This bucket is a goldmine for developers to innovate and provide smart solutions for existing problems.

Category

Agri tech, app development, data management, web development.

Examples

Demand and supply prediction models, Automated farm models.

Smart and connected school system

Description

Education is the doorway to the wider world and an exposition on rural infrastructure is incomplete without an assessment of the extent to which we have been able to open this door for the children of rural India. Issues of Quality education and access remain challenges in major parts of the Country. A simple classroom could be the bridge from poverty to a sustainable life for a major portion of these rural masses. Developers can make smart solutions for management and penetration of quality & accessible school facilities for rural India.

Category

Edu tech, application, data management

Examples

School quality index, student happiness index.