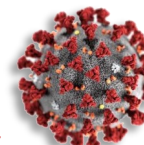


AGRONICA

COVID-19 & CRISIS IN AGRICULTURE

A Newsletter from Centre For Agri-management, Department of Business Administration, UTKAL UNIVERSITY



It Includes

- Covid-19 & E. Gramswaraj
- Covid-19 And Agribusiness
- Covid-19, Agriculture marketing and income of small farmers
- Covid-19 And Crisis In Agri Input Industries
- Covid-19 Crisis & Crisis In Fisheries Sector, Odisha
- Covid-19 And Crop Production, Odisha
- Covid-19 And Self-Reliance Through Integrated Farming
- Covid-19-And Re-Strategize Agri Preparedness
- Strategies To Tackle Agricultural Crisis
- Covid-19 & Sustainability Of Agriculture
- Food Safety Challenges In India During Covid-19 Pestilence
- Covid-19 & Supply Chain By Agri-Startups
- Value Addition to Farm produce: Gateway to economy during COVID-19
- Covid-19, Agril Living Laboratory & Self Reliant Urban Economy

COVID-19 & E. GRAMSWARAJ



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Designed By :

Sameer Kumar Behera
Student, CAM, Utkal University

On 24th April, 2020, the Prime Minister of India in his address to the Nation on Panchayat Divas day, urged all the Sarpanchas to become self-reliant at panchayat level as a lesson taught by the Covid-19. Decades ago similar call was of Mahatma Gandhi who wanted sustainable village economy that would generate employment for people in villages which should be self-dependant. In today's hyper-urbanized world, the cities are swelling with discontented farmers, who have run away from villages for search of work in urban areas. Now we will work to realize Gandhi's dream through Gram swaraj. The current pandemic has stirred the foundation of both rural and urban economies. The rural population depending on agriculture and allied sector have become the worst sufferers due to destruction of farm and non-farm sectors. The agriculture and horticulture produce which are mostly perishable are rotting in field due to lack of transportation and marketing. Condition of livestock sector is the same and the milk are split on the road. And poultry enterprise is at its lowest ebb due to low demand for birds and eggs in apprehension of further spreading of corona virus. Non farm products, and handicrafts are lying unsold. Thus result is low income of the rural population who are now driven to the point of starving. The lender of last resort is Govt relief which is

inadequate. The only solution is self-dependence and swaraj at Panchayat level to fight such an unprecedented crisis and to check migration.

To become self-sufficient the following steps are to be taken:

I) The natural resources, human resources will be estimated and grants received for different developmental activities both from the central and state Governments are to be amalgated to be utilized on planned basis at the Panchayat level. As assured by the P.M the natural resources i.e soil, water, types of land, forest, rivers, hills, streams and flora and fauna are to be assessed by the Drone at each panchayat level.

II) At the Panchayat head quarters, the ward members, village leaders and local representatives will prepare the lists of requirements for Panchayats, after thread bare discussion under the chairmanship of the Sarpanch keeping over all interest of both Panchayat and villages in jurisdiction of panchayat in view.

III) The gap between the estimated resources and the resources to be required to undertake the listed activities will be filled up by loan from the Bank

IV) Then the listed projects are to be implemented as per priority as approved at the Panchayat level on basis of micro planning .

V) Under proper guidance of technical experts, planning for development of all sectors i.e Farm, Non-farm ,handi crafts, village industries will be developed for execution to generate income,employment and to check migration to outside the Panchayats.

VI) (a) Under Farm Sector, suitable crop planning for khariff and Rabi seasons,integrated farming,seed village programme,organic farming,,horticulture and plantation programmes besides water management involving roof top water harvesting are to be undertaken at village level.

b) Among the allied sector activities i.e live stock and dairy farming,poultry and duckery farming,floriculture and mushroom farming and pisciculture ,floriculture and bee farming

are to be developed at village level.

VII) Efforts are to be made for conservation of natural resources and development of rural tourism at the village level.

VIII) For proper marketing and assurance of fair price to farmers the farm producers organizations are to be formed who will arrange for agriculture inputs and disposal of produce at the village level and through e.marketing.

IX) The non-farm sector involving village industries,handi crafts, pottery,Bambo craft,weaving and development of rural tourism are to be developed by hiring experts from outside. Skill development training programme for village youth can be undertaken by these experts.

Thus we will have modest attempt to be self sufficient at Panchayat level through E.Gramaswaraj to fulfill the dream of Mohatma Gandhi as well as desire of the Prime Minister Sri Narendra Modi.

COVID-19 AND AGRI-BUSINESS

The COVID-19 has spread its tentacles across all the sectors of the economy. Agriculture is not an exception to it and thus proceeding through a pessimistic scenario with all its attendant consequences, even though agricultures is the life-blood of the Indian economy. Shortly there is expectation of a bumper rabi crop, this cannot save the sector from the disastrous impact of continuous lockdown, in absence of transportation, shutdown of processing and different post-harvest activities. Thus, it goes without saying that it has its cascading impact on the income, employment and output attributed to agriculture and agribusiness in India.

In so far as processing, value-addition and other post-harvest management in agriculture and allied sector are concerned, sudden disruption in the supply chains of different commodities has simply put it into formidable disarray, characterised by sub-optimal productivity, profitability and employment. It is consequently adversely affecting the vibrancy and the natural resilience of the sector.

The migration of agriculture labourers from relatively agriculturally prosperous regions like Punjab, western UP, and Andhra Pradesh to their home-states in eastern India shall have an immediate adverse impact on the production and productivity in that area. Of course, this adversity offers a unique opportunity for the unlocking of the agricultural potential of the Eastern India by addressing the labour problems in the sector.

The decline in the agricultural activities in the developed regions shall again adversely affect the demand and

production of different inputs like seeds, fertilizers, insecticides and pesticides etc and supply-chains to processing and export industries.

The country can ill afford to neglect the agriculture sector. The extraordinary situation calls for extraordinary measures to bring back the sector to normalcy. To begin with, now the ICAR Institutes in agriculture, horticulture, animal husbandry and fishery etc need to study the immediate impact of COVID-19 and recommend steps for pump – priming of these sectors. Furthermore the agri-business corporates need incentives to help them to overcome the shock of COVID-19.

Dr. B.K.PATY
Ex-Director, MANAGE Hyderabad

COVID-19, AGRICULTURE MARKETING AND INCOME OF SMALL FARMERS



The COVID 19 has hard hit the economies around the world. The countries where agriculture employs a substantial chunk of population like India has been under severe pressure as the producers are predominantly marginal and small farmers. The close down of Mandis, RMCs and other network of agriculture marketing including the transport has almost cut off the supply chain of agriculture produces. As part of the COVID-19 response, many vegetable or farmers' markets were temporarily closed, preventing small holder farmers and their associations like Farmer Producers Organisations (FPOs in India) to sell directly to consumers, leading to loss of income and loss of perishable produce and accumulation of non-perishable produce. At the same time, small-holder farmers that supply to school meal schemes are also affected by the closure of schools. There have been changes in consumption patterns and consumer behavior with reduction in consumption of fresh vegetables and other perishable products that are mostly produced by small holders. Markets witnessed an increase in both staple and long-shelf-life food and also strong increase in e-commerce. These trends led to difficulties to sell perishable produce and hence loss of income. Despite mitigation actions, the crisis disrupted substantially the supply chains in which small holder farmers play a crucial role and from which they derive their income. Smallholder farmers, particularly producers of perishable products, are heavily impacted due to their inability to sell their produce or buy required inputs, the non availability of rural labour and falling prices. In cases of severe disruption, the ability to resume production is at risk. Road closures/blockages and checks preventing small holder farmers to sell products or buy inputs, resulting in loss of income, loss of produce and affecting next season cultivation.

Dr. PRAVAKAR NANDA
ARS

Senior Scientist, ICAR-Water Management, Bhubaneswar

COVID 19 AND CRISIS IN AGRI INPUT INDUSTRIES

Novel Corona virus has hard hit all sectors of the Indian economy. It originated in Dec. 2019 in China and the crisis was felt in beginning of March 2020, when the Govt. of India immediately started taking remedial measures starting from one day Janata curfew with subsequent Four Lockdowns one after another ending on 31th May. The two months of lockdown has affected many industries seriously including the agri input industries.

The main sectors of agri input industries are fertilizer, crop protection chemicals seeds and agricultural implements industries of which fertilizer and crop protection chemicals play a major role in agricultural production.

During the period of crisis fertilizer was in low demand as the Rabi season was about to be over and Kharif season had not started. Though the pre reserved stock of raw materials could manage the situation but the crisis is yet to come. The major problem will be for phosphatic fertilizer as phosphoric acid, ammonia, sulphur, rock phosphate and sulphuric acid are imported for production of phosphatic fertilizer and complex fertilizer. In case of potassic fertilizer 100% is imported. In case the trade routes by sea are not opened, it will create huge shortfall in production and affect kharif crop. Urea being the most demanded fertilizer is well supplied in the country but some percentage is also imported. If international movement of raw material and finished fertilizer are not started quickly it will be difficult to make up the deficit of last two month because of lockdown in production.

Indian Pesticides Industry heavily depends on import of around 15 types of chemical raw material from China. Out of 15 types, Industries are dependent around 80 to 90% for 4 types of pesticides and 40 to 50% on other types of pesticides. The Ministry says that Industries can run smoothly for supplying in Kharif season but after that if normalcy is not restored the Industry and farmer will be hit. Ministry has also suggested not to fully dependent on China. Instead the percentage is to be increased from countries like USA and Germany. Govt. should also encourage backward integration of our industry to reduce excessive reliance on import of chemicals.

Dr. PITABAS RAUTRAY
Ex. General Manager, PPL

COVID19 CRISIS & CRISIS IN FISHERIES SECTOR, ODISHA

Covid19 crisis has impacted fisheries sector in Odisha. The state has large area under capture fisheries in marine and 3.8 lakh hectares under brackish water estuaries used as capture fisheries resources. Around 6 lakh fishermen in marine and 9 lakhs fishermen in inland sector are depended on fisheries for lively hood. Marine sector produced 116170 t of fish per annum while brackish water 65436 tonnes of which fishermen in Chilika alone besides supporting about 1,40,824 fisherme produces 26362 tonnes./annum.

Overall 15 lakhs fishermen in Odisha produce about 1.42 lakhs tonne of fish. Due to lock down they are not going for fishing. The fishermen have already lost 2 months of income and employment and the trawlers are left idle since two months. The associated services such as packaging, transportation and trading are lying dormant causing loss of huge amount of income. As estimated loss is around 300-350 crores of rupees.



In the fresh water sector, the state produces around 400 crores of spawn and received 300 crores from the W.B which is stopped... The local hatcheries are to match with the increased demand by increasing production. A net reduction of 200 crores of spawn is 30 % of the total requirements of the fish seed in the state. In this year farmers will face a reduction in the fish seed by 30% which will be reflected in the production. The fish production will be reduced by 20-25 % which accounts to 70 thousand tonne in the next year. The value of reduced fish production will be around 1000 crores of rupees. Together with marine and freshwater, the state may lose about 600-700 crores of Rupees in the fisheries sector in the state.

Dr. NAGESH BARIK

ARS

Principal Scientist,CIFA,Kausalya Ganga

COVID-19 AND CROP PRODUCTION,ODISHA

The crop production in Odisha has received severe blow from Corona virus for which entire farm operations including current harvesting have been stopped..The crops such as summer paddy, pulses, oilseeds, millets and maize are now in different stages of production.. The Summer paddy under 3.0 lakh ha is at harvesting stage as 80% grains with 80% panicles have changed color .The crop is not able to be harvested manually or by use of Reapers or Combine Harvesters. Similarly sowing of Upland rice in an area of 6.0 lakh ha has been affected due to shortage of labour. As a solution this crop may be replaced with low labor intensive and drought tolerant non-rice crops like maize and millets, pulses like Arhar, Black gram, Green gram, Cow pea, Rice bean; Oilseeds like groundnut and Sesame and the Tuber crops. Besides, Emphasis may be given on intercropping of Aarhar + Rice, Arhar + Groundnut, Maize +Cow pea, Maize + Yam. The Medium and lowland rice in 32.8 lakh hectare has been affected due to shortage of labour ,Seed Drill, Transplanter, Weeder, etc.. Direct seeded rice can be adopted as a resource conservation and climate smart technology. Use of herbicides in large scale can help weeding without labour. The Pulses are grown in 20.0 lakh ha. Non availability of quality seeds and improper management practices will result in low productivity of pulse crops. (508 kg/ha). Farmers may be advised to take up proper agronomic management practices such as liming, seed treatment, seed inoculation with appropriate bacterial culture, and soil test based fertilization. Odisha annually produces 7.0 lakh tones of oilseeds against the requirement of 22 lakh tones for 3.26 lakh ha area during *kharif* and 4.16 lakh ha in *rabi* .

There is less area under maize during *rabi* (19 thousands ha) as compared to *kharif* season (250 thousand ha).e. Area under maize can be extended to tail end of canal, bore well and lift irrigation commands. Promotion of sweet corn, baby corn and protein maize, and integrated approach for management of Fall Army Warm (FAW) can accrue more profit.

. There should be horizontal replacement of quality seeds and availability of agriculture inputs and farm machinery through Custom hiring Centres at Gram Panchayat level.

Dr L M GARNAYAK

Dean Agril. Extension (OUAT)

&

Dr.SUBAS SAHU

Dy. Director Extension (OUAT)

COVID-19 AND SELF-RELIANCE THROUGH INTEGRATED FARMING

The Corona Virus has crippled the entire world economy, industries and offices shut down, villages and towns cordoned off, employment shattered and food distribution get disturbed. The consumers everywhere are facing limited availability of fresh food items and the farmers are facing problems in marketing their farm produces. Wherever possible the farmers are selling perishable produces at throw away prices and at some places they are dumping it without buyers. The whole challenge is thrown to pocket wise restrictions even if corona virus has no relation to agricultural production program. The Poor farmers do not have access to storage/processing infrastructure in most cases as observed the farmer have started committing suicides. Nothing left for the farmer but to prepare himself for the battle who knows how long to continue..

The simple approach to solve the farmer's problem is to plan for micro-geography, let's say a village where the farmer lives. In a lockdown situation, will have to largely rely on the locally available fresh food that includes vegetables, milk, fish, egg and meat. Non-perishable cereals, pulses, oilseeds, and even fruits can be managed either from domestic storages, controlled supplies by govt. or long distance transports. Thus, a village has to be self-relied on fresh produces. Farmers in a village need to grow various crops consumed by the villagers, rear milch animals, meat animals, poultry birds and fishes. Farmers can take up combination of these activities to manage risk and portfolio return. Technically we call it Integrated farming approach.

Compared to mono-cropping, integrated farming offers higher employment to people and greater value realization by the farmer/agri-entrepreneur. After the first phase lockdown, many daily wagers and low earning migratory workers are returning to villages due to industrial close down and sitting jobless. They are relying on govt. support to feed themselves. Integrated farming approach at this hour can engage these people, reduce burden on Govt. and ensure food security to all.

As many guess it, the Covid-19 pandemic is to stay along for quite some time. So, people should be ready to be within their local habitation and help Govt. fight the pandemic out. In the situation, making villages self-reliant on food and employment through integrated farming approach looks to be an idea to work on.

Mr. SUSHANTA KISHORE KHUNTIA
MANAGING DIRECTOR,
DEPENDABLE AGRI SERVICES Pvt.Ltd.

COVID-19-AND RE-STRATEGIZE AGRI PRE-PAREDNESS

The Corona Virus has broken the backbone of the farming community across the country. All categories of farmers are suffering from both backward and forward linkages. The demand has suddenly been collapsed because the big consumers like hotels and restaurants have been closed and the normal consumers are barred to come to the market. On the other side supply is completely passive, unable to be transported due to lock down and rotting in field. This is a lesion for the farmers and agri entrepreneurs how to tackle such unpredicted blows. We should strategise different adaptive as well as mitigate measures to run the supply chain management

As a progressive organic farmer cum Agri- Entrepreneur, I am now involved in production of vegetable and horticultural products. By sudden impact of corona virus, there is distress sale, on availability of farm labours to harvest the crops and to move the vegetable from farm gate to the vegetable vendors. Hence created negative impact on the sale. The abrupt disruption in transport due to lock down has added fuel to the fire. This unbearable loss has broken our backbone

MEASURES TO TACKLE SUCH SITUATION

- * There should be institutional arrangement to provide production and market linkages both at GP and block level. There should be wide ranging discussion among the govt. ngo, and leading farmers and Agri entrepreneur to draw proper strategy to tackle such situation.
- * Individual farmers should have own transport system and agri-implements.
- * The farmers should be issued farmers ID card for smooth operation of their agri-business.
- * There should be Agri-clinics at GP level to provide all kinds of technical support and to provide necessary agri-inputs.
- * The Progressive and Innovative farmers with technical knowledge should be supported by Govt.

Dr. NATABAR ROUT
AGRI-ENTREPRENEUR (ATHAGARH)

STRATEGIES TO TACKLE AGRICULTURAL CRISIS

To contain spread of COVID- 19, the Govt. has to follow the following strategies.1

1. SEEDS

During lockdown period it is imperative that good seeds and other farm inputs reach farmers in time for kharif season. Seeds hubs production facilities are under pressure. During lockdown period unreasonable demand is created by seed distributors / middlemen which need to be tackled by efficient seed distribution to the farmers by public agencies.. Need to allow all sub-traders and manufacturing units associated with agricultural inputs to function. Through pick up/mobile vans and through special window to sustain production

2 MIGRANT WORKERS

On migration of laborers the work related to farming should not stop has been the policy of the Govt. Harvesting has been to be included as essential service during the lockdown period. Availability of Combine harvester needs to be facilitated at panchayat level for harvest of Rabi paddy.



3. MARKETING

The rabi paddy has been damaged in many places due to insect pest attack, lack of application of fertilizers and continued rain at harvest time. Farmers are unable to protect their crops due to non availability of above inputs due to lock down /..Date of commencement of rabi marketing season may be fixed in Odisha and the exercise may be completed by 90 days.

.The crop loss of rabi paddy of the farmers is to be estimated by the village Panchayat .To complete the process and compensation to the loss paid to farmers within fifteen days by the insurance agency. The watermelon, pumpkin, tomato, brinjal,

flowers etc which are in the field are to be procured by the panchayat for its marketing to distant places.- The procured vegetables and fruits grown of the farmers at village level need to be transported through mobile vans/ designated agencies to the doorstep of housing societies and also connecting farmer groups /FPOs to housing complexes and other selling places. As a result profit earned is to be accrued directly to cultivator instead of getting divided among middlemen and wholesale dealers.- a with middlemen chain broken due to lockdown, farmers in many villages are establishing a new network for farmers and consumers (roadside sale, sale near public places..



4. Strengthening supply chains

The supply chain is to be geared up to make buffer stock of food grains and other semi perishable products for 45-60 day- to stabilize market price of farm goods- Daily and weekly brief on agricultural product and input prices is to be made in electronic media, print media, mobile phones etc, for updating farmers about market price and to remove production uncertainties.

State	APMCs	Commodity	Price in Rs.			Commodity Arrival	Commodity Traded	Unit	Date
			Min Price	Model Price	Max Price				
ANDHRA PRADESH	MADANAPALLE	TOMATO	300	300	600	13,050	14,300	Qa	17-05-2020
HARYANA	BARHALLA HIGATI	AMERICAN COTTON	5,405	5,405	5,405	9	5,100	Qa	17-05-2020
HARYANA	SIRSAI	GUAR SEEDS	3,290	3,400	3,550	240	2,364	Qa	17-05-2020
ANDHRA PRADESH	PUNGAUR	TOMATO	570	570	970	1,342	1,342	Qa	17-05-2020
ANDHRA PRADESH	VENKIGANUR	GROUND NUT	3,770	6,140	6,180	1,950	1,262	Qa	17-05-2020
ANDHRA PRADESH	PALAMANER	TOMATO	400	500	600	1,209	1,209	Qa	17-05-2020
ANDHRA PRADESH	KADAPA	GROUND NUT	3,750	4,890	5,700	80	1,022	Qa	17-05-2020

5. Conversion of crop loan. - The crop loan of the farmer is to be converted to medium term loan deferring the loan installment payment. Fresh crop loan will enable the farmers to meet the operational capital for crop production.

Prof R.K MISRA
Prof & Head, Agril-Economics, OUAT

COVID-19 & SUSTAINABILITY OF AGRICULTURE

Coronavirus has produced an uneasy environment for all of us. This has stopped economic activities in every sphere of life. As remedial measure the Government has clamped complete lockdown three times one after another and it has crushed the Agriculture sector. Huge quantities of vegetables, horticulture and live stock products are rotting in field due to lack of transportation and marketing. Price is at its record low due to deficiency of demand. The agriculture sector is now struggling for existence and reemergence. Lakh and lakhs of migrant labourers coming back to the state has become a liability to all of us.

Agriculture and allied sectors have become the last hope for which entire attention is to be focused to revitalize and to make the sector sustainable so as to afford a sustainable living to the small and marginal farmers. The basic problem lies with the perishability of agriculture products and their indifference to market price. Through the agribusiness techniques i.e. processing, storage, transportation, packaging and e-marketing etc the products are to be made more sensitive to market price and the producers should no more be the price takers and suffer from less income. The rural youth with skill development training programme can apply modern technologies to agriculture such as Organic Farming, bee keeping, mushroom farming, drip irrigation, dairy farming and pisciculture to increase level of income.

Main Objectives will be to enhance the farmer's income, and solve unemployment problems, through market linkage with the help of Farmers groups, SHGs and NGO. The need is to promote agri entrepreneurs, Rural Tourism, and utilization of modern Farming Technology.

ANURADHA MISRA

Asst. Professor, CAM, Utkal University

FOOD SAFETY CHALLENGES IN INDIA DURING COVID 19 PESTILENCE

The current global pandemic of corona virus (Covid 19) and measures taken to reduce its spread have abruptly disrupted around the world, and so as to India. India, as part of the global community has been adversely impacted by ongoing health crisis. If correct measures are not taken this global pandemic also lead to food security crisis in India.

The first case of Covid 19 was reported on 30 January 2020 but the daily routine lives of each and every Indian took a turn

when nationwide lockdown was declared on 21 March 2020, for 21 days. During this lockdown period although the supplies of staples, fruits, vegetables and meats have been adequate, but still there are threat towards food security and as well as food safety in the long term. Relief is that our central and respective state government has already started to work on this direction. To tackle coming situation it would be important to prepare trainers at Government institute like ICAR to train farmers as well as food processors to be aware of the changing farming practices and processing methods. In order to overcome the problem of food crisis there should be uninterrupted supply of packaged food. In this mayhem situation only the packaged food supply provides solution to fight food crisis. It is exigency to bolster the food processing industry because the packaged food can be stored for longer period of time, high shelf life, affordable and quickly distributed to the various parts of the country where the supply of food is obstructed.



There are certain measures to be adopted by the food processing industry to overcome the challenges while packaging the food items.

- The food should be packed at low pH so as to suppress the growth of pathogenic germs.
- No oxygen evacuation, aerated with nitrogen heat during packaging process should be followed carefully.
- The food should be passed through UV rays so as to decontaminate the growth of micro organisms.
- The food company strictly follows Good Manufacturing Practices and deployed HACCP technique. In order to ensure quality.
- The employer should be impregnated with hygienic education and an application of sophisticated food technology.

Mr. SHANTANU RAJ

Research Associate, Dept. of Business Administration
Utkal University

COVID-19 & SUPPLY CHAIN BY AGRI-STARTUPS

By the current pandemic crisis the traditional food supply chain has been disrupted due to shortage of labour. Due to low market demand, coupled with inability of small and marginal farmers to market their produce properly on account of poor post-harvest management the entire food supply chain has been severely affected. This pandemic will also affect the Kharif sowing and procurement as well.

In this situation, Agriculture start-ups will be the game changer. The COVID19 pandemic has, stagnated the economic activities of the country. Starting from the large corporate to small Kirana stores is facing deficiency of demand for their products and services. The agriculture start-ups growing at rate of 25 percent per year are able to bag capital funding of \$330 million in 2019. Agriculture start-ups are integrating digital technologies and innovative business process in their services to furnish aggregation and dispersal of farm produce from point of origin to point of consumption.

Many start-ups are connecting the farmers with institutional buyers, with other stake holders i.e retailers, e-commerce, food processors, etc. Two farm start-ups Nijacart and Shop Kirana are supporting small farmers by using digital portals and tech based logistic networks. These two start-ups are connecting farmers with retailers. During lockdown the Nijakart is ensuring smooth movement of the entire supply of Vegetables and fruits to the retailers and the procurement system. The Bigbasket company has seen 3-6x in demand which leads to delay in delivery due to insufficient manpower, and has started hiring new warehouse staff. Goffers and Amazon and Paytm mall are entered into hyper local delivery model to ensure the delivery of food grains and fruits.

The Intello Labs, Agricxlab and Zense are providing quality assay and standardization service through digitalization and mobile app for quality checking. At Agri-input business level i.e seed, fertilizers and agrochemicals, start-up players p.e. BigHaat, DeHaat & Agrostar are offering door step delivery service of agri inputs and agriculture extension services. The farmers directly deal with digital tools to eliminate the middle man and guarantee maximum benefit to farmers.

Mr. KHARABELA ROUT
Alumni, CAM, Utkal University

VALUE ADDITION TO FARM PRODUCE : Gateway to economy during covid-19

Corona virus crisis hits farmers & collapsed supply chain. In times of lockdown, farmers are finding it difficult to sell farm produce. The farmers were anticipating a good profit this year, but the covid-19 has severely damaged their livelihoods. Most of their produce, especially which has a short shelf life and perishes within a week's time such as fruits and vegetables.

Value addition to farm produce have a significant role to play during and post covid-19. Farm produce have a limited shelf life and highly perishable commodities hence it permits great scope for processing. There are two possible ways for solving this problem. One is the creation / expansion of cold storage facilities in the fruit and vegetable producing regions themselves. Another method is to process the fruits and vegetables into various products which could be preserved for a long time and add to the value of the product. There is also huge demand for ready-to-eat and ready-to-cook products.

There should be different mobile processing unit, which must be equipped to perform functions right from washing of fruits and vegetables to pulping, boiling the pulp, filling it in cans and bottles, sterilising and storing them. These facilities should be available at their doorstep. The farmers can make value added product out of their fruits and vegetables. As far as our state is concern, we may consider milk, mango, cashew fruits and tomato. This way our country can prevent distress selling or dumping the farm produce during this covid-19.

The supply of milk marginally affected Odisha. Many dairy farmers dumped hundreds of litres of milk on the road. Milk can be processed by using local technology to convert it into high-value, concentrated and easily transportable dairy products with long shelf-lives, such as butter, cheese and ghee with the support of FPOs.



For example, mango, the king of fruits is found in all most all over the State of Odisha. There are innumerable varieties of traditionally grown elite and country mangoes. This mango can play a crucial role in attaining food security. A variety of value-added products can be developed from mango, which has a huge market in the country and abroad.

Mr. DEEPAK RAM
Centre Head, Centre For Agri-Management
Utkal University



COVID-19, AGRIL LIVING LABORATORY & SELF RELIANT URBAN ECONOMY **(Novel Idea)**

The urban economy has tripped from slowdown to shutdown, from despair to distress in wake of COVID-19 pandemic. The lockdown has its serious impact specifically more on life of the neglected section of the urban population. The crisis has come down heavily on existence of these vulnerable section including i.e owners of small shop ,tea & panshops ,tiffin shops, veg carts, footpath business units, ,street vendors and slum dwellers who work as laborers and females members as maid in different establishments and private houses. Earning of these people stopped suddenly for which they depend on relief kitchens for life.

To combat such crisis these people can take up certain agriculture and its allied activities involve nominal technical training as well as less investments for subsistence living. These enterprises have also been successfully experimented in Agriculture living laboratory of the Centre for Agri-management, Utkal University, within less than half acre of land. These enterprises can be taken up by family members without depending on hired laborers. Among these agriculture activities are kitchen gardening, raising of nurseries, back yard cultivation of vegetables i.e brinjal, chilli, bhindi, cucumber, papaya, spinac and pumpkin etc, These vegetables can be organic (with application of cow dung and vermicompost) which have growing demand in urban areas. Easily they can take up roof

top gardening, hydroponics, roof top water harvesting for irrigation and floriculture. Such agricultural practices which require less space moderate investment and reliable source of extra income and the dependence on market will be less. Apart from these agriculture living laboratory also includes allied sector activities like Mushroom cultivation, Honeybee keeping, Poultry, Duckery farming & dairy enterprise at a small scale. Female members also prepare multigrain Chatua and Turmeric Powder.



Marketing is not a problem of all these products as the consumers will lift the products from place of production. A family can be assured of at least income of rupees 5-7 thousands for month in face of any such crisis. Some activities are subsidiary to the main regular activities.

PROF . BENUDHAR BHUYAN
ADVISOR,CENTRE FOR AGRI-MANAGEMENT
UTKAL UNIVERSITY



**LIVING LAB. IN R.T.P, UTKAL UNIVERSITY
DEVELOPED BY CENTRE FOR AGRI-MANAGEMENT**

AN ETHICAL INVENTIVENESS OF CENTRE FOR AGRI-MANAGEMENT, UTKAL UNIVERSITY

Centre for Agri-Management (CAM) offers a two-year Post Graduate Program in Agribusiness Management -MBA (Agribusiness) in Utkal University since 2006 with a consistent placement record and academic excellence. The CAM developed a Living Lab (learning & experimental platform) at the Utkal university campus as a live project hub, to guide students, SHG members, farmers and any interested person, to develop sustainable Agro -Enterprises involving Nursery, Mushroom cultivation, Duck-Fish integrated farming, Natural farming, vermin compost, bio compost, bee keeping, protective farming, urban farming and etc.

The CAM is planning to develop some campus garden with nutritional value in different Schools with the support of Government, public sectors and private sectors.

Admission Schedule for the 15th Batch (2020-22) of the Master of Agribusiness Management (MBA (Agribusiness)) programme: visit www.camutkal.ac.in

Theme of the Next edition will be on Agri-start up
(Area related to agriculture & allied sector)

Knock out the Quaterly

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Centre For Agri-Management,
Department of Business Administration,
Utkal University, Vani Vihar
Bhubaneswar-751004
Phone (0674)-2567035,9437184266
Email: academic@camutkal.org