The Milleteer

The Quarterly Newsletter of the Millet Network of India

Volume 3, Issue 2; Apr—Jun 2017

Centre told to act against genetically modified Sorghum: Deccan Chronicle

More on page 2

The journey of Baiga tribe from malnourishment to food security

More on page 3

Reviving crop biodiversity, restoring food Sovereignty: NIRMAN, Odisha

More on page 5

DDS Response to Chief Minister on “Free Fertilizer Scheme”: DDS, Telangana

More on page 8

Millets Recipe Junction

More on page 11

About ‘MINI’

Millet Network of India is convened by Deccan Development Society, which over the last 25 years, has been working with rural communities of Medak District and assisted them in their quest for food sovereignty. The Network has about 120 members across the length and breadth of the country, and is currently involved in a range of interventions in about 8 states including Telangana, Andhra Pradesh, Karnataka, Tamil Nadu, Gujarat, Odisha, Himachal Pradesh and Nagaland.

An Appeal

All the members of Millet Network of India who receive this newsletter are requested to make their contributions to it, so that it can be enriched and stories from different corners of the country where not only MINI works but from across the borders can be presented. Photo-features, stories, analytical articles, policy analyses and so on are all welcome.
Hyderabad: Expressing its shock at the Indian Institute of Millet Research in Hyderabad, developing transgenic sorghum (jowar), the Southern Action on Genetic Engineering has called on the Union Government to take a firm and unequivocal stand against GM (genetically modified) sorghum and to declare that it will not approve GM sorghum.

Southern Action on Genetic Engineering (SAGE) is a coalition of farmers, scientists, environmental activists and civil society groups from South India. “This would have been funny if it was not so tragic,” SAGE said in a letter to the Union Minister for Environment and Forests. Sorghum (jowar) is a crop that offers complete food and nutritional security to the populations of dry land India and rich fodder for its cattle, the letter said.

National Convener of SAGE, P.V. Sateesh, accused IIMR of succumbing to the temptations of the international GM lobby. He said the Global Food Security Act passed by US senate in 2009 set aside over seven billion dollars to support transgenic research in South Asia, and the IIMR research is a fallout of this attempt by the US to buy out Indian agricultural research.

He said that SAGE sees the recent development of GM mustard by Delhi University, and the development of GM sorghum by IIMR as results of the Global Food Security Act. As to the issue of sorghum itself, there is absolutely no reason to believe that it needs GM protection. Farmers hardly use any pesticide or other toxic method to combat pests because such treatment is not required. Sorghum is the food of several million people in India, Mr Sateesh said and its safety must not be compromised.

One man’s efforts to bring back traditional crops and methods of cultivation has ensured land right and food security for an indigenous tribe.

“The forest officials would come and beat us up when we tried to cultivate in our lands. My father died in 1986. They had beaten him and locked him up. He died because of that,” says Bhagwati, who belongs to the Baiga community from Dindori of Madhya Pradesh. Such injustices were not uncommon but are now a thing of the past.

The Baigas are indigenous people from Madhya Pradesh and Chhattisgarh. Their ancient farming method, called ‘bewar’, is a unique agro-ecological practice. The land is not tilled. In this natural farming method, up to 12 crops are grown together. The Baigas cultivated traditional millets, grains and beans, and supplemented this with foraged fruit, tubers and other forest produce. But with time and the push towards high-yield crop varieties, these traditional methods were left behind and the traditional knowledge was neglected. This led to large-scale impoverishment and malnourishment.

Naresh Biswas, a community activist, has been working tirelessly with the Baigas of Baigachak for over two decades and has persuaded 700 families to return to their traditional farming and food cultures. Son of a Bangladeshi refugee, Biswas came to these parts as a child, as part of a government resettlement programme. He was moved by the stories of injustices like that of Bhagwati’s family and set about reviving traditional knowledge and agriculture. He formed the Baiga Maha Panchayat to advocate for the rights of the Baiga people. His fight for the land rights and food security for the tribe has brought a huge change in their living conditions.

Bhagwati testifies, “Earlier I used to fall ill quite regularly. But since Biswas has given us traditional seeds, and now that I am eating these traditional foods, I am much better”. This is not surprising. Biswas’s extensive research has revealed the value of traditional knowledge. For instance, nursing Baiga mothers are given flatbreads made out of finger millet which is much richer in calcium than milk. He has even published a series of three books called Biodiversity Awareness which lists the foraged food and their nutritive values.

“Today NGOs and governments are planting trees in the name of reforestation that have no nutritious or medicinal values”, Biswas says.
He hopes his compilation will make the administrators more aware of the benefits of traditional knowledge and help in enacting policies that benefit the people as well as the environment.

Further, despite the enactment of the Forest Rights Act (2006), the Baigas were being cheated of their land titles by unscrupulous officials. Baigas told Biswas that the Act was actually even more detrimental to their interests because they lost in the battle of paperwork. Thanks to his single-minded efforts, today Baigas in seven villages have titles to their lands under the habitat rights guaranteed by the law.

Biswa receives no external funding or support. Lack of funding has meant that he is not able to visit the villages as frequently. But he is happy to report that the Baigas have embraced the change and continue with bewar farming practices. In fact, the news of their success has spread far and wide, and more and more indigenous people, like the Pahari Korba tribe, are replicating these methods. The government should recognize the contribution of activists like Biswas and ensure wide scale replication of this model.

Reviving crop biodiversity, restoring food sovereignty

The indigenous Kutia Kondh community in Odisha has a rich knowledge and experience of millets-based, mixed farming systems. By reviving the community based seed banks and cultural seed festivals, these tribal communities have regained their lost food diversity and sovereignty.

Until a couple of decades ago, the indigenous Kutia Kondh community of Kandhamal district in the eastern Indian state of Odisha, cultivated at least 40-50 different types of crops on the same piece of land. Things however changed with the advent of green revolution. With massive government promotion of the green revolution technologies through subsidies, monocultures of high yielding varieties (HYVs) replaced the indigenous mixed farming systems - "millets-maize-legumes-tubers". By 2011, the diversity of indigenous crops cultivated by the Kutia Kondh community had been reduced to 12-13 varieties. The Kutia Kondhs have also been compelled to adopt the alien HYV monocultures and alien farming practices. With declining crop diversity, the average per capita intake of vital nutrients also declined. NIRMAN, an non-for-profit organization, started working with the indigenous communities in Kandhamal district, to help restore the crop biodiversity in the region and help women gain recognition in agriculture.

Understanding the communities

In 2011, a study was conducted by NIRMAN to evaluate the status of the indigenous millets-based mixed farming system and food and nutritional security of Kutia Kondhs of the region. A survey was conducted in 10 villages spread over 3 Gram Panchayats of Kandhamal district, covering 350 households belonging to Kutia Kondh community. The Kondh community depended on agriculture (mostly rain fed), shifting cultivation (locally known as podu chasa) along the hill slopes, collection and sale of non-timber forest products (NTFPs), and wage labour, for their livelihoods. Dongar cultivation (dongar is a small hillock near the community settlement/habitat), over the hill slopes and valleys is central to tribal economy. Despite crop diversity, abundant natural resources and rich indigenous knowledge, poverty is acute in the tribal dominated areas. Around 80% of the Kutia Kondh households in the study area are marginal farmers and rest are small farmers. Most of the soils are red-loamy soils with low water retention capacity, subject to heavy runoff and soil erosion during the kharif season. It was observed that millets grow successfully in uplands of the study area. It was perhaps for this reason millets have been nurtured for ages by some of the poorest and marginalized communities. In addition, cultivation of millets is also deeply rooted in the ethos of indigenous communities, being one with the nature. Kutia Kondh community considers eco-friendly millet cultivation as a way of living in harmony with nature. It was found that Kutia Kondhs still practice their indigenous millets-based mixed farming systems and maintain some amount of indigenous crop diversity on their farms. Presently, only 12 varieties of indigenous crops are being cultivated. Consumption of millets among the community has decreased. Though they have three meals a day, the intake of millets has decreased significantly. Millets have been replaced by rice supplied through the PDS or purchased from the market. Consumption of edible tubers has been reduced considerably, either due to unavailability or sold as it is in the market, to purchase rice. Similar trends are observed with regard to consumption of pulses. Significant amount of pulses is sold for cash, to purchase rice, goods, liquors etc. Also, the average family expenditure for health care among the Kutia Kondh community has increased three and a half times in recent years. The three major findings of NIRMAN’s study revealed the following: Women in the community play a major role in the indigenous agriculture systems but lack recognition; community-based activities like the seed banks and seed festivals have almost disappeared; and, women lack tenure security and rights over dongar lands and customary lands.

(cont ….)
Based on these study findings, NIRMAN developed strategies to bring recognition to the role of indigenous women farmers; to restore community-based activities like seed banks and seed festivals, and to facilitate legal recognition of local communities’ rights (especially women) over dongar lands and customary lands, as a means to ensure food sovereignty of the Kutia Kondh community, belonging to the region.

Reviving indigenous farming practices
In the year 2012, NIRMAN started working with the communities promoting mixed, biodiverse and sustainable agriculture practices. As a first step, Participatory Rural Appraisal (PRA) exercise was conducted in all the villages to collect baseline information. Information on various aspects like household income, status of indigenous agriculture practices followed, extent of seed diversity etc. To motivate the communities to revive their indigenous agricultural practices, a village level meeting was organised to discuss issues related to erosion of the indigenous crop diversity, indigenous agriculture practices and sustainable agriculture. Training on millet-based mixed farming was conducted during the first year of project intervention and in the second year, training on sustainable agricultural practices was conducted at the village level. Women were encouraged to practice mixed farming in an effort to revive the indigenous mixed and biodiverse farming system.

Restoring seed diversity
The major strategy of our intervention was to promote women led approaches, to assert their control over food production system and to conserve indigenous agrobiodiversity. Village meetings were conducted with women and Village Level Institutions (VLIs) were promoted. Around 21 VLIs were formed and the members were trained on millet-based community seed banks and their management. The community-based seed banks are expected to fulfill the seed requirement of the community. Currently around 27 community-based seed banks have been formed, supporting around 600 farmers in 27 villages. Heirloom seed requirement for the community was assessed. Heirloom seeds of 12 indigenous crops of local choice were supplied to local communities as one-time seed-capital, for conservation. These 12 crop varieties were revived within one cropping season. Presently, the community-based seed banks have been maintaining heirloom seeds of 55 indigenous crops, which include millets, maize, pulses, vegetables and edible tubers. Communities now cultivate 7 varieties of indigenous paddy, 6 varieties of indigenous maize, 3 varieties of finger millet, 3 varieties of little millet, 2 varieties of barnyard millet, 2 varieties of pearl millet, 3 varieties of foxtail millet, 2 varieties of sorghum, 4 varieties of pigeon pea, 2 varieties of cow pea, 3 varieties of rice bean, 4 varieties of country bean, 2 varieties of black gram, horse gram and 17 types of edible tubers, under millets-based mixed farming system. Communities also cultivate 3 varieties of castor, 2 varieties of mustard, along with niger and sesame, 7 types of vegetables, 17 types of edible tubers, 2 varieties of turmeric, ginger, garlic, chilly peppers, onions and few other locally known coarse grains and pulses. Women farmers have been playing a major role in the revival of indigenous crops, management of the community-based seed banks and conservation of the indigenous agrobiodiversity.

Community seed festivals facilitate seed exchange
Kutia Kondh community celebrates Bio-diversity Festival locally known as Burlang Yatra, after the crop harvest. The festival is celebrated to offer gratitude to the mother earth and seeds which is the basis of their farming. The seed festivals not only serve as a platform to exchange indigenous heirloom seeds but also serve as a repository to conserve and increase the indigenous heirloom seed diversity. NIRMAN had been facilitating celebration of the Burlang Yatra for the past four years. In the year 2016 alone, more than 700 farmers participated in the community-based seed festivals. More than 60 indigenous heirloom seeds were on display and were exchanged among the farmers. Once again, women farmers played a major role in the biodiversity festival.

(cont….)
Gaining rights over land

Another challenging issue plaguing the Kutia Kondh community is non-recognition of rights over part of customarily used cultivated land and entire community resources. Since women are key to farming, efforts have been made to facilitate legal recognition of local communities’ rights over the customarily used individual lands. These lands are also suitable for millets-based farming systems. Village level meetings were conducted for the local communities on provisions of the Forest Right Act (FRA), and procedures for filing claims over the lands. The entire process was initiated with the support of the community volunteers. A total of 89 households received individual land rights over customarily used land. Women were given joint ownership of the individual land titles. Around 15 Kutia Kondh villages have been issued community rights over community forest resources. Recognition of right in individual and community land/ resources is expected to strengthen their stake over resources, necessary for food production and food sovereignty.

Conclusion

The communities have experienced not only rise in the yield but also increase in duration of the yield for the same piece of land. It was noticed that availability of seeds of the lost indigenous crop varieties has increased the length of cropping calendar by 45-60 days. The Kutia Kondh community have become very close to food sufficiency, since the intervention. Empowering community with special focus on women through revival of millet based bio-diverse farming system offers solutions for the present day crises in farming.

Recently Telangana government announced a “Free Fertilizers Scheme” for the Telangana farmers. In this connection Deccan Development Society has released a open letter to CM on this “Free Fertilizer Scheme”. DDS urge the Chief Minister to kindly move forward from this position and declare an enhanced support for those farmers who tend to their soils organically. Because they are truly realizing the concept of Golden Telangana by keeping the soil of this land fertile for future generation.

PRESS RELEASE
April 25, 2017
The Telangana Government’s move to leave the choice of the fertilizer in the hands of the farmers themselves has come in for a lavish praise by the Deccan Development Society a 30 year old NGO working with over 5000 small and marginal farmers in Sangareddy District. In a letter addressed to the Chief Minister of Telangana, the DDS has expressed the gratitude of thousands of small and marginal farmers from Telangana, however the letter has also urged the Government to “move forward” and has also suggested a series of steps to achieve a secure future for the small dry land farmers of Telangana.

“A couple of weeks ago when the Chief Minister Mr K Chandrashekar Rao announced a support for fertilizers we were very worried about it. Our apprehension was caused by the impression that this support may entirely go to chemical fertilizers and the consequences of such a possibility were frightening. 60-65% Telangana farms are unirrigated lands and much of them are poor soils. If chemical fertilizers are applied on them all these lands will face the possibility of turning into deserts. The example of Punjab is in front of all of us. The most fertile alluvial soils which produced four tons of grains per application of one unit of fertilizer 30 years ago need four times the fertilizers for production of the same amount of grains today. So much so that the father of chemical agriculture in India Dr M S Swaminathan had to warn them to stop using chemical fertilizers. If that is the consequence on such deep soils of Punjab, we can imagine what would happen to the shallow poor soils of Telangana” says the letter. “Therefore we were doubly relieved that in the TRS plenary the CM personally clarified that the support will be in the form of cash and the farmers are free to buy farmyard manure or chemical fertilizers with the support of Rs 4000 per acre per season. This was a revolutionary step and once again on behalf of all the organic farmers we are working with, we thank the state government for this.”

“But we urge the Chief Minister to kindly move forward from this position and declare an enhanced support for those farmers who tend to their soils organically.

(Cond……)
Because they are truly realizing the concept of Golden Telangana by keeping the soil of this land fertile for future regeneration. Therefore we request that at least 25% of the support declared should reach non chemical farmers.

**MNREGA**

The letter has also commended the CM for thinking of MNREGA support for agriculture. “Deccan Development Society has been arguing for this support for over 10 years. One of the biggest expenditures the farmers face is for weeding. Especially the organic farmers who do not use weedicides to control weeds have to sometimes pay exorbitant rates for getting their lands weeded, as high as Rs 5000 per acre. Therefore if this activity is supported under MNREGA, farmers will heave a sigh of relief. Almost 40% of the cost of cultivation can be met from this support”.

“Similarly the cost of ploughing by bullocks has gone through the roof. While a couple of years ago farmers could easily get their lands ploughed for under Rs 1000 per acre. Today it costs them not less than Rs 3000. For a heavy burden that a small and marginal farmer cannot bear. Your move to support farming activities under MNREGA will be a boon to such farmers” says the letter.

**Issue of Pesticides**

The letter also draws the Chief Minister’s attention to the frightening fact of pesticide use in agriculture. "We in India use 40 times more chemical pesticides in our agriculture compared to countries like US. This must be stopped at all costs if we have to leave behind a healthy land for a healthy younger generation. Over the last few years the number of non chemical alternatives have emerged such as Panchagavya, Jeevamrutham alongside a number of herbal concoctions. The beauty of all these is that they can be produced by the farmer him/herself at the household level. Thus without having to spend a fortune and feed our soils with poison we can save our crops from pests.” In this context DDS has urged the CM to make provisions for supporting the production of such bio pesticides and bio fertilizers at the household level by farmers. It will not only mean a huge saving for them but also a worthwhile investment in developing Telangana into a land of healthy soil.

**Rethink ‘Crop-Colonies’**

"While we appreciate the government of Telangana’s efforts to promote the small farmer agriculture we have grave apprehension about the ideas such as the crop colonies which is being advocated over the last couple of weeks. While this idea may sound interesting on paper, in reality it will have a number of unintended consequences for the small and the marginal. In essence crop colonies mean mono cultures and will go against the critical principle of agro biodiversity which not only protects crops from pests, and soils from infertility. Agro biodiversity lies at the heart of small and marginal farming and therefore we must protect it with all our might. Once an area is declared as a colony for a certain kind of crop, slowly the administrative mechanisms will work overtime to ensure that only that crop is grown and nothing else. This will be against the interest of the small and marginal farmers who maintain biodiversity on their farms as an insurance against crop failure of a certain crop. Hence we request you to kindly not tamper with this powerful principle."

**Way Forward**

The letter appealed to the CM to not just think of remedial measures but also bring onto the table bold visions of how we can make Telangana agriculture the torch bearer for the country. Through the letter DDS urges that the government envisions how we can survive in the days and decades of climate change which will deny us abundant availability of water.
Telangana as a millet state

“We have a culture of growing and consuming Jowar, Bajra, Korra and such valuable millets. The way we are celebrating Bathukamma, Bonalu and other cultural traditions of Telangana we must also celebrate millets as the State Crop and strive to provide it a special status. Millet cultivation is pro poor, pro women and pro environment. It can withstand all climatic stresses and stay as a climate-smart crop. It doesn’t need water or chemical inputs and grows abundantly in biodiverse atmosphere. Taking into account all these factors, DDS urges the Telangana government which in order to continue its pro-farmer steps and declare the following:

a) Water bonus for millet farmers for saving a huge quantity of six million litres of water per acre.
b) Biodiversity bonus for keeping alive the critical principle of biodiversity on their farms.
c) Nutritional bonus for providing the most nutritious crops for the poorest populations who will face the crisis of malnutrition in the coming decades of climate crisis.
d) Climate change bonus for growing climate smart crops.

DDS urges the Telangana government to declare Telangana an Organic Millet State which can be one of the most iconic policies that India has seen in decades.”

pvsatheesh
Director, Deccan Development Society
National Convenor, Millet Network of India

The following is the link to the open letter to the Chief Minister of Telangana

Recipe: Millet Biscuits Recipe

Ingredients:
3/4 cup Dalda
1 cup white sugar powder
2 cups of jowar flour
1 cup maida flour
1 tablespoon essence
1 teaspoon milk powder
1 teaspoons baking soda
1/2 teaspoon salt

Method: Preheat oven to (125ºC).

In a medium bowl, cream together the dalda and 1 cup sugar powder until smooth. Combine the flour, essence, baking soda and salt; stir into the mixture to form a dough. Roll dough into a sheet. Cut into pieces with shaped moulds. Place cookies onto greased cookie sheets. Bake for 8 to 10 minutes in the preheated oven. Allow cookies to cool on baking sheet for 5 minutes before removing to cool completely.

Ms. G. Bhargavi,
Home Science Scientist, DDS-KVK