

ABOUT MANGRO

(an IVDT-funded CHALE CHALO
community-based mangrove regeneration project in
Odisha, India)

The following is a compilation of IVDT Newsletter articles about MANGRO
and related projects from the years 2015-22.



*The roots and fruits of years of hard work
Established mangrove in Odisha, India*

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The MANGRO Project (Community-based Mangrove Regeneration in Odisha)

Introduction

Over the years, IVDT has funded many and various projects, mostly in rural India, all of them contributing to positive change in poor communities and helping people move forward to a better future. But the project that is perhaps dearest to our heart, and the one in which we have invested over such a long period, is MANGRO.

The idea for this project developed in the aftermath of the 2004 tsunami which caused such devastation in the southern Indian Ocean. Its impact in Odisha was minimal, but it raised a number of serious questions: why were some communities so much more impacted than others? Was this because of excessive building in vulnerable areas? What were the natural protections against such events? Why were some communities better than others at coping with the disaster?

Even though the tsunami did not seriously affect Odisha, there is a long history of major cyclones hitting the coast in our area causing massive tidal surge with a similar impact, so we had experience of the terrible loss of life and damage that could be caused, and involvement in helping pick up the pieces. The tsunami caused us to stop and think about the ways in which we might be able to increase the long-term resilience of our partner communities. It was clear that there were several factors which exacerbated the impact of both these kinds of disasters:

- the health of mangrove forest along the coast;
- the existence of reefs along the coast;
- the extent of building along the coast;
- disaster-preparedness within coastal communities;
- and economic resilience of coastal communities.

As a small organisation we were not going to be able to deal with all these problems, but we felt that there were ways in which we could make a significant difference in the areas where we work. We could:

- raise awareness about the issues;
- help protect and restore mangrove forest which reduces the impact of tidal surge (and tsunamis);
- help coastal communities prepare for possible disaster;
- help coastal communities improve their economic resilience.

We felt that we did not have the resources to address the problems of reef damage, which is not a significant factor in our area anyway. Nor would we be able to do a great deal about unprotected and unplanned building along the coasts in vulnerable areas, though we might be able to encourage and contribute to debate about this. But we could do something about the other matters. And out of this grew our proposal for the MANGRO Project, Mangrove Regeneration in Odisha, which would help protect poor coastal communities by restoring the mangrove forest and increasing their economic, social and environmental resilience. It took a year or so before we were able to start the on-the-ground work. There were lots of lessons to be learnt, by both IVDT and our partners. Neither of us were environmental specialists, though, as amateur individuals, we had long-term involvement in environmental work. And in Odisha mangrove regeneration was minimal at that time. The emphasis had been on building embankments with varied success. So we didn't even have the expertise of local institutions. We were breaking new ground, and much of our work was experimental.

This is perhaps one of the advantages of being a small organisation, that we are able to be flexible, to try out new ideas, being accountable only to ourselves, our partners and our donors who have been amazing in the sympathy, confidence and trust that they have shown. Of course, we would not do anything reckless. Our funds have never been great and have always been precious. We have never been able to take financial support for granted, but, by working closely with local communities, pooling our knowledge and resources, drawing in expertise by our commitment and enthusiasm, we were able to learn very quickly and effectively, and rapidly became the focal point for change at all levels – within the community, in local and government institutions and occasionally even at state level.

Our work has always been small-scale, but the cumulative effect over the years has been extraordinary. The key is that we work with communities. Almost all the work is voluntary, and wherever possible we take advantage of government schemes, which enable villagers to be paid to plant mangrove and other trees, develop income-generation opportunities, improve sustainable farming, and generally improve the resilience of local communities. By working closely with government officials, local representatives, environmentalists, teachers and other key members of the community, building networks of concern and action, we have developed a rich and strong base for positive environmental and social change. Our gentle but focussed influence is evident everywhere one goes in the area: in the flourishing trees planting along rivers, roadsides and around homesteads, in the active involvement of communities in disaster-preparedness committees, in the transformation of schools (from drab learning-by-rote to centres of vitality and love of learning), in the active participation and leadership of women in community affairs, in the willingness and courage to take on organisations such as the local mafias.

Looking back at our work over the years, we have gathered together some of the MANGRO content in our Annual Newsletters from 2015 to 2021. This makes for a substantial document, but gives a wonderful picture of the past seven years' work, its variety and scale, and might help the reader understand quite what has been achieved. It doesn't include everything; for example, before 2015 we built a wonderful centre which serves as a base for our work and as an environmental hub in the area. But it covers the wide range of work undertaken under the umbrella of MANGRO, and the heart of the work, which remains the restoration of mangrove. In due course, we will include the articles for all our work prior to 2015, and will make that available to anyone interested.

None of what we achieved happened immediately, but our contribution over seventeen years has been transformational and lasting. This slow, small-scale approach, working WITH communities, not imposing on them, is really standing the test of time. There is still plenty of work to do, and we gradually extend our efforts into neighbouring communities, applying the lessons learnt so that more and more people are able to benefit from this amazing work. Of course, none of this would have been possible without the wonderful team which CHALE CHALO has on the ground, without the commitment and passion of the many volunteers, and without the patient and generous support of our many donors. Together you have helped create a small but growing miracle. Thank you, every one of you. We will continue with this work as long as we have the funds and as long as the need remains and we feel that we can make a meaningful contribution.

It is impossible to list everyone who has donated to this particular project over the years. Special thanks to ACE, The Just Trust, and Gillie Howarth for their long-term support and encouragement, but there are many, many more of you who have been partners in this work and make it possible. As long as you are willing to support us and there is something useful for us to do, the work on this project will continue.

2015

Plantation of mangrove and general trees

Pesticide and fertiliser campaign

WSHGs, Eco Clubs and Education

MANGRO Centre, Prawn farms

MANGRO – Community-based Mangrove Regeneration, Odisha, India

Over the past year IVDT has received generous donations from the Just Trust, the Network for Social Change and the Peter Cundhill Foundation that are specifically earmarked for the MANGRO Project. These donations have been a wonderful blessing. Any additional donations have been used to develop valuable educational resources. On our recent visit we saw what had been achieved in the past twelve months and are totally delighted with the work. The MANGRO Centre is positively zinging with energy, and everywhere we went villagers were determined to show us all the work that they were doing. The following gives a very brief outline of some of the real achievements of the year. If anyone would like a fuller report, please contact Helena Nightingale, and she'll be happy to send one to you.

General Tree Planting While the MANGRO Project has always encouraged villagers to set up their own tree nurseries and plantations, it has always recognised that there is no way we can mobilise the resources that the Forest Department and other government departments have at their disposal. In recent years we have worked closely with villagers to lobby the Forest and Horticulture Depts. to take responsibility for planting, and to use the various government schemes to provide employment for low-income families. In this way we achieve far more than would ever be possible with our own resources. In the past twelve months we have been responsible for the planting of **392,614 trees** – very few of which would ever have been planted without MANGRO. In addition, many poor people have had a significant boost to their income by taking part in these schemes. Much of the planting is along roadsides, and as the trees grow to maturity, the shade they provide is very welcome. They also act as a windbreak, reduce storm damage and erosion. And many of the trees planted have a real economic value. The countryside is being transformed by the project's efforts. Considering the very small budget of this project, we feel that this achievement on its own is astounding.

In the past twelve months
392,614 trees have been planted by
villagers as a result
of the **MANGRO Project!**



and this is the
difference that
it makes . . .



Mangrove plantation We have also continued with the mangrove nurseries and plantation, and, as above, have had real success in persuading the Forest Dept to increase its plantation work. Our Community Monitoring programme ensures that any work contracted out to private operators is carefully observed and recorded to ensure it is properly carried out. We continue to face extensive corruption at higher levels, but it is fair to say that within the project area the Forest Dept. officials are enthusiastic supporters of our work, and go out of their way to help us. It is hard to overstate what an achievement this is. We submitted quotations for two substantial areas of mangrove plantation under a World Bank-funded programme, and thought that we stood a good chance of winning the contracts. However, due to the publicity given to our careful monitoring of the process, the authorities decided to cancel the round of contracts due to the high level of corruption. The latest news is that it is likely there will be a high level investigation into the management of the whole World Bank-funded programme. Our team is collating all the information that it has collected over the past three years in its engagement with the programme, and from the Community Monitors, and this will be submitted to the investigation. This is a really sad business, but we think it is more important than anything else that we work for transparency and accountability across the board, because this is the only way of making sure the work is done. And in the meantime, MANGRO continues working with villagers on small-scale mangrove plantation and conservation works – which is much simpler than dealing with corrupt officials!

Pesticide and fertiliser campaign Over 5,000 villagers have taken part in a campaign for the closer control of chemical pesticides and fertilisers. These are expensive for farmers, with no proper directions for use or safety, and are much abused. Apart from raising awareness of the issues and coordinating the villagers' campaign, MANGRO provided training in 15 villages on compost-making, and making natural pesticide and fertiliser.



Cow manure and rice straw rapidly makes good compost



Villagers have started making their own natural pesticides

This is very rapid in the Indian climate and the results make a tremendous improvement to the rather poor soils of kitchen gardens, increasing yields, and helping to retain water. I was taken on a guided tour of compost pits – most impressive, though I did begin to feel that one compost pit looks much like another! These campaigns are valuable, not just for their practical achievements, but by helping villagers come together, raise issues and campaign on them. Eco-club members have been involved with this too, and we feel it is an important part of their social and political development.

Women's Self-help Groups (WSHGs) MANGRO has set up/supported 80 WSHGs. The World Bank-funded TRIPTI Project has taken over responsibility for these, but we work very closely with them, and with TRIPTI, especially on tree and agriculture-related programmes. In this way we have made it possible for women to increase family incomes through setting up kitchen gardens, orchards, chicken rearing and dairy. This work continues as TRIPTI attempts to involve every woman in the area in a SHG. MANGRO works with these women on campaigns (such as mangrove plantation, pesticides and fertilisers), a very effective way of helping women to participate in the public sphere.



A Women's Self-help Group at Sasan talk about the work they hope to get from mangrove plantation

Eco-clubs and Education MANGRO has set up 60 Eco-clubs in the area, and continues to work closely with them, providing support, training and resources to the club leaders. These clubs are the main way young people learn about the natural world, acquire basic scientific skills of observation, recording and analysis, and learn to care about the environment. There is little opportunity for this in Indian schools, but we now have a team of enthusiastic local teachers. Many Eco-clubs have taken part in the pesticides and fertiliser campaign, and children have carried out experiments to test the value or otherwise of natural and chemical mixtures. It is this combination of the practical and 'political' that proves so attractive to young people.



wonderful to see how confidently and passionately these young people argue their case.

We continue to work closely with the Bhitari Kanika National Park, where groups of young people are able to visit and learn about large-scale conservation at first hand. Our relationship with the staff there proves to be mutually useful (they are using some of our teaching materials at their Visitor Centre).

During our visit we saw (more!) school compost pits in excellent health, and watched several plays produced by the children. These plays recounted how a child who had learnt at the Eco-club about the benefits of natural compost and pesticide saved their village from the exploitative costs of chemicals. Members of the High School Eco-clubs entertained us with lively debates on the pros and cons. It is



Girls at the Savitri Devi High School



The MANGRO Centre grounds in Nov. 2013, showing the veg. patch which now supplies the Centre's needs. The tree pits are prepared with compost made at the Centre



And this, twelve months later. The hand pump for the bore well is a valuable asset. The Centre is now independent of the variable mains supply. A local Eco-Club is learning to identify the young trees

Each week two Eco-clubs make visits to the **MANGRO Centre**. They are shown the kitchen garden, tree nursery and plantation, and have a chance to use some of the resources, materials and reference books we have built up over the years, and they complete their visit with a natural history film. Teachers, Eco-club leaders, children and the project team, all love these visits – they bring life to the Centre. And each morning students from the local college drop by for an hour before they start college, using the resources, watching David Attenborough programmes (others are available!), and carrying out work in the grounds. It is these young people who raised the trees and planted them along the half mile or so between the Centre and their College. We are working closely with them on a programme that will build up to the UN's Climate Change Conference in Paris next December (2015), and we expect them to find meaningful ways to make their voice heard. We will be doing all we can to help them.

In CONCLUSION This is only a brief report of MANGRO's achievements over the past year. It is a tiny project with a very small budget, but it has a huge heart and a huge reach. It has brought direct economic benefits to tens of thousands of poor people, helping improve their farming methods, set up businesses, or take part in government schemes. It has transformed the natural environment of the area, restoring the damage that had taken place over a hundred years. It has helped women and others to find their voice and strength, and take responsibility for bringing positive change to their communities. And it has opened the eyes of many people, from children to government officials, to the natural world around them, and to the wider world of which they are a part.

We are committed to continuing our support of this project until the end of 2016, and possibly for a further year beyond that. We do not intend to work here forever! But, as long as we feel we are making a significant contribution to the area, and as long as we are able to raise the money to support that, then we will continue with this work. We feel that our long-term commitment to the project and our sustained input has helped to develop a tight-knit team which has a level of skill and experience that is unusual in this part of the world. And even if we measure our success only in the number of trees planted, then it represents pretty brilliant value for money. Our sincere thanks to everyone who has generously supported the work, and particularly to the Just Trust, the Network for Social Change and the Peter Cundhill Foundation.

STOP PRESS!

For years this defunct World Bank-funded Prawn Farm project at Sasan has stood abandoned. We have campaigned for the land to be restored to mangrove forest. It has been a long and hard fight, but at last we are seeing progress. The land has been transferred from the Fisheries to the Forest Dept., and there is talk of reforestation work starting - well, probably not any time very soon! But it is very cheering to hear that perhaps one day 1,500 acres will once again be covered in rich mangrove forest, giving protection to local villages. And the cost of the failed prawn farm project? A mere £4,200,000, an appalling waste of money. We are keeping a close eye on this scheme to make sure that it goes well, and the money doesn't end up in someone's pocket rather than paying for local people to restore the lost forest.



2016

General update: Plantation, working with
MGNREGS and ICZM

Climate Change Day

Marvellous Mangroves - education

Kitchen Gardens, Seed Banks and
Sustainable Farming

MANGRO – Community-based Mangrove Regeneration, Odisha

Naturally we try to bring you the good stories, ones that demonstrate what an excellent job we're doing with the money you have given us. But we also try to tell you about some of the problems that we encounter, the struggles we face in trying to bring about change. The way we address those problems is also an important part of the project. It's often difficult to solve the problems, sometimes impossible, but we try to be creative. Even if we do not achieve our prime goal, then dealing with the issue can be very empowering and provide an opportunity for villagers to develop valuable skills and confidence. Now, if all of the above has prepared you for some bad news, I hope that the following will come as a relief!

In our last newsletter we wrote about the enormous amount of planting we had been able to achieve – 392,614 trees in one year, stupendous for such a small project. We achieved this largely by accessing government programmes such as the MG National Rural Employment Guarantee Scheme. This enabled poor people to get paid work for programmes that were intended to improve the local infrastructure or environment. Unfortunately, the current central government has reduced the amount of money available for these programmes (except temporarily in the drought-affected areas). There has been a general reduction of 30%, with the Dept. of Horticulture and PRIs facing a heavier reduction of 50-60%. And this has put paid to much of the collaborative work that we have been able to carry out in recent years, though we continue to encourage communities to submit applications for tree planting work.

In addition (and I fear this might already be striking a chill into your heart), we had hoped to submit applications for mangrove plantation under the joint World Bank/Odisha Govt. Inter-coastal Zone Management Project (ICZM) which aims to secure the coastline against damage from storm and tidal surge. We have regularly reported on the progress of this project, an ongoing saga of corruption and incompetence. The Forest Department has eventually decided not to put the work out to tender because of all the problems they have faced. For example, over the past three years, almost nothing of the work supposedly carried out by contractors has survived, and the department has refused more than 30% of the payments. Where this work has been carried out within our project area, we have trained and supported community groups to monitor its progress, and have regularly submitted reports to the authorities and raised the issue in the media. I think we can fairly take the credit for the Forest Department's decision. The programme had promised so much, but in an area beset with corruption and incompetence, it was probably doomed. The good news is that the work will still be carried out, and properly, by the Forest Dept. We have worked closely with them, earned their respect and have a good working relationship especially at Block and field level. We will continue to work with them, especially involving the community in the programme so that we can increase the chances of the newly planted areas surviving to maturity. In truth, the Forestry Department has the capacity to plant far more than we would ever be able to do, and we will do what we can to ensure that they actually do this.

And the final bit of news in another ongoing saga – the defunct World Bank-funded prawn farm project. We announced last year that the process of transferring the land (once upon a time, mangrove forest) from the Fishery to the Forestry Dept. It all looked good, but then nothing happened. MANGRO organised a campaign amongst the communities of Sasanpeda, and this eventually resulted in the first 25 acres (out of 1,500) being transferred, a very small but significant achievement. Their campaign to get the rest of the land transferred continues, and at the time of writing this, meetings are being held to discuss strategy and build support with Government officials, the media, and everyone who can potentially help their campaign. They are planning a door-to-door collection of signatures which will be submitted to the state government. A more subtle part of their campaign is the proposed planting of mangrove in selected areas – a kind of guerrilla forestry. We have written about how the women of Sasan already did that in the grounds of the prawn farm project's abandoned office building, a small plantation which has now matured into forest. We'll let you know how this all goes in our next newsletter, and the next, and the next . . . !



CLIMATE CHANGE DAY

Readers may have followed the build up to and negotiations at the Paris Climate Change Conference in December of last year. It is an issue that is close to the heart of people on all our Odisha projects, not least because they are very vulnerable to the early impacts of global warming. Most of them make almost no significant contribution to global warming, but as more people become more financially secure, they are tempted to increase consumption, with the risk that their carbon footprint will grow dramatically. This was the theme of the Climate Change Day which we ran for young people at our MANGRO Centre. There was a wide range of challenging, educational and entertaining activities, and one of those was that they should write "carbon foot-print letters" to people in the UK, asking them to take measures to reduce their carbon consumption so that people in less fortunate parts of the world should not be threatened by global warming.



Some of you who receive this newsletter by post will find a "foot-print letter" enclosed. There aren't enough for everyone - sorry about that - and most of you will be unable to read the Odiya writing! But I'm sure you get the message, and it is an important that young people on our projects understand they are part of a shared world.



Girls at the MANGRO Climate Change Day, hanging up their "climate change footprints"

MARVELLOUS MANGROVES

Without education the practical work of our projects be less sustainable. Local people need to understand why they should care for the environment. It is difficult to persuade them that this matters when people are very poor and find it hard just to keep their families fed. MANGRO has been incredibly successful with this. through its Eco-clubs, its work with school teachers, and in the community. There has been a major and lasting change of attitudes in the area, and we see it with the enthusiasm with which communities campaign for tree-planting, manage their own nurseries and plantations, make compost and natural fertilisers and pesticides, and care for the wildlife of the area.



A new feather in our cap is a collaboration being established with the Global Education Officer of the international Mangrove Action Programme. Martin Keeley has developed a brilliant programme of mangrove-related educational resources, "Marvellous Mangroves". Ranjit attended training that Martin carried out in Bangladesh, and then welcomed Martin at MANGRO where he carried out training of teachers and held workshop sessions for children. Several months later MANGRO, the teachers and children were still talking about it with great excitement. One teacher was able to repeat what Martin had said, word for word, and it was impossible to stop him! They are translating the material into Odiya, and we look forward to more exciting sessions with Martin who will continue training the teachers, who will then train other teachers, and so on. The content of his work is amazing, the presentation of the material and its delivery is irresistible, as is Martin himself. We work hard to do everything that we can ourselves, because we know how important it is, but sometimes, when we find someone like this who is prepared to work with us, it is such a relief. It is brilliant to have this fresh input.



In the meantime, publication of our own books and teaching materials continues, in Odiya for use in local schools, colleges and Eco Clubs, and in English to be sold to visitors at the Bhitarkanika National Park. These books complement Martin's work excellent, providing guides to local wildlife and activity books to engage the interest of children. We are especially grateful to the **Oxford Funding Network** whose gift some years back has made this valuable work possible.

The money for **MANGRO** comes from our general funds, so it is supported by many people, and in different ways. We have been particularly grateful to the **Just Trust** which has given substantial donations over the past few years, the **Peter Cundill Foundation**, and the **Network for Social Change**. You have all contributed to a project that continues to make incredibly valuable changes to the area and to people's lives.

The project is primarily about planting trees, especially mangrove, but we have also been concerned with wider environmental issues, training hundreds of villagers to make compost and natural pesticides, keep kitchen gardens and fruit trees, and move towards sustainable farming. One gap in our work has been sanitation, which we consider to be of fundamental environmental importance. Ranjit took us to a group of remote villages he thought might be suitable for such a project,

Subanapur is the home village of Baluram, one of our keenest volunteers. We could see his influence as we walked round the kitchen gardens. He talked with great enthusiasm that had obviously infected others. At first it seemed slightly chaotic, but once the eye was tuned it, the abundance was apparent. The gardens were arranged round a fish pond (the source of an excellent lunch). There were lemons, produced by grafting learnt on the MANGRO Project, bananas, papayas, pineapple, guava, mango; ginger, turmeric, chillies, tomatoes, aubergine, potatoes, ladies fingers . . . shall I go on? It was lush and delicious. The village is almost entirely self-sufficient in food – all they need to buy is a small amount of oil, sugar and tea.



Baluram shows off some of his produce

It sounds idyllic, but it is also very precarious. The abundance is largely due to lessons learnt by Baluram on the project. While the village rejoiced in what they had achieved, but were also aware that a bad harvest could immediately put them in desperate straits. When we visit a village we usually look to see what differences we have made, but in this case we were thinking about what we might have to offer. It was clear there were enough people in this village with the commitment to make a success of anything we suggested and in our discussions a number of concrete ideas emerged.

The villagers talked about the seeds that they used (not bought), and we realised how valuable these were. In most parts of Odisha, farmers now buy in their seeds. Many varieties developed over centuries to suit the particular conditions of a village, have now disappeared. We suggested that a **catalogue** should be made of all the seeds they use, and a **seed bank** set up. We explained how it could work, and they were very keen.



One SRI rice farmer rejoices at his harvest

We also talked about **SRI, a method of growing rice** which is more sustainable. It was agreed to send Baluram and another young man on a short training course so they could bring back the method, try it out, and train others to use it. Some of our readers will recall this was tried out in another area some while back (funded by the Quakers). A farmer using it in Nuapada was one of the few to have a reasonable crop this year – a

happy man, and we hope his success will lead the way for others.

The third suggestion was that we take advantage of MGNREGS and other government schemes to provide sanitation in the village. These schemes are unlikely to last forever, and already we have seen cuts in the funding, so villagers should use them while the money is still available. Using MGNREGS and other schemes, they could be paid to do the work, and some of the construction cost could be covered by other programmes. This project will need us to provide training and organisational backup to the villagers to enable them to get this off the ground, and we are in the process of applying for funds to do this. The funding will be for twelve villages in the area. We'll let you know how it goes in Subanapur.



Baluram has already started to construct a latrine

2017

General update: Plantation

Make your own Mangrove

Scroll Stories

Prawn Farm Problems

ONE OF THE SPECIAL PEOPLE WE WORK WITH . . .

NIMAI is one of our two **MANGRO** Activists. His brothers and sisters have all moved away, and Nimai remained to look after the family land. He began to work on the project as a volunteer, but became so passionate about what he was doing that he was the ideal person to take charge of the mangrove nurseries and plantations. He helps to choose and negotiate the sites, recruits the volunteers, and trains them, then supervises all the work which results in wonderful new mangrove forest, helping protect villages from cyclone and erosion. He is highly regarded and much loved by all.



MANGRO – Community-based Mangrove Regeneration, Odisha

MANGRO is a project which aims to improve the economic, social and environmental resilience of a very vulnerable cyclone-prone area of coast Odisha. As with all our other work, we work with local communities, raising awareness and providing training to volunteers so they carry out the work themselves, increasingly using their own initiative. The project has helped raise household incomes, carries out exciting environmental education in schools and the community, and has planted about 1,177,431 trees. Many of those are general trees, planted for fuel, fruit, and fodder, reducing the demand that were responsible for the earlier destruction of the forest. We have just about reached saturation point with general trees, so our focus is now solely on mangroves, though we continue to give support to local community tree-planting ventures. We have also been carrying out work with local farmers, helping increase the sustainability of their farming practices.

However, **mangrove plantation** has been at the heart of the project since the very beginning. When the project began, villagers were still cutting trees, mangrove forest was disappearing, and no one was carrying out new plantation. We cannot claim full credit for the turn-around, but, without the MANGRO Project, the changes would have been nowhere near as great.

There have been many difficulties along the way: 1) at first it was hard to persuade villagers to stop cutting the trees; 2) there was almost complete ignorance and indifference amongst officials, even in the Forestry Dept.; 3) there was widespread corruption, mismanagement and misappropriation of government funds; 4) the team did not have even the basic skills, and worked mostly by trial and error; 5) it was difficult to get suitable land to plant where it was most needed; 6) there was serious opposition from both fishermen and buffalo-herders who used much of the land alongside the tidal creeks where plantation was needed. I'm sure there were other problems too, but that's enough to be getting on with.

Gradually the team has worked through these difficulties, and has made remarkable progress. Some issues have still not been dealt with, and may be well beyond the scope of MANGRO – for example, the endemic and extreme corruption that operates in the area. But real advances have been made with the others. What is most immediately noticeable perhaps is the way in which the practical skills have developed over the years. From being pretty much beginners, the project is now acknowledged to be the “expert” in the area. And this is particularly well exemplified in the recent planting. The current mangrove nursery is like a jewel, a thing of beauty in itself. The team now understands very well the precise conditions that are needed by each species, each variety, and have learnt how to manage this to ensure the maximum survival of the seedlings. The change in Forest Dept. attitudes and policy towards mangrove, effected largely by MANGRO, means that much more planting is done by them than we could ever achieve ourselves -they have the resources and funds to do that.

Over the years several areas have been planted, and much of this is now reaching maturity – walking through the mangrove, it is possible to see the aerial roots and buttresses forming. The project has been filling in the gaps between the sites, and gradually extending the planting. Even though there has not been so much planting this year as last, it looks very impressive. It is strong and healthy, and has made a good start to providing the protection which is the main reason for the project in the first place. Estuarine erosion has stopped in the areas where we have planted. Local people are really grateful that they will not face the same danger of losing their villages that others have had to. And new villages are spontaneously asking to participate so that they too can be protected.

This year 67,905 mangrove trees have been raised and planted out. And a further 16,900 remain to be planted out. We are planning to raise many more saplings this year, and several areas creek and river bank have been earmarked for plantation. I feel as though real progress has been made with this work, and that the door is open for the future. And the latest news I have received is that Rama Malik, the Project Manager, known locally as the “Tree Man”, has been honoured with an environmental award by the state government for his work over the past ten years. We are really proud of him, but also of everyone who has worked on the project, or contributed to it with their generous donations. Thank you.

MAKE YOUR OWN MANGROVE! – a step-by-step guide

1.



The first job is to identify sites that are suitable for plantation. In this case, a piece of land has been offered that is opposite one of our established plantations. Once upon a time it would probably have been mangrove, and now we have the chance to restore it to its former state.

2.



Few plants would survive if we planted into unprepared land, so we use nurseries to give them the best possible start. One nursery usually serves several plantations. Picking the site is critical; there needs to be the right balance of salt and fresh water, and the right flow of tidal water. Trenches are dug by hand, by local villagers.

3.



In order to give the seeds and seedlings the best possible chance, mud is collected by local villagers and taken to the nursery site. Much of the work on our mangroves is gender-determined, but increasingly women are getting involved with all aspects.

4.



The mud is then packed into plastic sleeves. The sleeves are one of the few things that have to be bought in. Using them makes the job a great deal easier. They are re-used wherever possible, and villagers also collect used plastic bags from chai sellers, etc., reducing costs and pollution.

5.



The filled sleeves are then placed into the trenches. In this picture it is possible to see the brackish water in the trench. The site has been specially chosen so that the trenches fill completely at spring tides, but so that there is sufficient flow in and out to keep the balance just right.

6.



Seeds and seedlings are then collected from existing mangrove forest. One of the main sources is mature forest, much of which is managed by the Forestry Dept. We work closely with the FD helping involve local communities in FD projects, and in return we are allowed to collect from their forests.

7.



The young seeds and seedlings are gathered together and transported by rowing boat from the forest to the mangrove tree nursery. This is simply the easiest way of getting around an area, especially when all the sites are very close to the rivers and creeks and provide natural roads.

8.



The seedlings are then planted out into the mud-filled sleeves. Most of this work is carried out by volunteers who have been trained through the project. One of the additional advantages of receiving this training is that it means villagers can get occasional work with the Forest Dept.

9.



As the young plants begin to grow, the nursery needs to be kept weed-free, the channels cleared or closed to ensure the amount of water coming in is exactly what is needed. The success rate in our plantations is very high, largely because of the care taken.

10.



When they are ready for facing the rigours of their final home, the young saplings are collected and transported to the plantations, once again by rowing boat. This is a familiar form of transport in an area that is criss-crossed with creeks and rivers.

11.



The young saplings are then planted out in the plantation site. Traditionally this work would only have been done by men because there is always the danger of attack by crocodile. The locals know the risk, and we take care that there is a lookout if necessary.

12.



And then, of course, you put up a signboard to make it clear that this is a MANGRO Project plantation! Seriously though, it is clear that local people are most likely to respect these community plantations because they feel they 'belong' to the community.

13.



For the first three years the plantation sites need to have the grass cut back regularly, otherwise the young trees would soon be overwhelmed. This is a task which traditionally falls to women. It is a real commitment, but there are benefits: the grass is a useful fuel, used for cooking, which means that cow-dung can be put back into the earth, increasing soil fertility.

14.



Eventually the young trees reach the point where they no longer need such constant care and they begin to pay back all the attention that they have received. Even at a fairly young age their roots help to bind the soil and reduce erosion. They are fast-growing. The trees above were planted about three years ago.

15.



And these trees here were planted out six or seven years ago. It is probably too difficult to see from this small photo, but already the trees are forming the aerial roots and buttresses which are so typical of many of the mangrove trees. On our project we plant about a dozen different species, selecting for the site where we plant and also to achieve natural diversity.

16.



It's not long before bees make use of the trees, and in the branches of older ones we regularly see combs of honey. This can be collected by villagers at the right time, and is a very useful source of income.

17.



When the root systems have fully developed, the tidal mangrove becomes a valuable nursery for young fish which helps to increase local fish-stocks. This young girl shows some the wild prawns that she and her mother have gathered.

18.



Very rapidly wildlife moves into the new mangrove forest, appreciating the cover and the increased richness of habitat. Birds and butterflies are obvious, but in the middle of this rather poor photo, you might see a large monitor lizard.

SCROLL STORIES

About fifteen of the MANGRO villages are so-called 'Bangladeshi'. In fact most of them originated in West Bengal rather than Bangladesh, and moved down to Odisha thirty or forty years ago, fleeing famine and a constant struggle against starvation. They came from West Midnapore, home to a tradition of wandering story-tellers who use scrolls to illustrate the stories which they sing to village audiences. We invited two of these "chitrakars" from Bengal to visit MANGRO, and commissioned them to make four scrolls. The first was about the community story of migration from Bengal to Odisha. The second was about the importance of the mangrove; a third about the erosion caused by deforestation. The final one was about climate change.



Mani's illustration of a post-cyclone rescue operation in the project area

The scrolls are stunning, but Mani and Swarna did not stop there. They performed in schools and villages, and spent time with three of our project workers helping them develop their "chitra" skills. Since then, six schools have been closely involved in creating their own scrolls on themes relating to the environmental work that we have been doing with them. We had a special day when they presented them to each other. The children stood with their scroll, and one or more of them sang the story. Our group of musicians picked up the rhythm, and gradually created an accompaniment, as the story was sung, and the scroll rolled out, illustrating each episode or idea. We had scrolls on all the usual themes, but also on the importance of seedbanks, or using natural composts and pesticides as well. The



quality of the work was amazing. It seems to have tapped into their culture and has been a brilliant teaching and learning tool. It is something which we will continue in our educational work. In addition we are looking at the idea of making cards from some of the illustrations which can be used for fund-raising and publicity here and in India.

SOME OF THE STRUGGLES THAT WE FACE ON MANGRO

The Prawn Farm at Ostira and Sasan – I have written in the past of the defunct World Bank-funded Prawn Farm Project which cost £4.2 millions, destroyed 1,500 acres of mangrove, and has produced nothing but desolation. After being abandoned for years, we heard rumours that the land had been transferred back to the Forestry Department and that reforestation would be carried out. We began a campaign to try and ensure that this would happen, but the latest news is that the government, who had been about to hand this over to the Forestry Dept. for development as mangrove forest, has now bowed to industrial pressure. It looks as though most of it is going to be rented to a mega-prawn producer. The WSHGs are mostly very much against this for all the obvious reasons, and have been campaigning vigorously on the issue. They have managed to secure agreement that a small area will be restored to mangrove, but still await a final decision about the whole project.

Pradeep Pradhan, one of the leading RTI activists in Odisha, has visited the site and has given advice to us and the villagers, to try and increase the effectiveness of their campaign. I suggested that we might try and get much wider support rather than relying on the local women, and it is possible that we might do this. But it would need to time well with the immanence of a government decision, and at the moment everything has gone silent, so it is hard to find out what is going on and how to deal with it. We don't have much confidence in achieving a good resolution with this, but we continue to try and pursue all possible avenues to try and establish what is going on and try and make sure this large stretch of land is mangrove once again.

TO NAME AND SHAME?

Oh, it's so tempting sometimes! I might have mentioned in past newsletters an organisation which overlaps with MANGRO, and claims to be carrying out similar work. Their Director is very charismatic, articulate and well-connected, and has received many awards for his work with the environment, but the reality is a great looming hole with very little evidence of any work at all. I am reluctant to name names, and few of you would ever have heard of them anyway, but I will call them '**X**'. I write about them because it illustrates some of the surprising difficulties which we encounter in our work, not just corrupt officials, but with crooked so-called trusts and charities too.

'**X**' has managed to surprise almost everyone and pip MANGRO to the post on several occasions when we have bid for contracts to plant and protect mangrove under the World-Bank-funded ICZMP (Inter-coastal Zone Management Plan). A final inspection of their work shows nothing but bare treeless fields. No surprise there, considering their record. On my visits to MANGRO, I have been regaled with many stories about their various misdeeds and how CHALE CHALO has had to resist the pressure to be lured into their mesh. In one particular case '**X**' was one of 12 local NGOs which had received grants from a funder for income-generation work. The funder called a meeting for all their NGOs to report on their work, and '**X**' claimed all kinds of things – mushroom growing, fish raising, duck rearing, etc. But when the funder actually went to have a look at the work and found absolutely nothing, they were furious and stopped the funding for all 12 of the NGOs because they had completely lost confidence in the project partners. So now 11 NGOs and all their beneficiaries are the losers as a result of '**X**'s corruption.

After all the stories of past corruption in the local Forest Dept., it is a relief to hear that relationships between the new District Forest Officer and CHALE CHALO are pretty good. CHALE CHALO might not have friends in high places, but friends in middle places is good enough most of the time. Let us hope that he stays in the area long enough to make a real and positive difference. The usual practice is for government departments to bow to pressure and transfer any good officials to somewhere where they will do less harm to the various vested interest. Am I too cynical?

2018

General update:

Plantation, Prawn Pond campaign,
Scroll Stories, Education, fringe achievements and
Teacher Training

THE MANGRO PROJECT



Some of our new mangrove as seen from the estuary.

PLANTING

Over the years this project has been responsible for planting about 1,300,000 trees. Some of these are general purpose trees (such a strange way to describe a beautiful tree!), and we've reached the point where the demand and need for such trees is now satisfied largely by communities, individuals, and the Forest Dept., so our role in this kind of planting is much diminished.

The remainder are mangrove trees which require more specialised care. Given that the Forest Dept. is now planting more and more mangrove, we have seriously questioned the need for us to continue with our own work. After all, what we are able to achieve by comparison is relatively small-scale. However, it is not all about numbers. In the past year we have raised and planted out 55,000 saplings, of which only 95 have been lost. This is a phenomenal success rate, and it earns us great respect, especially from the Forest Dept. It means that our advice, concerns, and campaigns are taken seriously because everyone in the area knows of the real expertise of our team. If we were to stop running our nurseries and plantations, that respect would soon fade, and our voice would diminish. Because of this it is really important that mangrove plantation remains at the core of our work. The quality of our practical work gives us legitimacy and authority, so the planting continues.

CAMPAIGNING

Meanwhile we encourage the government to take responsibility for mangrove regeneration, and organise community support to ensure the success of their programmes. Six hundred villagers have been involved in this campaign. It would be fair to say that the emphasis on the project has shifted more towards campaigning, though the personal practical commitment by villagers which has been a defining feature of the project, remains as strong as ever.

One of the long-term concerns in the project area is the damage that has been caused by converting forest land to the use of **prawn ponds** – in other words, cutting down the mangrove. Apart from the loss of the forest, no mean matter, this leads to the erosion of shorelines and river banks, and to pollution of the rivers and tidal waters by pesticides, disease and decomposing prawn feed, which are all released into the rivers and damage the local fish nurseries and fish stocks.

We have previously written of the 1 defunct World Bank-funded prawn farm project which has stood abandoned for years. As a result of a long campaign by project villagers about a third of the land involved has been returned to the Forest Dept. from the Dept. of Fisheries. The plan is for it to be replanted with mangrove, and that there should be community involvement in the work and protection of the restored forest. The government had planned for the remaining two-thirds to be re-used for prawns, but the process became so mired in corruption that the idea has been abandoned, and there is a possibility that it will also be returned to the Forest Dept. Our campaign continues.

Many of the prawn ponds are illegal, their owners not local, and the management carried out by the "prawn pond mafia". Our project villagers organised a campaign to have these ponds demolished. It is no small matter; previously the local Forest Officer was assaulted by the mafia, and badly injured, ending up in hospital. Action Groups were formed in each village to hold meetings, carry out discussion with officials, and collect signatures. The activists also got support from various high profile people visiting the nearby Bhitarkanika National Park. It was a victory for the villagers: 296 prawn ponds have been banned, destroyed and the land will be replanted with mangrove. The villagers deserve great respect for their courage in this, and for the way in which they ran the campaign. One of the critical factors was the large number and diversity of people involved:

fishermen and farmers, students and teachers, Eco-club members, writers, poets and artists, Forest Dept. officials, the media, local political representatives, community leaders –



Some of the old prawn ponds, no longer functioning, and awaiting new mangrove plantation

almost everyone in the area took part! We never really believed that this would be possible, and are very proud of what we have achieved. The campaign continues on the remaining eighty illegal ponds.

FROM ANCIENT TO MODERN – FROM SCROLL STORIES TO RADIO

Two years ago we revived the tradition of telling stories with scrolls, which are now regularly shown with accompanying songs at village meetings. Three artists in the area have been trained to make them, and work with children in schools. They provide a focus for discussion and are now being produced on a wide range of themes. It is extraordinary how this ancient method of communication has such power. However, we have not turned our back on more modern methods, and have set up a **Community Eco-Radio Programme** which will be broadcast on environmental matters once a fortnight, starting in October. The staff and volunteers have been trained, and we hope that through these programmes we will be able to reach a much wider audience.



Children present their Climate Change scroll



Balaram gives a cue to the dancers

EDUCATION

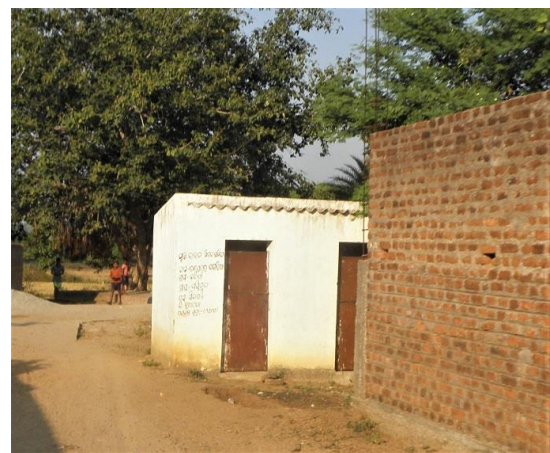
Apart from the scrolls, we have two new additions to our collection of environment education materials: “The Brilliant Bird Book of Odisha”, and “The Magic of Mangrove” shown below). These books have been distributed to all the Eco-club leaders in the area, to every school library, and are being sold at the Visitor Centre at Bhitarkanika National Park. In addition a stall was taken at the Odisha Book Fair to promote these books and other material produced by the project, such as “The Hental”, our local Eco-club newsletter. This is such a simple thing, but there is nothing like this for young people elsewhere in the state. We hope it will be an inspiration to others, and trigger more such publications.



Planting trees, campaigning and education are just three of the many threads of the work carried out on the MANGRO Project. We **continue to work with farmers**, helping them to reduce the use of agro-chemicals. Balaram Jena, one of our keenest team members, has been appointed Krushakasathi (Farmers’ Friend) by the Block Office, and he continues to train people on grafting (149 this year) and compost making (130). More than 250 families in his area are now producing compost under the NREGA scheme, and get paid for it with a guaranteed market. Balaram has helped set up village seed banks, each run by 12 women and used by about 50 farmers. He works with local women promoting kitchen gardens, and with farmers promoting SRI, a more environment-friendly method of growing rice.

AND SOME OF THE OTHER WORK THE MANGRO TEAM DOES

The above describes some of the main components of the Project’s work, but there are many other ways in which the project and the team help bring positive change to individuals and communities, some of which may not be directly connected with the aims of MANGRO. For example, we have been able to give legal advice in matters such as infringement of land rights, claiming compensation for crop damage, helping set up Women’s Self-help Groups, promoting and enabling the building of lavatories through government schemes, helping mothers get Birth Certificates for their babies, enabling grants for children studying above 8th Grade, sorting out old age pensions, and so on. Because the team members are aware of the schemes and benefits that are available, it is inevitable that they will be asked for help and support in a wide range of matters. Though not directly related to MANGRO, it means that the impact of our work goes far beyond its key aims, and helps increase the social and economic sustainability of these vulnerable communities.



Two of the new lavatories in Balarampur

One of the most interesting changes we have seen recently is the approach to education. It is hard to remember that only ten years ago learning was by rote. When we ran workshops on new, creative ways of learning, many of the teachers found it hard to grasp what we were doing. We cannot claim full credit for the changes that have taken place since then; that is largely due to changes in education policy at state level. But we have helped prepare many of the teachers in our area so they were a step ahead of the general trend, and already experimenting with the approaches which we had introduced over the past fifteen years.

I would like to finish with one example. I was visiting a school in our area. My visit overlapped with a workshop being run by the Block Education Office on inclusive, child-centred approaches to learning (part-funded by DfID UK, by the way). The school itself had won an award as a Model School. It was filled with paintings, with the children's work. The walls outside were beautifully painted, and the verandas hung with decorations. The garden was loved and cared for. The children sat in groups and worked together. There was a gentle hum, but a quiet discipline, the children open-faced and courteous. It was enchanting. We watched performances of songs, dances and scrolls about why it is important to care for the environment, and how.



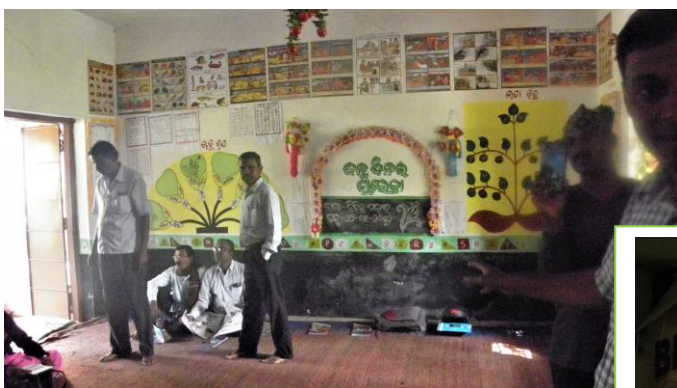
Not only is the school beautiful, but there is plenty of evidence that the children get practical hands-on learning experience. Here there are seeds, and an experiment in germination and growth.

Some of those from the training workshop came and joined us (and joined in!), and I noticed an elderly dignified gentleman sitting near me who had tears rolling down his face. I asked what was troubling him, and he replied that he was retiring in two months, and never in all his career had he realised that it was possible to teach like this, for a school to be like this, and he felt that all his working years had been a wasted opportunity.

By this time I was crying too, of course! We talked a bit, and in the end, he said that he had decided he would work as a volunteer in his retirement and do everything he could to make sure that all children in his area would have the opportunity to learn in this way.



The walls painted with quotations and decorative friezes, the ceilings hung with garlands, the school is joyous.



Above: Some of the training workshop participants take a break and have the chance to see how Balarampur School works

Right: This ten-day training workshop was largely funded by the UK's DfID, and is making a real difference



Ten years ago I would never have imagined a school like this, a conversation such as this. These changes are not universal across India; I don't see it happening in Tamil Nadu or Delhi. And as I say, these changes are not all because of us. The most we can claim is that we have been part of the process of change, and have helped, in a small way, to prepare many teachers to embrace the changes when they become official. Whoever is responsible, it is brilliant to see, and will in due course transform education for millions of children.

2019

General update:
Plantation, EcoRadio, Education

Possible Impacts of Climate Change
Cyclone Bulbul

THE MANGRO PROJECT – summing up the work so far

In 1999 Kendrapara, Odisha, was hit by a massive super-cyclone which devastated the area and caused deaths in six figures. Immediate measures were taken to increase protection in coastal areas. Then five years later, in 2004, the Indian Ocean tsunami occurred. It had a dreadful impact on tens of thousands of communities, from Thailand to Sri Lanka, including southern India, and as far as Africa. The tsunami even reached Odisha, surging up the beaches, but at this distance there was little power left in the wave and it caused little local damage. However, having seen how great was the damage elsewhere, people along the coast in Odisha took note and began to take measures so that they could increase their own disaster resistance. It was soon apparent that those communities which had preserved their mangrove forest and coral reefs fared far better than those whose environment had already been degraded. This increased understanding and concern was what gave birth to the **MANGRO Project**.

It took a couple of years to get off the ground and we had lots to learn, but we were soon establishing local Forest Action Groups in villages in our area, and before long they were busy setting up nurseries, planting out trees, and working hard to protect them. The initial area has been transformed by planting about **1.5 million trees**. To put this in context, the UK government is committed to planting about the same amount of trees a year for the whole of the UK up to 2022. It is failing to meet its target, and tree cover in the UK is actually falling in spite of all the concern and promises.

Our campaigning in Odisha has led to the Forest Department taking on large scale mangrove regeneration, and our education work has massively raised awareness of environmental issues. Through small-scale income-generation projects we have helped raise family incomes; training in disaster resistance has ensured that when disasters hit, the damage is reduced, particularly the loss of life. Our campaigns have helped to change government policy, and we have seen local communities organise themselves to rid their areas of illegal prawn farms and other damaging activities. Our work with Eco-clubs in schools has helped to change teaching methods, providing a model for good practice, and encouraging teachers to adopt approaches which engage the children to explore their world and care for it. Considering how much we continue to achieve, it is a very low-cost project, a shining example of what it is possible to do if one engages and mobilises the community.

All this work continues, both in our old and new areas; trees are still being planted and plantations cared for and extended; Eco clubs are supported and communities helped to increase family incomes.

One of our new and instantly successful initiatives has been to set up an Eco Radio Programme which has been broadcasting monthly for a trial period. Because of its extraordinary popularity it will be extended, and is likely to broadcast twice a month. It reaches several million people, and appeals to people of all ages. It is a brilliant way of raising awareness, and we continue to operate it on a community-radio basis that has been so successful in Western Odisha. Everyone loves taking part, and there is an ever-growing list of people, schools, organisations and communities which want to participate. Each programme focusses on a different aspect of the environment, linking with current issues, local concerns. Songs and plays are written and performed, interviews and discussions held, and critical information passed on. There is extensive feedback and follow-up. It is a wonderful way of raising awareness, and is a positive reinforcement of all our other work.

Another aspect of the work is just as gratifying. Government Education Depts. are now encouraging teachers to use a more practical, experimental and creative approach to their work. The problem is that there is little in the way of resources available. Over the years we have produced a wide range of teaching resources, and people are now desperate for them. I spent about a month this summer producing packs to be used in schools, only to have them confiscated and destroyed by the Indian Customs (why?, you might well ask), which was rather depressing, but on my next visit, early in 2020, we will make some more sets and carry out training so they will be well used in local schools.

This gives a mere taste of all the work that goes on on the MANGRO Project. If you want to know more, please contact Helena (address on the page 8).

CLIMATE CHANGE AND CYCLONES

Climate Change is much in the minds of many of us these days, and most of you will no doubt be trying to reduce your carbon footprint, maybe campaigning for our government to take this matter with the seriousness it deserves. Whatever your views about the causes of climate change, there is plenty of evidence that this is going to be a constant and increasing anxiety for very many people across the world.

Odisha was already a disaster-prone area, with the problems ranging from one extreme to the other. On the one hand there are regular droughts in inland Western Odisha; on the other the coastal area is prone to serious floods and cyclones. Over the past twenty years it has been observed that the climate has become increasingly unpredictable, with more extremes being recorded. The monsoon has regularly failed, and when it does rain it is usually a total deluge, causing floods. The area also suffers from extreme heat in the summer where a weather system gets locked and temperatures climb higher and higher. Schools, offices and transport systems are closed down to protect people from sunstroke and heat exhaustion. There is a fear that this is a taste of what might be in store.

This year two serious cyclones have hit our project area. The first was Phani, in May, making landfall about fifty miles south of the MANGRO Project. Then in November Cyclone Bulbul was headed up the Bay of Bengal when it suddenly lurched towards Odisha, hitting exactly where the MANGRO Project works. Odisha is familiar with cyclones. But as temperatures are rising, so does the sea water in the Bay of Bengal become warmer, increasing the ferocity of cyclones and tidal surge, and maybe the frequency too.

Tree-planting is an obvious way of mitigating the impact of storms, but it is also vital to provide shelters where villagers can take refuge for the four or five days of a storm, or longer. Food and support is provided by volunteer committees which are trained and equipped for this eventuality. It is probably this more than anything else that has reduced the death toll with which we used to be familiar. But Cyclone Phani caused widespread damage to roads, crops, trees, homes, livestock and electricity supplies. And when everyone had just about begun to get life back to some kind of normality, along came Cyclone Bulbul undoing much of the work of the past six months. Up to 60% of the harvest is wasted and much damage done to buildings, but only one life has been lost. Who knows what the future holds, but it is important that these vulnerable communities are able to protect themselves in every way they can. This is one of the main aims of the MANGRO Project, and we continue to help vulnerable communities face these challenges.



With tidal surge and torrential rain built up behind them, the embankments eventually give way, and before long the road will disappear.

Water is perhaps the most terrifying aspect of the storm but the wind tears off roofs, brings down power lines and trees, blocking access for emergency help. It is sad to see these trees destroyed, and exhausting work clearing them, but good use will be made of the valuable timber.



CYCLONE BULBUL

The following email was received as Cyclone Bulbul had just passed over our MANGRO Project area. Ranjit, our partner's Director, happened to be paying a visit to the MANGRO Centre, so was able to help Rama, the MANGRO Project Manager, help coordinate getting people to the Cyclone Shelters and prepare the Centre for the cyclone. It gives a very vivid description of what it is like to be caught at the centre of a cyclone. They had a particular concern for the new roof, which had been rebuilt after Cyclone Phani, though that had been for age, and not because of cyclone damage.

*Ranjit Kumar Swain
Sat 09/11/2019 14:54*

Respected Helena Jee,

Greetings from MANGRO Centre, Madanpur, Rajnagar!

Cyclone Bulbul has become very severe and serious here in MANGRO project areas beyond prediction... Rama and me at MANGRO CENTRE at Madanpur, Rajnagar for last two days. Rain water and winds entering into all rooms forcefully Thatched roof severely damaged. We have been trying our best to remain safe in ceiling office room. No electricity. Dark and dangerous sounds of speedy strong winds and very heavy rains last night and today morning... We have been alert throughout the night. Then the wind speed increased in the mid of night and we were very scared and waited for the morning light for moving to more safer place to neighbor's Pucca house.... The cyclone passed through this area between 10 am to 12 noon Indian Time towards West Bengal and Bangladesh. With difficulty we could manage get back to the MANGRO Centre. I will be in touch from time to time with more news.

Most of the plants uprooted and branches broken. The main gate blocked completely with uprooted and broken plants and poles. Nobody knows when the electricity will be restored. We are managing the water from tube well with hand lifting water and having a kerosene lamp brought from a neighbor's house. Terrible, but a different and unexpected and unpredictable experience.

Tomorrow, when the rain stops we will clear the main gate and clear the broken and uprooted plants and then after couple of sunny days, we go for repairing of this time severely damaged thatched roof. Bulbul had done the damage to MANGRO centre and this area that the Funny (Cyclone Phani that hit earlier in the year) failed to do... We expect normalcy after couple of days. I think God has saved this area from total damage. It has now moved to West Bengal and Bangladesh with slowly losing its power after passing over coastal Odisha. I will send the photos and more news once the rains stop and we are able to come out from the room. All the rooms have water from damaged thatched and through windows as the wind speedy and rains last night and today morning were very severe.

This is just a quick note on the Bulbul Cyclone impacts as I have the laptop with fully charged battery and luckily the Jio tower not damaged. I will be in touch with you with more news

*With Kindest Regards
Ranjit*

We are waiting for a more detailed report, but have had a few photos from Ranjit, and have managed to glean some information from internet reports. Though our project area was the most seriously hit, with 135 kmph winds, eight inches of rain, and tidal surge, plus consequent floods, most people were evacuated, and only one life was lost. We will obviously help with repairs to the roof of the MANGRO Centre, and see how we can best help with wider needs in the area. We might even review our decision to use thatch for roofing the Centre, but it's worth pointing out that we made that decision to keep the carbon footprint of the building as low as possible. One room has a concrete ceiling to protect people, equipment and books, and the thatch and roof poles (bamboo) are easily renewable. Though it gets a bit exhausting if we have to do it too often!

2020

(The first year of the Covid pandemic)

Covid-19 Response

New Nurseries and Plantation
at Barunei River mouth

THE MANGRO PROJECT

COVID-19 Response Works

Considering the challenges which faced local communities, already poor and under-resourced, I am amazed at what our partner has managed to achieve. The following is just a selection from the long list of what we have made possible. A more detailed report has been posted on our website. Please do have a look at it. Every single one of these initiatives has made, and continues to make a real difference to people.

- Twenty WSHGs have been helped to access government-run subsidised loans of Rs.50,000 (£500) each to meet immediate needs in their communities.
- 154 marginal farmers have been able to access government support.
- 50 farmers have been supported by the Horticulture Department to plant 1,150 coconut trees, and care for them for 3 years; more will be included.
- 110 farmers received 50 quintals paddy seed for 150 acres and were supported for transplantation of paddy seedlings.
- Planting of 20,000 general tree species on roadsides and unused land, providing much-needed income for the work through MGNREGS.
- Continued promotion of 350 units of organic compost pits, organic vegetable cultivation, and home and neighborhood-based grafting and planting of useful grafted seedlings (lemons, guava, etc.).
- Two farmers linked with Rs.50,000 (£500) support each and intensive training for bee-keeping.
- Thirty WSHGs trained by Horticulture Office in mushroom cultivation with support of Rs.10,000 (£100) each.
- 60 women farmers (mainly WSHG members) received support from Odisha Livelihood Mission for growing rainy season vegetables.
- Awareness among the villagers and women about all the relevant schemes and packages available from central and state government, and support to access them.



Schools are still closed, and we have kept in regular touch with teachers and students in their villages individually or in small groups, by phone and WhatsApp. Books and materials from the MANGRO Centres are being shared with teachers and students on a rotation basis. We are also carrying out counseling and encouraging the teachers and parents to keep the spirit of children high and engage them not only in study but also creative activities. Amidst the COVID situation, we managed to collect creative materials from children and teachers and published a very good “Hental” newsletter (for Ecoclubs),

ensuring this reaches children and teachers for reading, discussion, sharing and learning over the phone. It’s working well but everyone is looking forward to getting back to normal again!



Bee-keeping (above) and transplanting paddy seedlings (right)– two of the government-funded schemes we have been able to organise for local marginal farmers affected by the restrictions of the pandemic.

NEW NURSERIES AND PLANTATION AT BURUNEI RIVER MOUTH

Earlier this year we received a generous grant from the **Network for Social Change**, and this, along with another generous donation from **The Just Trust**, meant that we were able to continue with our valuable work on the MANGRO Project and to extend the area covered by plantation. There have been two main challenges on top of the usual difficulties which we face: the shadow of the pandemic has been ever-present, but the coast was also hit by a serious cyclone in May, the second in six months, causing significant damage to young plantations. However, having repaired much of the damage, and taking Covid precautions, it was possible to get most of the scheduled work done within the timeframe.

The plan was to plant out an area of mangrove at the mouth of the river Barunei. Using saplings from our existing nurseries, we have been able to transplant 25,000 saplings. Nursery beds have been set up, planted out with collected seeds and seedlings, and the plan is to raise another 30,000 trees for transplanting in the forthcoming season. This work will continue on a traditional rotational basis.

The planting has been carried out on both sides of the river, in nala beds, and to fill in some of the gaps in Forest Department plantations – in collaboration with them, of course. The plan is to plant 60,000 mangrove trees in this area in the long-run and this work will continue as long as we have the funds. It will arrest serious erosion of river banks, maintaining wetland, river and ocean biodiversity, and help support the lives and livelihoods of local people in the long run. The MANGRO Project is widely recognized as having serious skills and experience in promoting, regenerating and sustaining mangrove, and works very closely with the local Forestry Department, a mutually complementary relationship.



Thank you to the **Network for Social Change**, the **Just Trust**, and **everyone else** who has contributed to this project and other MANGRO Project work, and congratulations to everyone on the project who has invested so much time and care, and helped to make this valuable work possible.

Above and right:
Transporting and planting mangrove saplings at the mouth of the Barunai River. These young trees will be cared for by local villagers, over the next five years, with the grass being cut. This provides fodder for cattle, and fuel for cooking, while giving the young trees the best possible chance to reach maturity.



And all of this is in addition to the usual planting work which has enabled the planting of 60,000 more mangrove trees. Brilliant!

2021

General update:
Cyclone Yaas, Eco-clubs, campaigning and
community maps

Kitchen Garden Project

MANGRO (Community-based Mangrove Regeneration in Odisha)

As our income slowly decreases, it is always touch and go whether we will be able to continue funding the MANGRO project. In a world of great need and competing demands, it is always difficult to find regular funding. Without the valued support of the **Network for Social Change** and the **Just Trust** in particular we would have been able to do nothing more than keep the work ticking over at a very basic level, so we are very grateful to them for their support. As long as there is work which we can usefully do, we will continue to try and find the funds to make it possible.

We have spoken before of how mangrove helps to protect the coastline, riversides, and communities from erosion. This was demonstrated again during **Cyclone Yaas**, a very severe cyclone which directly hit this stretch of the coast in May. In our replanted areas there was only limited damage, which was a great relief, but it was noticeable that the worst affected areas were those where we have been campaigning against illegal prawn farming. Though those prawn ponds have been destroyed, thanks to our success, the replanting has not yet been carried out by the Forest Department, so embankments were washed away, and land was covered with sea water following the tidal surge. This is the area where we have set up a kitchen garden project, in particular Talchua (see next two pages).

Meanwhile MANGRO continues with its cycle of work raising mangrove seedlings, planting and caring for them. We have expanded existing plantations at Kankadia and Koelpur where we have established teams who are enthusiastic, experienced and skilled. And we have continued to plant at the mouth of the Barunai on the silted river- and creek-sides. All this is visibly preventing soil erosion, and reducing the impact of cyclones.

Much of the work has been constrained by the pandemic, but schools are gradually re-opening, and school **Eco-clubs** are starting again. These receive major support from the MANGRO team, who are keen to be working with the children once more. Over the coming months visits are planned to the mangrove nurseries and plantations so the young people can see the work at first hand. And already discussions are being held with Eco-club leaders and members about the next issue of their magazine, "The Hental", which will be ready for circulation next month. After such a long time away from school, it will be good to return to some kind of normality.

The **campaigning** continues, promoting mangrove forests, protection of Olive Ridley sea turtles, and striving to ban illegal prawn farming. Sometimes it seems as though little progress is made, but slowly, slowly over the years it is possible to see what an extraordinary change there has been in the attitudes of local people, the Forestry Department, and even politicians! And the visible changes in the environment too.

The MANGRO Project has been running for many years now, during which many lessons have been learnt. A tremendous body of knowledge and skill has been built, and the success of our plantations is widely acknowledged by the Forest Department. It is planned to carry out a **community mapping programme** which will help us understand the current situation very clearly. We will then be able to prepare plans for the future, for us, for the local communities, and for the Forest Department. This will be most interesting, and also most valuable, but, above all, it will help our work be as effective as possible, planting where it is most needed.

Thank you to everyone who continues to make this amazing project possible. It shows what can be done on a small scale, with continued consistent effort. And it helps the whole world by absorbing CO₂ emissions, an all-round good. As the world begins to take on board the enormity of climate change, we feel that this project, working with vulnerable communities, demonstrates what is possible and positive.

FROM SMALL SEEDS – A KITCHEN GARDEN PROJECT FOR WOMEN IN THE BHITARKANIKA AREA OF ODISHA



In May this year we received a very generous anonymous donation. The donor wanted the money to be used to help empower women, and it was an excellent opportunity for us to adapt the kitchen garden project for the Dangamal area on the edge of our MANGRO area. It was ideal because there was a clear need; the people in the area had shown that they were willing and able to work together (this was where we ran a successful

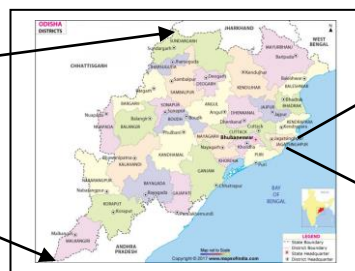
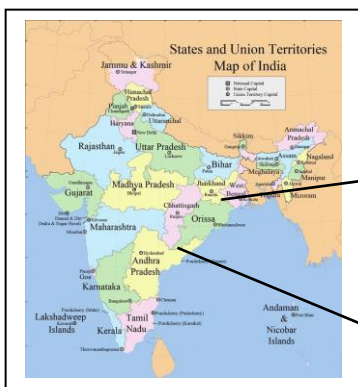
campaign against the illegal prawn farms in 2018); and we had an excellent person to lead the project – Baluram, who has been a long-term committed volunteer.

The **aim** of this project is to provide relief during the Covid pandemic and into the future, by helping to improve the diet of families and increase their income. The prospect of hunger is one of the key issues currently facing people across India, especially for those who rely on paid work.

While both men and women traditionally carry out the growing of vegetables, this project is aimed primarily at improving the horticultural skills of women thus increasing their capacity to contribute to the family income. They are doing this by sustainably increasing the range, quantity and quality of the fruit and vegetables that they produce, enabling their families to have a better diet, while selling surpluses as individuals or together.

Stage 1 is focussed on 400 women in ten villages of the three Gram Panchayats of Dangamal, Krishnanagar and Talchua in Bhitarkanika, Rajnagar, Kendrapara, Odisha (see map below).

Stage 2 –Stage 2 will use the Stage 1 villages as a model and, using key Stage 1 participants as voluntary peer educators, will apply the lessons learnt to a further 800 women in neighbouring villages and beyond. Stage 2 will run for the same time length, but in the following year, having allowed the work of Stage 1 to be firmly established and consolidated.



The project area is shown in the right-hand map, on the northern edge of Bhitarkanika National Park which is the area coloured green. The three Gram Panchayats, Dangamal, Krishnanagar and Talchua, either abut or are close to the Baitarani River towards the top of the right-hand map.

Stage 1 of the project began with a survey of the existing village gardens, what is grown, by whom and how, and continues with groups of women making visits to Baluram's own village where he has led the initiative for kitchen gardens, homestead orchards, compost and pesticide making, and seed banks. The women are now receiving training and practical experience in veg growing, raising fruit trees, compost and pesticide making, grafting and growing for sale. Seeds have been bought, and will be distributed, though we are setting up seed banks for the future.

Readers who are gardeners will know how dependent we all are on the weather, and this is especially the case in Odisha. Cyclone Yaas, in May, caused extensive flooding with sea water, leaving the soil saturated with salt. The rains then came late, and it wasn't until mid-September when enough rain had managed to wash the salt out of the soil. So now it is possible for the hands-on work to start, and the plan is to start growing a crop of winter vegetables very soon. Villagers are looking forward to this first crop, and when it comes they hope there will be enough to sell as well as feed their families. And they will also be saving seeds for future use, encouraging villagers to grow from successful plants which are suited to the particular local conditions.

We are optimistic that we will have enough money for a second year of this project. During the first year we will select potential volunteer peer educators who will be trained next year in leadership so that they can then work with women in additional villages, passing on their skills and experience. They will continue to receive support, training and guidance from the project team. We hope that, in this way, we can reach an additional 800 women, making a total of 1,200 in thirty villages (helping about 6,000 family members overall). On previous projects we have shown how it is possible to use volunteers, who, if properly trained and supported, are able to deliver change in a very cost-effective manner. In addition, it gives the participants a very strong sense of ownership of the project, a sense of what they themselves have achieved, reducing the risk of developing a culture of dependency.

We are really grateful to our anonymous donor who has made this project possible, and to everyone else whose donations mean that we are well on the way to having enough money for Year 2. Thank you everyone.



An enthusiastic group of women tree activists from MANGRO in coastal Odisha

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