

# PADDY

A NEWSLETTER FROM THE SAVE OUR RICE CAMPAIGN  
NO. 3 • APRIL 2009

www.saveourrice.org

## Editorial

### RICE FOR LIFE AND LIVELIHOOD

Rice is Asia's main staple food and central to the Asian way of life; its culture, spirituality, customs and traditions. The small-scale rice farmers of Asia ensured food security for centuries and sustained the livelihood of Asians. They controlled the production systems and ecology of rice. This continued till the advent of the green revolution when the HYV seeds were introduced and farmers started losing control over the production system. Small-scale rice farmers were never supported and the green revolution system never respected their ways of life and their capabilities. Women paddy workers/farmers in particular were treated as unskilled workers and their role in the smooth running of a productive system were never taken into account when planning was done to increase productivity. This has had a deleterious effect on the social and cultural life of the people of Asia apart from the negative economic and ecological impact of green revolution. The rural paddy farming communities plunged into a vicious cycle of debt, bankruptcy, deprivation and abject poverty while the countries in Asia and the Asian region as a whole lost their food sovereignty.

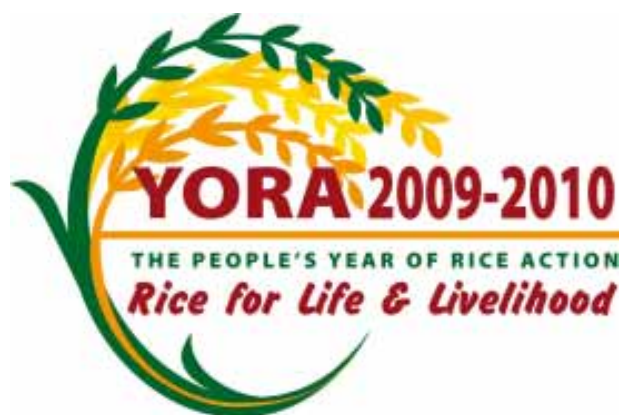
Along with all these disasters, now the climate change impact, craze for agrofuels, unreasonable demand for industrialisation and urbanisation, unjustifiable push for GE rice, all add to worsen the rice/ food crisis.

In 2008, we experienced a sample of this crisis. The price of rice shot up in the international market, but farmers did not get any benefit out of it. Unpredictable rain and drought, non-availability of locally suited good seeds, absence of any compensatory mechanisms for paddy farmers, all led to further despair.

Recipes leading to disaster are not new to us. The same thing happened during the green revolution. There was a crisis of hunger - and the answer was green revolution. And we know what happened later. It helped only chemical and seed companies (small and big) and scientists and institutions like IRRI and

ICAR. They got enough money to do research on the new "Saviours" of agriculture - chemicals, HYV seeds and machineries (but research on farmers and environment was never a priority) while farmers lost everything, including their hope and faith in the soil.

This time it is more organised; with the help of more support policies from WTO, TRIPS and under the influence of biotech companies, further recipes for the next rice disaster are being planned in the international and national research institutes like IRRI and ICAR. Every moment of despair of farmers is an opportunity for them to make further profit.



But people of Asia are not going to allow this disaster to happen on their soil again. Farmers and agriculture workers organisations, consumer organisations, civil society groups, women's groups of Asia came together in 2003 to resist this onslaught on their life and livelihood. This was facilitated by PAN AP. Many organisations from India also joined the 'Save our Rice Campaign' to protect our paddy and our food sovereignty. In 14 Asian countries the campaign is going on to protect rice culture, community wisdom, rice ecology, economy and livelihood.

In the last two years (2007 and 2008) in all the 14 Asian countries, including India, a week long programme was organized, called 'Week of Rice

Action' (WORA) to highlight Rice culture (in 2007) and 'No to GE Rice in Asia' (in 2008), to resist the introduction of GE Rice. Lakhs of people participated actively in these programmes wishing to protect the mother crop of Asia: Paddy.

Threats to rice culture are increasing because of corporate interests and vulnerability of rural communities. To further highlight and strengthen the campaign to save rice in Asia, a year long activities are planned this year, The 'Year of Rice Action – YORA 2009-2010'. Focus of YORA is "Rice for Life and Livelihood". Survival, indeed life itself, and livelihood are the central issues not only for small rice communities but also for all the poor. How shall they eat? How shall they live? How shall they be redeemed from their poverty? Over and above: how can we achieve food self sufficiency and safe and nutritious food for all? Will the farmers achieve the quality of life they deserve? Will they be supported to practice agriculture in a way that is holistic, sustainable and in harmony with their rich, diverse living cultures?

These are the fundamental questions asked through YORA. YORA is being organized in seven states in India – Kerala, Tamilnadu, Karnataka, Andhra Pradesh, Orissa, West Bengal and Uttaranchal - where activities are planned in each state by different organisations.

***Come and join YORA.  
Let us protect our farmers and food!***



Farmers learning how to revive paddy ecology at Palakkad, Kerala.

## **RICE IN ORISSA - LIVE IN ORISSA**

*by Debjcet Sarangi & Jagannath Chatterjee -  
Living Farms, Bhubaneswar*

Rice in Orissa is intricately interwoven with its history, culture and traditions, however the present reality of rice is bleak, overrun with greed and impatience and threatened with extinction, and rice conservationists and farmers are fighting a battle for the survival of this food crop which is the life of Asia.

Ratnakar Sahu, a senior sage-like and prominent organic farmer of Orissa who is so deeply entrenched in nature that poisonous snakes live as pets in his home, laments that with the rice culture fast disappearing people have become materialistic and can no longer enjoy the thrill of being a part of ones natural surroundings.

Sri Ratnakar Sahu sums up what he has learnt from the fields. He is today able to define the seven friends and the seven enemies of the farmer. The seven friends are the earth who is the mother, the cow the caretaker, the tree the life force, the water which symbolizes courage, the seed his capital, his friends and co-farmers, the earthworm, micro organisms, birds, bees and the animals, whereas his strength were the farm labourers. On the other hand the seven enemies of the farmer are loans, artificial fertilisers, chemical pesticides, hybrid seeds and GM seeds, wish for a materially luxurious life, laziness, and depletion of natural resources.

## **MEMORIES HAUNT**

What he says is evident to everyone today. Though living in modern cities, the Oriya is at heart still a villager and misses the familiar scents of fresh hay, boiling paddy, floating chaff and the peculiar strong odours from cattle sheds that once charmed him and soothed his nerves. It pains them that such a life, and the cultures and festivities associated with it, is gone forever and will not return as their children are selling ancestral property and buying apartments in multistoried buildings sprouting in the cities.

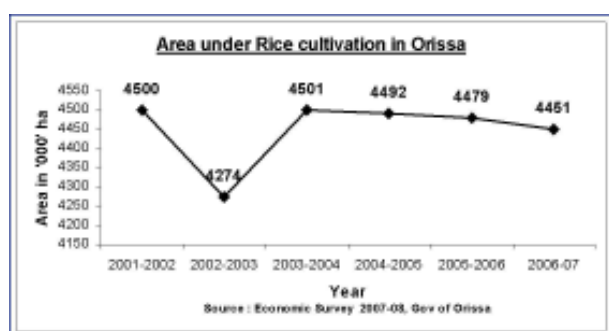
## **CITIES TOO ARE AFFECTED**

It is not that the cities are shielded from the effects of reduced interest in the cultivation of rice. The city of Bhubaneswar was surrounded by low lands, fed by the rivers *Daya* and *Kuakhai* and other prominent canals like the *Taladanda*, that were utilized by the farmers for cultivation of paddy. They served as

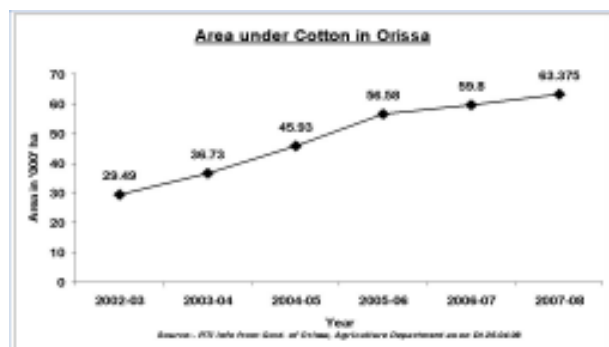
wetlands, water reservoirs and kept temperatures within control. But now thanks to “development” these lands have been filled for residential and industrial purposes. The city is, perhaps as a consequence, witnessing abnormal increases in temperature and also water logging, a phenomenon not noticed a few decades earlier.

### WHITHER FOOD SECURITY?

Today the cultivation of paddy itself is threatened as farmers are being encouraged to go in for cash crops. The growth of paddy cultivation in the state has become almost stagnant. Farmers are dependant on the market for seeds and the supply is erratic.



While the traditional varieties were pest and disease resistant, the new varieties are notorious for the same. Farmers of Orissa have now become accustomed to spraying the highly toxic pesticide endosulfan twice on the crop. With the increase in cost of chemical inputs – forced down the gullets of farmers who were used to organic cultivation - and the threat of floods and erratic rainfall, everywhere farmers are now abandoning agriculture. Festivals, religious and cultural, that were once vibrant, continue today only as token symbols, their significance forgotten.



Government statistics amply demonstrate how farmers are being encouraged to move away from food crops. Vast stretches of rice fields in the districts of Kalahandi,

Rayagada, Bolangir, Gajapati, Ganjam, Sundargarh and Phulbani have today been converted to cotton cultivation. Floriculture is spreading as is the conversion of food crop land to grow biofuels. The farmers who grew rice in their fields have today become dependent on rice doled out under government schemes. The resultant food shortage is being politicized to usher in the biotech revolution. The rice farmer, once the pride of the state, is migrating in search of work. Cultures and festivities have given way to poverty, hunger and sorrow.

### THREAT FROM HYBRIDS, MODERN AGRICULTURE

While hybrid varieties are being introduced apparently to improve rice output, Orissa has never been short of rice, it is in fact a rice exporting state. It always was, as the 14<sup>th</sup> century Chinese writer Wang-Ta-Yuan recorded, but the scientists have raised the bogey of “inadequacy of subsistence farming” to do away with indigenous varieties so that the farmer becomes dependant on the market for seeds. Along with this the scientific skills of both the farmer and his family members - experts in choosing, storing and improving upon seeds - is dying, rues Natabara Sarangi, a retired school teacher and farmer, who conserves more than 300 varieties of rice in his farm.

The traditional varieties required very little care and yet gave high yields. A survey conducted by the Central Rice Research Institute in Orissa to document traditional rice varieties has revealed that while high yielding varieties could not tolerate drought conditions followed by cyclonic storms that led to considerable crop loss in a particular year in the Mayurbhanj district of Orissa, the native varieties were not affected.

Monocultures have further depleted the diversity of rice. The entire country is today ruled by a few hundred hybrid varieties against the 2,00,000 traditional varieties endowed with several qualities that once adorned it. Even today, says Natabara Sarangi, one can get more than 50000 traditional varieties if one has the patience to trace them. The Jeypore tract alone has yielded 1745 upland varieties in the survey mentioned earlier.

While once the taste and type of rice changed from village to village, food aficionados have become accustomed to the current reign of rice without taste. It is tragic that such a huge diversity will soon be a thing of the past.

## SOURCES OF NUTRITION AVAILABLE LOCALLY

The disappearance of many traditional varieties of rice suitable for certain uses has meant that puffed rice *mudhi*, beaten rice *chuda*, puffed paddy *khaj*, or stale rice soaked in water *pakhala*, which are the cheap food available to all sections of the population in Orissa and have sustained them for centuries, do not have the necessary nutrients to sustain them. Rice milk, *torani*, and even the left over water after boiling rice, *peja*, have been sources of nutrition and medicine for many an ailment. The polishing of rice in mills has resulted in the top red nutritious protein and amino acid rich layer being removed, leaving only the carbohydrate containing endosperm behind. No wonder the state ranks high in the malnutrition index and has a very high rate of infant and maternal mortality.

## ASSOCIATED LOSSES

The short stems of the high yielding varieties have resulted in less hay for cattle and for compost. The hay is also used for building roofs of mud houses. With the source of easily available food gone, the farmers can no longer afford to keep cows. This has led to the loss of yet another good source of nutrition: milk. Cow dung also served as fuel, an antiseptic, and when mixed with cow urine and water was used to wipe the mud floors of houses. Cow dung fed fires used to keep the mosquitoes at bay and perhaps also the dreaded disease malaria that is currently taking a heavy toll in the state. Keeping cows has always been a way of life in Orissa but this practice is also disappearing just as the traditional rice varieties have disappeared over the years.

## CAN THE GLORY BE REVIVED?

But there is still hope. The untiring efforts by a few thousand rice farmers in the conservation of traditional varieties of rice and the rice ecosystem has sustained the hope of being able to uphold the rice culture. The interest of the state government in promoting the System of Rice Intensification (SRI), and in traditional rice farming further strengthens this hope.

## CONSERVATION ACTIVITIES

Conservation of native varieties by farmers of the state is yet to be properly recorded and documented. Besides Natabara Sarangi, Siba Prasad Sahu of Gaisilat Block in Bargarh district is spearheading another movement involving 300 farmers of the region who

are collectively conserving 70 varieties of rice, including various medicinal varieties. Sri D. Narayan of Ganjam district is another organic farmer who is conserving five varieties including a medicinal variety called *Karani* which is capable of curing digestive problems including acidity. He is also conserving and cultivating a local variety called *Boudiahunda* that is in demand for being used for puffed rice *mudhi*. Another variety has been brought in from Chhattisgarh which has 15% protein content confirmed through laboratory tests. Conservation activities of a few varieties are also being done in Beguniapada Block as per Sri Simanchal Nayak, a farmer leader.

Sri Ratnakar Sahu of Patnagarh, Bolangir, is conserving certain varieties of rice. He is in search of certain varieties which were available in Orissa and which can still be traced. They are: the *Karni*, a medicinal variety farmers used to treat the body pain of the farmer and his cattle after ploughing, a very fine tasty variety called the *Jonyjari*, another scented variety called the *Hubri Mahaharaj*, a variety called *Gidan*, which is perfect for beaten rice, and a variety earlier found in Khariar of Nuapada district that served as a medicine for certain form of heart ailments.

## RICE IS LIFE

Rice is not just food for Orissa, it is life itself. It is a complete knowledge base that was intricately woven around nature. The people's happiness merged with it and raised the level a few notches. The rice fields were knowledge reservoirs and were a complex system compared to the current monocultures governed by linear thinking. The knowledge of the weather, type of soil, type of land, and other elements of the ecosystem led to minimum intervention farming that suited all life forms which were associated with it. This knowledge has to be regenerated. The glory once associated with the cultivation of rice must be revived to inject life and energy into the fast depleting agricultural creativity and endeavour of the farmers of the State.

*Say Yes to Rice, Say Yes to Life.*



## RICE AND PESTICIDES

by *Smitha Nirmalkumar & Manjusha S.*

Pesticides found their way into subsistence farms in India in the 1960s, when the Green Revolution arrived with the promise of increased food production. Till then, pesticides were mostly used in plantations and most of that was imported. Since the green revolution, pesticides have become an essential input for food production throughout the country and paddy is no exception to this. In spite of research studies that have indicated that pesticides do more harm than good in rice, their use in rice does not show any signs of diminishing. A study was conducted in Kerala which asserted this fact once again, with a majority of pesticide users following practices that should have been abandoned years back.

The study was conducted by Thanal with the Save our Rice campaign and PAN Asia Pacific. The study for 'Community Monitoring for International Advocacy' was undertaken over a period of one month in the Kole lands of Thrissur. The purpose was to assess the current pesticide use and the health effects they have on the farming communities that use these pesticides. The retail of chemicals as well as the advertisements by chemical companies were also included in the study.

The study was conducted by interview questionnaires to elicit details about the commonly used pesticides, the methods of use and the conditions of use. Separate questionnaires were used for retail stores and the farmers. The major study findings were that most farmers (75%) used "moderately or highly hazardous pesticides and more than 90% of them did not use any effective personal protective equipment. This in turn led to pesticide related health problems like excessive sweating, excessive salivation, dizziness, etc. that were found in 54% of the applicators and highlighted the hazards of pesticide use. 71% of the respondents threw empty pesticide containers in the open field and 99% wash their equipment in the water channels in the fields leading to environmental pollution.

The study was undertaken in the Kole lands of Thrissur. 'Kole', which in Malayalam literally means bumper yields, is a distinctive feature found in the Thrissur and Malappuram districts. These are wetlands that remain submerged from June to November. The waters are then pumped off using motors and paddy cultivation is begun. Thrissur Kole lands are the third

largest wetlands in India after Chilika Lake (Orissa) and Amirpur (Gujarat). The study area covered five padasekharams that are spread over four panchayats. The survey was conducted among 115 farmers and also covered nine pesticide retail stores from Thrissur town and surrounding panchayats.

The study reveals the practices that were followed in the use of pesticides and the major chemicals that were being applied in the paddy fields. 25 different active agents were being used in these places and most of the commonly used pesticides belonged to WHO category I and II i.e. the extremely hazardous, highly hazardous and moderately hazardous categories. ([http://www.who.int/ipcs/publications/pesticides\\_hazard/en/](http://www.who.int/ipcs/publications/pesticides_hazard/en/) )

The FAO Code of Conduct, to which India is also a signatory, has recommended that it is desirable to prohibit the import, sale and purchase of substances included in the classes Ia and Ib of the WHO classification, if other control measures or good marketing practices are insufficient to ensure that the product can be handled with acceptable risk.

The study clearly showed that control measures and good marketing practices are close to nonexistent. The farmers all claim that they use Personal Protective Equipment but in 60% of the cases, the PPE used are long pants and full sleeved shirts. When asked for more details, they accept that they have to roll up their pants till their knees as their feet sink deep in the slush in paddy fields.



Pesticides applicator without PPE on the way to the field.

Thus, even if they are wearing pants it is not an effective protection as their legs below the knees are exposed to pesticides. Some do wear socks but PPE of other kinds like gloves, masks or overalls are only occasionally used, when they are available in the stores.

The study highlights that some applicators mixed the pesticides with their bare hands. All the respondents wash themselves in the water channels in the fields where they also wash their equipment and are thereby contaminating the water. This water ultimately contaminates the Kule lands where it poses a threat not only to the people but also to the environment. 54% of the respondents have had minor or major health problems due to pesticide exposure. 21 respondents were hospitalized, because of ailments that they suffered during or just after pesticide application.

Labels are found attached to most pesticide bottles but since the labels are not written in the local language the farmers cannot read them. The safety data sheet is available with the pesticide bottles but the data is in small print which is too difficult to read.

In the nine pesticide stores surveyed only two stores had stocks of PPE therefore the farmers are not able to avail of such equipment even if they want to. One of the stores was located right next to a bakery store, whereas another was situated in the middle of a fruit and vegetable market. The pesticides and the food items are sold side by side, thereby exposing the consumers of these foods.

A study was performed at a research farm in the Philippines, at the International Rice Research Institute, by a team led by IRRI entomologist K.L.Heong. Instead of routine spraying once a week, spraying was done only when pest densities touched a certain level. After 14 years the pesticide use had decreased by 87.5% and insecticide use was down by 95.8%. Dr. Heong firmly believes that "pesticide does more harm than good in rice eco-systems."

Heavy pesticide use began with the recommendations by agricultural scientists who looked up to the IRRI for inspiration and said that pesticide use was imperative for pest control. Almost 50 years later even the IRRI has changed its stance, among a majority of farmers in India, using pesticides has become a habit, part of a routine the dangers of which have not sunk in yet!



## NATABARA SARANGI - SEED SAVER

by *Smitha Nirmalkumar*

Natabara Sarangi, an organic farmer, from the Khurda district of Orissa, cultivates and conserves 310 varieties of rice on 2 hectares of his field. Sarangi retired as a high school teacher at the age of 50 and took up farming as a post retirement activity. He started out with cultivating the popular high yielding variety, CR1009 but found that pest incidence was high and the agricultural department suggested pesticides application.

While applying carbofuran, the worker who was applying it fainted in the fields. Sarangi immediately stopped the application. The next morning when he went back he found crabs, snails, fish and snake all dead and floating in the water. This incident was a turning point which made him realise the damage that modern agriculture was inflicting upon people and the environment alike.

This led him to seek alternative ways of farming and thus began a quest for the seeds that had been lost in time. The search that has lasted more than a decade has led to 310 different rice varieties from Orissa, West Bengal and Chattisgarh. Sarangi with the help of a dynamic farmer, Yubraj, has meticulously documented the varieties, their characters, the seasons and the yield potential in an album that is meticulous and scientific. The seeds are also sold to farmers who cultivate them in their own fields.

He has records that show that 50 of the varieties that he cultivates give yields of 15 to 23 quintals per acre. This counters the criticism that the traditional varieties do not give high yields. This one man army has restored many varieties that were lost in the onslaught of time and High Yielding Varieties. And he has not just documented it for the sake of documentation but brought these varieties back to life in the farmers' fields.



## GENETICALLY ENGINEERED RICE - PART II: GLOBAL STATUS OF GE RICE

by Karsten Wolff

### STATUS OF GE RICE

Laboratory testing as well as field trials of GE rice are now taking place all over Asia. The most advanced traits are BB rice and Bt rice. However, no GE rice variety has been approved for commercial cultivation in any Asian country.

In India, there are several research projects and field trials of GE rice going on, both in the public and the private sector. Syngenta and IRRI are working on stem borer resistant rice (expressing Cry 1ab gene), IRRI and Indian universities are field testing BB rice (expressing Xa 21 gene), Monsanto and the University of Punjab are working on yellow stem borer resistance (expressing Cry 1ac and Cry 2a genes) in Indica Basmati, and Mahyco got approval for field trials on Bt rice (expressing Cry 1ac gene) at 12 locations all over India.

### ILLEGAL GE RICE CONTAMINATION OF THE FOOD CHAIN

In August 2006 the USDA confirmed a serious case of contamination of the rice supply by an experimental GE rice variety of Bayer. The GE rice (known as **LL601 Rice**) is engineered to withstand application of the herbicide glufosinate. LL601 was not approved in any country of the world and has not passed any safety assessments regarding human health and the environment.

The GE rice has contaminated commercial rice seeds in the USA, and was subsequently found in the food chain of many other countries worldwide. In the same month Japan announced that they are suspending US long-grain rice imports. The European Union adopted emergency measures and required imports of long-grain rice from the USA to be certified as LL601-free.

However, contaminated rice has been found in several Asian, European and African countries. US rice farmers have filed a case against Bayer, since 40 per cent of their exports were negatively affected. In 2007, the Indian Commerce Ministry demanded that field trials of GE crops in Basmati rice growing states and all the 60 agri-export zones should not be approved, due to fear of diminishing export prospects.

Since 2004, Chinese authorities are discussing the approval of GE rice, but due to environmental and health concerns as well as fears of losing export markets, commercial production of GE rice is not allowed in China. The decision of the Chinese bio safety committee is crucial, since many Asian governments are closely monitoring China's policy on GE rice, and it is very likely that the approval in China would lead to approvals in other countries as well. Despite this clear legal situation in China, illegal **Bt Rice** was found in two provinces in 2005, and subsequently exported to other countries as well. It is very likely that this was not an accident, but a deliberate act by scientists and seed factories trying to push the authorities to take a decision; by making the controversial product so widely available that there is no turning back. *(To be continued)*

GE Rice Crops	Research	Development	Field Trials	Seeking Approval	Approved commercially	Commercially grown
Agricultural Traits	Herbicide tolerance	LL rice	USA, (Japan)	Brazil Philippines*, Australia*, South Africa*, NZ*	USA Canada*, EU*	nil
		RR rice	USA, Japan			
	Insect resistance	Bt rice	India, China, Pakistan, Iran	China, Iran, (India)		
	Lectins	GNA				
	Proteinase inhibitor	CpTI	China			
	Disease resistance	BB rice	Philippines, China	China ?		
Stress tolerance		China				
Nutrition related traits	Pro-vitamin A	Golden Rice	USA (2004)	India, Bangladesh - planned		
	Iron enriched					nil
Biofortification	Low glutenin		Japan (Aventis & Japan Tobacco - abandoned)			
	Tryptophan		Japan			
PharmaCrops	Human lactoferrin		USA, Japan	USA (Ventria Bioscience)		nil
	Human lysozyme		USA, Japan	USA (Ventria Bioscience)		
Industrial traits						nil
Bio-remediation						nil
Functional Genetics Rice as Model System			Australia			nil

## TRADITIONAL SEEDS ON A COME BACK TRAIL IN TAMILNADU

by Sridhar R.

A small effort started by Jayaraman, an ardent follower of the natural farming guru Dr Nammalvar and an activist in the Save our Rice Campaign, has yielded results that challenge the four decade old seed replacement scheme of the State.

Pasumai Vikadan, a widely read magazine dedicated to farming issues published an article about this endeavour and it resulted in 750 farmers, across the State, contacting Sri Jayaraman and Sri Ponnambalam, who is a well-known consumer activist and runs a consumer organisation called CREATE, asking them for the traditional paddy seeds that they have been conserving and producing at their Ecological Agriculture Training and Research Centre at Adhirangam, in Thiruthiraipoondi in the Thiruvaroor District. Most of the farmers are demanding those varieties that were once very popular, such as *Kattuyanam*, *Poonkar*, *Jeeraka Samba* and *Aruvathan kuruvai*. The last of these is a 60 day harvest variety and is popular due to its very short duration and good taste and has already been distributed to 49 farmers through one farmer Muthiah Pillai of Nagercoil. Another variety *Poonkar* has been distributed to more than 60 farmers by one of the Nellai Kappom Mandram (Save our Rice Club) farmers Sri. Somu Elango.

This Traditional Paddy Seed Conservation and Production programme was begun in 2007, with just two seed varieties – *Jeeraka Samba* and *Kattuyanam*. The seeds were collected from two farmers from Vedaranyam in Nagapattinam District and then multiplied in the 5 acres of land that CREATE received as a holding from a philanthropist, Sri Narasimhan. The seeds thus produced were distributed to 263 farmers, most of them in Tanjavur, Tiruchirapally, Nagapattinam and Thiruvaroor districts. *Kattuyanam*, a very special variety - it has both drought resistant and flood tolerant properties and is known for its medicinal traits - was given to 186 farmers. The rest of the farmers wanted *Jeeraka Samba*, a scented variety. More than 60 farmers used the seed in organic farming; of these, about 17 farmers are ready to give seeds back after harvesting.

In the season that just ended, early 2009, the Centre has multiplied 13 varieties and is ready to supply them to interested farmers. Another 10 varieties have

been collected to be multiplied in the coming season. *Anaicomban*, *Thooyamalli*, *Kothamalli Samba* are some of the varieties that will be grown in the coming season, apart from *Poonkar*, *Aruvatham kuruvai* and *Aathur Kichadi Samba*. Varieties that are presently available at the Centre are *Kattuyanam*, *Jeeraka Samba*, *Karinkuruvai*, *Kuzhivedichan*, *Kar*, *Ottadayan*, *Manja Ponni*, *Sadar*, *Kudavazhai*, *Soorakuruvai*, *Mappilai Samba*, *Katta Samba* and *Salem Sinnam*. The seed improvement and multiplication programme used both the SRI method and the normal sowing method, and was done under the guidance of Dr. Nammalvar and Sri Krishnaprasad of Sahaja Samrudha, Karnataka. Considering the overwhelming demand for traditional seeds, the Save our Rice campaign is planning a Seed Exchange Mela at Thiruthiraipoondi in May 2009, which will bring the 700 odd farmers who have asked for these seeds together with farmers' organisations, government officials and agriculture scientists. The Mela will focus on the need to bring back traditional seed conservation and farming into the government programmes. Another positive development of the programme is the number of farmers across Tamilnadu, who are approaching the centre with offers to supply rare varieties that they have been conserving.

All these three or four decades, the Government of India has been promoting the replacement of all traditional varieties of paddy with high yielding varieties, village agriculture offices have targets to implement this replacement. This programme has in fact been the main culprit for the almost near extinction of all the traditional seed varieties, some of which like *Kattuyanam* have immense potential to address such issues as climate change.

Looking at the demand from farmers for the traditional varieties, it is clear that they want these varieties revived, conserved, and made available. Whatever is said and done about increasing productivity and yields through HYV seeds, the quality and goodness of these traditional varieties are not something that farmers in the country will easily forget. Lest it be lost, a desperate attempt is being made by farmers and organisations across the country to conserve whatever remains, for posterity.



## GOLDEN RICE – THE INFAMOUS HUMAN TRIALS

Adding another new chapter to the infamous saga of Golden Rice, it has been found that medical ethics have been violated by the Syngenta dominated GE rice team. No animal feeding experiments have been conducted on Golden Rice but clinical trials on human adults and children have been conducted with this unapproved GE rice. Trials were carried out in the US on adults and children during the 2004-2008 period; however no results of the studies have been published to date. Trials were also carried out in China.

As per the report of the Institute of Science in Society, "The 'Golden Rice' in the trials (GR2) appears to be an experimental *collection* of transgenic events still in the laboratory, uncharacterised in terms of basic molecular genetics or biological and biochemical properties, not tested pre-clinically on animals, or subjected to any other safety assessment". These illegal, unethical and immoral human feeding trials were conducted by the, ironically named, Golden Rice Humanitarian Board (sponsored by Syngenta, which owns the rice), located at Tufts University in the US. Consequent to protests from scientists and human rights activists around the world, they have admitted to these illegal actions.

The formal protests by scientists from around the world were based on the grounds that these feeding trials violated the Nuremberg code established after World War II. In spite of repeated requests, the protesting scientists have not been able to get access to the experiment protocols nor has the research team engaged in conversation or explained their actions. Protest to the Institutional Review board at Tufts has gone unanswered by the University; however it resulted in a tirade from the Golden Rice Humanitarian Board accusing the protesting scientists of being "technophobes" and condemning 1000s of people to early deaths by slowing the approval of Golden Rice.

Source: GM Watch, Institute of Science in Society



## NERICA - AFRICA'S MIRACLE RICE OR MIRAGE?

Rice was domesticated in Africa 3000 years ago and called *Oryza glaberrima*, the Asian rice *Oryza sativa* was introduced to Africa about 500 years ago. African farmers adapted the latter to develop many local varieties and rice has become an important subsistence crop in Africa. However, from 1961 to 2005 sub-Saharan Africa has gone from being rice surplus to importing 39% of its rice needs.<sup>1</sup> Farmers' organisations point out that this situation arose as a result of structural readjustment policies which forced African governments to drastically cut down state support to agriculture and allowed dumping of cheap rice. With the food crisis, there is a renewed focus on local cultivation of rice in Africa. It is in this context that policy makers and international NGOs have got on to the bandwagon of New Rice for Africa (Nerica) - a rice variety originally developed in 1994 by the Africa Rice Centre (WARDA) through a complex technique crossing *Oryza glaberrima* and *Oryza sativa*.

Nerica promoters claim that it is a high yielding, short term variety with high protein content and is resistant to adverse local conditions. They originally claimed that it will be promoted and propagated through community seed banks, and farmers will be allowed to integrate it with the many local varieties in existence, thereby adding to the basket of varieties that small farmers are cultivating, and adding to the rich bio-diversity being preserved by African rice farmers. Belying these early claims, the promoters have sought to develop the seed in centralized seed banks through exclusive contracts to a handful of companies, ostensibly to preserve the purity of Nerica seeds. Examples of this are many, in Mali, Sierra Leone, Gambia or Uganda. Nerica is being vigorously promoted by international aid agencies, powerful seed companies and many local companies close to African politicians as the one stop solution to address the rice crisis in Africa.

Nerica, lauded as the harbinger of green revolution in Africa, is not living up to its lofty promises, a panel of CGIAR says. Sadly Nerica also follows the beaten path where farmer rights over seeds are negated and privatization of African agriculture is promoted; contrary to its claims of being a miracle seed it may end up being another mirage for African rice farmers.

*Adapted from GRAIN - Nerica: Another trap for small farmers in Africa*

<sup>1</sup> <http://www.grain.org/briefings/?id=215>

## 6000 YEAR OLD SPECIES OF RICE IN MEGHALAYA

The Meghalaya Mission for Indigenous Knowledge has discovered that a species of rice which is 6000 years old is being cultivated in the Garo hills. In the Sandolpara village where it is being cultivated the women are the seed savers, choosing the right varieties for cultivation, storing and processing the grain, while men manage the fields. The indigenous knowledge mission has requested the government to help conserve and propagate this variety of rice through sufficient economic incentives to farmers. They have also sought protection for the rice from contamination by hybrid and/or GE rice.

Source: *Financial Express*, Jan 12 2009



## MANILA-HANOI RICE DEAL – RICE TRADE THROUGH DIPLOMATIC CHANNELS

The Philippines, the largest importer of rice in the world, has secured rice supplies for the year through a direct deal with Vietnam. The Hanoi-Manila deal bypasses the international rice markets and was signed by the two governments in January, according to which they have already purchased 500,000 tonnes of rice and are in talks to buy another 1.5 million tonnes. This deal, which would supply most of the rice requirement of the Philippines, signals a shift among nations to bypass commercial channels and use diplomatic channels to trade in food.

The food crisis last year and the ensuing ban on exports of grains, including rice, imposed by many countries including India would have been a trigger for the food deficit nation to opt for this channel. At the same time, Thailand, a major rice exporter, is also exploring using diplomatic channels to offload its large rice surpluses.

An emerging trend which would be resorted to by food deficit nations to secure their food supplies, it would belie the neo-liberal dictum that the markets can balance supply and demand and no government intervention is required in trade. Manila's deal clearly indicates that food deficit nations cannot afford to rely on the markets and imperil their food security.

Adapted from *Financial Times*, Jan 14 2009



## ICAR-IRRI DEAL – UNDERMINING RICE SOVEREIGNTY OF INDIA?

Indian Council for Agriculture Research (ICAR) and International Rice Research Institute (IRRI) have inked a new deal for the next three years. The press release from ICAR states that, "help from IRRI will support and facilitate India's rice research for the next 3 years, helping the nation's rice production at a time of new challenges such as global climate change, increased cost of production, value addition and the revitalization of food production".<sup>1</sup>

The present plan includes agreements on three projects supported by the Bill & Melinda Gates Foundation: Stress-tolerant rice for poor farmers in Africa and South Asia (STRASA); the Cereal Systems Initiative for South Asia (CSISA); Creating the second green revolution by supercharging photosynthesis: C4 rice. As per the release, STRASA aims to develop and distribute rice for rain fed ecosystems, CSISA aims to increase food production annually by 5 million tonnes, thereby increase incomes of about 6 million households in the next 10 year period, through public-private partnerships.

Dr. Mangala Rai, Director General of ICAR stated that, "the work plan for the next three years will focus on genetic resources conservation, evaluation, and enhancement; enhancing productivity and sustainability of intensive cereal systems; improving productivity and livelihood for fragile environments; impact, mitigation and adaptation to climate change; and strengthening linkage between research and development."<sup>2</sup>

Having said this, the deal is cause for enormous concern for rice security and sovereignty of small rice farmers in India. Couched in the language of public-private partnership, improving productivity and livelihoods, enhancing genetic resources, the deal is aimed at controlling the rice germplasm and to impose lab-to-land technology on small and marginal farmers. If past antecedents are anything to go by, IRRI has always been pro-technology and big business and ICAR is a firm supporter of technological quick fixes. Another cause for serious concern is the association of the Gates Foundation, which is also pouring funds into spreading GE technology in Africa.

Adapted from *ICAR website*

<sup>1</sup> <http://www.icar.org.in/news/rice-programme.htm>

<sup>2</sup> <http://beta.irri.org/news/index.php/200901205780/Rice-News/ricenews/IRRI-inks-rice-research-pact-with-India.html>

## ANNOUNCEMENT: "SAVE OUR RICE" WEBSITE LAUNCHED!

The Save our Rice Campaign has recently launched its new website at [www.save-our-rice.net](http://www.save-our-rice.net). This project aims at providing information about the rice campaign and rice related issues in general. Please send us the articles you want to see on this new website.



## PADDY HARVEST

As part of the Save our Rice campaign, the Thanal team leased 18 cents of land (surrounded by banana and vegetable crops) at Kovalam, near Trivandrum, to grow paddy. The idea was to grow a traditional variety of paddy and produce seeds for the next season, the paddy variety chosen was *Kuruvai*. Harvest day on April 19<sup>th</sup> was a day of joy, hard work and bountiful returns - the harvesters (Thanal team) finished the day with 200 kg of paddy from a mere 250 gms of seed, aching limbs and broad smiles!



## TASTY RECIPES

These two recipes won prizes at the Traditional Rice Food Festival organised in October 2008 at Nagercoil, Tamilnadu.

### PARUPPU (DHAL)

**Ingredients :** Rice 1 Cup, Dhal ½ cup, 1 big onion 200gm, salt, mustard seed and black gram, ground materials of the following - Red chilly (dried, 8), Cummings 2 tea spoons, coconut ½ fruit, Small onion 7 numbers, Garlic 5 pieces.



**Method :** Take a strong vessel and add Dhal and heat it with sufficient water. When it is cooked to 75%, add rice. When it is fully cooked, add salt and Tamarind water. Fry mustard seed, black gram and curry leaf, onion and add it to the rice and stir well and remove it from the fire.

*(First Prize in Rice Variety: Mrs.Seethelakshmi, Melaramanputhooor, Nagercoil)*

### PAL KOZHUKATTAI (PORRIDGE) - COCONUT MILK BALLS

**Ingredients:** 1 ½ cups roasted raw rice flour, 4 cups grated coconut, 1 ½ cups sugar, 6 cups hot water, salt to taste.

**Method:** Add 1 cup of hot water to the flour and add salt to taste. Mix well and knead it to the consistency of chappathi dough. Take out 1/3 cup of the dough and keep it separate. Knead the remaining dough well until soft. Make small balls the size of large cherries and keep it covered.

Add 2 cups of hot water to the grated coconut and squeeze out the thick coconut milk. Strain and keep the 2 cups separately. To the remaining residue of the coconut grating add more water and squeeze as much of the milk out as possible. Make up to 8 cups and strain. Pour the thin milk into a large sauce pan. Add a pinch of salt, 1 ½ cups sugar and then dissolve the 1/3 cup dough in the milk. Boil on a low flame stirring continuously. Simmer for 5 minutes and when it thickens add the small balls one by one into the mixture and stir carefully so that the balls do not break. Boil for 5 minutes and then add the 2 cups of the thick coconut milk. Reduce the flame and cook for 10-15 minutes until the balls are cooked. When the mixture is of porridge consistency remove from the stove and let it cool. Serve in a bowl. More sugar can be added if desired.

Pal Kozhukattai can be served as a side dish with breakfast or for evening tea. Serves 4-5 people.

*(First Prize in Porridge variety: Mrs.Shanthi Nelson, Nagercoil)*

BOOK POST – PRINTED MATTER



**Editors' Note:** please send us poems, stories, rice traditions and other material. If you have a rice related event coming up or if you have an interesting report on rice events already conducted or on policy or new practices. Please do send us the same in word format with pictures, at [paddyeditors@gmail.com](mailto:paddyeditors@gmail.com).

The articles in PADDY may be used (in English or translated) for academic or non-commercial purposes with due acknowledgement to PADDY editors. All photos by Thanal.

Published for private circulation by Save our Rice Campaign, Thanal and Create  
c/o Thanal, H-3 , Jawahar Nagar, Kawdiar P.O., Thiruvananthapuram, Kerala, India - 695003  
Tel/Fax: 91-471-2727150

Editorial Board: Usha S., Sridhar R., Karsten Wolff, Sreedevi Lakshmikutty.  
Layout: Christine Wittstock Printed at: Arsha Printers, Tvm-10 Published with support from EED  
All photographs by Thanal