

DATE:29.11.2014

THE HINDU

Initiative by youngsters to revive minor millets cultivation in Tirupur

Five classmates of a school here have come together with an initiative to popularise and revive the minor millets cultivation in the district by setting up a model plot and producing value-added edible products from the crop.

Though the minor millet varieties such as proso millet or ‘panivaragu’ as it is popularly known, little millet or ‘samai’ and kodo millet or ‘varagu’ are rich in dietary fibre, vitamin B, iron and calcium, and nutritious than many other cereals, its area coverage waned in the district over the decades due to various factors. Presently, the crop is cultivated in extremely tiny pockets.

In this scenario, the students from Frontline Academy Matriculation School in Tirupur, R. Aravind, S. Merwin, Suba Varshini, N. Gayathri and P. Tharanitharr decided to take up steps that could encourage farmers to take up cultivation on a large scale again by demonstrating new methods of cultivation and also create a demand for the produce in the market.

“Generating a customer demand for the produce is vital if more farmers have to take up the cultivation. For that, we have started popularising the preparation of value added products such as dosai, laddu and pakkoda among parents and people near our houses,” Aravind, the team leader, told *The Hindu* .

When contacted, Joint Director of Agriculture P. Santhanakrishnan too was of the view that consumer awareness needed to be increased if the crop cultivation should be put on the revival path.

“Many farmers migrated from the crop as remuneration from a unit area vis-a-vis many other edible crops is much less in the case of minor millets. But once, the demand at the end users’ level increase, more farmers will come back to take up the crop again,” he said.

Since high quality seeds were not available in the area, the students went to Tamil Nadu Agricultural University to raise the crop in the model plot set up on a farmer's holding.

“We are disseminating the techniques for cultivation under rain-fed and irrigated conditions,” Suba Varshini said.

Subsidy given to farmers for mechanical transplantation

Subsidy of Rs.1, 500 each was given to 100 farmers who have carried out mechanical transplantation during samba season in the district, on Friday.

A.Saravanelraj, District Collector, and M.Chandrakasi, Chidambaram MLA, distributed the subsidy.

Samba cultivation is going on in full swing in Ariyalur district, and the government is popularising mechanical transplantation to overcome labour shortage and increase farm yield.

Mechanical transplantation has been taken up on 680 hectares by the agriculture department, and the government has allocated Rs.1.20 lakh for the organising demonstration programmes in the district.

One acre of land which typically needs 30 kilograms of seeds, require just 12 kg of seeds under mechanical transplantation.

Samba cultivation is going on in full swing in Ariyalur district.

Demonstration on using mechanical transplanters



BOON: Demonstration of transplantation through a machine is under way at Thuraimangalam in Perambalur on Friday.

Transplantation of paddy seedlings using machines was demonstrated at a paddy field near Thuraimangalam Lake in Perambalur town on Friday.

Using mechanical transplanters under System of Rice Intensification method of cultivation increase the yield and income of farmers. Yield increases by 25 per cent per acre by using mechanical transplanters and income by Rs.15, 000.

In Perambalur district, paddy cultivation has been taken up on 9,200 acres. System of Rice Intensification method of cultivation was being employed on 5,500 acres. Mechanical transplantation under SRI method has been taken up on 160 acres.

With a view to create awareness among farmers, mechanical transplantation of paddy was demonstrated in the paddy field of Vijayakumar, near Thuraimangalam Lake.

Spacing between paddy seedlings and rows is accurate when machines are employed for transplantation. Government is giving a subsidy of Rs.1,500 for mechanical transplantation on 2.50 acres of land.

V.Rajan Durai, District Revenue Officer, and V.Azhagirisamy, Joint Director of Agriculture, inspected the demonstration.

Yield increases by 25 per cent an acre while using mechanical transplanters

Farmers happy over water release

Farmers thanked the district administration for ensuring release of water from Pilavakkal dam and Sastha dam at the monthly farmers' grievance meeting here on Friday.

At the meeting, Collector T.N. Hariharan discussed the cultivation of millets in the district. He outlined the awareness programmes conducted, and said seeds for millet cultivation would be distributed to farmers according to their needs. As farming activities had begun in the district, farmers enquired about the availability of fertilizers and their distribution.

Officials from agriculture department said meetings were held with the Collector every Monday with regard to the fertilizer stock. Mr. Hariharan directed the officials to ensure adequate availability of fertilizers. .

Based on petitions received from the farmers, the Collector said work was being carried out to remove Parthenium plants from Valangulam tank, which could be effectively turned into a storage structure to help farmers of the surrounding areas.

The constitution of a committee by the district administration headed by the Collector to take stock of 'Seemai Karuvelam' trees grown on waterbodies in the district was also proposed.

Horticultural varsity to host 'Udyana Mela' in December

The University of Horticultural Sciences, Bagalkot, will hold a mega 'Udyana Mela' (Garden fair) from December 12 to 15 at Bagalkot. The theme will be 'Mechanisation for prosperity'.

The fair is being organised in association with the National Horticultural Board, National Horticultural Mission, Karnataka Farmers' Resource Centre, Karnataka Pradesh Krishik Samaj and Indian Council for Agricultural Research in an attempt to guide farmers.

Farmers, scientists, students, distributors of agricultural appliances, industrialists, and self-help groups from 23 districts will take part, A.B. Patil, extension director of the university, said.

The mela will be useful particularly to farmers from the old Mysore region who are growing horticultural crops such as pomegranate and grapes. A cattle fair, and a apiculture and wine fair will also be held, Mr. Patil said.

'Organic farming is the way to go'

Health of the soil of prime concern; fertilizer import draining the country of foreign exchange, says scientist

Use of organic manure and zero-budget farming is the only way out of the present agrarian crisis facing the country, senior agriculture scientist S. Stambhadri Reddy has said.

"Soil health is our health. Excessive use of chemical fertiliser has weakened fertility in the soil and destroyed carbon material. With drastic reduction in carbon

material from the usual 3.5 per cent to 0.2 per cent over a period of time, sustainability of soil fertility was badly affected. If we want to be healthy, soil should also be healthy,” he said, while addressing a Rythu Mela organised here on Friday.

The per quintal rate of DAP fertilizer had gone up to Rs.1,200 from Rs.630. It might go up to Rs.3,000 in the near future. Its rate in Pakistan has already reached that level. The government was spending a whopping Rs.1.70 lakh crore of precious foreign exchange only to import chemical fertilisers every year, he said.

“We import 99 per cent of phosphate and 100 per cent of potash from Morocco, China and Egypt. Since we largely depend on the import of these fertilizers for our cultivation, our invaluable foreign exchange is going out of the country weakening our financial health. Therefore, if we stop using chemical fertilizer and adopt indigenous system of cultivation we can come out of crisis totally avoiding suicides by farmers,” he added.

Another scientist, Paladi Lakshminarayana, said 90 per cent of the country’s soil was good, whereas in the US, where he had spent some years, 90 per cent was bad. However, with the correction of soil health, Americans were able to produce large quantity of agro products, he said.

If farmers were fully aware of their soil health and seed processing system, and provided necessary nutrition to crops, an agrarian crisis could be overcome to a great extent, he said, adding that the use of organic and chemical manure needs to be balanced depending on soil fertility.

There were different varieties of soils in each district and hence soil mapping must be done. Farmers should also learn as to how to improve groundwater levels. With the depletion of forests, rainfall had gone down. Excessive use of pesticides and fertilizer provided resistance to pests, he said.

We import 99 per cent of phosphate and 100 per cent of potash from Morocco, China and Egypt. Since we largely depend on the import of these fertilizers for our cultivation, our invaluable foreign exchange is going out of the country weakening our financial health

- S. Stambhadri Reddy

agriculture scientist

Tirunelveli gets 4,999 tonnes of urea for pisanam

Officials urged to distribute rice seeds at subsidised rates

After farmers started pisanam paddy cultivation following good rainfall in the Northeast Monsoon season, Tirunelveli district has received 4,999 tonnes of urea, according to Collector M. Karunakaran. Informing this at the farmers' grievance day meeting here on Friday, Dr. Karunakaran said Primary Agriculture Cooperative Banks (PACBs), which received 4,999 tonnes of urea for the 'pisanam' season from Gujarat, Maharashtra and foreign countries, had distributed 4,850 tonnes so far.

"Farmers should be vigilant against attempts of private fertilizer stockists to buy urea from the PACBs and sell it at inflated prices," he said. Farmer P. Kasamuthu of the Communist Party of India said the PACBs should sell urea only after getting evidence for the area on which paddy had been planted to avoid illegal sale.

When a farmer complained that two leading stockists in Tirunelveli Town were selling fertilizers at inflated prices, the Collector asked the officials to look into the matter immediately.

He also informed that Department of Agriculture officials had been instructed to check the premises of fertilizer stockists to verify the sale of chemical nutrients and pesticides at the right price. "Officials have inspected 96 shops so far. When 39 retailers were found to be selling fertilizers and pesticides at exorbitant prices, their licences have been cancelled," Dr. Karunakaran said.

Farmer S.T. Shaik Maideen of Vadakarai urged the officials to distribute rice seeds at subsidised rate and ensure the availability of harvesters in adequate numbers.

The farmers appealed to the officials to intensify surveillance on Tirunelveli-Kerala border to check the possible transportation of poultry products as avian influenza was spreading in the neighbouring State.

Copious rainfall

Tirunelveli district, which usually gets an annual average rainfall of 814.80 mm, has so far recorded 1,166.78 mm, which is 165.90 per cent above the average. It experienced 913.67 mm rainfall last year. After recording 207.78 mm rainfall in May, the district received 394.39 mm in October, against the average of 166 mm. In November, 277.65 mm rainfall has been recorded so far. Since the weathermen

have predicted more rains in the next two days, it is expected that the district may cross 300 mm this month, against the average rainfall of 208 mm.

Officials informed farmers at the meeting that 231 tanks – 45 system and 186 non-system tanks – were still dry even after the good rainfall.

‘Fixing of MSP for red gram is unscientific’

A ground-level research and study of the cost involved in the cultivation of red gram conducted by the Indian Statistical Institute (ISI) has exposed the unscientific fixing of Minimum Support Price (MSP) for the crop by the Union government.

Senior research fellow at the ISI Biplab Sarkar, calculated the cost of cultivation from the detailed data collected from the farmers, taking into account the gross value of output, cost of production and net income for red gram for year 2013-14. He said as per the details worked out, the farmer should get at least Rs. 6,157 as MSP as against the Rs. 4,350 announced by the Union and State government. Dr. Sarkar said that at present red gram growers incurred around Rs. 3,500 as cost of cultivation.

Government to step up cattle feed production

Minister for Dairy Development K.C. Joseph has said that the State government will take steps to increase the production of cattle feed in the public sector.

He was addressing a district-level dairy farmers’ meet organised by the Dairy Development Department, Milma, Agricultural Technical Management Agency and Kerala Feeds Limited.

“Production in the public sector meets only 40 per cent of the State’s cattle feed needs. The rest is produced in the private sector,” he said.

He urged farmers to increase cultivation of fodder crops. “They should make use of government allocation under various schemes,” he added. He said the State’s dairy sector was now doing better than before. “The only agricultural product that has a fixed price is apparently milk. After the UDF government came to power, the price of milk has been increased by Rs. 13 in three stages,” he said.

The Minister said schemes worth Rs. 5 crore should be effectively implemented in the district under the Samagra Ksheera Vikasana Padhati (Comprehensive dairy development project).

The Award for the Best Dairy Farmer was presented to Ancy Shaji of Perinjanam. Seventeen presidents and 18 secretaries of dairy cooperatives, 13 of them women, who had completed 25 years in their post, were felicitated.

Ragi flakes, anyone?

The nutritious millet is now available as cereal to appeal people

If ragi dosai, roti, puttu, and kanji are not your type, how does ragi flakes sound? Or ragi nuggets filled with chocolate and vanilla? An agro foods company has come up with a range of breakfast options made using the nutritious millet. Launched at the M.S. Swaminathan Foundation in Chennai, it includes banana-flavoured ragi flakes and fills that are crunchy on the outside with a dollop of chocolate, vanilla, and strawberry cream on the inside.

Speaking at the launch, genetic scientist M.S. Swaminathan explained how India was once home to about 1, 50,000 rice varieties, 10,000 years ago. “Men went hunting and women collected plants and grew them,” he said. “This is the origin of agriculture.” As years went by, the ‘food basket shrunk’. The market gradually went down for pulses other than major crops such as rice, wheat, and soybeans leading to the ‘genetic erosion of a range of nutritional food,’ he said.

However, Swaminathan said that the minor millets, he called “nutri-cereals,” were important elements in the food basket, given their “climate-smart” nature and nutritional value. Only if there was a market for them, can the nutri-cereals such as samai, thinai, kezhvaragu, among others, be revived. “Food and health security go together,” he observed. Swaminathan added that it’s for this purpose that “we are pressing the UN to declare one year as the year of nutri-crops.”

But it’s not just the millets, our traditional rice varieties are disappearing too. In Koraput, Odisha, for instance, rice varieties have come down over the years from 3,500 to 300. “These crops will have a sound future only if we assure farmers remuneration,” said Swaminathan. The consumer plays an important role in this — it could make all the difference to the farmer if consumers create a market for

milletts by including them in their everyday diet. Which is why “putting them in a form of contemporary value” is essential, feels Swaminathan.

The ragi flakes, for instance, were an attempt at this, according to Prashant Parameswaran, the Managing Director of Kottaram Agro Foods that manufactures the cereal. He explained how the dietary fibre-rich millet was much more nutritious than rice and wheat. However, bringing our traditional grains back to the fore is “not a one-man-show”, he explained. People and companies should come forward to do their bit.

Ragi facts

- *Ragi is a rich source of calcium, iron, and amino acids*
- *It helps keep sugar, and blood cholesterol levels in check*
- *Since ragi is gluten and fat-free, it's good for babies and people looking to lose weight*

Storage depletes in Periyar, Vaigai dams

The storage in Mullaperiyar and Vaigai dams depleted swiftly on Friday owing to lack of rainfall and discharge for irrigation in five southern districts. The level stood at 138.9 feet in Mullaperiyar dam, which was 142 feet seven days ago.

Despite the inflow dropping to 500 cusecs, the discharge was maintained at 2,000 cusecs to improve the storage in Vaigai dam. The storage was at 6,899 mcft.

The slump in the inflow will help Public Works Department officials expedite the work to strengthen the baby dam and undertake maintenance work in the main dam. Kerala has insisted that Tamil Nadu should construct a toe drain along the baby dam to measure seepage.

Even as the water level went down to 31.23 feet in Vaigai dam, PWD engineers have been discharging 3,860 cusecs for irrigation in Madurai and Dindigul districts and to fill tanks in Sivaganga and Ramanathapuram districts. The inflow was 1,925 cusecs, and the storage 483 mcft. After three years, farmers in the rain-fed areas in Theni district started farm activities, thanks to the comfortable storage in tanks and the flow in supply channels.

The sky was overcast in Theni and Dindigul districts. The total rainfall in Theni district was 23.6 mm. Periyar and Thekkady received a rainfall of 8.8 mm and 7.6 mm respectively.

From a domestic to an international narrative



SHIFTING THE SPOTLIGHT: "India's public discourse focusses entirely on domestic narratives while the other angle — how Indian farmers are affecting the course of 21st century history for instance — needs more coverage." Picture shows an agricultural worker in Penamaluru village near Vijayawada. Photo: RA

**INDIA'S
GROWTH
AGENDA** 
Views and Analyses from
the Takshashila-Hudson
conference 2014

India has the wherewithal to be less finicky about complying with international rules when they come in the way of national interests

It now looks like the impasse at the World Trade Organization (WTO) over agricultural subsidies has been resolved, although there are a few more procedural hoops to cross. As Michael Froman, the United States Trade Representative, noted, “The breakthrough at the WTO could not have been possible without the direct and personal engagement of Prime Minister [Narendra] Modi and President [Barack] Obama.” Earlier this year, Indian negotiators had effectively vetoed an excruciatingly negotiated multilateral trade agreement, citing the need to provide food security to India’s needy population. Had India not been placated, the future of the multilateral trading system would have been in jeopardy.

The motivations and merits of India’s position aside, consider the fact that India could take the position it did despite being isolated at the WTO negotiations. That is indicative of a kind of geoeconomic power that India did not possess two decades ago during the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) negotiations that paved the way for the creation of the WTO. In a changing world order, an India that grows rapidly will shape geopolitical alignments and geoeconomic frameworks.

Consider also the implications of New Delhi’s position this year: not only would have a multilateral trade agreement come undone, but the very future of the WTO would have been in doubt. The failure of multilateralism would have resulted in bilateral and regional spaghetti bowl trading arrangements that might have, in turn, created new geopolitical groups. The ideas of international free trade and open markets that underpin globalisation would have taken a beating. Agricultural policies of both the rich countries and the developing world would have been affected, impacting global human development. India’s relationship with the U.S. would have suffered with the possible effect of transforming the global balance of power, given the country’s capacity to act as a swing power.

All this to protect the interests of a section of Indian farmers who depend on the government to set higher-than-market prices for public procurement.

The case at the WTO lucidly illustrates the theme of the ongoing collaboration between Takshashila Institution and Hudson Institute: India’s growth trajectory has implications for the world. Even as the Modi government has injected new vigour into domestic and foreign policy, it is important for everyone to get a better grip on the mechanics of both how India’s growth affects the world and how international

developments influence India's prospects. There is a deficit of studies in this area, resulting in a perpetuation of mindsets and positions that are no longer relevant.

'Rule-abiding country'

The older of the two authors remembers reading the pages of this newspaper when the Uruguay Round of GATT was being negotiated. That was a time when we mostly saw the world either as a threat or as a donor. Foreign and trade policies were geared defensively by India to protect its interests. Without much power, India had to rely on international rules, so getting the phrasing right in international agreements was of considerable importance. India took justified pride in being a "rule-abiding country."

Many parts of the Indian government continue to have organisational mindsets of this era to various degrees: defensiveness, legalistic fastidiousness and compliance with rules. This, for instance, means that India's negotiators would go to the extent of breaking the WTO to ensure that the country's position was properly codified in the agreement.

Yet, as the WTO example itself shows, India has changed and can change the world. The outside world is now more an opportunity and a partner, and less the threat and donor it used to be. Our new mindset ought to be one of confident engagement and risk management, not defensiveness. Moreover, India has the wherewithal to be less finicky about complying with international rules when they come in the way of national interests. By no means is this a case for India to be a wholesale rule-breaker, but it does suggest that our negotiators need not spend enormous amounts of time hammering out perfect clauses.

In fact, it is not only diplomats and trade negotiators who must be aware of the connection between domestic policy and international developments. All policymakers need to be aware that there is an international narrative running parallel to the domestic narrative in all sectors.

World policymaker

The Indian policymaker is already a world policymaker. For instance, labour reforms are not merely about protecting workers and creating employment, they are also about India providing a competitive alternative to global supply chains that want to be diverse from China. India's innovation policy is not only about encouraging entrepreneurship and research, but also about international intellectual

property rights regimes. Health care policy in India might be seen as how best to provide treatments to the needy, but it plugs into the global debate on how to make healthcare affordable in both the rich and the developing worlds.

Given India's size, population and preoccupations, our public discourse focuses entirely on domestic narratives. When they intersect, international developments are seen as rude, almost arbitrary intrusions into our lives. The other angle, such as the one where some Indian farmers are affecting the course of 21st century history, needs much greater coverage. *If India returns to a high-growth trajectory, it is this that will be the more interesting story.*

(Nitin Pai and Pranay Kotasthane are with the geostrategy programme of the Takshashila Institution, an independent think tank.)



Breakfast recipe: Start your day with yummy and nutritious Banana Pancakes



Banana Pancakes (Source: Ashima Goyal Siraj)

We are back on the breakfast menu! And why should we not? Breakfast has to be the most important and nutritious meal to kickstart your day with. Today we bring

you the recipe of banana pancakes. The basic pancakes are very easy and simple to do and while I have added banana here, (mainly because I had some over-ripe bananas lying at home), you can play with other flavours.

Try apple and cinnamon or add berries in the mix. Alternatively, you can add nuts to it. The beauty of this recipe is that you can make the pancake mix in advance and store it in a jar and make the pancakes as and when you want to.

I have added eggs to the recipe, but I have also tried an eggless version for a Gujarati friend who's strictly vegetarian, and they turned out to be as good. You lose on a little bit of fluffiness but it's only marginal. So if eggs are not your thing, just leave them out!

Banana Pancakes



Banana Pancakes (Source: Ashima Goyal Siraj)

Preparation: 10 mins|

Cooking: 2-3 mins for each|

Makes ~20

Ingredients

200 gms all-purpose flour (maida)

1 tbsp baking powder

½ tsp salt

½ tsp baking soda

15 gms castor sugar

1 egg

250 ml skimmed milk
1 tbsp melted butter
2 very ripe bananas, mashed
Extra bananas (2-3) for topping
Maple syrup
Olive oil for cooking

Method

- * Mix the flour, baking powder, baking soda, salt and sugar to make the pancake mix. You can even store it in an air-tight jar and use it to make pancakes later.
 - * In a mixing bowl, whisk together the egg, milk and melted butter.
 - * Add to it the pancake mix and fold in together
 - * Add the mashed bananas and mix well
 - * Heat a flat pan with little oil
 - * Drop spoonful of batter onto the flat pan. It will spread a little on its own, you don't need to spread it further. When bubbles appear on the surface of the pancake, flip them over and cook till they are golden brown on both sides.
 - * Repeat for the rest of the batter. I have a bigger pan so I make around 4 pancakes in one go.
 - * Serve with fresh banana slices, drizzled with maple syrup.
- Happy Breakfast!

Food is never just food. I believe it's story telling, it's conversation. It brings people together and it speaks a universal language! I love to play around in my kitchen. The thrill of being able to create something new and sharing it with others is what fuels my passion for cooking. The fact that dear husband is a foodie and an honest critique helps! I blog about my adventures in the kitchen at <http://www.myweekendkitchen.in/>

INDIAN CITIES

INTERNATIONAL CITIES

Chennai

Chennai - INDIA

Today's Weather



Partly Cloudy

Saturday, Nov 29

Max Min

29° | 25°

Rain: 0

Humidity: 83

Wind: normal

Sunrise: 06:14

Sunset: 05:39

Barometer: 1010

Tomorrow's Forecast



Cloudy

Sunday, Nov 30

Max Min

27° | 23°

Extended Forecast for a week

Monday
Dec 1



28° | 23°

Cloudy

Tuesday
Dec 2



28° | 23°

Cloudy

Wednesday
Dec 3



28° | 23°

Partly Cloudy

Thursday
Dec 4



27° | 22°

Partly Cloudy

Friday
Dec 5



26° | 22°

Partly Cloudy

THE TIMES OF INDIA

Top 9 breakfast mistakes to avoid

Breakfast is the most important meal of the day, but what people do not know about this meal is that if they skip this meal, it could have an adverse effect on their weight.

Akansha Jhalani, Registered Dietitian and health blogger at Beyond The Weighing Scale, helps you decode the myths associated with breakfast, so that you enjoy the most important meal of the day in a healthy way.

Top breakfast mistake to avoid # 1: Juicing your fruit

When you start your blender to juice oranges, remember that this process causes the fruit to lose most of its vitamins, minerals and fibre. Instead, replace your juice with a glass of water and a whole fruit. It will save you some extra calories.

Top breakfast mistake to avoid # 2: Eating a baby size breakfast

Eating whatever you want cannot help you escape from those extra calories. It is a common myth that eating whatever you wish after a long gap of fasting will not make you gain weight. Oily parathas, waffles, leftover dinner can lead to extra calorie consumption.

Top breakfast mistake to avoid # 3: Beware of breakfast treats

The tempting doughnuts and muffins can cause as much as an entire meal's caloric consumption. When placed in front of you, take a deep breath and realise that you have set healthy lifestyle changes and politely decline.

Top breakfast mistake to avoid # 4: Monitor your caffeine intake

One cup of coffee or tea could help boost your mood and metabolism, but avoid drinking multiple cups of coffee. This can cause sleep deprivation and coffee add-ons can reflect on your body in a bad way.

Top breakfast mistake to avoid # 5: Unhealthy breakfast

Eat a fist full of nuts, a bowl of cereal and a whole fruit instead of chocolate pancakes, muffins and mayo sandwiches. High calorie and high fat items can cause a sugar spike and recurring spikes could cause health issues.

Top breakfast mistake to avoid # 6: Thinking breakfast is not important

Even if you feel full from the previous day's dinner or are in a rush, make sure you eat a quick breakfast. Skipping breakfast slows down our metabolism and makes us feel lethargic. A slice of whole-wheat toast, a fruit or a fist full of sprouts can do the trick.

Top breakfast mistake to avoid # 7: Avoid breakfast buffets

Buffets and large breakfast spreads could make you eat more than you need. Do not stuff yourself silly by opting for sugar coated cereals, doughnuts and fruit cocktails. Instead, choose egg preparations, leaner meats, oats, wheat flakes and milk.

Top breakfast mistake to avoid # 8: Gorging on food early in the morning

Have a glass of lukewarm water, first thing in the morning. It helps to keep you hydrated, aids digestion, cures gastric ailments and gives you a feeling of fullness.

Top breakfast mistake to avoid # 9: Not eating a healthy breakfast

Try and eat a healthy breakfast like green tea with a lemon wedge, oats with half a banana/ an egg preparation with an orange and whole wheat toast.

Never skip dinner, just eat light

What can I eat for dinner? Should I even eat dinner? Maybe, I should eat a 'no-carb' dinner...

Don't these questions perplex most of us? Especially those who believe that 'food = calories'. Food is the magical fuel that not only nourishes us to live a satisfied, accomplished and happy life but is also the reason you and I are alive. But fearing food is the best way to lose the plot.

And this fear of food doubles when we think of eating at night. Why? Do you believe that when the sun sets, your breathing, circulation or vision reduces? No! This beautiful human body is constantly working, even through the night when we are sleeping. The pumping action of the heart, the breathing through the lungs, the excretory system - all work 24*7, a feat no machine can ever match. Thus, fuelling this body is essential, be it before or after the sun has set.

Don't sleep on an empty stomach

I agree dinner meals should be smaller as compared to our breakfast or lunch; only because our activity gradient reduces as the day progresses (unless you are working night shifts). But dinner is also an important meal, which must never be skipped. Skipping this meal will result in a very large gap between your last meal of the day and the first meal of the next day. This can cause ravenous hunger, severe acidity, nausea, blackouts and a disturbed sleep to name some of the most basic side-effects. Skipping a meal as important as dinner can also be the reason you give in to temptation and crave 'something sweet' at night. This happens because you have not filled your bowl well through the day with the right calories (read carbs) and thus will reach out and fill it with the wrong ones (read desserts) - instincts of survival, remember?

What's the right time to eat?

The earlier you eat your dinner, the better it is, only because you are awake longer and perhaps, a little more active than you'd be too late in the night. When we are awake, our body works at BMR (basal metabolic rate) but when we sleep, it slows down to RMR (resting metabolic rate). The longer you are awake, the more your body will be able to burn versus burning lesser at rest. But as I said earlier, dinner is an important meal and it should not be skipped. So, definitely eat a light dinner and stay awake for at least two hours post that. Yes, sacrificing your sleep may be the price you have to pay, but you can't win everywhere!

Heavy dinners cause 'fat hangovers'

Eating a very large, lavish dinner results in what I call a 'fat hangover'! Just like drinking excess alcohol slows you down the next day, eating a large, high-sugar or highfat meal at night overloads your digestive system. It doesn't get adequate rest through the night, thereby slowing your body physically and mentally the next day.

The key here is to maintain a balance. Eat a light, healthy, carb-included, small dinner every night and see how easily you fall asleep. You'll wake up happy, fresh and full of life the next day, it will clear your bowels and last but not the least, it will help you lose some weight along the way

Why you must drink water

Regular intake of water is essential for maintaining good health

Most of us know that up to seventy per cent of the total body weight is due to water. Although it is present in all parts of the body, it is more present in organs such as lungs and brain and fluids such as blood, lymph, saliva and secretions by the organs of the digestive system.

The common belief is that we feel thirsty only when our body needs water. While this is true, recent research studies have indicated that there are several other indicators of inadequate water in some or all parts of the body. Ignoring these indicators can lead to several major diseases.

Most of us spend a lot of our working hours in air-conditioned environment so naturally we don't feel thirsty but that does not mean that our body does not need water. Lack of water can lead to fatigue too. So, for your glowing health, drink enough water.

Importance of water for maintaining normal health:

Just as water helps a seed grow into a tree, it also helps our body. The flow of water inside and outside the cells generates energy. This energy is stored in body along with other chemical sources of energy in the body. The energy generated by the water in the cells helps transmit impulses in the nerves. Water content in the body influences the functions of the various proteins and enzymes that are dissolved in it.

Water helps maintain the moisture of the lining of the internal organs of the body. It maintains normal volume and consistency of fluids such as blood and lymph. It regulates body temperature.

It removes 'toxins' from the body

Water is essential for regulating the normal structure and functions of the skin. The body loses about four litres of water every day. It is, therefore, necessary to replenish this volume by drinking at least the equivalent amount of water every day. Inadequate intake of water can lead to dehydration.

Recipe: Easy chocolate cookies



The most delicious aspect about a simple chocolate cookie is its taste and appearance. As it bakes, cracks form in the top of the cookie exposing dark chocolate cracks across the surface of the cookie. Sounds yum?

Ingredients:

2 cups white table sugar

4 eggs, scrambled

Melt these two ingredients gently on very low heat so that they don't scald

¼ cup butter

4 ounces (4 squares) baking chocolate

2 cups sifted flour

2 teaspoons baking powder

½ teaspoon salt

½ cup chopped nuts (you can use almonds)

½ cup confection sugar for the decoration.

Procedure:

- Mix the eggs and the white sugar and mix them well.
- Then add the melted butter and chocolate after they cool down a little. Later add the flour, baking powder, nuts and salt and stir to combine.
- Chill the batter for a few hours or overnight, so that it will be easy to handle for the next step.
- Roll the dough into small balls of 1 to 2 tablespoons of batter each. Then roll each ball of batter across a plate dusted with the confection sugar to cover the entire ball.

- Place each ball on a greased cookie sheet and bake in a slow oven (300 degrees) for 18-20 minutes.

- You need to be careful about discolouration of the confection sugar coating. Check out how the cookies expand and crack to give that pretty chocolate design! Serve warm.

Recipe: Delicious grilled chicken



Grilled chicken with peach sauce (serves 8)

Ingredients:

- 8 skinless, boneless chicken breast halves
- 1 pinch salt and ground black pepper to taste
- 2 cups peach preserves
- 3 tablespoons extra-virgin olive oil
- 2 tablespoons soy sauce
- 1 tablespoon finely chopped garlic
- 1 tablespoon mustard
- 4 ripe peaches, halved and pitted

Method:

- Preheat grill for medium heat and lightly oil the grate. Season chicken breast halves with salt and black pepper.

- Stir peach preserves, olive oil, soy sauce, garlic, and mustard in a bowl; season with salt and black pepper. Reserve about 1/2 cup peach sauce.

- Place chicken on preheated grill; cook until golden brown, 6 to 7 minutes, then flip chicken. Continue cooking for 5 to 6 minutes. Brush both sides of the chicken with peach sauce. Cook until no longer pink in the center and the juices run clear, 4 to 5 more minutes. An instant-read thermometer inserted into the center should read at least 165 degrees F (74 degrees C).

- Arrange peach halves cut side down on the grill. Grill for 2 minutes, flip, and brush with reserved 1/2 cup peach sauce. Continue to grill until peaches are tender, 3 to 4 minutes more.

Lip-smacking Bengali dishes



We spent 24 hours with pure-bred Bengali chefs to learn everything there is to about river water fish.

Bengalis have many loves. Among them, food and intellect sit neck and neck. In chef Puranjoy Das' kitchen at Worli's Cafe Nemo, they collide when we bring up the subject of galda (pronounced golda) chingri. The large fresh water prawns are usually cooked with the shell and head on to protect the delicate and delicious, brain that Bengali aunties vouch is responsible for its exceptional taste. It's also what differentiates 'their' prawns, from 'ours'. Purnendu Bose, of Vashi's popular Bengali restaurant, Iti, smirks, "Salt water prawns are stupid. The galda chingris yellow brain is edible, unlike sea water prawns."

Disdain aside, fresh water fish, which the Bengalis are masters in cooking, is a universe unto itself. The pomfret-surmai eaters find it intimidating to negotiate.

Das simplifies it by starting with three staple varieties - Katla, Bhetki and Pabda - and a dramatic pause later, includes Ilish (Hilsa).

What's so special about Ilish? It's the tastiest fish ever. Bengali bhodroluk are always game for a healthy debate, but not when it concerns the Ilish. It's so special, often feasts are cancelled due to its unavailability. Every year, newspapers in West Bengal and Bangladesh make it a point to carry a piece on Ilish's peak season price. It's also part of every significant Bengali feast — Durga puja, Kali puja, weddings (a raw Hilsa is dressed in a sari and gold nose ring to signify the bride). Available throughout the year in Kolkata, it floods markets between September and early November, and costs Rs 700 onwards per kilo. In Mumbai, it's not surprising to see it hawking at Rs 1,500 a kilo.

A member of the herring family, Ilish schools in coastal waters and ascends up the rivers and against the tide to lay eggs. "A good Ilish is recognised by its shine which comes from swimming against the tide. The more it swims upwards into the river, the better it tastes," says Bose, who gets a supplier from Kolkata to transport 40 kilos of it in ice boxes twice a week.

In the case of Ilish, the rules are well defined: the larger the fish, the lesser the bones and better the taste. Any Ilish that weighs less than 800 grams is not considered worthy of a reputed Bengali feast. "Be careful when buying Ilish from fish markets in Mumbai," warns Bose. Lighter and dull skinned Ilish are unlikely to hail from the Ganga. "Those could be coming in from the coast of Gujarat. They taste nothing like the real thing," he adds, predictably.

Ilish roe is to the Bengali what caviar is to Russians, but an Ilish with little or no eggs is your best bet. "It's a delicate fish. Its taste comes from the water in which it swims, and changes quickly. When it lays eggs, its flavour is transferred to the roe," explains Bose.

Which is why seasoned Bengali cooks won't wash Ilish after it has been cut. Also, unlike other varieties, the Ilish isn't fried before being slipped into gravy. "Rinsing the fish after cutting it rids it of flavour. Frying it means you are transferring flavour to the oil," says Bose.

How then do Bengalis savour the famous fried Ilish? "Each time we fry Ilish, the oil in the pan gets spiked with juices from the meat. The fried fish is served with a bowl of the oil on the side, which is drizzled over plain rice," he explains.

The handling

Ilish or Hilsa

How to cut: Once washed and scaled, Ilish is kept flat on a cutting board and chopped into three — the head, chunky tail and torso. The tail has the largest number of bones. Most restaurants pick these out before serving you boneless Ilish. The torso can make three or four robust pieces, spine intact. Holding the torso vertically and cutting it into two fillets disturbs the spine. This can result in slices that are unable to hold their form post cooking, making it difficult for eaters to negotiate the bones and reach the flesh.

Bhetki

Bhetki (Barramundi or Asian sea bass) is the best fresh water produce for beginners, and lies at the heart of Bengali appetisers, says Das. A large fish found in abundance in Bengal, Bhetki has a long spine and no pin bones, which makes it easy to fillet and use for chops, fish fingers and kobiraji cutlets (the 'poet's cutlet' is made of mince, but sometimes, fish and is a fat patty laced in frothy beaten eggs. "It's flaky, white flesh is ideal for paturi (mustard marinated fish steamed in banana leaf) and European or Asian preparations like the steamed Bhetki with tamarind, ginger, shitake and cellophane noodles." **How to cut:** Take a knife, and starting at the tail, gently cut the fish along its belly, stopping just below the head. Cut outward, perpendicular to the belly. The cut will be towards the head. Continue the cut so the head can be removed. Pull out the entrails and rinse the exposed meat. Insert the knife behind the ribs along the base of the backbone and move towards the tail. Repeat on the other side. Remove the spine along with the head to get two fillets.

Katla

Katla or the major Indian carp and Rui (Rohu) are to Bengali homes what eggs and potatoes are to others — less celebrated, cheap and eaten every day. Available at fish markets in Mumbai for Rs 180 a kilo, they are what you will find in standard macher jhol and macher kaliya (snigger). **How to cut:** The fish is placed flat and

hacked into three pieces —head, tail and torso. The torso is held perpendicular to the board and cut into two pieces, separating the back (gada) and peti (belly). Peti pieces are prized since they are tastier.

Prawn with a brain

Sweeter in taste, with firm texture and size similar to that of a baby lobster, galda chingri are cooked in almost all Bengali homes and restaurants as the velvety chingri malai curry. However, Das, uses it in ingenious recipes such as Casino (see box), where he layers it with herbed garlic, shallot and bacon butter, topped with panko bread crumbs, oven baked on a bed of rock salt. "The only prep the galda chingri requires is a good wash. It is cooked with the shell intact to protect its delicious brain," Das says.

Bhetki Macher Paturi

Ingredients:

6 pieces of Bhetki fish fillet For the marinade 1 tbsp turmeric, 1 tbsp red chilli powder, Salt to taste, 3 tbsp mustard oil For Paturi 4 tbsp poppy seeds (khus khus/posto). Soak the poppy seeds in hot water for an hour, 5 tbsp mustard paste (use Bengali kasundi), 10-12 whole green chilli, 6-7 tbsp mustard oil, 1 tbsp kalonji (nigella seeds), ½ tsp turmeric powder, Salt to taste, ½ tsp sugar Banana leaves - cut into squares of 10 inches each (6 pieces), String to tie the banana leaves

Method:

Wash the fish and marinate it in turmeric, red chilli powder, salt and mustard oil. Keep it aside for at least 30 minutes.

Make a thick fine paste of poppy seeds, mustard powder, six whole green chillies, turmeric and salt. To it, add kalonji, sugar, 3 tbsp mustard oil and mix well.

Take a banana leaf and pour 1 tbsp mixture onto the middle. Place a fillet on it. Add 3 tbsp more of the mixture on top. Place a slit green chilli on the fish and drizzle with ½ tsp mustard oil.

Fold the banana leaf from four sides, make a parcel and tie it with a string. Repeat with other pieces. Place the leaf parcels in a steamer for 15 minutes.

Galda Chingri (tiger prawn) Casino

Ingredients: 1 tbsp chopped chives, 1.5 tbsp chopped fresh flat-leaf parsley, 1 tbsp chopped scallion, 5 drops Tabasco sauce, 1 tbsp lemon juice, half garlic clove, roughly chopped, pinch of kosher salt, Cayenne pepper to taste, 4 tbsp unsalted butter, softened, 50 gm bacon (2 slices), 1 tbsp shallots, 50 ml white wine, ½ cup panko crumbs, rock salt for the baking sheet (optional), 8 galda chingri (fresh water tiger prawns); butterfly them with shell on, 2.5 cup rock salt

Method:

In a mortar and pestle, pound the herbs, garlic, Tabasco, salt, lemon juice and Cayenne pepper. Add the paste to butter and whip.

Cook the bacon, shallots and white wine until just cooked through. Ensure the bacon is still soft. Remove from heat and keep aside. Once cool, combine the bacon mixture with butter mix.

Preheat the oven to 200oC. Cover a baking tray with a 1/2-inch-thick layer of rock salt. Heat the tray in the oven for 5 minutes. Place the prawns, shell side down on top of the salt. Layer equal portions of the bacon and butter mixture on butterfly prawns. Sprinkle panko bread crumbs on top of the butter. Place the tray back in the oven and bake for 6-8 minutes. Serve with a lemon wedge.

Where to buy

- Partho's Fresh Fish in Thakur Village, Kandivali stocks every fresh water variety you can think up, including the tough to find Ilish and Koi. Call: 9619561717

- Pushpa, a fish seller from Khar market has been popular among fresh water fish lovers in the western suburbs. Here, customers come from as far as Borivali to buy fresh Ilish and Katla. Call: 9819611625

- The fish market in Sector 9, Vashi also has a few fresh water fish stalls.

Recipe: Carrot cake, banana-walnut cake



Often you scour the net for quick bake recipes to serve your teatime guests, and don't end up with much luck.

You find yourself invariably missing an ingredient or two, or worse still get caught up in a tedious procedure to accomplish the recipe. In answer to your frustration are three easy yet extremely popular teatime recipes that will get the conversation flowing, giving you an edge over fellow home bakers.

Chef Umesh of Bread & More, a Delhi-based patisserie, shares with us his secret to baking an utterly sumptuous carrot cake, a banana-walnut cake and a sinful melted lava cake. And don't be surprised if your guests return for another round of tea.

Carrot cake

Ingredients:

Eggs - 3 nos.

Sugar - 600gm

Flour - 700gm

Oil - 3 tbsp

Baking powder - 10gm

Baking soda - 10gm

Carrot grated - 2 large size

Cinnamon powder - 15gm

Method:

- Mix eggs and sugar and beat it for 5 minutes
- Add flour, baking powder, baking soda and cinnamon powder into the eggs-sugar mix
- Add grated carrot too and mix it well
- Finally, add oil to it and mix it well to make it smooth
- Bake the batter at 180 degrees in a pre-heated oven for 45 minutes

Banana-walnut cake**Ingredients:**

Eggs - 3 nos.

Breakfast sugar -1400 gm

Cooking cream - 600 gm

Flour -1100 gm

Baking powder -15 gm

Butter -20 gm

Banana - 2 nos.

Walnut - a handful

Method:

- Mix eggs, flour, sugar, baking powder, cooking cream together in a mixing bowl with the help of a wooden spatula
- Add melted butter, bananas and walnuts until a homogenous consistency is achieved
- Put the batter in a mould and bake on 160 degrees pre-heated oven for 45 to 50 minutes

Melted lava cake**Ingredients:**

Eggs - 3 nos.

Flour -60 gm

Butter - 180 gm

Dark chocolate - 180 gm

Sugar - 120 gm

Method:

- Mix eggs, sugar, flour in a bowl with a help of a whisker
- On the other hand, melt butter and chocolate in a bowl. Add the same to the above mixture.
- Put the mixture in a muffin mould and bake in pre-heated oven on 180 degrees for 7 minutes

Recipe: Sticky Lime and Coconut Drizzle Loaf

Need a quick dessert recipe to wrap up dinner arrangements for those unexpected guests? Here's an incredibly easy recipe as you basically bring all the ingredients together in one bowl to make this delicious Caribbean-flavoured, moist and sticky dessert!

Ingredients:

Lemon loaf

Butter- 100gm

Flour-175gm

Baking powder - 1 tablespoon

Sugar- 175gm

Eggs-2

Coconut milk- 200ml

Grated zest of 3 lemons.

Mix all and put in a bread pan for approximately 30 min. At 180f

Icing Coconut milk- 200ml

Sugar - 100gm

Lemon Juice and zest of 3.

Method

Bring all the ingredients together in a sauce pan and cook so the paste becomes a sauce. Pour on top of the lemon loaf. Enjoy!

Rabi coverage at 360.94 lakh hectares

Data released by the Government on Friday showed area under Rabi crop coverage stood at 360.94 lakh hectares (lh), lower than last year's coverage of 378.92 lh at this juncture. Area under wheat sowing is at 161.57 lh compared to 159.11 lh last year. Oilseeds have been sown across 65.07 lh as compared to 70.21 lh last year while total pulses sown in India at present is 95.93 lh, much lower than the 107.06 lh at the same time last year.

Health, wealth and herbal



Science goes green The endangered tissue culture lab at Himalaya Drug Company's R&D centre in Bengaluru; and (below) CEO Philippe Haydon



Isolating the active ingredient catalysing the growth of Himalaya Drug Company, which sells everything from toothpaste to liver-care medicine

From toothpaste and diaper-rash cream to shampoos and India's largest-selling liver support medicine, Himalaya Drug Company offers something for everyone. But that's not all. It also sells calcium supplements for animals and herbal feed for fish. In conversation with *BLink*, CEO Philippe Haydon reveals what defines the company and why its competitors are not Dabur or Charak but Cipla and HUL. Edited excerpts:

With 200 products across pharmaceuticals, personal care, baby care and animal health, what is the one thing that Himalaya stands for? Would you call yourself an FMCG or wellness company?

We stand for well-researched herbal healthcare products. We put science in herbal healthcare. It would be right to say that we are several companies in one. We have always been a pharmaceutical company and are also a personal care, animal care and baby care company. We stand for wellness — internal as well as external — through herbal healthcare. Our pharmaceutical products are researched for 8-10 years on average and three to four years for personal care.

Haven't you spread yourself too thin by being in four verticals and opening yourself to competition from everyone — from Dabur to HUL and P&G? What is your focus area?

We would have spread ourselves too thin if we were a single division. But we have separate, focus-driven divisions, each being a profit-loss centre functioning independently. In pharmaceuticals, my competition is not Dabur or Charak. My true competition lies (not in the herbal market but) in the Indian pharmaceutical market — Glaxo, AstraZeneca, Cipla etc. If they have products for cough and cold, or acidity or diabetes, so does Himalaya. The difference is that their API (active pharmaceutical ingredient) is of allopathic nature and mine is herbal, but our products are being sold alongside theirs in pharmacies. Our Liv 52 is the number one brand in the hepatic segment. We have more than 50 brands and the entire range is prescribed by allopathic doctors (out of nearly 4 lakh doctors in India, 2.5 lakh are allopathic). All our clinical trials are done at allopathic hospitals, based on allopathic protocols, like KEM, JIPMER, Tata Memorial. In the personal-care segment, the competition is L’Oreal, HUL and Garnier, as our products are placed on the same shelf.

Himalaya started as a healthcare company. Why did you get into personal care? And the other categories?

Himalaya always had personal care products, but those were only for staff gifts. We had to write to the head office and they would send us shampoos and hair-restoring products. These products were brilliant and there was a lot of internal pressure on the chairman to take it to the market. That’s what led to the genesis of Ayurvedic Concepts — our first foray into the personal-care segment, in 2002.

You spend little on branding and marketing compared to the other players. Why?

As far as baby care is concerned, we genuinely believe that a mother should seek a doctor’s guidance on what is best for her child. We promote our products to doctors. In personal care, our ad spends, at 18-20 per cent of our revenues, will be much more than most other players’ (though not in absolute terms). We have been growing at over 35 per cent in personal care. Our distribution system is robust and we gained a lot of leverage when we launched our personal care division, as there was immediate acceptance for Himalaya, which is a trusted brand.

What changes in consumer trends — spending/product choices and so on — have you witnessed in the last decade? And how has it affected Himalaya?

Today, we have extremely aware customers who know exactly what they are looking for. They are information-seeking and you cannot take the consumer for a ride. Your product has to stand on three parameters — results, safety and brand

equity. Also, we have seen a great acceptance of herbal solutions. More and more people now want to use herbal, organic, natural and gentler products. We are the right people in the right place at the right time.

How do you manage the supply chain — from sourcing to distribution — for this vast product range?

It is pretty simple. We have 300 clearing-and-forwarding agents and they supply products to more than 6,000 distributors across India, who then supply to retailers. We source raw materials from all parts of the country. We have a three-year forecast ready at any given point of time. It is shared with the production department, which ensures we have enough raw materials. We have also tied up with 4,000 farmers, who grow crops based on our requirements and adhere to good agricultural practices. We buy 100 per cent of their produce at better-than-market rates.

Why have you taken only the organic route to growth? And do we see that changing in the near future?

The kind of battle we fought has been different from other companies. We fought to establish that herbal medication can be backed by scientific research. That is why we refused to launch any product that was not backed by our quality and research standards. That stuck, and has remained a part of our DNA. We don't offer any product that does not meet the stringent standards of research we have set for ourselves.

Potato production down 2.3%

Untimely rain, blight disease blamed for the dip

New Delhi, November 28:

Potato production, as per provisional estimates submitted by States, indicate a 2.3 per cent fall in 2013-14 as compared to the last season. This information was given by Sanjeev Balyan, the Minister of State for Agriculture, in a written reply to Rajya Sabha on Friday.

The reasons given for the shortfall were untimely rains and blight disease during February and March this year.

“The price rise in potato is not solely due to reduction in production but several factors such as seasonality, adverse weather conditions, cost of transportation, cold storage costs, speculation on impending shortage situation, rising demand due to increasing incomes, and urbanisation etc,” the Minister said.

Among the important steps taken by the Government was the imposition of a minimum export price of \$450/tonne since June 26 while stock limits have been imposed for a year under the Essential Commodities Act since July.

State Governments have also been advised to take action against hoarding and black marketing by strictly enforcing the Prevention of Blackmarketing and Maintenance of Supplies of Essential Commodities Act (1980).

Last month, to curb rising prices, the Government had decided to import potatoes from Europe and asked NAFED and the Small Farmers’ Agribusiness Consortium (SFAC) to explore opportunities. Potatoes are being sold on average at Rs. 2,072/quintal in New Delhi as compared to Rs. 1,563/quintal at the same time last year, an increase of nearly 33 per cent.

State Governments have been advised to take action against hoarding and black marketing by enforcing the Prevention of Blackmarketing and Maintenance of Supplies of Essential Commodities Act

Small is still beautiful



Green choice Tribals of Pedabidda in the Visakhapatnam district use Azolla, a type of aquatic fern, to reduce the use of urea in their organic farms cv subrahmanyam



It may seem counter-intuitive but the key to the world's food security does not lie with genetically modified organisms (GMOs) and industrial farming. Colder nights finally arrived and put paid to our beetle plague. The garden is burgeoning again with rocket and lettuce. Our Sarai guests love these. We mainly grow vegetables and herbs that are unavailable at the local village markets, but have also planted some seasonal vegetables. When successful, our small garden produces enough, not only to feed our guests and staff, but for the latter to take home to their families. It is amazing how much a small plot can produce. Input costs are minimal apart from human labour. We spend little on seeds as most are saved from plants of the previous year. Neem and tobacco do well against most plant-destroying insects and fungi, and our compost provides the nutrients. It is a happy organic cycle.

According to the UN's Food and Agriculture Organization (FAO), small plots have many benefits, which include reducing child mortality and incidence of eye diseases, and raising the status of women. They should be encouraged everywhere. In developed countries, there is a noticeable shift back to allotments and home gardens. For some, it's the awareness of the role of transport in climate change; for others, it comes from a desire to know what they are eating in these days of unlabelled, genetically modified and pesticide-permeated foods. Here, an old adage bears repeating, since it is especially relevant to the agricultural scenario: small is beautiful.

It may seem counter-intuitive — and there are many agro-businesses that try to persuade us otherwise — but the key to the world's food security does not lie with genetically modified organisms (GMOs) and industrial farming. Experts warn that such a path, far from providing enough food, will dangerously impoverish the world. It is already the small farmer who feeds more of the world, especially in low-income countries. Many big international institutions such as the UN and World Bank now recognise that small farmers are the key to feeding a growing global population. Unfortunately, more and more of the agricultural land is moving into the hands of the rich and powerful, and government policies still tend to favour large over small — 80 per cent of subsidies and 90 per cent of research funds still go to industrial agriculture. Yet study after study shows that small farms are more efficient and that there is a strong inverse relationship between farm size and productivity. Even with the least share of land, smallholding farmers produce the largest percentage of food — 70-80 per cent with less than 25 per cent of the agricultural land.

Here is another fact that may surprise some of you: organic farms produce as much, and sometimes much more, than conventional farms. Where there is a yield gap in the other direction, it tends to be in wealthy nations. Organic farming is far from being a luxury that low-income countries cannot afford; it is rather the way the world has to go. A University of Essex research study examined over 200 agricultural projects in the developing world (9 million farms on nearly 30 million hectares) and found that yields increased an average of 93 per cent when they converted to organic and ecological ways. A seven-year study from Maikaal District in central India (of 1,000 farmers cultivating 3,200 hectares) found that average yields for cotton, wheat, chilli and soy were as much as 20 per cent higher on the organic farms than conventional ones nearby.

Organic farming brings so many benefits, from cleaner water to rural stability, there is not enough room to list them all. But one such benefit is increased biodiversity. If we changed agriculture on a large scale, we could sustain much higher levels of biodiversity. Imagine how many more birds and bees there would be without the tons of pesticides conventional farming uses on the fields; how much healthier we would be. We do not need to travel far to see examples: 50,000 hectares in Medak district of Andhra Pradesh have been proposed as an 'Agricultural Biodiversity Heritage Site' thanks to the work of — mostly women — farmers there. This is the first such site in India, and when you read of the 12-23 varieties of crops the women grow on less than three acres of only rain-fed land, you know accolades are well deserved. Self-sufficient in food and seeds, their methods could be a life-and-death choice for them. Thanks to eschewing

conventional ways and market pressures to become “progressive” by planting hybrids, there are no farmer suicides in their district. (As a journalist pertinently asked, why does India celebrate independence every year only to cede it to foreign companies like Monsanto?)

Being in favour of ecological farming doesn't mean wanting a return to the past — just wanting technology that's not from a chemical factory and based on petroleum. Rather, we need to creatively combine old wisdom with modern ecological knowledge and innovation — “Technology with a human face.”

Have I said it before? India has everything required to lead the world on this new path. Her indigenous food knowledge base in the adivasi and small farming communities is unsurpassed. Though dwindling, there is yet ample biodiversity and no shortage of vision and innovation. What we have yet to achieve are the agricultural policies that could allow it to happen. And we need these fast before the knowledge and biodiversity are lost forever.

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