

## 1+1=11: "No More Bloody Potholes". Citizen DIY action on road repair and maintenance.

Shimla, India Shimla, India



Viveik Saigal



Year Founded:

2015

**Organization type:**

nonprofit/ngo/citizen sector

Project Stage:

Growth

**Budget:**

\$100,000 - \$250,000

Website:

<http://www.viveik.org/current-projects/road-seva>



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### Project Summary

#### Elevator Pitch

**Concise Summary: Help us pitch this solution! Provide an explanation within 3-4 short sentences.**

Municipal Roads, the untouchable domain of Government and big business, riddled with potholes, killing, maiming users ,are now being repaired and maintained by the Citizen Group "1+1=11" in Shimla, India, This community run and funded initiative is redefining a Citizen's role in local governance.

**WHAT IF - Inspiration: Write one sentence that describes a way that your project dares to ask, "WHAT IF?"**

What if technology, affluence and education enable communities to reject poor governance by directly taking charge their collective development and fulfilling and managing functions that traditionally are considered "Government and Big Business only " ?

#### About Project

**Problem: What problem is this project trying to address?**

Public Apathy to poor governance that lead to deaths, injuries, retarded community development from inadequately built and maintained roads. Citizens are unwilling to explore an area that has traditionally been the domain of Government Agencies and Big Business are passive spectators in ensuring that the standards, specifications and build quality of roads are upheld and the maintenance and repair of roads conducted as per national standards.

**Solution: What is the proposed solution? Please be specific!**

Citizens, by taking a hands-on approach in road pothole repair and general road maintenance will through experiential knowledge and education, play an engaged part in ensuring that the standards, specifications and build quality of roads will improve nationwide leading to reduced deaths, injuries and faster community development through improved transit. This will create a "can-do" environment and create a networked community willingness to engage in the deeper exercise of identifying their common needs and engage in a more informed and meaningful dialogue on their development pathways with local and National Government and building increased resilience and capacity in solving challenges and problems within their capabilities.

### Impact: How does it Work

**Example: Walk us through a specific example(s) of how this solution makes a difference; include its primary activities.**

1. A well maintained road: The "Cold Patch Method" of road repair allows for a safe and rapid production of a large quantity of Asphalt Mix in a small space using simple tools and commonly available materials. The material can be laid on prepped pothole and pummeled into position using hand tools and simple enough for all. 2. Continuous Maintenance: The Asphalt Mix once prepared has a shelf life of 3 months. That allows potholes to be repaired while still in their early stage of deterioration. 3. Community Cohesion: Roads are used by everyone. There is a huge buy-in from community for a simple and effective repair method that helps improve transit. This rallying point help lubricate further community engagement in development issues.

**Impact: What is the impact of the work to date? Also describe the projected future impact for the coming years.**

The first Phase of road repair has been completed. 7000 kgs of asphalt material prepared and laid by community volunteers of both Genders. 17 team members trained. There is a growing motivation within volunteers to monitor and audit the build quality of a nearby road repaving project scheduled to start in March. The Mayor and local Municipal Engineers have visited and observed this new "Cold Patch" method and are keen to implement it in their future plans. Local news coverage has created a sense of pride and optimism in the community. The community is now also interested to take the lead in the repair of rainwater drainage and road fencing. Given the physical and social nature of the work, volunteers feel well exercised and connected. Neighbouring communities are making contact to learn the process and understand its working. The project is ready for citywide adaptation and beyond.

**Spread Strategies: Moving forward, what are the main strategies for scaling impact?**

Repackaging/ redesigning Industrial ready Materials and Tools to be retail/Individual friendly. Starter Packs Development. All materials and tools to get started in a box shipped nationally. Website and Social Media outreach: Mobile friendly DIY videos/photos and Text on processes and workflow. Education: Textbook/ebook/MOOC: Widening Citizen education on Road building standards, specifications and Auditing. Trainers and Facilitators: Help startup new Chapters. Creating Community: Connecting communities nationwide with online forum and visibility in Road-related conferences.

**Sustainability**

**Financial Sustainability Plan: What is this solution's plan to ensure financial sustainability?**

-Community, friends, family and personal resources. -Foundation and Individual Funding. Getting grants from Organisations and Individuals interested in this space. -Starter Packs. Markup on tools and machinery supplied or rented. -Material Supplies. Bitumen, Ready Mix sales to Govt and other organisations. Large buyer discounts as volumes increase.

**Marketplace: Who else is addressing the problem outlined here? How does the proposed project differ from these approaches?**

There is no Competitor at this time as this is the expected role of the Government. We are filling in the role of community funding and Citizen's personal action in areas and pockets where Governance is weak due to intention, finances or entrenched interests. Project's long term objective is to be redundant as soon as possible, hoping that the responsible Government Departments take charge of their responsibility and work out feasible partnership models with local Citizen groups that are efficient and productive.

**Team**

**Founding Story**

I love roads. While in China, I watched road crews hand-build their fantastic road infrastructure. They used simple techniques. Shimla Municipal Roads are resurfaced every 5 years. They quickly fall apart and see some seasonal attempts at repair, mostly rocks and mud are used to fill up the potholes. I wanted to crack this problem. How can we repair roads under all weather conditions ? Enter Prof. Kandhal (Google !) Professor Kandhal perfected the "cold" asphalt patch mix for the USA highways Dept and has now relocated to Jaipur, India. Prof Kandhal instantly replied to my email, sent a colleague over to Shimla to give us a "Cold Patch Road Repair workshop". We have been busy since !

**Team**

The Team consists of part time volunteers with no paid position. The roles are loosely organised during the pilot stage. The designations are for the reader's clarity of role given the competencies of the members. As the intent is to grow independent volunteer based Chapter across the nation we intend to put most material and techniques on the web and provide tools and materials to those who want that service and are new to this discipline, like we were. We will hope to be a force that can lobby on behalf of the Citizens if this project gains traction. The current team. CEO Mr. Viveik Mohan Saigal. Founder. Role: Finance, Team-building, Strategy and PR. CTO Dr. Prithvi Kandhal. Technology Provider and Consultant. Specifications and Standard Drafting. Technology Education. COO Mr. Bhiwani Chauhan. Materials and Vendor Development. Production : Mr. Vir Chand . Stores and Mix Manufacturing. New Chapter Development: Mrs Madhu Rajan. Community Outreach. Shimla City Coordinator: Dr. B.S. Negi: City Volunteer Development and Media Relations. Govt Liason and Legal: Mr. Sanjeev Bhushan Sr. Advocate. To be recruited. Social Media and Website Development and Update. Outstation Trainers.

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