



# Community Climate Resilience for Education Improvement Project Maharashtra, India

## PROJECT OUTLINE



## Background.....

Significant public and international attention to climate change and its impact has required governments to consider how they will respond to increasingly uncertain environmental futures.

Where research and subsequent planning have been undertaken, this has primarily revolved around aspects which are related to economies, infrastructure, food security and health care, each of which have been drawn up in an attempt to plan for adapting to uncertain futures.

Additionally, recent decades have seen an increasing recognition that continued growth and development in India will only happen if the education of its future adults is prioritised. As a result, we have seen increased investment in schools and education, which have shown an increase in school registrations. But notably, what is missing is a recognition that the changing climate is, and will increasingly, have a detrimental impact on education and on developing countries in particular since education and social and economic development are inextricably linked.

Research by Dr Colin Coleman (University of Lancashire) has shown that the impact of climate change on education is indirect in that it creates a series of environmental and social conditions, each of which has a consequential impact on decisions taken by families and, therefore, directly affects educational choices and decisions.

The findings demonstrate the extent to which a range of seemingly disassociated climate-related impacts often combine to exacerbate the already present social and economic inequalities which can be visible in Indian society and which subsequently can have a disproportionate effect on the education of primary aged children. In particular, it provides a grounded view of how the issue of climate justice is not only an international issue but one that has many levels, with multiple entry points and impacts.

It is through examination of the many ways in which a changing climate disproportionately affects the education of so many children in such communities that we propose the need to recognise the importance of a range of multi-layered interdisciplinary policies and actions that seek to mitigate the effects which may have a detrimental and long-term impact on the education and as a result, the future potential of so many.

## Research Outcomes.....

The research arose out of a personal connection to a group of rural primary schools in Maharashtra, India. Throughout that time, in conversation and through observation, I became aware that children's education was being disadvantaged not only by the teaching methods that I had gone out to observe, but more significantly by the effects of climate change on their communities.

Many of the factors impacting children's education as a result of climate change are primarily not educational ones but are social and economic factors which have an impact on the educational experience for many of the socially and economically disadvantaged who live in rural communities.

The research provided numerous examples of how the climate in India was changing and how it may possibly continue to do so in the future further limiting families' ability to plan effectively and attempt to mitigate or reduce the longer-term impacts. My research provides further evidence of the climatic changes being experienced, but also how these changes were having a direct impact and forcing families to make difficult but necessary choices. None of these choices are made with education in mind, they are simply choices that have to be made to survive. Limited educational opportunities and poor outcomes are the consequence.

The research shows that the impact on schools themselves is two-fold: pupils' attendance levels and environments that are appropriate to effective learning. Both pupils and teachers find their educational environments (classrooms in particular) to be limiting. Limited light, overcrowding and extreme heat combine to make classrooms even less suitable to learning. Teachers find the classrooms difficult to work in effectively, also through class sizes, heat, lighting and the limited resources they have available.

And so, in summary, the research shows that:

- rural communities have experienced changes in their climate over the last few decades
- these changes are forcing the most vulnerable families to respond in ways that require the involvement of their children, including looking after siblings or undertaking employed work
- families are struggling to mitigate / limit the impact of the changing climate as they have limited support and few options
- children are affected in that they are unable to attend school either as a direct consequence of the climate (e.g. heat which causes illness) or through indirect ways (such as having to work to feed the family)
- although schools are held accountable for pupil outcomes, they have little ability to address the main issues as there are few financial resources or the authority to influence other areas that are having detrimental effects on school attendance e.g. health provision.
- there is evidence to support the view that the most significantly impacted area of children's lives is poverty. This is not to say that, in this context, poverty is uniquely attributable to the changing climate, but more that it acts a 'threat multiplier', exacerbating the factors that impact on the lives and decisions of families.
- the ability to address many of these issues needs to be facilitated by the government at all levels, but that it delivers a programme of climate mitigation that is structured on an impact basis, not a departmental one. Furthermore, it delegates as much of the decision making to local communities as is possible.

- initiatives designed to address areas of concern need to be longitudinal, not short term and they should be focused on the causes and not the symptoms.

## Our Plan.....

On the basis of the research, and the long-term relationships developed with three rural communities in Maharashtra, we want to pilot a three-year project which aims to build climate-related resilience and mitigation with the ultimate goal of improving the primary educational experience of children in each village.

*The aim of the project* is to work with three rural communities in India, to improve their resilience to climate change and as a result, improve educational outcomes.

In achieving this, we will:

**Aspect 1:** *improve access to basic medicines (e.g. pain killers, antibiotics) which would reduce the necessity for children to be absent from school for long periods*

**How?** Research shows that children are often absent from school as a result of (relatively) minor ailments, such as viruses, pain, respiratory issues. In the UK (and many other locations worldwide) children's attendance at school is improved through access to extremely cheap drugs which do not require prescriptions. Access to paracetamol, antihistamines and other similar products can be provided to families at a low/free cost.



**Aspect 2:** *invest in making homes more resilient to weather extremes and upgrading school buildings, so as to improve the learning environment (brighter, cooler)*

**How?** We found that families frequently commented on the increasingly extremes of heat in their homes. This heat causes a lot of malaise and increases recovery times from illness. Similarly, children and teachers say that their classrooms are too hot, have very little ventilation and are dark. We want to upgrade homes and schools to limit the impact of the unpredictable nature of climate change. For example, painting roofs with heat reflecting paint, installing solar power to power lighting and ventilation.



**Aspect 3:** *invest in renewable energy (solar energy) in each school, but facilitate access to other villagers*

**How?** We want to partner with a large Indian based renewable energy supplier to install solar power into each of the three primary schools. This power would allow the schools to improve learning environments and allow the school buildings to be used by others in the community outside of school hours. Spare capacity would be accessible by village residents.



**Aspect 4:** *develop youth advocates scheme, supporting their communities through increased knowledge of climate change and the ability/capacity to speak for their communities*

**How?** We want to develop the youth advocates scheme we have already started in one village. We will provide training and support to groups of mixed-gender, mixed-caste youths, which will support them in advocating for their communities and by providing them with the information they need to educate residents about the nature and manifestation of climate change.

**Aspect 5:** *improving access to information about how other communities have acted (in terms of agriculture, water preservation, forests etc.)*

**How?** Many communities around the world use the internet to see how other places are addressing the key issues of climate change, such as improving the way that self-sufficient agriculture is managed and implemented. Improving food sustainability in families will improve long term health and reduce malnutrition which particularly affects the under 5's (especially in terms of poorer levels of educational attainment in later life).

**Aspect 6:** *introducing new forested areas to provide habitat for wildlife that reduces the impact on communities (e.g. langurs)*

**How?** Evidence from the three original research villages shows that as deforestation continues locally, the intrusion of animals (in terms of langurs and snakes) has increased and this affects schools and also leads to more interactions which have negative affects on family and community life. Additionally, by creating more sheltered areas it will provide more areas of shade in the extreme heat.



**Aspect 7:** *improve nutrition 'year-round' for primary and pre-school age children*

**How?** School meals have made a real difference to the lives of children in rural communities. However, during longer periods of school holidays (summer holidays, closure for extreme heat, festivals etc.) children do not get access to the (often) much needed provision of a daily meal. Consequently, this has an impact on physical development. We want to provide lunchtime meals during the holiday periods as well, for all children of primary age.

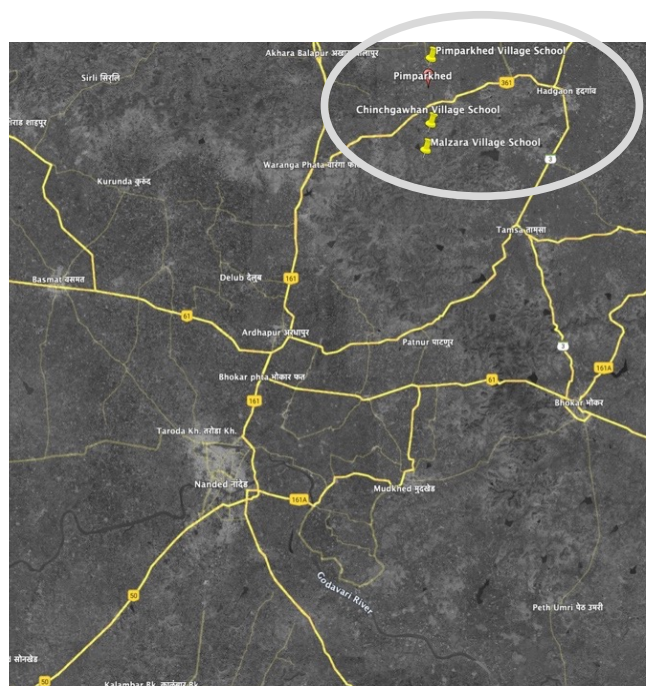
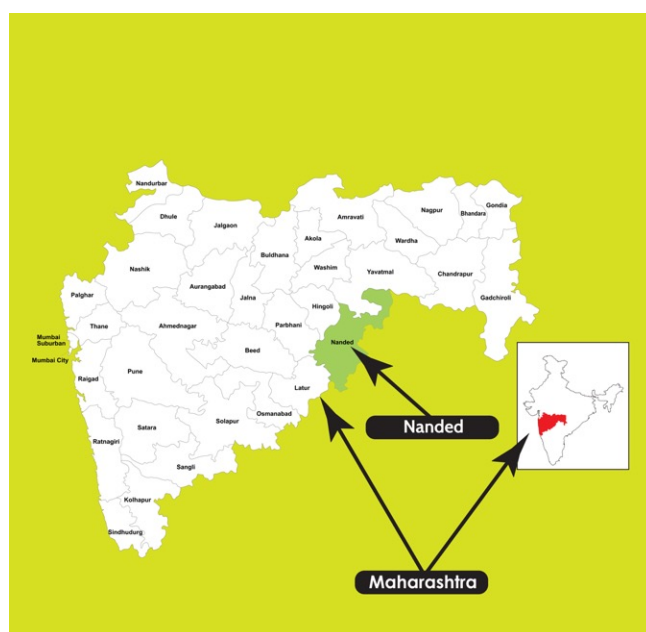


**Aspect 8:** *climate change 'textbook' for use in upper primary / lower secondary schools*

**How?** We want to produce a handbook that helps students understand that climate change is real, is a global issue and not the fault of their community's actions. The book will provide an explanation of how climate change has occurred, the terms associated with it, some examples of how communities are trying to minimise the impact. The focus here is on providing a sound knowledge base for communities.

## The Villages.....

We will be operating in three rural communities outside Nanded, Maharashtra. These villages are Pimparkhed, Chinchgawhan and Malzara.



## Village characteristics...

	Chinchgawhan	Malzara	Pimparkhed
Village Population (a)	2500	1700	1700
School Name	ZPCPS Chinchgawhan	ZPPS Malzara	ZPPS Pimparkhed
School Age Range	6 - 12	6 - 12	6 - 9
Number of Classes	7	7	4
School Population (b)	210	175	212
School Meal Provided	Yes	Yes	Yes
Village Primary Health Centre In Village	Yes	No	Yes
Electricity Provision (c)	Yes - BUT variable (1 to 2 hours per day) due to load sharing	Yes - BUT variable (1 to 2 hours per day) due to load sharing	Yes - BUT variable (1 to 2 hours per day) due to load sharing
Water Provision (d)	Both village and school have RO water	School has RO water, but village does not	Village has RO water, but school does not

(a) - (d) see end note

## Working Method.....

Climate Revolution Acts CIC is a Community Interest Company registered in the UK. As such, it is a non-profit company whose surplus is reinvested into it's work.

We will be working with:

- Nanded Local Government
- Community Leaders in Each Village
- Headteachers
- Pupils
- Indian Based Business
- Youth Advocacy Groups

The project will be managed by a steering group, constituted of representatives of the above groups. Each aspect will have an appointed lead person to liaise with village community's, contractors and project leads.

## Timescales .....

Subject to funding and any external influences, the project will run from April 2026 to March 2029. Specific time-scales and details will be related to individual aspects of the project and detailed in the Aspect Guides which accompany this project outline.



"My brother is only a baby and he has had diarrhoea for many days. Our house is too hot and the monsoon rain comes in."

Dileep Age 6  
Malzara Village

## Budget/Costs .....

The project seeks to limit costs where possible and utilise as many donations of time and materials where possible.

### Budget for Project Aspects...

Aspect	Activity	Budget
Aspect 1	Provision of Basic Medical Treatments	£3000 per year
Aspect 2	Improve Homes - Make More Climate Resistant	£5000 per year
Aspect 3	Renewable Energy Installation (Solar Panels, Mounters, Inverters and batteries)	Unknown - 1KW Panel Currently Costs Approx £340
Aspect 4	Youth Advocacy Scheme (Training, Materials, Transport etc.)	£4500 (Total)
Aspect 5	Improving Access To Information for Residents (Via technology - SkyLink)	£340 Set Up Per Village - Plus £86 Per Month
Aspect 6	Planting of New Forested Areas Near to Villages	£5000 per Village
Aspect 7	Cost of Meals and Staff	£1000 Per Village Per Year
Aspect 8	Production and distribution of a Climate Change 'textbook' for use in schools - written in Marathi and English	£8000 for 5000 Copies

We have identified the budget costs for each of the projects individually as we seek support for them individually, as well as a whole.

Detail as to the scope of the projects, their aims, methodology and detailed costing can be found in the individual aspect project sheets.

### Budget for Project Coordination...

Area	Activity	Budget
Office Costs	Rental of Business Desk at University of Lancashire Business Development Hub	£3600 (£100 per month for 3 years)
Travel (UK)	Meeting Funders, Promoting the Work etc.	£600 per year
Travel (International)	Flights	£800 Per Return Flight
	Hotel (Nanded and Mumbai)	£300 Per 2 Week Visit
	Internal Travel (Trains, Taxis etc.)	£150 Per Visit
	VISA Costs	£120 Per 6 Months
Technology Costs	iPad Purchase	£800
Telephone	Mobile Phone Costs	£25 per Month
Insurance	Business Liability	£300 per year
	Travel Insurance	£160 per year
Promotion	Fliers, Business Cards etc	£500
Website	Basic Website (Promotion and Information)	£300 per year
UK Staff Salary	Monthly Contribution to Salary	£1000 Per Month x 36 Months
India Staff Salary	Monthly Contribution to Salary	£250 Per Month x 36 Months



## Academic References .....


The project will be supported by and make use of the advice and guidance provided by two academic guides/ reviewers:

**(1) Professor Candice Satchwell**  
Professor of Education and Literacies  
University of Lancashire

**(2) Professor Julian Manley**  
Professor of Social Innovation  
University of Lancashire

## Endnote .....

- (a) These are estimated figures from the respective Headteachers
- (b) School numbers vary throughout the year, these are the annual averages as provided by the respective Headteachers
- (c) Many of the research participants referred to the importance of electricity in minimising climate change impacts. Not all villages in India have electricity provision.
- (d) RO water is a treated form of water. It requires an RO distillation system which is expensive. It is not usual for schools or village communities to share their RO water supply with each other. Where RO water is not available the primary source of water is from wells, but this water can be contaminated or be limited in terms of supply and therefore have an impact on health and well-being, as many participants noted.

**NANDED WAGHALA CITY MUNICIPAL CORPORATION,**  
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22<sup>nd</sup> July 2020

I am happy to confirm that the arrangements Mr Colin has produced for his research in our community in Chinchawan meets with heartfelt approval. We are happy that he has shown care for the children in the school and the for the village community in his preparations and proposals.

He knows well our approach for safeguarding children.

We will offer whatever support he requires to complete his work successfully. We have offered some support during these times which will help him start his work.

Please be assured of our happiness at his plans. We look forward to welcoming him here in person when the pandemic allows such a visit.

Yours sincerely,  
  
Dilipkumar Bansode  
Education Director,  
N.W.C.M.C., Nanded

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“Listen to our voices. Climate change affects children like us the most. We need to be taken care of. People need to hear our voice, because we are not a choice, we are the future. We have dreams and hopes too.”

Akshara, Aged 15, Pimparkhed Village



‘Love requires that true education should be easily accessible to all and should be of use to every villager in this daily life.’

M K Gandhi



### **Climate Revolution Acts CIC**

A UK Registered Non-profit (No 16995691)

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