

PADDY

SAVE OUR RICE CAMPAIGN

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Paddy in Kerala- the past and the future

One more paddy season is getting over in Kerala. In 2017, Kerala witnessed a severe summer with huge water shortage. Later it received a good south west monsoon and some north east monsoon. As usual there was a lot of talk on conservation and some action on the ground to conserve water. While there is a policy drive to create awareness about water conservation, action at the grass roots is inadequate. This water crisis is impacting agriculture production including paddy.

As a group working on agriculture and farmers, specifically paddy farmers in many states in India we realize that climate change is impacting paddy severely. In Kerala in the eighties itself there were warnings, from experts and environmentalists, about climate change and the need to protect natural resources, especially water. When the wetlands and paddy lands were being converted in the nineties and later as well, water shortage became a regular issue in many places. In spite of several efforts by the government to sustain paddy cultivation in the nineties it did not succeed much. The reason mainly was the economic loss (or less profitability of paddy cultivation compared to other crops) that accumulates over the seasons. Even while the state is producing only a part of the paddy that is needed, there is no timely mechanism to procure and support farmers economically. This condition still continues unfortunately.

Globalization added to this crisis by pushing more people out of their homes and villages, since there were greener pastures available for the youth. The economic and social

development during this period led to more urbanization and infrastructure development and the impact of it can be seen in the shrinking wetlands and paddy lands. Filling up of paddy lands, mining of soil and sand from paddy ecosystems was questioned by environmental groups and it led to a movement across the state to stop the destruction of the most productive ecosystems in the state. The senior team members of Thanal were part of this movement. While working on the issue of pesticides, toxic waste, persistent organic pollutants and other environmental issues Thanal, in 2003, decided to start working on paddy. And it was a timely decision not only in the Kerala context, but also for other paddy growing states. 2004 was marked as the second international year of rice and Golden Rice was being discussed globally.

We have travelled 14 years with rice/paddy in Kerala, meaningfully; enjoying the journey with traditional seeds, farmers, children and engaging with traders, consumers, officials to restore our rice culture in Kerala. We are happy that it was not a wasted effort. There is more talk and action on paddy land protection, traditional seeds revival, eating genuine, wholesome rice, trading for reviving rice culture and sustainable food security. Policy support is coming for quality and diversity and not just productivity. This is indeed satisfying and motivating. With the current gravity of climate change and water issues facing the state and its people we wish there will be more interest in reviving our lost food culture and there will be more realization about the need to protect paddy ecosystems, before it is too late.

Paddy Team

SAVE OUR RICE – THE KERALA EXPERIENCE

Reviving Indigenous Seeds, Protecting Paddy-Wetlands

Sridhar R, Leneesh K



Once a blessed land – even called the God’s own country – the State of Kerala, a small narrow strip of land locked between the magnificent Western Ghats and the historically significant Arabian Sea was secure in the lap of its bountiful nature. The 44 rivers that flow through its nearly 700 km stretch, its 3000 mm of annual rainfall not only replenished the lakhs of lakes, ponds and wells, but also the vast stretches of paddy wetlands. Even as late as 1970’s this picture was intact. The data showed more than 8 lakh ha of paddy wetlands fed a major part of the population of the State, and helped maintain the water table of most of the state. Dark regions of water shortage were never known.

By 2004, the year we started the Save our Rice Campaign, the area under paddy cultivation had diminished to a dangerously low 2 lakh ha. The immediate need was to start a campaign to ensure the protection of atleast the wetlands that remained. A preliminary look at data across other states showed that most states were slowly mirroring the Kerala story of converting food crop lands for industry, real-estate and other urban infrastructure. This we felt was a crisis in the making and had to be addressed through serious civil society and farmer community intervention. This was one of the reasons why we launched the Save our Rice Campaign.

Kerala is also blessed with very rich agrobiodiversity. According to available data, more than 3000 land races of paddy were cultivated in Kerala, at the turn of the last century. But, the green revolution and introduction of high yielding varieties (HYVs) combined with a purposive policy shift to discourage farmers from cultivating indigenous varieties soon wiped out more than 90% of the land races of paddy from the rice landscape of the state. Rarely did one find a farmer cultivating indigenous varieties, the only exception being the tribal paddy farming in Wayanad.

In 2004, when the world was celebrating the Second International Year of Rice (ironically for pushing the next generation of technologies in seeds – the GM Crops), we launched the Save our Rice Campaign, as a counter. The launch workshop – the Indian Workshop on Rice was held at Kumbalangi in Kerala, a predominantly paddy wetland area in the famous Pokkali cultivation area.

After the initial period of exploration and campaigns through meetings and workshop, two streams of work clearly emerged in Kerala. One, that led to the revival of indigenous varieties of paddy – its collection, conservation and promotion, as well as a shift to organic cultivation; and the other – a more politically vibrant activity – addressing the issue of paddy land reclamation.

The struggle to Save Paddy lands

During 2005-2007, soon after we launched the campaign, a number of struggles were going on in Kerala, especially in Thrissur District where at least two major struggles to protect paddy wetlands were on at Erayamkudy and Muriyad. Simultaneously, various development projects mooted by the State also found farmers protesting the conversion of paddy wetlands. Being a politically aware state the public raised concern about the dire situation.

The concerns of food security and water security were raised in many forums. The Government that came to power in Kerala in 2006 took up the matter and setup a Legislative Assembly Committee to come up with a draft law to ensure protection of paddy wetlands.

The Save our Rice Campaign and Thanal, associated with the campaign along with many farmer organizations was engaged closely with the Government to get the law in place. Finally in August 2008, under immense public pressure and tremendous support and commitment from some of the law makers, the Kerala Paddy and Wetland Protection Act was passed in the Kerala State Assembly. This gave strong legal backing to the efforts to protect paddy wetlands, but was nevertheless hinged on the creation of an updated database of paddy wetlands in Kerala. The sad part is that even after nine years after the promulgation of the Act, the database is yet to be published. This has been the biggest hurdle in the effective implementation of the Act, and is a matter of concern.

The Methrankayal Eco-Tourism Project and the Aranmula Airport Project

One of the projects that got proposed during this time were the Methrankayal Eco-Tourism project in Kumarakom, Kottayam on a paddy wetland. Under threat was more than 400 acres of cultivated paddy wetland. The local community rose up in protest against the project. The Campaign along with other groups organised two conventions bringing in all political parties and farmers groups to collectively address the issue. The then Minister for Agriculture Sri. Mullakara Rathnakaran, took a strong position against the implementation of the project and in one of the conventions declared the publication of the database in Kottayam District thus effectively stopping the project from being implemented. The project was shelved in 2016. The present Government, with active committed Minister

for Agriculture, V S Sunil Kumar, recently inaugurated the cultivation of the paddy land, which had been fallow since the proposal of the project.

The story of the Aranmula Airport project in the Aranmula paddy wetlands is a David vs Goliath story. The proponent of the project was a major corporate with deep pockets and support of the Government, which inspite of this being a fully private project, decided to take 10% stake in it. The struggle against the project started off by the local community was later supported and guided by the Kerala Paristhithi Aikya Vedhi (a collective of environmental organisations) under the leadership of Smt Sugatha Kumari, well know poet and environmentalist. The unprecedented struggle was taken up on the streets of not only Aranmula but in the capital city of Thiruvananthapuram, which saw students, political parties, trade unions and even representatives of the Legislative Assembly come together demanding the scrapping of the project. The reasons were clear – food and water security was more important than a fifth airport in the State.

Again, after years of legal and public action, finally in 2016, the State Government scrapped the project and ploughed and sowed paddy in a symbolic act of revival of farming. The produce was even sold as Aranmula Rice and is available in the market.

Despite all this the paddy farming and food sovereignty situation in Kerala is dire. The protection of paddy lands would never succeed until and unless, the State makes paddy farming remunerative and farmers actually benefit as much as when they grow other crops. The Campaign has been advocating for a Farmers Income Guarantee process and could convince the State appointed Agriculture Development Commission to recommend a Farmer Income Guarantee Act.

Campaigning to conservation

While campaigning in Kerala is easy with a politically aware populace conserving is difficult with small tracts of paddy land, high cost of labour and missing youth in the state. The Save Our Rice began its campaign on indigenous paddy seed conservation in Kerala in 2005, and its in-situ conservation work in 2008. Wayanad, a predominantly tribal district, with a legacy of indigenous cultivation and knowledge was indeed the best place to start conservation.

The Campaign began with talking with local farmers' organisations and environmental groups in Wayanad and conducted trainings, held meetings and

seminars and slowly the idea of seed conservation took root.

Documentation of traditional culture of rice began in 2006. A small initiative was begun with a few traditional varieties in 2008 and 2009. In 2009, the first harvest festival was organized to celebrate this at Mathamangalam School in Noolpuzha on 5th December.

The Seed Savers Network in Kerala, an informal platform of seed saver farmers started in April 2010 in Wayanad. The launch meeting was organized at Mananthavady. More than 100 people including farmers, activists and students attended the meeting. The meeting discussed the potentials and challenges of indigenous paddy cultivation. Many farmers came forward for cultivation and conserving indigenous paddy varieties.

The SOR Kerala team actively began to explore the idea of creating our own conservation project in 2010. The campaign planted their first collection of 22 varieties of paddy seeds, mostly indigenous to Wayanad. These were distributed among 64 farmers in a seed savers' meeting. One of the lead farmers who took up the campaign activity in earnest was Cheruvayal Raman, a Kurichiyar tribal chief and an ardent traditional farmer. He was already cultivating 5 varieties of indigenous paddy, and agreed to adopt all the varieties of paddy in his cultivation. He later went on to become the icon and face of the paddy seed diversity and conservation in Kerala.

The Campaign, along with Edavaka Grama Panchayath and seed savers network conducted Vilanatti (Transplantation festival) at Kammana in the field of Cheruvayal Raman following the community traditions of the Kurichiyars. This field was the first Paddy Diversity Block of the Save our Rice Campaign in Wayanad.

A number of seed savers network meetings, training programmes, workshops on seed purification and exposure visits were conducted during 2010. The high point was a visit to Syed Ghani Khan's field in Karnataka. Syed Ghani Khan, a farmer and curator from Kirugavulu village near Mysore had at that time more than 600 varieties of indigenous paddy in his collection. This was a great encouragement for the farmers who visited his field.

Kerala being a state very interested in the academic pursuits, there was quite a bit of demand for educational inputs for organic farming including programs in school curriculum. The campaign

organized a certificate programme in Rice Production Technology. The Course targeted school students, especially in the Vocational Higher Secondary Schools with Agriculture as focus. This programme was renamed as Certificate Course on "Organic Paddy Cultivation and Seed Conservation" continued till 2016. Meanwhile many schools in Wayanad took up indigenous paddy cultivation, and continues to do so even today.

In 2010, the rice campaign established a small seed bank in Panavally village in Wayanad district of Kerala in Thanal's Agro-ecology centre. Throughout the period, the team in Kerala set out on seed explorations and organizing farmers meetings in Northern Kerala. Farmers contributed many varieties of paddy to the seed bank. In the first year the seed bank got a collection of 64 paddy varieties of Kerala.

We also created young leaders

The year 2012 was a turning point in the seed promotion work, when the Campaign organized a Seed Caravan, with the support of the Kerala Jaiva Karshaka Samithi and NABARD. The seed caravan covered 7 northern districts. 10 jatha members, interestingly, all young farm enthusiasts traveled in a vehicle with seeds and promotional materials through the districts, where they were welcomed by farmers' organizations, public institutions, schools, colleges, and panchayaths. At least 10,000 people were directly reached out to through these events. K P Illias, the Jatha captain later went on to take up the mantle of leading the Kerala Jaiva Karshaka Samithi, the oldest organic farming collective in Kerala. Leneesh, a prominent member, later took up the role of State Coordinator of the Save our Rice Campaign in Kerala, and is today an expert on seed conservation managing the rice diversity block (RDB) at Panavelly, with 250 indigenous seeds cultivated.

The famous RDB of Panavelly

Last year a beautiful image akin to a painting appeared in several newspapers-the image of the rice diversity block (RDB) maintained at Panavelly by the SOR Kerala team. When Midhun Raveendranath, a photographer and film maker and his team, flew a helicam over the Rice Diversity Block in Panavelly and showed the world a birds-eye view of the RDB, the image went around the world. What we knew everybody could now see, that the paddy is not just white or brown, but multi-hued, with probably as many colours as there are varieties.

The Rice Diversity Block in Panavally has through these years managed to increase its seed collection to 256 paddy varieties including 180 indigenous Kerala varieties. This is the largest live collection of paddy varieties in Kerala. A characterization of more than 100 indigenous paddy varieties in Kerala was done in 2013. Now, under a joint programme of OFAI, Kerala Jaiva Karshaka Samithi, Paithrukam, Thanal and the SoR Campaign a scientific characterization, including detailed nutritional analysis of 10 selected varieties have been undertaken since 2016.

Owing to increased interest among large sections of people, especially farmers and schools, the field days organised to allow public to visit the RDB, turned into a field week programme since 2014. After visiting the RDB a few inspired minds started similar RDBs in other parts of the state. 13 RDBs across the State, by farmer groups and even individual farmers, spread in the districts of

Kasaragod, Kannur, Wayanad, Thrissur, Malappuram and Palakkad today share seeds to more farmers.

Meanwhile, inspired by the overwhelming response of the Adhirengam Seed Festival in Tamilnadu, organised by the Campaign, where every year more than 5000 farmers/seed savers congregate to exchange seeds, in 2015, the first seed festival in Thirunelly was organised at Panavally. A one day festival, it had seed exhibition, seed exchange, food festival and sessions on various topics related to seed conservation, agroecology etc. Starting with just one, this year five seed festivals were conducted in various regions and there was a great turnout of people visiting and appreciating the varieties.

A work of more than a decade is all coming together with RDBs, seed festivals, seed characterization, rice markets and a rising awareness that rice is life!

SPEAKER TO LISTENER - SAVE OUR RICE CAMPAIGN - WEST BENGAL

Alauddin Ahamed,

State Coordinator Save Our Rice – West Bengal

In the year of 2009, just after devastating cyclone 'Aila' overturned the geographical ecology of Sundarban delta, when in a number of islands, the flood destroyed every field, soil turned saline, seeds were lost, there was no crop or food and the farming community was rudderless. Before our (Save Our Rice – WB) intervention in these areas soil salinity particularly in dry months was a major problem. From the very beginning we were actually trying to find out some alternatives to these problems through some resource management. The aim was to increase crop diversity, productivity and sustainability.

Starting with ponds and bunds

It was during that period that we visited Mamudpur village of Hingalganj block of Sundarbans. During our first visit to the village along with Usha and Sridhar of Save Our Rice Campaign, we noticed that there are no bore wells, but we found many watery pits and ditches of rain water. That gave the idea for the Campaign in this area. We started our journey towards the Rice Campaign in Mamudpur village with a group of 20 farmers we met that day. After hearing them, we suggested using the water in the pits and ditches in their fields through

a pump. The farmers informed us that they did not own a pump in the village. So we agreed to grant some support for the cost of the pump. We also suggested digging a small pond in a part of the farmers' fields and making bunds on four sides of

West Bengal is urbanizing fast, however, 73% of the population still lives in rural areas, and 65% of the almost nine crore population is dependent on agriculture and allied activities. West Bengal is still a land of small-scale farmers: about half of all farmers farm on less than one acre.

the land with the soil obtained from digging ponds and start vegetable cultivation on these bunds. We recommended finding a traditional salt tolerant seed variety to start rice cultivation organically. Initially we agreed to collect some money for digging 5 small ponds as a pilot project as the farmers had no capacity to dig the pond at their own expense.

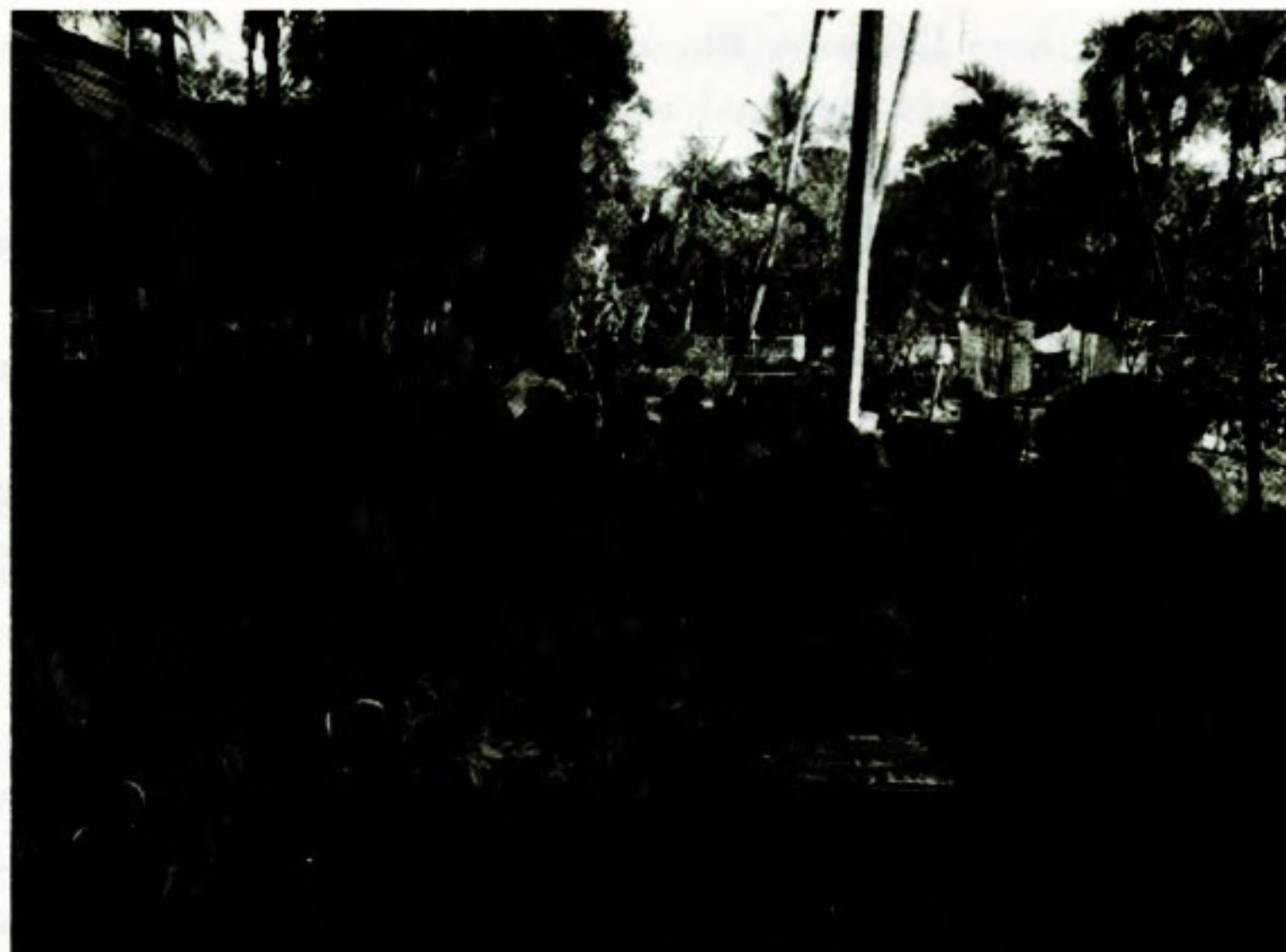
That time we decided that our primary aim should be to focus on eradication of extreme poverty and hunger. With this in view, we recommended ecological rice based cropping system and sustainable agriculture. Keeping in mind this agenda since the last nine years we have concentrated our full efforts

for achieving it in Mamudpur, Jogeshganj area of North 24 Parganas and Pathar Pratima, Sagar block of South 24 Parganas district of West Bengal.

Agriculture can be sustainable when it produces high-quality food and generates income for the poor farmer. That means farmers will be able to improve sustainability: raise soil fertility, improve water storage capacity, increase water quality, diversify, increase people's capability to cope with risks and withstand natural calamities, reduce energy consumption and minimize risk.

Last nine years experiences:

Total 3447 farmers have cultivated 51 varieties of indigenous rice organically in 2,810.7 acre of land in Mamudpur, Jogeshganj, of Hingalganj block in North 24 Parganas and Pathar Pratima and Sagar Block in South 24 Parganas. Before the Save Our Rice – WB's interventions, cropping patterns in the villages were shifting to



Women at the maudpur meeting

fruit trees, fuel wood and fodder trees 1-2 types of medicinal plants, 3-4 types of fishes. That has helped ensure food and livelihood security throughout the year.

The introduction of rice based cropping system has made them aware about importance of farming in tune with nature and its laws. Farmers' incomes have risen many times in the areas where Save Our Rice works. The best way to convince people is to show them how things work and what the benefits are. Last nine years has proved to farmers that this system works and they have and started to accept this farming system.



The Nabadiganto field with vegetables growing on the bunds of the paddy field

chemically produced cash crops, leading to debt and nutritional deficiency. Local diets were shifting away from vegetables, pulses, oilseeds, fruits, to rice and more rice. Through bio-diversity conservation, seed saving and organic farming, families now use more vegetables, greens, pulses and oil seeds, thus improving their household food security.

Farmers are now growing up to 10-15 crops in a year in one field. Greater bio-diversity in the field means more income for farmers. Total 85 farmers are practicing bio-diversity based ecological cropping system in 33 acres of land. The diversity of the farm has increased as much as possible by introducing at least 3-4 types of cereals and pulses/oilseed, 5-6 varieties of vegetables, 2-3 varieties of

In the month of September 2017 Sridhar and I visited the working area of Save Our Rice Campaign – West Bengal and reached Mamudpur village. A large number of farmers flocked to see us. During the field visit the crowd of farmers increased. Their main interest was to show us their fields and crops. Sridhar interviewed seven to eight farmers about their previous income before the intervention of the Campaign and present income after nine years. According to farmers' statement their income increased three to four times from before. Farmers expressed their happiness and spoke about their experiences, methodology followed and so on. Sridhar and I were listening. Finally when the farmers asked us what differences you have seen in this visit. Sridhar funnily said the difference is "Once we were the speakers and you were the listeners, today you are the speakers and we are the listeners".

AGRO-BIODIVERSITY CONSERVATION THROUGH SUSTAINABLE CONSUMPTION- AN EXPERIENCE FROM SAVE OUR RICE CAMPAIGN

Usha Soolapani and Sreedevi Lakshmi Kutty attended the 5th conference on the Network for Rural & Agrarian Studies in Orissa, held from 27th to 29th October where they presented a paper on the work of the Save Our Rice campaign. Titled “Agro-biodiversity Conservation through Sustainable Consumption - An experience from Save Our Rice Campaign” the paper discussed the theme of how sustainable consumption is a cornerstone of conservation along with a few key factors. A short synopsis of the paper is below; the full paper can be accessed at the Save Our Rice Campaign website.

The Save Our Rice (SOR) Campaign in India was launched in 2004, the second International Year of Rice. The Campaign, which emerged in response to the crisis in paddy ecology and economy, decided to revive rice biodiversity and culture to ensure this precious heritage survives and thrives. The seed exploration which started in 2006-07 in South India, 2009 in West Bengal and Odisha and 2015 in Eastern India could restore around 1200 varieties at the farm/village level. After the initial enthusiasm of finding lost seeds and farmers who were passionate about conservation, it became a challenging task for the campaign to continue the conservation work, mainly due to resource constraints. It became clear to us through interaction with various stakeholders that conservation of rice biodiversity cannot be a responsibility of farmers, campaigns or organizations alone. Other stakeholders like rice consumers, millers and traders and governments also have to take responsibility since we are all part of this rice chain.

The Campaign took up serious consumer interaction from 2008-09 onwards, focusing on engaging with and educating consumers on the value of rice biodiversity and the consumers' role in conservation. It is working, slowly and steadily, we are seeing an increased uptake of indigenous paddy rice varieties across the organic outlets in the country. Farmers who grow indigenous varieties of rice are getting better prices for their produce. Some of these farmers have become innovators developing agronomic practices as well as more effective ways of seed conservation. Some of them have started

value addition and are bringing forth diverse products into the market.

Many seed saver networks have evolved in the Campaign areas and the agriculture calendar is punctuated with harvest festivals, field days, seed melas and food melas. Media in the three Southern states where the Campaign has been consistently working on rice has recognized the importance of indigenous varieties and seed saver farmers. State governments have also started to recognize the value of indigenous varieties of paddy seeds and many seed saver farmers have become resource persons at the village level and government funded initiatives as well.

Some of the major learnings from this ongoing campaign are:

- Seed and food go hand in hand and the most effective way to conserve agro-biodiversity is by eating it.
- Seeds need farmers, farmers need eaters and eaters need diverse food thereby leading to conservation of diverse seeds.
- Seed conservation and the consequent visibility has given the seed saver farmers much needed recognition and consequent revival of interest in paddy cultivation, at a time where paddy cultivation had begun to be felt as an onerous and foolish option.

The Campaign has first-hand experienced that indigenous seed revival brings many advantages – conservation of agro-biodiversity, better economic prospects for farmers, safe and nutritious food for consumers while conserving the environment. We are also learning and discovering that many of these indigenous varieties are tolerant to climatic vagaries and are better suited for organic management and multi cropping systems. We learnt that one of the cornerstones of indigenous paddy seed conservation is sustainable food consumption.

Read more about the conference and its theme here <http://ruralagrarianstudies.org/conference/conference-2017/>

Indigenous paddy conservation in West Bengal

The Agriculture Department of West Bengal government is encouraging paddy farmers to cultivate long forgotten and neglected traditional (folk) varieties of paddy. This initiative is being taken up with the help of the Agriculture Training Centre (ATC), Phulia in Nadia District. Some of the varieties that are being revived are: Radha Tilak, Kala Bhat, Dudheshwar, Hamai, Jhumpuri, Khara and Balam.

The mono cropping of high yielding varieties with the extensive use of fertilisers and pesticides could not stop the reduction in rice yields, over the years, in this major rice growing and consuming state. One of the key people leading this initiative of folk rice conservation is Dr Anupam Paul, who began conservation work in 2001 with just five folk rice varieties. The work was inspired by a book by Dr Debal Deb, a pioneer of the folk rice movement, who had his own seed bank earlier in West Bengal, which is now in Orissa.

In 2006 the state declared the ATC Phulia farm, managed by Dr Paul, as a biodiversity conservation farm. The farm has today 100s of varieties under different categories like aromatic rice, fine rice, deep water rice, salt tolerant varieties and red and black varieties with high anti-oxidant levels.

The Save Our Rice Campaign has been working in the Sunderbans area since 2008 working with small and marginal farmers in cyclone Aila affected villages. Over 10 years farmer incomes have increased four fold and 1000s of farmers have moved to cultivation of traditional paddy varieties under organic conditions. Alongside farmers are also cultivating vegetables and maintaining fish ponds providing them year round food security and enhanced cash income.

Read in detail about these initiatives at the following links:

Indigenous appeal, Down to Earth magazine, July 2017. <http://www.downtoearth.org.in/news/indigenous-appeal-58285> & West Bengal Government encourages cultivation of extinct rice varieties, Economic Times, September 11, 2017 <https://economictimes.indiatimes.com/news/economy/agriculture/west-bengal-government-encourages-cultivation-of-extinct-rice-varieties/articleshow/60460634.cms>

Read more about the work of the Save Our Rice campaign in the Sunderbans area since 2006 at : PADDY April 2016 <http://thanal.co.in/uploads/resource/document/paddy-april-october-2016-59438818.pdf> & current issue article Listeners and Speakers

Read here in detail about Dr Debal Deb's work: Guardians of the grain, The Hindu, September 23, 2017. <http://www.thehindu.com/sci-tech/agriculture/guardians-of-the-grain/article19735976.ece>

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Contact Office - Save Our Rice Campaign,

Thanal, OD-3, Jawahar Nagar, Kawdiar P.O., Thiruvananthapuram, Kerala, India - 695003

Tel/Fax: 91-471-2727150, email : indianricecampaign@gmail.com

PADDY Team : Usha S., Sridhar R., Sreedevi L. & Deepak R.

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