SUSTAINABLE DEVELOPMENT GOALS

15 LIFE ON LAND

5 June WORLD ENVIRONMENT DAY

14 LIFE BELOW WATER

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As the first rays of the sun began to brighten the skies of Malvan, one could spot the faint outlines of a trawler against the tangerine backdrop. The day had just begun, but the seafarers had already ventured deep into the treacherous seas. As the trawler braved its way through the choppy seas, Shelestian Fernandes stood tall on the deck, overlooking the sea, narrating his story as a fisherman. “The times were much tougher when I had a smaller boat,” he said. Today he is the owner of a trawler, a reliable crew and several fishing gadgets which has made his job easier.

Within 12 fathoms of the shore, the trawler began to slow down, and the crew cast the net into the water. The net was then spread out on the deck for the crew to have a good look at the catch for the day. They rejoiced at the catch, especially the Silver Pomfret, which was the coveted prize for the day. The distinctive feature about the catch was that every single fish was big and of a marketable size, with not a single juvenile or baby fish in sight. “We owe it to the square mesh net,” they said, “for sparing the juvenile fish for later when they are worth more than what they are now.”

The square mesh net was introduced in Sindhudurg region through a partnership between the Government of Maharashtra and the United Nations Development Programme (UNDP) which aims to demonstrate that biodiversity conservation of coastal areas and sustainable livelihoods can go hand in hand. The partnership is supported by the Global Environment Facility (GEF).

The partnership brought in technical expertise from the Central Institute of Fisheries Technology, working closely with local fisherfolk to introduce the square mesh net in the cod end of trawl gears in Sindhudurg. Met with initial skepticism in this important fish landing centre, the initiative has gone a long way in becoming something that fishermen have embraced in their journey to sustainable marine fishing. Since 2015, every trawler in the district now uses square mesh nets.

“Ever since we started using the square mesh net after trials last year, we have been able to reduce diesel cost because of the reduced drag on the nets. Fish catch is on the decline and we hope that this new net will help boost fish
reserves,” says Sharad Dhuri, a pioneer in his community. He was one of the first fishermen to use a square mesh net on his trawler. “With the older nets, we used to find a lot of juvenile fish in the catch, and we would release them later but they would die. It wasn’t good for us or the environment” he added.

India is the second largest producer of fish in the world, employing over 14 million people in fishing and aquaculture. Increasing pressure on fish stocks, overcrowding of boats, pollution, degradation of habitats and destructive fishing practices threaten the ecosystem and livelihoods of millions.

Nearly 70 per cent of by-catch i.e. unwanted fish collected by fishing vessels is typically discarded to make way for commercially-important fish species. However, the ability of our seas to replenish depends on the survival of this juvenile fish. When traditional diamond-shaped nets are in water, the gaps in the nets compress, leaving little room for smaller fish to escape. However, the square shaped mesh retains its shape in the water and juvenile fish below a certain size can escape through the gap in the nets.

The advantages to fishermen are numerous. Shelestian Fernandes says, “The new technology has increased my income by INR 10,000 (US$152) each month because diesel consumption has declined.” On an average catch of 18 kgs, it is estimated that the square mesh allows over 3 kgs of juvenile fish and other aquatic mammals to escape, important for the survival of the seas.

“At first, we were worried that the new nets would exclude big fish and our catch would decline but during the trials we saw how it worked” Harshal, a local fisherman, said. The nets are gaining popularity and net makers in the region are now being trained to stitch square mesh nets for use by fishing trawlers along the state.

Witnessing the movement underway in Sindhudurg where over 300 trawlers have adopted more sustainable fishing practices, Maharashtra’s Fisheries Department has now issued an order proposing the mandatory use of square mesh nets for all 17,000 trawlers in the region.

Genetic Resources of Horticulture in India

Plant biodiversity has a great relevance to the evolution of mankind from hunters and gatherers to organized agriculture. In fact, Bible mentions about the “Forbidden fruit” and “Garden of Eden” when God created the life forms. They were indications of the importance of horticulture. The origin of Botanic gardens started since then. Sacred groves are part of this evolution. India is home to a large number of agricultural crops (including horticulture). It is considered to be the homeland of 167 important plant species of cereals.
millet, fruits, condiments, vegetables, pulses, fibre crops and oilseeds, and 114 breeds of domesticated animals. About 4,900 species of flowering plants are endemic to the country. These are distributed among 141 genera belonging to 47 families.

Genetic resources of Horticulture – A modern conservation strategy:

India is the centre of diversity for many Horticultural crops, which have all kinds of endemic varieties, alleles and even, Linnean species. India is known as the land of spices, being the origin of two important spices, black pepper and cardamom and also ginger, turmeric, Garcinia and Myristica with maximum diversity. Rich diversity also occurs in India for medicinal and aromatic plants and traditional knowledge associated with their uses, particularly in the Western Ghats and North-Eastern region. Besides, Indian subcontinent is rich repository for ornamental trees, shrubs, climbers, herbs and succulents. Wild relatives are also available in plenty in the rain forest habitats.

The Horticultural germplasm is being conserved both under in situ and ex-situ gene banks. The horticultural crops germplasm of over 36000 are being conserved under different ICAR institutes in India covering nearly about 130 horticultural crops.

The advent of commercialization and development of urban based Horticulture led to the loss of genetic materials such as land races and Heirlooms. Heirloom varieties can be of immense value to a researcher as they can be used in the breeding programme and can be used by farmers for other value added products and help in getting better income when the commercial varieties are not in fruiting.

Rohbah village inhabited by the Khasi people is situated in South West Khasi Hills District in Meghalaya, 15 km from Mawkyrwat, the district Headquarters. The people of Rohbah mainly depend on agriculture: they grow rice, potato, beans, carrots, sweet potato, mustard, yam and maize. Since the end of 2011, the IFAD-supported NERCORMP (North East Regional Computing Program) project started working in this village by organising the communities into Natural Resource Management Group (NaRMG) and the women

“Before NERCORMP project came to our village, it was one of the most backward and also known for being one of the dirtiest villages. Our village was not known by any line department and even if they knew they would never consider visiting our village. It seemed impossible to think that in five years, we have come up to this level and also the change in the mind-set of the people towards being responsible for the development of their own village. Today, our village Rohbah is well known for the riverine fish sanctuary and many visitors come to see this fish sanctuary.”

—Mestarland Lyngdoh
President of NaRMG while welcoming the IFAD team on 9 May 2016.
into Self Help Group (SHGs). When NERCORMP project entered the village, the community members were very sceptical about the scope and benefits of the project. However, persistent dialogue with the communities particularly members of the Dorbar Shnong (Village Council) and some respected elderly women members of the village yielded the desired result of making the communities ‘socially agree’ to work with the project. NERCORMP imparted several rounds of social capacity building along with economic and financial literacy for the NaRMG and SHGs. The project facilitated in the preparation of the Community Resource Management Plan (CRMP), which is a perspective plan of the village combining both the development of peoples’ livelihoods and natural resources of the village such as biodiversity. The village received project support for development of low cost toilets, farm and non-farm based livelihoods, village infrastructures for inter-village roads and development of natural resources particularly for promotion of community conserved areas for biodiversity conservation.

Through the facilitation by NERCORMP and partner NGO in combination with the dedicated works of the NaRMG members, the village gradually got transformed into becoming one of the most developed and most visited villages by all the line departments of South West Khasi Hill District. Their efforts have been well recognised and the village received an award for being one of the cleanest villages by the district administration (South West Khasi Hills District) in the year 2014 and it was also designated as one of the model villages in the district. Recently, the village also received the Nirmal Gram Puraskar award for being Open Defecation Free (ODF) village by the district administration (South West Khasi Hills District) in the year 2015 as a result of convergence between the Swachh Bharat Mission and NERCORMP in providing toilets to every household in the village.

**Process of establishing riverine fish sanctuary**

Apart from economic and social development, the residents of this village were also facilitated by NERCORMP to address the issues of biodiversity conservation. The people of Rohbah village observed that there was a marked decrease in fish population in the river “Rilang” which is flowing through their village due to destructive and unsustainable fishing practices. The elders of the village recall how in the past the communities enjoyed fishing in the river particularly in the several pools in the river. On seeing the river being devoid of fish, the communities felt there was an urgent need to conserve their aquatic ecosystem by restricting the fishing practices. The people also realized that by conserving this river in isolation only for the stretch that passes through their village, without the support of other neighbouring villages would be meaningless as this river flows through many other villages. Hence, a conglomeration of 13 villages came together and formed the Mawthapdah Area Rilang Fishing Association (MARFA) to protect the river eco-system by framing strict rules and regulations, and these were enforced by all the members concerned. Keeping this in mind, this Association identified the stretch of the river at Rohbah be declared as a fish sanctuary and the Rohbah NaRMG has taken the initiative of enforcing the rules and regulations, managing and monitoring this sanctuary since June, 2012. The efforts of creating a fish sanctuary in the river gradually received the attention of concerned line departments and finally the communities received much needed support from the district administration, Fishery Department, Tourism Department, etc. The efforts of the NaRMG of Rohbah has been much appreciated and based on their success story the MARFA received an award for the fish sanctuary in the year 2013 at the State Government Aqua Festival held in Shillong.

This initiative became such a success that other villages have emulated the steps taken by Rohbah NaRMG. There are now several spots across the river Rilang that have been demarcated as community conserved areas and there are now 17 villages that form the MARFA. During a visit on a clear
and sunny day to the fish sanctuary, one could now see hundreds of fish swimming in the water of the sanctuary, as they now feel safe and secured. The NaRMG has also taken on the responsibility of feeding the fish every now and then so that the fish population do not migrate from the pool. Along with the conservation of the fish pool, the village community through the NaRMG has also taken up the protection of immediate catchment areas of the river particularly the forest growing around the fish sanctuary. 

UNESCO Biosphere Reserves designated under its Man and the Biosphere (MAB) programme are ideal places to implement, demonstrate and realize Goal 15- Life on land. These sites combine conservation, science policy and community led practices for sustainable development. They provide answers to address complex issues of development versus conservation by implementing on site conservation linked sustainable development programmes. The programme over the years has evolved into a well-defined action agenda in tune with SDGs as articulated during the 4th World Congress on Biosphere Reserves held in March 2016 in Lima, Peru. The Lima Declaration and the new ten-year Action Plan for MAB and Biosphere Reserves, set out to promote synergies between Biosphere Reserves and the SDGs and the Paris Agreement on Climate Change. The World Network of Biosphere Reserves presently numbers 651 sites in 120 countries representing world’s major landscapes and ecosystems. These are sites of global importance to both biological and cultural diversity providing the UN system with a unique model for the hands-on realization of sustainable development goals and targets.

India has been on the forefront of the MAB and Biosphere Reserves programme and has provided leadership in the Asia Pacific region. Currently there are 18 Biosphere Reserves in the country, of which 10 are under the UNESCO World Network. These include Achanakmar-Amarkantak (Chhattisgarh and Madhya Pradesh), Agasthyamala (Tamilnadu and Kerala), Great Nicobar (Andaman & Nicobar), Gulf of Mannar (Tamilnadu), Nanda Devi (Uttarakhand), Nilgiris,(Tamilnadu,Karnataka and Kerala), Nokrek (Meghalaya),Pachmarhi (Madhya Pradesh), Simlipal (Odisha) and Sundarbans (West Bengal). Biosphere reserves in India are large landscapes, protecting larger areas of natural habitat and often include one or more National Parks and/or sanctuaries constituting core areas, along with.
buffer and transition zones. The core area is strictly protected by law as part of an existing protected area such as national park, sanctuary or a nature reserve or a mix of these. The buffer zone and the transition zones are in the periphery extending up to the human habitation. The application of the zoning principle strengthens adaptive management of the area through mutually agreed commitments between local communities, managers, academic and nongovernmental organizations to accommodate sound science based conservation as the goal which goes together with the sustainable development of the area.

The Indian National MAB Committee works closely with UNESCO in promoting the MAB programme and Biosphere Reserves as learning laboratories for sustainable development and biodiversity conservation through capacity building of BR managers for effective management of these sites and sustainable use and conservation of biological diversity. Biosphere Reserves are linked with educational and research institutions as well as community organizations through designated lead/co-coordinating research institutions entrusted with the responsibility to collate and disseminate research based information and serve as focal point for formulation of research projects and provide advisory services to BR Managers.

The Indian Biosphere Reserves have demonstrated their unique value in terms of biodiversity conservation and sustainable development of communities through creation of sustainable livelihood opportunities. India being a mega biodiversity country also has linked cultural and ethnic diversity spread over 550 tribal communities of 227 ethnic groups in over 5,000 forest villages. Biosphere Reserves represent an inclusive and integrated system providing wider base for conservation of entire range of living resources, biodiversity and ecosystems on a long term basis. The programme has a strong participation of local inhabitants for effective management and for improving their social, cultural and economic conditions through sustainable use of resources. UNESCO designation as a biosphere reserve celebrates the uniqueness of these sites in the localized natural, historic and cultural context with a global perspective and commitment to conserve and foster these resources for future generations.

Promoting Agricultural Security

With ever-increasing human population and fast depletion of natural resources, it has become extremely important to diversify the agriculture in order to meet various human needs. While biodiversity represents the primary source for food, feed, shelter, medicines and many other human uses, on the other hand, many of the nutritionally-rich crop species remain highly under-utilized. IFAD projects in India working with rural communities, many of them tribal people, have been promoting both agricultural crops diversity as well as re-introducing nutritionally-rich...
but under-utilized species primarily millets and roots and tuber crops in the agricultural landscape of the communities. Of particular emerging success stories are the promotion of pearl millets and sorghum in Rajasthan (MPOWER), kodo and kutki millets in Madhya Pradesh (TWEP), foxtail millets and roots and tuber crops in Odisha (OTELP) and in NE India (NERCORMP).

**Scale of activities and benefits**

In Rajasthan, in collaboration with ICRISAT (a grant partner of IFAD), MPOWER is working with over 16,000 households through women SHGs to cultivate mostly Pearl millets (*Pennisetum glaucum*) but also Sorghum or Great millets (*Sorghum sp.*). With the introduction of improved variety of pearl millets, production has almost doubled, and on an average the farmers are able to sell pearl millets @ INR 25-30 per kg in the market. Recent assessment showed that nearly 75% of these households reported annual additional income of INR 15,000-20,000 from sale of pearl millets.

In Madhya Pradesh, TWEP is working in Mandla and Dindori districts with over 3,500 tribal households promoting the cultivation of kodo millets (*Paspalum scrobiculatum*) and kutki millets (*Panicum sumatrense*). The project is supporting the communities in milling, packaging and marketing of the millets besides providing training in preparation of millet snacks. The average additional household income from kodo and kutki is INR 2000-3000 per month.

In Odisha, OTELP has been able to reach out to over 18,000 tribal households in promoting the cultivation of millets viz. Foxtail millets (*Setaria italica*), Finger millet or Ragi millet (*Eleusine coracana*) and Jowar or Sorghum. The interventions have been combination of both scaling-up and re-introduction of millets cultivation. Each year per household additional earning is about INR 12,000-15,000 from sale of millets. In Odisha, roots and tubers crops were the other nutritionally under-utilised crops promoted in the home gardens. In collaboration with International Potato Centre (CIP) and Central Tuber Crop Research Institute (CTCRI) through IFAD grant project to CIP, OTELP has been able to introduce Elephant foot yam (*Amorphophallus sp.*) and orange-flesh sweet potato (*Ipomoea sp.*) in the kitchen gardens of over 12,000 households. The average selling price of elephant foot yam is INR 20-30 per kg enabling households to earn additional income of INR 6,000-12,000 from home gardens.

In NE India, NERCORMP project has promoted cultivation of various types of roots and tuber crops mainly Yam (*Dioscorea spp.*) and Taro (*Colocasia spp.*) and Foxtail millets (*Setaria italica*) and Job’s tears (*Coix lacryma-jobi*) both in jhum fields and home gardens benefiting over 20,000 households, predominantly shifting cultivators. The project has promoted at least 12 different varieties of yam and 20 different varieties of taro in the home gardens as part of agrobiodiversity for food and feeds as well as conservation of nutritionally-rich under-utilised crops.
Environment provides a solid platform for good health. It is an accepted fact that premature death and diseases can be prevented, and to a significant degree, through a healthier environment.

“A healthy environment underpins a healthy population,” says Dr Margaret Chan, WHO Director-General.

An estimated 12.6 million people died as a result of living or working in an unhealthy environment in 2012 – nearly 1 in 4 of total global deaths, according to WHO estimates. Environmental risk factors, such as air, water and soil pollution, chemical exposure, climate change and ultraviolet radiation, contribute to more than 100 diseases and injuries.

In India, 30% of all deaths in the country are attributable to unhealthy environment, according to the latest global assessment of the burden of disease from environmental risks (2012). In terms of Disability Adjusted Life Years (DALYs), a quarter of the total DALYs are lost due to environmental hazards. At least 315 deaths per 100,000 population occur every year due to environmental pollution. Noncommunicable diseases (NCDs) have the largest share with 207 deaths per 100,000.

Addressing environmental pollution

There’s an urgent need for investment to reduce environmental risks, including at homes and workplaces. Such investments can significantly arrest the rising trend of morbidity and mortality, thus bringing down healthcare costs.


The advent of Sustainable Development Goals, with their underpinning holistic philosophy, present an excellent opportunity to make a lasting contribution to reducing the disease burden attributable to environmental factors, thus facilitating healthy lives and promoting well-being of all people.

The World Health Organization is providing global guidance on strategies for reducing the burden of pollution due to air pollutants, chemicals in soil and water (like mercury) etc.

A concerted and coordinated effort by all stakeholders and a multisectoral approach is imperative to address the situation optimally.

Initiatives by the Indian government

In India, the government is looking at innovative solutions. The Swachh Bharat Abhiyan encourages citizens to adopt cleanliness in all spheres of life and is particularly relevant and timely.

The ‘Smart Cities’ initiative assures urban planning, building energy-efficient housing and good network of public transport, all of which are environment friendly. Citizens’ participation is in-built, thus ensuring sustainability.

Promoting more equitable access to clean fuels by removing blanket subsidy on cooking gas to high-income group and including more households from low-income group in the LPG distribution list...
are appreciable steps to address household air pollution. Similarly, initiatives for cleaning the major rivers will help curb water-borne diseases.

The government has also constituted a multisectoral Steering Committee to address air pollution, both household and ambient; WHO India is a member of this forum.

Smoke-free legislation to reduce exposure to second-hand smoke is already in place in India viz. Cigarette and other Tobacco Products Act, 2003. India is also a signatory to the WHO Framework Convention on Tobacco Control, 2004.

In conclusion, environmental health interventions can make a valuable and sustainable contribution to reducing the global disease burden and improving the well-being of people everywhere. We, therefore, owe it to ourselves and succeeding generations to do all we can to keep the environment healthy. And thereby stay healthy ourselves.
The 2004 Indian Ocean tsunami had disastrous impacts on Indian Ocean countries with more than 200,000 people reported dead or missing. In the absence of a dedicated warning system for the region, Indian Ocean countries used UNESCO’s Intergovernmental Oceanographic Commission (IOC) platform to establish and coordinate an Indian Ocean Tsunami Warning and Mitigation System, similar to the one that has been operational in the Pacific Ocean since 1965. In India, the Ministry of Earth Sciences took the responsibility of establishing a National Tsunami Early Warning System at a cost of Rs.125 Crore at the Indian National Centre for Ocean Information Services (INCOIS) in Hyderabad. Following agreements reached during the IOC/UNESCO Assembly, this centre along with those of Australia and Indonesia, is now designated as a Regional Tsunami Service Provider (RTSP) to provide tsunami warnings to countries bordering the Indian Ocean.

The Indian tsunami early warning centre is equipped with sophisticated world-class computational and communication equipment and manned by highly qualified dedicated personnel. The centre is connected to a global network of seismometers, tide gauges and buoys through satellite links which provides data and issues warnings concerning earthquakes and ocean surges.

In addition to this regional and global service, INCOIS is also positioning itself as a regional training centre. In 2013, INCOIS and IOC/UNESCO signed an agreement for the setting up of the International Training Centre for Operational Oceanography in Hyderabad, India. The centre, called ITCOocean, contributes to IOC/UNESCO’s training and capacity development requirements for programmes focusing on Tsunami Warning and Mitigation and Ocean Monitoring/Data Exchange, with special attention to Member States in the Indian Ocean including islands and Africa. ITCOocean organises national and international training programmes for university students, staff of oceanographic centres, governmental oceanographic services, coastal planners and decision makers who need to familiarise themselves with oceanographic data. ITCOocean also cooperates with IOC/UNESCO’s International Oceanographic Data and Information Exchange programme (IODE) through the joint organisation of training programmes by exchange of lecturers, use of tele-presence and video lectures by ITCOocean. The collaboration is mutually beneficial and benefits the marine research community as a whole.

During her visit in 2014, the Director General of UNESCO, Mrs. Irina Bokova also signed an agreement with the Ministry of Earth Sciences of India for further cooperation in areas of common interest.
भारत के पश्चिमी तट पर मछली पकड़ने के लिए नैतिक परिवर्तन का मार्ग खुल रहा है।

लवन के आकाश में सुरज की पहली फिराम उम्मीद ही सापर के नीले पाणी में मछली पकड़ने वाले द्वीप की हरी हो रही देखने के लिए देखि देखी है। दिन भर शुरू हो रहा है लेकिन मछली उपनंति सागर में दूसरे जहाँ उत्कृष्ट बनता है, शैलेन्द्र फर्सिन सागर को समझता है धैर्य पर खड़े होकर अपने मछली फिरने की कहानी सुनता है।

उन्होंने कहा, "मेरे पास कहीं छोटी नाइट थी तो हालात ज्यादा सुनाकर था।" अब उनका पाल अभाव है, भाग्यवशमेंत कर्मचारी हैं और मछली पकड़ने के कई उपकरण हैं जिन्होंने कम बहुत आसान कर दिया है।

तट से 12 फीट (72 फीट) की दूरी की नीली द्वीप टर्म पर शाम बादी होती है और कर्मचारी जाल को पानी में डाल देते हैं। जल छूट तक चूल्हा दिया जाता है ताकि उन्हें जीवन को पारा नहीं देखना हो। वे इसी मछलियों विशेषकर शिवार शिवार को देखकर इसे छुट देते चाहिए क्योंकि वे उस दिन को बहुत कृप्ति पकड़ थे। इस पकड़ की मछलियों की धरती विशेषता यह थी कि हर मछली का आकार बड़ा और बाजार में बिकने लायक था। एक भी छोटी या नहीं मछली दिखाई नहीं देने रही थी। उन्होंने कहा, "यह सब चीकर जालियों वाले जाता का कमाल है। इससे छोटी मछलियां बाद के लिए बच गई हैं जब उनकी कीमत आज से ज्यादा होगी।"
भारत में बागवानी के आनुवांशिक संस्थान—
अतीत का सफर

सन 1975 में शिकारियों से लेकर फसल बीनने वालों तक मानने के विकास में जैव–
विविधता की बड़ी भागी उपयोगिता रही है। इसके बाद ने जब जीवों की क्रमशः की तक
बाहर में विमलता फूल और अन्य प्रकार के बाहरबींगर का वर्णन मिला है। इससे बागवानी के
महत्त्व का संकेत मिला है। वनस्पति उद्योग का जन्म तथा तज़ारों का शुरू हो गया था। परितर
उदाहरण इसी विकास या वृक्ष के अंग भी है। भारत में बागवानी सहित भूमि क्रूज़े फसलों
होती है। ऐसा माना जाता है कि भारत में अनाज, गोरे अनाज, फल, मसाले, सूमियों,
रेशे वाली फसलों, दालों और विज्ञान की
167 महामुख्य वक्तव्य प्रादर्शों और पालु,
पुषुओं के 114 नंबर से होती है। फूलदार पौधों
की भी कृतिक 4.900 प्रादर्शों इसी देश की
पहचाँ है। यह प्रादर्शों 47 परिवारों की
141 नंबरों में बंटी हुई है।

बागवानी के आनुवांशिक संस्थान—
आधुनिक संस्थान नीति:
भारत अंतर्गत बागवानी को विविधता का केंद्र है। अनाजी और
वैज्ञानिक प्रादर्शों सहित हवा के तरह की
गूढ़ किन्हें पाई जाती है। भारत को मसालों
की धरति कहा जाता है। दो मुख्य मसालों,
काटी गम्भीर और इन्जनीयरी भारत की ही है
है। इसके अलावा अंदरक, हल्दी, गर्सिया
और ग्रिसिया भी विविधतम विविधता के
स्रोत इसी भूमि में होता है। भारत में
आधुनिक और गंतव्य वनस्पति में भी बहुत
विविधता है। उनके इस्तेमाल का उपरोक्त
ज्ञान विशेषज्ञ परिवहन घट और यूरोपीय
क्षेत्र में बहुत फैला हुआ है। इससे अतिरिक्त
भारतीय उपमहाद्वीप जलवायु कुशी, झाड़ियों,
तालाबों, जलरेखाओं और करों से भी भरा
हुआ है। वर्षा पौधों जंगलों में इसकी वन
जीवन प्रादर्शों की भी प्रभुत्व है।

बागवानी में जलवायु को उसी स्थान पर और
dुसरे स्थान पर जीव बैंडों में सुरक्षित रखा
जा रहा है। बागवानी को 36,000
dे अधिक किस्में का जलवायु भारत में
अंतर्दर्श के विविधता संस्थानों में सुरक्षित
रखा जा रहा है। इनमें करीब 130 बागवानी
कसलें शामिल हैं।

निष्कर्ष:
बागवानी के वाणिज्यिक रूप और
शहरों में विकास का उद्धरण होने से
जमीनी रूपांगों और विशेष प्रादर्शों की
अनुवांशिक समावेश का पतन हो गया।
विशेष प्रादर्शों वैज्ञानिकों के लिए बहुद
महलमूर्त हैं क्योंकि इसका इस्तेमाल
प्रादर्शों को किया जा सकता
है और इससे इनका उपयोग करके
बेहतर वर्तुः बना सकते हैं जिससे जब
वाणिज्यिक किस्मे फल न दे रही हों तो
बेहतर आमदनी मिल सके।
पूर्वोत्तर भारत में खासी पहाड़ियों में नदी मछली संस्करण को बढ़ावा देने के लिए उपाय

प्रा

परिवहन और प्रोजेक्ट के तहत उपाय

कृत्रिम संवरण प्रबंधन समूह (एनएआरएम) के अध्यक्ष कृष्ण मेमरस्टिंड सिंहदेह ने 9 मई 2016 को आईएसडी टीम का स्वागत करने हुए कहा था, “हमारे गांव में एनआरएसआरएमपी प्रोजेक्ट आने से पहले तब इसकी फिनी सबसे पिछड़े गांव में होती थी और यह एक सबसे गंदा गांव बना जाता था। हमारे गांव को कोई विवाद नहीं जानना था और आप जानते थे तो कहीं हमारे गांव में आने की नहीं सोचते थे। तब यह सोचना भी नामुमकिन था कि पाबंदी वर्ष में हम यह स्तर ठहर जाने और लोगों की सोच इन्हीं बाल्क जाएगी कि वे अपने गांव के विकास के लिए खुद जिम्मेदार हो जाएंगे। अब हमारा गांव रोबाह नदी मछली आयाम के लिए जाना जाता है और बहुत से लोग इस मछली आयाम को देखने आते हैं।”

रोबाह गांव में खासी जनजाति के लोग रहते हैं। यह मेयागय में ददिरां-हरिद्र खासी हिन्दु जिले में जिला मुख्यालय महाकाला से 15 किलोमीटर पूरे है। रोबाह के लोगों की मुख्य आज्ञाकार खेती है। वे बानी, आनु, फूलियां, गाजर, शकाकुंद, सरसों, यम और मकर उगाते हैं। 2011 के अंतिम तक आईआरएम के समर्थन से एनआरएसआरएमपी प्रोजेक्ट इस गांव में काम करने लगा। समुदायों का प्राकृतिक संवरण प्रबंधन समूह में और महिलाओं का प्रव सहायता समूहों में संस्थान किया गया। जब एनआरएसआरएमपी प्रोजेक्ट गांव में आया तो समुदायों के सदस्यों में इस बात को लेकर आशंका थी कि प्रोजेक्ट का दायार और लाभ का होगा। कितना समुदाय के सदस्यों, जात्यार्थ जाति विशेष दौरान बनाए हुए थे। समुदाय के सदस्यों ने प्रोजेक्ट पर काम करने की सामाजिक सहायता दी। एनआरएसआरएमपी ने प्राकृतिक संवरण प्रबंधन समूहों (एनएआरएम) और स्व. सहायता समूहों के लिए आरिक और विनियम सहायता सिद्धान्त के साथ-साथ सामाजिक क्षमता निर्माण प्रक्रियाओं के कई दौर चलाए। इस प्रोजेक्ट से सामुदायिक संवरण प्रबंधन योजना (सीआरएमपी) बनाने में मदद मिली। इस योजना में लोगों की आश्विनिका और साथ-साथ जीव-विकास संस्थान में गांव के प्राकृतिक संसाधनों के विकास का भी महत्व था।

मछली जिले के सभी संबंधित विभागों के प्रतिनिधियों इसका दायर करने लगे। उनके यह प्रयासों को अच्छी तरह मानता मिली और गांव को वर्ष 2014 में दक्षिण-पश्चिम खासी हिन्दु जिला प्रशासन से एक सबसे नववह गांव का पुरस्कार मिला। इसे दीनों में एक आदर गांव भी घोषित किया गया। हाल ही में जिला प्रशासन ने वर्ष 2015 के लिए गांव को खुदे में श्रीव बुक (ओडियां) गांव होने के लिए निर्मल ग्राम पुरस्कार दिया। स्वच्छ भारत मिशन और एनआरएसआरएमपी ने मिलकर गांव के प्रवेश परिवर्तन के लिए शौचालय की आवश्यकता की।

नदी मछली आयाम को स्थापित करने की प्रक्रिया

आरिक और सामाजिक विकास के साथ-साथ एनआरएसआरएमपी ने इस गांव के निवासियों को जीव-विकास संसाधन की समस्याओं का समाधान करने में तैयार मदद दी। रोबाह गांव के निवासियों ने बताया कि गांव से बहती रिसांग नदी में मछली की आबादी
जैव विविधता संरक्षण के लिए स्थलों के रूप में बायोस्फीयर रिजर्व्ज

बायोस्फीयर रिजर्व्ज़ एक सर्वजनिक इकाई है जिसमें जैविक विविधता का संरक्षण किया जाता है। ये अक्सर नेत्रों के मैन एंड द बायोस्फीयर (एमडी) कार्यक्रम के तहत निर्माण होते हैं। इन स्थलों में संरक्षित होने वाली प्रजातियाँ और निवास स्थल आदि का समन्वय होता है।

भारत में ये समाधान की उपलब्धि हैं। भारत में वर्तमान में समाप्त एमडी रिजर्व्ज़ 13 हैं। इनमें से 11 नए स्थल हैं और 2 स्थान हैं।

भारत की ये रिजर्व्ज़ यूनेस्को द्वारा निर्दिष्ट हैं। ये स्थल विभिन्न तरह की जैविक विविधता का संरक्षण करते हैं। ये स्थल विभिन्न रोजगार और व्यापारी रूप से भी प्रभावित होते हैं।

ये रिजर्व्ज़ जैविक विविधता का संरक्षण करते हैं। ये एमडी रिजर्व्ज़ से सम्बंधित हैं। ये स्थल विभिन्न रोजगार और व्यापारी रूप से भी प्रभावित होते हैं।

ये रिजर्व्ज़ जैविक विविधता का संरक्षण करते हैं। ये स्थल विभिन्न रोजगार और व्यापारी रूप से भी प्रभावित होते हैं।
समुदायों में “कृषि सुरक्षा के लिए” पौष्टिकता की दृष्टि से कम उपयोग की गई जैव-विविधता के संबंधन के लिए प्रोजेक्ट्स

रस्ता बदती इंसानी आबादी
और वृक्षीकारी संसाधनों की 
अवधियों को समझाता है। यह बदतर महत्वपूर्ण है गांव में विविधता की तरह जाने वाले 
पौष्टिकता के लिए विविधता की दृष्टि से कम उपयोग की गई जैव-विविधता के संबंधन के लिए प्रोजेक्ट्स

भारतीय जैवसंरक्षण की जैव-विविधता के संबंधन के लिए प्रोजेक्ट्स
पर्यावरण अल्पसमय के लिए दोस्त मंगा परिणाम करता है। सब जानते हैं कि अगर पर्यावरण स्वास्थ्य हो तो समय से पहले खुश और बीमारियों से बचत हो तब बचा जा सकता है।

विश्व स्वास्थ्य संगठन की महानिदेशक डॉ. मार्गरेट बाक का कहना है, "स्वास्थ्य पर्यावरण, स्वास्थ्य आबादी की जरूरत है।" अनुमान है कि 2012 में स्वास्थ्य भारत में रहने या करने के कारण करीब 1.26 लाख लोगों की मृत्यु हो गई। विश्व स्वास्थ्य संगठन के अनुसार दुनिया में कुल लोगों में से करीब एक चौथाई इस कारण से हृद, वायु, जल और मृदा प्रदूषण, सर्कलियों से संबंधित, जलवायु परिवर्तन और पर्यावरणीय करण के बीच विषय पर्यावरण संबंधी अभियांत्रिकी 100 से अधिक बीमारियों और शारीरिक करणों के लिए निम्नलिखित हैं।

पर्यावरण संबंधी जोखिमों के कारण बीमारियों के बीच में निम्नलिखित वैशिष्ट्य आकार (2012) के अनुसार भारत में कुल मौतों में से 30 प्रतिशत अस्तित्व माहीन की देख बताते जाते हैं। किस्मतसम्मान समयों अंतरिक्ष जीवन वाहन (डीएलवेज) की दृष्टि से पर्यावरण संबंधी खाद्यों के कारण एक चौथाई डीएलवेज गंदा हो जाते हैं।

पर्यावरण प्रदूषण के कारण हर साल प्राप्त एक तालुका आबादी पर कम से कम 315 मौतों होती है। गैर सर्कलियों रोगों से रखते अग्रणी प्राप्त एक तालुका 207 मौतों होती है। पर्यावरण प्रदूषण के कारण नाना से कांपा जाने और सर्कलियों रोगों की घटनाएं बढ़ने की भी खतरा है।

पर्यावरण कौन उद्देश्य रखा रहा है?

जैसे-जैसे अभियांत्रिकी लोगों के शरीर में बदलाव और असंतोष की तालाब या तब्दीली के रूप में प्राप्त हो जाने के कारण और धीरहो जाने की भी खतरा है।

पर्यावरण प्रदूषण से परिणाम

जैसे-जैसे अभियांत्रिकी लोगों के शरीर में बदलाव और असंतोष की तालाब या तब्दीली के रूप में प्राप्त हो जाने के कारण और धीरहो जाने की भी खतरा है।

पर्यावरण प्रदूषण से निपटना

भरोसे भी भरोसे और कम की जागरूकता पर पर्यावरण जीवन कम करने के लिए तकनीक नियम करना होगा। इस तरह
समी संबद्ध पक्षों के लोगों और समाज संगठन के लिए बहुत जरूरी है। विशेष रूप से शख्सों और समुदायों के लिए यह एक महत्वपूर्ण क्षेत्र है।

भारत सरकार के प्रयास
भारत में सरकार ने- समाज संगठन तलाश रही है। स्वच्छ भारत अभियान नागरिकों को जीवन के सभी क्षेत्रों में स्वच्छता अपनाने के लिए प्रोत्साहित कर रही है और यह अभियान विशेष रूप से प्रारंभिक तथा सामाजिक है।

स्वांतंत्र्य संगठन एवं अन्य समाजीय संस्थानों के साथ संबंधित विवरण प्रवर्तन करने के लिए राष्ट्रीय कार्यक्रम के लिए विभाग अध्यक्ष के साथ संचालित किया गया है।

स्वांतंत्र्य संगठन एवं साधनों द्वारा संस्थानों का बोध करने के लिए रणनीतियों के बारे में विशेष गतिविधियों दिखाया रहता है।

बिन्दु व वस्तु योजना के लिए इसकी गतिविधियों के बारे में विशेष गतिविधियों दिखाया रहता है।

सरकार ने परिवार के बीते और बाहर वायु प्रदूषण की समस्या से निपटने के लिए विभिन्न क्षेत्रों के एक संबंधित समिति बनाई है। विश्व स्वास्थ्य संगठन की भारत शाखा इसमें शामिल है।

सार्वजनिक स्थानों पर दूधापान की मानहानि संबंधी कानून भारत में मौजूद है जिससे सिमार्ट न पोने वालों को सिमार्ट के बंधु से बचाया जा सकता है। इसके लिए सिमार्ट और अन्तर्द्वार, उत्पाद अद्वितीय, 2003 समझा गया है। भारत ने लम्बाई-निर्माण के बारे में विश्व स्वास्थ्य संगठन के गतिविधियों समाजों 2004 के सहलय किए है।

अंत में कहा जा सकता है कि परिवार वायु प्रदूषण की समस्या के लिए फिर गए प्रयासों के दृष्टिवाच की धाराओं का बोध करने के लिए रणनीतियों के बारे में विशेष गतिविधियों दिखाया रहता है।

माहिती प्रवाह और इनाम शाखा इसके लिए हमारा यह कार्य है कि परिवार वायु प्रदूषण को चर्चा रखने के लिए हर संभव प्रयास करें और स्वयं भी चर्चा रहें।
2004 में हिंद महासागर में आई लुगुमामी का हिंद महासागर के देशों पर विषयकारी अपर गढ़। दो लाख से अधिक लोग मृत्यु या आपत्ति बनाए गए। इस क्षेत्र के लिए अलग चेतावनी प्रणाली के अंतर्गत में हिंद महासागर के देशों ने हिंद महासागर लुगुमामी चेतावनी और अपशमन प्रणाली की स्थापना और उसमें एउटम के लिए युनेस्को के इंटरगव्यन्वित ओपन्सेंट्रल भूगोलविज्ञान (आईटीसी) चौंक का उपयोग किया। हिंद महासागर की लुगुमामी चेतावनी प्रणाली 1965 से प्रशासन महासागर में सर्वश्रेष्ठ प्रणाली जैसी ही है। भारत में पृथ्वी विवाह नंदलाल ने हंडराबाद में भारतीय विश्व वर्ग महासागर लूकुमा नेटवर्क केंद्र (आईटीसीआईएसएस) में 125 करोड कूप को लागू कर राष्ट्रीय लुगुमामी शीर्ष चेतावनी प्रणाली स्थापना करने का दावेदार उद्यम किया। आईटीसी/युनेस्को के दोनों द्वारा समाजों के बाद आईटीसी और इंटरशियम के केंद्रों के साथ-साथ इस केन्द्र को अब क्षेत्रीय लुगुमामी नेटवर्क (आईटीसीआईएस) का दानों दे दिया गया। इसका काम हिंद महासागर के सीमावर्ती देशों को लुगुमामी चेतावनी प्रदान करना है।

भारत के लुगुमामी शीर्ष चेतावनी केंद्र में गणना और संचार के लिए विभिन्न राज्यों अनुसरण उपकरण लगे हैं और इसमें बेहद दक्ष और समय के व्यक्त काम करते हैं। यह केंद्र सीमावर्ती, ज्ञान धारकों और शासन के विश्वविद्यालयों से उपयोग के लिए जुड़ा है।

इससे मूलभूत और महासागर में उत्तर वाले जारीों के बारे में अंकड़े मिलते हैं और चेतावनियाँ जारी होती हैं।

इस क्षेत्रीय और विश्वविद्यालयों के अलावा आईटीसीआईएस अब क्षेत्रीय प्रशिक्षण केंद्र भी बनाया जा रहा है। आईटीसीआईएस और आईटीसी/युनेस्को ने 2013 में एक समझौता पर हस्ताक्षर किया निर्धारित तथा भारत में हंडराबाद में इंटरशियम टेलिग्राफ टेलिग्राफ पर इंटरशियम ओपन्सेंट्रल ओपन्सेंट्रल की स्थापना की गई। आईटीसीआईएस के नाम से यह केंद्र आईटीसी/युनेस्को की प्रशिक्षण और शिक्षा विकास आवश्यकताओं में संगठन करता है। यह प्रशिक्षण लुगुमामी चेतावनी और अपशमन तथा महासागर निर्माण/आकड़ों के आदान-प्रदान पर केन्द्रित कारोबारों से संबंध है। इसमें तीन और आवश्यक हिंद महासागर में सदस्य देशों पर विशेष ध्यान दिया जाता है। आईटीसीआईएस विश्वविद्यालयों के छात्रों, समुद्र विवाह जेबों के कर्मचारियों, सरकारी समुद्र विज्ञान संस्थाओं, तटवर्ती क्षेत्रों के नियोजकों और नीति निर्माण अंतर्गत राष्ट्रीय और अंतर्राष्ट्रीय प्रशिक्षण कार्यक्रम आयोजित करता है, जिन्हें समुद्र विज्ञान के अंकों पर विश्लेषित करने की आवश्यकता है।

आईटीसीआईएस, आईटीसी/युनेस्को इंटरशियम ओपन्सेंट्रल ओपन्सेंट्रल ओपन्सेंट्रल एंड इंटरशियम एक्सपोज़ रेपोर्ट (आईटीसीआईएस) में भी सहयोग देता है। इसके अंतर्गत संयुक्त रूप से प्रशिक्षण कार्यक्रम आयोजित किए जाते हैं। इसके लिए व्याख्यान देने वालों का आदान-प्रदान होता है, टैक्स उपयोग का उपयोग किया जाता है और आईटीसीआईएस द्वारा वीडियो लेंस करा देता है। यह सहयोग पालन करने के लिए समुद्र विज्ञान मन्त्रालय को फायदा पहुँचाता है।

युनेस्को की महानिदेशक शीर्षी इरिना बोडाचा ने 2014 में अपनी यात्रा के दौरान सबसे हित के क्षेत्रों में सहयोग बढ़ाने के लिए भारत के पृथ्वी विवाह मंत्रालय के साथ एक समझौता पर भी हस्ताक्षर किए थे।
At the recent World Humanitarian Summit in Istanbul, more than 9,000 participants made a three-fold commitment to people in crisis all over the world. We pledged to improve our response to people caught up in natural disasters and conflicts; to empower them as the agents of their own recovery; and to summon greater political will to prevent and end the wars which are causing so much suffering.

The challenge we face is unprecedented. Around the world, 130 million people need humanitarian aid. More than 60 million people have been forcibly displaced from their homes. Despite their precarious conditions, there is a severe lack of funding to assist them -- raising basic questions about global solidarity in a world of great wealth.

The massive extent of this challenge meant this had to be a different kind of summit. For the first time, people affected by crises worked alongside world leaders, heads of NGOs, civil society and the private sector to find solutions. This diversity of voices was an achievement in itself.

I met many people affected by crisis, and spoke with brave aid workers. People on the front lines, often in the poorest countries in the world, show enormous commitment to helping families and communities in crisis. The international community as a whole must do more.

My Agenda for Humanity, drawn up in advance of the summit, outlined five areas for collective action: preventing and ending conflict; respect for the rules of war; leaving no one behind; working differently to end needs; and investing in humanity. The summit recorded
OPINION

nearly 3,000 individual and collective commitments in support of these five core areas, including many from countries affected by crisis.

A “Grand Bargain” between 30 top donors and aid agencies should reduce management costs, provide more flexible funding and give affected people a bigger voice in the decisions that will shape their lives.

The new Charter4Change commits 27 international NGOs to channel one fifth of their funding to national organizations, in response to widespread calls for more local decision-making and funding.

The Vulnerable 20 Group of Finance Ministers launched a Global Preparedness Partnership, which will help countries most at risk of crisis to prepare for future shocks.

Donors committed new funding to initiatives to protect women and girls from gender-based violence, and to ensure that millions of children in crisis can continue their education, addressing one of the most urgent priorities of refugees and displaced people around the world.

And the Summit won significant commitments to bridge the gap between humanitarian and development work; to create a new way of working together to reduce needs, manage risks and aim at common goals over longer timeframes.

Some 80 percent of humanitarian funding goes to manmade crises caused by conflict. So it was particularly significant that all the 173 Governments that were present committed to invest more in conflict prevention and peacebuilding, finding better solutions for refugees and internally displaced people, and pushing for practical measures to uphold the laws of war.

Now we must turn these commitments into action.

Later this year, I will report to the United Nations General Assembly and propose ways to take our commitments forward. The High-Level Meeting on large movements of Refugees and Migrants, to be held in New York on 19 September, will be a major opportunity to maintain momentum and build on the Summit’s achievements.

Civil society organizations were a dynamic presence in Istanbul, and I urge them to play an active role in monitoring States’ compliance with their commitments.

The World Humanitarian Summit was not an end point, but a turning point. The United Nations is committed to building on the momentum generated to work in partnership with world leaders, including those who could not be present, and with all stakeholders to support the most vulnerable people in our world.

International Year of Pulses 2016
by Shyam Khadka, FAO Representative, India

On December 21st 2013, the General Assembly of the United Nations in New York voted to proclaim the International Year of Pulses 2016 (IYOP). It followed unanimous votes in favor of declaring the IYOP 2016 by the FAO in April and June 2013. An International Year designation provides an unprecedented opportunity to raise awareness and to celebrate the role of beans, chickpeas, lentils and other pulses in feeding the world. Even more importantly, it will be a galvanizing moment to draw together key actors to further the contributions pulses make to health, nutrition, and sustainability.

It is a sheer but timely coincidence that during International Year of Pulses, in India pulses are on the boil, witnessing unprecedented rise in the prices (more than 50 per cent) more especially for tur (pigeon pea) and Urad dal (black gram). Even Chana (chick pea) which was cheaper has seen a jump much of it in recent past. Pulses occupy a unique place in India’s nutritional food security as they are a major source of plant proteins for vegetarians. By products of pulses like leaves, pod coats and bran are fed to animals in the form of dry fodder. Some pulse crops like Gram, Lobia, Urad and Moong bean are fed to animals as green fodder. Moong (Green gram) plants are also used as green manure to improve soil health and adds nutrient into the soil.

Despite being the biggest producer, India is the largest consumer, and importer of pulses as well. India has really not been able to increase the productivity, raising the question what is ailing the pulse agriculture? In 2013-14, India produced
19.25 million tonnes of pulses which a year later came down to 17.3 million tonnes (MoA&FW, GoI), necessitating more imports. For several decades after independence, more or less till 2008, India’s production of pulses remained almost static in the range of 14 million tonnes or so. It is only recently that the need to increase domestic pulse production has attracted the attention thanks to the sudden spurt in prices of dal in open market.

India’s Production and Import of Pulses in recent past

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<tbody>
<tr>
<td>Production (Million tons)</td>
<td>18.2</td>
<td>17.1</td>
<td>18.3</td>
<td>19.8</td>
<td>17.3</td>
<td></td>
</tr>
<tr>
<td>Imports</td>
<td>2.8</td>
<td>3.5</td>
<td>4.0</td>
<td>3.5</td>
<td>4.64</td>
<td>5.50*</td>
</tr>
<tr>
<td>Imports as % of domestic supply</td>
<td>13.4</td>
<td>17.1</td>
<td>18.1</td>
<td>15.2</td>
<td>21.2</td>
<td></td>
</tr>
</tbody>
</table>

Source: Ministry of Agriculture and Farmers’ Welfare, GoI and other sources

India’s Production and Import of Pulses in recent past

<table>
<thead>
<tr>
<th>Major Pulses</th>
<th>Imports</th>
<th>% Change in Imports</th>
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<tbody>
<tr>
<td></td>
<td>2013-14</td>
<td>2014-15</td>
</tr>
<tr>
<td>Peas</td>
<td>13.30</td>
<td>19.41</td>
</tr>
<tr>
<td>Chickpea</td>
<td>06.97</td>
<td>04.18</td>
</tr>
<tr>
<td>Tur</td>
<td>04.65</td>
<td>05.75</td>
</tr>
<tr>
<td>Lentils</td>
<td>07.08</td>
<td>08.16</td>
</tr>
<tr>
<td>Total</td>
<td>36.54</td>
<td>45.84</td>
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Why Pulses are Important

**Pulses in crop rotations:** Pulses improve the resiliency and efficiency of crop rotations.

- Crops grown in rotation with pulses have higher yield and have improved fertilizer use efficiency.
- Introducing diversity into crop rotations helps farmers to reduce the impacts that disease and insects have on their crop rotations. One way that pulse crops make an impact is by improving soil microbial populations. Large, diverse populations of soil organisms act to ‘crowd out’ disease-causing bacteria and fungi, making for healthier crops.
- Pulses effectively increase the water use efficiency of the entire crop rotation. Pulses like peas and lentils extract water from a shallower depth, leaving more water deep in the soil for the following year’s cereal or oilseed crop.
- Growing pulse crops in rotation with other crops enables the soil to support larger, more diverse populations of soil organisms.
- Pulse crops grown in rotation also reduce the nitrogen input required for the following crop, thus reducing its GHG footprint.

**Pulses in farm systems:** Pulse crops are a low-risk, profitable way for farmers to diversify their crop production.

- The diversification benefits the farmer in terms of improved yields and improved fertilizer use efficiency of the whole crop rotation.
- Pulses provide a means of lowering risk as they allow farmers to reduce their fertilizer purchases.
- Pulses diversify the crop portfolio of a farm, decreasing the risk of exposure a farmer faces from price fluctuations. This is particularly important on farms that rely heavily on one crop as a source of income.
- Pulses help to spread out the workload of a farm. Producing pulses and other crops to diversify crop production provides the opportunity to spread out this work load.

This current crisis can be attributed largely to decrease in area as farmers opt to grow high yielding crops with higher MSP such as paddy and wheat. This has resulted in pulses being pushed to being grown in marginal, poorly irrigated, low quality soils resulting in low yield. Moreover, the fact that pulse crops in India are mostly grown in rainfed areas with unstable and uncertain rainfall conditions expose farmers to risks of crop failure. Poor access to storage and milling facilities, causes further risk to farmers as unshelled pulses have low shelf life. Additionally, poor market linkages also cause constrains in effectively meeting market demand.

Current high demand and deficit in local supply has also increased India’s dependence on imports from countries like Canada, Myanmar and Australia. Despite this, the mismatch between pulses supply and demand has widened following two consecutive poor pulse crops, which has resulted in a significant increase in pulse prices in recent months.

In the case of pulses, procurement prices are announced every year but without any procurement being made. Considering the prices farmers get for wheat and rice, the procurement prices for pulses are low. This becomes a disincentive for farmers to undertake pulses cultivation. At a time when the retail market prices are more than double the farmers’ price, it is high time to provide farmers with MSP that makes pulses production attractive vis-a-vis crops like wheat and rice.

Procurement prices have been increased in the recent past as a result of which production has gone up in some pulse crops. But merely announcing higher MSPs isn’t enough; the government should commit itself to procuring pulses at the announced MSPs, as it is doing for wheat. Let us not forget the dimension of equity. Pulses are largely grown in marginal lands prone to moisture stress. Offering remunerative prices would not only help the less well-off producers of these regions, but may even induce farmers in irrigated areas to switch from more water-guzzling paddy and sugarcane to pigeon pea, or from wheat to chick pea. In this respect, the recent announcement by the Niti Aayog to create a buffer stock for pulses is a welcome measure. Furthermore, alongside creating a buffer of pulses, if pulses are included in the PDS system it will go a long way to improve the food and nutrition security of the country.
India has the potential to achieve much higher pulse production. To stabilize price of pulses in the long run there is a need to improve and increase domestic production, by eliminating the risks farmers experience in relation to growing pulses. In spite of this India can be self-sufficient in production of pulses by

- Developing Short duration and pest-resistant pulses: Long duration of crops, susceptibility to pests and diseases are some of the reasons why farmers find it difficult to fit pulses in the usual cropping pattern. Recently, on this front there has been some progress. Scientists have evolved short duration varieties of gram and tur, which can be harvested in 100 days. Some salt tolerant varieties like JG-11 for South India have also been released. What is required is more research in fighting pests and diseases and also increasing crop yields. Recently ICRISAT has released high yielding pigeon pea hybrids suitable for irrigated areas which may induce the farmers to take up pulses in irrigated areas provided there is remunerative price for the pulses. Seed multiplication is also a task that requires immediate attention. SAUs, ICAR and KVKs will have to take the lead in seed multiplication and distribution.

- Area expansion: Substantial additional area can be brought under pulses through adopting cropping system like mung/urad bean as catch crop in summer season under cereal-based cropping system, inter-cropping with short-duration pulses (mung, urad, and cowpea) in sugarcane, millets, cotton etc. and new cropping system such as pigeon-pea-wheat in northern region, rice-lentil in eastern region and urad-rice in southern peninsula.

- Targeting large farmers will bring higher returns. Given the high price risk of growing pulses, pulse production by large farmers who possess more than five acres of land would be most prudent. They can diversify into pulses and have greater risk-absorbing capacity in case of inadvertent loss. Large-scale and progressive farmers can be monitored and trained easily.

Though there are no recent data it is more likely that the decrease in pulses consumption will have been greater in the past two years, as India experienced its consecutive second drought and pulse prices spiked. With decreasing rural income it is most likely that the rural poor will not be able to afford expensive pulses which in all likelihood will have a negative impact on the food and nutritional security of the poor.
To commemorate the World No Tobacco Day (WNTD) 2016 and create greater awareness about why India needs to say NO to tobacco, the Ministry of Health & Family Welfare (MOHFW) and WHO Country Office for India in collaboration with HRIDAY (Health Related Information Dissemination Amongst Youth) organized a technical consultation on 30 May 2016 in New Delhi.

Experts came together to discuss tobacco control measures in India, with focus on the new 85% warnings and the WNTD 2016 theme - Get Ready for Plain Packaging.

Speaking on the occasion, Mr Jagat Prakash Nadda, Union Minister of Health & Family Welfare (MoHFW), reiterated the full commitment of the Health Ministry to put in place effective tobacco control measures in the country.

Emphasizing on prevention of tobacco use amongst school children, he highlighted that youth can act as catalysts for tobacco control. Raising awareness among school students should be the focus – they can be advocates of change for their peers, families and society at large. This can be done effectively through school-based programmes underlining the impact of tobacco use on each organ of the body (heart, arteries, lungs, etc.).

The event saw the launch of National Tobacco Cessation Quitline to support users quit services and the release of tobacco control awareness tools: Public services advertisements featuring India’s Tobacco Control Ambassador Mr Rahul Dravid; Factsheet on tobacco use in India for the youth, and Posters on tobacco control measures.

In his address, Dr Henk Bekedam said, “Tobacco taxation and health warnings on tobacco packs are best buys for tobacco control. Large pictorial pack warnings increase public awareness of the serious health risks of tobacco use and ensure that the packaging tells the truth about the deadly product within. Tobacco taxation is win-win, both for revenue generation as well as public health.”

The consultation also encouraged and felicitated young participants of the Art4Health campaign, an all India inter-school design competition organised by HRIDAY on behalf of MoHFW and WHO Country Office for India. The campaign was aimed at raising awareness about the dangers of tobacco use and effectiveness of large and graphic pictorial health warnings on tobacco products, amongst the youth. A street play by students on the theme of ‘use of tobacco’ also reflected involvement of youth as advocates of the Tobacco Free Initiative of India.
Forty million people live in Odisha, where the Government is working to modernise the TPDS in line with India’s 2013 National Food Security Act. The first major step in the modernisation was an overhaul of the beneficiary registration system with biometric identification, culminating in the introduction of new, bar-coded ration cards for some 30 million people. The new registration campaign was a mammoth task.

A public awareness campaign explained eligibility and exclusion criteria; all citizens were able to make applications that went into a streamlined digital database where ineligible applicants were excluded; field verifications took place; the updated list was then published for public scrutiny before being finalised. It was the first revision of the registration system in 20 years, and saw many ‘ghost’ and bogus cards eliminated from the list.

The new, bar-coded ration cards were then distributed to 8 million households - the eldest woman of a household was registered as the holder of the card.

Convenience and transparency
The new cards enable families to collect their monthly entitlements of rice, wheat and millet from any of the 28,000 Fair Price Shops in the state. New electronic-Point of Sale (e-POS) devices are designed to make the process even more transparent: they record all transactions and authenticate biometric credentials.

Overall, the reforms are aimed at increasing transparency, efficiency and convenience for the stakeholders and include digitising the beneficiary database, computerising the supply chain, automation of the Fair Price Shops and developing an effective grievance redressal mechanism and a transparency portal.

Global best practices
WFP is supporting the Government of Odisha in the transformation of the TPDS. WFP drew on its experience in the TPDS reforms in India, augmented by its global expertise in supply chain management and food distribution to offer a compilation of best practices and recommendations for the modernisation process.

“WFP drew on its own institutional knowledge of running food distribution in more than 70 countries, many of them in extremely complex operating environments. We also commissioned research from local experts to identify best practices,” said Dr. Hameed Nuru, WFP India Country Director. “But WFP has so much to learn in India as well. WFP is the world’s largest humanitarian organisation and globally we provide food to 80 million people per year – but the Government of India aims to reach ten times that number through the TPDS.”
Future of Work: The Voice of Young India

On the 10th of May, at New Delhi, The Ministry of Labour and Employment, V.V. Giri National Labour Institute, and the ILO Decent Work Team for South Asia and Country Office for India organized an interactive event on the Future of Work in India and Young People’s Aspirations. The Secretary of Labour and Employment, Mr Shankar Aggarwal, the United Nations Resident Coordinator in India, Mr Yuri Afanasiev, and other senior government and ILO officials, outlined the critical challenges and policy responses for the youth in areas of education, skill development, job creation, entrepreneurship and social protection coverage.

India has the largest youth population in the world with the average age below 35 years. Taking this critical factor into account, Mr Shankar Aggarwal said that the Government is committed to and serious about the issues and challenges faced by the youth. He spoke of skill development, employment and the need for improved technologies.

Ms Panudda Boonpala, Director, ILO DWT for South Asia and Country Office for India, stressed on issues of youth empowerment and involvement. She said how the capturing the voice of the young is crucial to achieve the goal of decent work. Mr Yuri Afanasiev presented the big picture. He contextualized India’s economic landscape from a global economy perspective. He especially talked of harnessing the human capital of the country and creating greater prospects of knowledge via the internet.

The event saw an active youth participation with nearly 200 attendees. The youth representatives spoke of the need for quality education, a thriving job market, and tackling gender-based and other discriminatory practices. A participant said “I come from a region where as a young woman I am not allowed to pursue a career of my choice. Social norms restrict our choices.”

Few youth leaders also discussed the aspect of information reach. They said that connectivity with the remote, rural areas of India needs to be examined. The youth residing in these areas are often left out and face severe unemployment. Many also spoke of how even today the young aspire for government jobs instead of private sector jobs. From issues of brain-drain, to safe working conditions for women, to choices, to involvement in policy framing; a cross-section of views were presented at the event.

A ten minute film titled Youth in India and their Aspirations for the Future of Work was also screened. View it at the ILO India website: http://www.ilo.org/newdelhi/info/public/vid/WCMS_480068/lang--en/index.htm
The 7th Edition of the Raasrang World Flute Festival will be hosted in New Delhi 21-25 September 2016. The Festival is dedicated to the cause of Global Peace; 21 September is observed all over the world as International Day of Peace.

Hosted by the Krishna Prerna Charitable Trust, the Raasrang World Flute Festival is being partnered by United Nations Information Centre for India and Bhutan and ICCR (Indian Council for Cultural Relations). The Festival brochure was released at the UN in New Delhi by Prof. Lokesh Chandra, ICCR President.

Famous Indian flutists Pt. Hariprasad Chaurasia (who is also Patron of the festival), Pt. Ronu Majumdar, Pt. Pravin Godkhindi, Pt. Ajay Prasanna and Pt. Chetan Joshi along with three teams sponsored by the Sangeet Natak Akademi will play rare wind instruments of India.

27 flutists from Italy, Slovakia, Latvia and Afghanistan form the international component of this festival.

Built around the Raasrang World Flute Festival will be other ancillary events:

1. Roots: In association with Sikkim University, the festival will exhibit over 65 languishing wind instruments of India.

2. Music Therapy: Krishna Prerna assists to connect and contact professional musicians to the National Brain Research Center, Manesar, Haryana, to participate in research and a study investigating the “Structural and Functional Correlates of Hindustani Raga Music in Professional Musicians”.

3. Saans: An ongoing endeavour where young aspiring flutists are sponsored for residency under great Gurus; so far 21 students have participated in this unique mentoring initiative.

4. Bansiyog: A unique endeavour to combine Yoga and Flute for relaxation; six workshops shall be held alongside the festival. According to the UN Information Centre: “Just as the magic of the flute emanates from an individual’s breath and suffuses the entire universe, so too the concentric circles in the UN logo radiate from the center symbolizing the individual and then encompass the community, nation, region, eventually energizing the entire world! The 2016 WORLD FLUTE FESTIVAL is a unique opportunity to emphasize the links between peace, development and human rights.”

Arun Budhiraja, founder of Krishna Prerna Charitable Trust, who has conceived this festival, says: “It is so gratifying to see the Flute Festival evolve meaningfully over the past six editions. This seventh brings in the partnership of UN; from next year on; we hope to take this festival to overseas venues too.”

The Raasrang World Flute Festival has relentlessly endeavoured over the past 6 years to raising the bar and is today considered among the most respected festivals of the world.

www.krishnaprema.in
World Albinism Awareness Day

A head of the second global observance of World Albinism Awareness day, UNIC New Delhi collaborated with Jeevan Trust, an NGO that has been working for albinism awareness for the past four years and has done substantive work on the issue. Associating over 200 members, the Trust is working towards creating widespread awareness and finding solutions to the problems faced by people with albinism in India and in the wider Asian subcontinent.

People with albinism are born without the color-giving pigment called Melanin. They appear to be pale or white with white hair all over and pink or purple hued eyes. Globally, one in 17,000 people is born with Albinism and one in 70 is a gene carrier; however, being a recessive gene trait, the overall occurrence of albinism in the society is still rare. As per global estimates, India would have approximately 1.5 lakh persons with albinism (PWA).

The UN has declared 13 June as World Albinism Awareness Day; and the first Day was observed in 2015. The UN Declaration was in response to the demands of PWA’s from all over the world, and amidst the alarming kidnapping and murder of people with albinism in Tanzania and Kenya. There is a widespread superstition in parts of Africa that PWAs possess superpowers and drinking their blood can cure ailments and diseases. More than 200 people have lost their lives in the last 15 years in Africa due to this superstition.

In New Delhi, on 9 June, a panel discussion was organized which was chaired by UNIC NIO Rajiv Chandran. Setting the agenda, Mr. Chandran spoke of the need to tackle issues of superstition, stigma and discrimination and ensure equal opportunities for persons with albinism.

Anubhav Gupta, founder of Jeevan Trust presented various case studies from projects of Albinism that they were pursuing regularly. Mr. Gupta mentioned that while currently albinism was not listed as a disability in India, there was a healthy discussion within the community of persons with albinism whether they should at all pursue being listed as “disabled”.

Mr. Sameer Garg, an albino, was also a panel speaker at the conference. He discussed the challenges that people with albinism face and he said that government should take measures to uplift the albinos economically and socially which would reduce their social alienation.

Dr. Sunil Shandilya, an albino medical doctor running his clinic in South Delhi also talked about his childhood and college days and how difficult it was for him to participate in everyday life without being judged and made fun of by the people.

Dr. Sunita Gur spoke about the need for PWAs to get their vision tested and adopt new aids for improving their eyesight.

Parents of children with albinism also participated in the discussion and shared their opinions and views on how to remove the social stigma around Albinism. To remove the stigma around the Albino community, it is very important to educate and create awareness among the people.

The mass media could play an important role in bringing about this change.

UN Secretary-General’s Message

Albinism is found in every country and society in the world, regardless of people’s ethnicity or gender. Sadly, discrimination and stigmatization of people with albinism also exists to varying degrees all over the world.

Albinism has often been subjected to mystification, triggering erroneous beliefs and myths. The completely mistaken belief that potions or amulets made from the body parts of people with albinism have magical powers has given rise in some countries to a demand for such human remains. This has led to attacks, abductions and killings of people with albinism and even to the theft of their bodies from graveyards.

Thanks to the long history of discrimination and stigmatization of albinism, in some places, people with this condition may live in abject poverty, without access to basic services like accommodation, health care and education.

The 2030 Sustainable Development Agenda pledges to leave no one behind. That includes people with albinism. The cycle of attacks, discrimination and poverty must be broken.
Among the new entrants is Gandhi Global Family from India.

GANDHI GLOBAL FAMILY (GGF) is an NGO propagating the ideologies of Mahatma Gandhi, Martin Luther King and Nelson Mandela in an effort to promote peace, international understanding, communal harmony and friendship by strengthening people to people contact for world peace. Under the patronage of eminent Gandhian (late) Dr. Nirmala Deshpande, GGF was founded by S. P. Varma. The NGO’s prime concern is to develop a channel of communication and understanding among the various communities of the world.

DPI and NGO’s

“Working with civil society as a whole, and NGOs and academia in particular, are key to the United Nations ability to achieve its objectives, particularly Agenda 2030 and the 17 Sustainable Development Goals,” said Mr. Maher Nasser, Director of the Department’s Outreach Division. He added that the Department greatly valued working with civil society and appreciates their support for the work of the Organization.

The Department of Public Information works with diverse non-governmental organizations ranging from small groups to subsidiaries of large networks and academic institutions around the world.

Organizations are required to meet certain minimum requirements before they are associated with the Department.

In addition to their main activities, associated NGOs are expected to use their information assets to disseminate information received from the Department about the work of the United Nations and issues on its agenda to their members and audiences. In 2016, they are expected to join the global effort to support Agenda 2030 and the 17 Sustainable Development Goals. They also have the opportunity to network with other NGOs and to share information about their activities during NGO briefings and the DPI/NGO Conference.

NGOs associated with the Department also play a direct role in planning the DPI/NGO Conference. The sixty-sixth edition was held in the city of Gyeongju, Republic of Korea, from 30 May to 1 June 2016 under the theme “Education for Global Citizenship: Achieving the Sustainable Development Goals Together”.

NGOs that successfully meet the criteria for association with the Department are provided with up to six ground passes (including two for youth representatives aged 18 to 32) to facilitate access to United Nations officials, meetings, events and informational sessions at Headquarters in New York. They are also eligible to propose and lead NGO briefings organized by the Department.

Speaking on behalf of the Gandhi Global Family, its Founder and Vice President S. P. Varma stated that the GGF shared its core values with the UN. Peace, Dignity, Sustainable Development, Human Rights and Participation were all basic tenets that both organizations believed in. Through this platform Gandhi Global Family will spread the message of Mahatma Gandhi, he said.
To raise environmental awareness among youth and combat wildlife trafficking, Gandhi Global Family (GGF) collaborated with UNIC, the J&K Forest Department, Gandhi Peace Foundation (Jammu Chapter) on World Environment Day at Sri Ranbir Higher Secondary School, Jammu.

Mr Roshan Jaggi, Chief Conservator of Forest Jammu Province, chief guest at the event, spoke on major environmental challenges like global warming, deforestation, air pollution, increasing scarcity of water, soil degradation and incremental carbon emissions. Other participants at the observance included GGF Vice President S.P. Varma, Dr. Seema Rohmetra, Coordinator GPF-Jammu, Manju Dutta, Vice Principal of the school and representatives of other civic bodies of the city.
National Institute of Open Schooling (NIOS) observed World Environment Day at Noida in collaboration with the NGO Shoobh and UNIC.

India Eye: International Human Rights Observer in collaboration with UNIC hosted a panel discussion on “Our Environment: Challenges and Responsibilities”

International Chamber of Media and Entertainment Industry (ICMEI) in collaboration with UNIC released a poster promoting World Environment Day.