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# FACT

## Farm And Crop Times

News Magazine on Global Farming and Agricultural Affairs  
RMN Digital Magazine | December 2020

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Farmers protesting in India. Photo: AIKSCC



An Editorial Initiative of Raman Media Network (RMN)

Editor: Rakesh Raman

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This is the inaugural issue of F A C T (Farm And Crop Times) news magazine. With your feedback and support, we will improve the content quality of the magazine. ~ Editor

# New EU Farm Policy to Protect Farmers' Income

The Parliament wants this legislation to give farmers predictability, stability, and financial continuity, especially in light of the Covid-19 pandemic.

The European Parliament, the European Commission, and the Council had agreed in June 2020 on a proposal that ensures key provisions for farmers are maintained until 2022.



Parliament, Council and Commission negotiators moments after reaching a deal on an EU recovery package for farmers and rural areas on November 10, 2020. Photo: European Parliament

Existing Common Agriculture Policy (CAP) legislation will be replaced with a new framework but delays in the new CAP negotiations mean a transitional period is needed to ensure farmers do not lose their income and that agricultural production in the EU is secured.

Launched in 1962, the EU farm policy aims to improve agricultural productivity, promote rural development, and address environmental and climate challenges, as well as ensuring that farmers have a fair income. These goals are achieved through:

- Income support through direct payments to ensure income stability for farmers

- Rewards for environmentally friendly farming and taking care of the countryside
- Market measures to help deal with market crises and boost supply
- Rural development measures to address specific challenges in rural areas

These regularly updated provisions need funding from the EU's long-term budget. The CAP spending accounts for around 34.5% of the EU's 2020 budget. The Parliament wants this legislation to give farmers predictability, stability, and financial continuity, especially in light of the Covid-19 [pandemic](#), which significantly affected the agricultural sector.

The Members of European Parliament (MEPs) recently agreed on their negotiating position for the CAP reform negotiations for 2023-2027, which includes supporting small scale and young farmers, supporting farmers in crises, and promoting climate-friendly practices.

The Parliament wants to distribute the €8 billion in EU recovery aid for farmers, food producers, and rural areas to finance their resilient, sustainable, and digital recovery in the next two years.

## How Climate Change Poses Threat to Soil Biodiversity

**The overuse and misuse of agrochemicals remains one of the major drivers to soil biodiversity loss.**

In order to address the increasing challenges of soil management, the Food and Agriculture Organization (FAO) has launched the “Keep soil alive, protect soil biodiversity” campaign.

It aims to raise awareness of the importance of sustaining healthy ecosystems and human well-being. By encouraging people around the world to engage in proactively improving soil health, the campaign also aims to fight soil biodiversity loss.

Although soils are essential for human well-being and the sustainability of life on the planet, they are threatened by human activity, [climate change](#), and natural disasters.

The overuse and misuse of agrochemicals remains one of the major drivers to soil biodiversity loss, thus reducing the potential of soil biodiversity for sustainable agriculture and food security. According to FAO, other threats include deforestation, urbanization, soil structure degradation, soil acidification, [pollution](#), wildfires, erosion, and landslides, among other issues.



**The State of Knowledge of Soil Biodiversity. Photo: FAO**

Nature-based solutions involving soil microorganisms have a significant potential to mitigate climate change. They play a key role in carbon sequestration and reducing greenhouse gas emissions.

A new FAO [report](#) on “The State of Knowledge of Soil Biodiversity” examines the potential of soil organisms in ensuring sustainable agri-food systems and mitigating climate change.

The report found that farming activities are the biggest source of carbon dioxide and nitrous oxide gases emitted by soils, which derive from the overuse or misuse of nitrogen-containing fertilizers. Generally, there is a lack of detailed data, policies, and actions on soil biodiversity at local, national, regional, and global levels.

The report highlighted the need to promote the necessary shift to include biological indicators of soil health along with physical and chemical ones.

According to the report, the adoption of sustainable soil management practices by farmers, as a basic premise for preserving soil biodiversity, remains low due to the lack of technical support, provision of incentives and enabling environments, and needs to be scaled up.

## European Union to Release Greener Farm Policy

**The MEPs call on Member States to encourage farmers to dedicate 10% of their land to landscaping that is beneficial to biodiversity, such as hedges, non-productive trees, and ponds.**

The future farm [policy](#) of the European Union (EU) should be more flexible, sustainable, and crisis-resilient, so that farmers can continue to deliver food security across the EU. The Members of the European Parliament (MEPs) have adopted their position on the post-2022 EU farm policy reform. The European Parliament negotiating team is now ready to start talks with EU ministers.

The MEPs endorsed a policy shift that should better tailor the EU's farm policy to the needs of individual Member States but they insist on maintaining a level playing field across the Union. National governments should draft strategic plans, which the Commission will endorse, specifying how they intend to implement EU objectives on the ground. The Commission would be checking their performance, not only their compliance with EU rules.

“The objectives of strategic plans shall be pursued in line with the Paris Agreement,” the MEPs say.

Parliament strengthened mandatory climate and environment-friendly practices, the so-called conditionality, that each farmer must apply to get direct support. On top of that, the MEPs want to dedicate at least 35% of the rural development budget to all types of environmental and climate-related measures. At least 30% of the direct payments budget should go to eco-schemes, which would be voluntary but could increase farmers' income.

The MEPs insist on setting up farm advisory services in every Member State and allocating at least 30% of their EU-sponsored funding to help farmers fight climate change, manage natural resources sustainably, and protect biodiversity.



**Harvest of the barley – Combine harvester. Photo: European Parliament**

They also call on Member States to encourage farmers to dedicate 10% of their land to landscaping that is beneficial to biodiversity, such as hedges, non-productive trees, and ponds. The MEPs voted to progressively reduce annual direct payments to farmers above €60 000 and cap them at €100 000. However, farmers could be allowed to deduct 50% of agriculture-related salaries from the total amount before reduction.

At least 6% of national direct payments should be used to support small and medium-sized farms but if more than 12% is used, the capping should become voluntary, MEPs say.

The EU states could use at least 4% of their direct payments budgets to support young farmers. Further support could be granted from the rural development funding where young farmers' investments could be prioritized, MEPs say.

Parliament stresses that EU subsidies should be reserved only for those who engage in at least a minimum level of agricultural activity. Those who operate airports, railway services, waterworks, real estate services, permanent sports and recreational grounds should be automatically excluded.

## **Common Agricultural Policy**

The Common Agricultural Policy (CAP) is one of the oldest common policies in the EU. Its significance is reflected in the proportion of the EU's budget devoted to it, representing approximately 40% of the total.

Developed at a time when Europe was unable to meet most of its own food needs, it was necessary to encourage farmers to produce food by means of guaranteed prices. The policy has undergone regular reform and has evolved over the years.

As part of the preparation of the EU budget for 2021-2027, the European Commission put forward a new set of regulations to shape the future CAP on 1 June 2018. The proposal for a regulation on the financing, management, and monitoring of the CAP provides the legislative framework for adapting the financing, management, and monitoring rules to a new CAP delivery model.

The MEPs rejected all proposals to reserve meat-related names for products containing meat. Nothing will change for plant-based products and the names they currently use when being sold.

Parliament pushed for further measures to help farmers cope with risks and potential future crises. It wants the market to be more transparent, an intervention strategy for all agricultural products, and practices aiming for higher environmental, animal health, or animal welfare standards to be exempt from competition rules.

The MEPs also want to turn the crisis reserve, helping farmers with price or market instability, from an ad-hoc instrument to a permanent one with a proper budget. Parliament wants to increase sanctions for those who repeatedly fail to comply with EU



requirements (e.g. on the environment and animal welfare). This should cost farmers 10% of their entitlements (up from today's 5%).

The MEPs also want an ad-hoc EU complaints mechanism to be set up. This would cater to farmers and rural beneficiaries who are treated unfairly or disadvantageously with regard to EU subsidies, if their national government fails to deal with their complaint.

The strategic plans regulation was approved by 425 votes in favour to 212 against, with 51 abstentions. The regulation on common market organization was approved by 463 votes in favour to 133 against, with 92 abstentions.

**According to the World Bank, agricultural development is one of the most powerful tools to end extreme poverty, boost shared prosperity, and feed a projected 9.7 billion people by 2050.**

The regulation on financing, management, and monitoring of the Common Agricultural Policy (CAP) was approved by 434 votes in favour to 185 against, with 69 abstentions.

The last reform of the EU farm policy, established in 1962, dates back to 2013. The current CAP rules expire on 31 December 2020. They should be replaced by transitional rules until the ongoing CAP reform is agreed and approved by the Parliament and Council.

The CAP accounts for 34.5% of the 2020 EU budget (€58.12 billion). Around 70% of the CAP budget supports the income of 6 to 7 million EU farms.

## Putting Farmers First: How Modi Govt Plans to Help Indian Farmers

**The ongoing agricultural reforms under the government's strategy aim to reduce input costs and ensure proper prices for crops.**

As farmers across India are protesting against the new farm laws introduced in September by the government of Prime Minister (PM) Narendra Modi, the government has launched an awareness campaign to educate the farmers.

A new digital booklet released on December 10 explains how the Modi government is planning to introduce agricultural reforms that can benefit Indian farmers and other stakeholders in the agriculture sector.



“Our policy interventions are aimed at helping farmers at every step – *Beej Se Bazaar Tak* (from seeds to the market),” Modi said in his opening remarks in the booklet. *(Photo: PM Modi with a farmer, Photo Courtesy: PIB)*

The 106-page [booklet](#) under the title, Putting Farmers First, claims that the government is following a 4-pronged strategy to double farmers’ income by 2022. The idea, according to the government, is to make farmers prosperous and the agriculture business profitable.

The ongoing agricultural reforms under the government’s strategy aim to reduce input costs and ensure proper prices for crops. The government also plans to create more avenues for income generation.

According to [estimates](#), India ranks second worldwide in farm outputs while agriculture employs 42 per cent of India’s workforce and contributes 17-18 per cent to the country’s GDP.

## EU Releases Agricultural Outlook Report for 2020-30

**Total agricultural land is expected to decline by 0.5 million ha in the EU over the outlook period, reaching 161.2 million ha.**

The European Union (EU) production growth of arable crops is expected to be limited over the next decade. However, digitization will be at the heart of yield productivity gains, improved labour conditions, and higher environmental standards.

These are among the projections for the arable crops market from the European Union agricultural outlook for 2020-30 report published on 16 December 2020 by the European Commission.

Total agricultural land is expected to decline by 0.5 million ha in the EU over the outlook period, reaching 161.2 million ha. In parallel, the EU forest area is expected to continue expanding and reach 161 million ha, resulting with as much forest as agricultural area in the EU in 2030. As for pasture and fodder areas, they are expected to increase, while land dedicated to arable crops should decline.

Total EU cereal production is expected to remain stable over the outlook period, at 278 million t. Even though the agricultural area will decline, yields will increase thanks to enhanced crop rotations, improved soil management, and an increased use of decision support tools.



### European Union Agricultural Outlook for 2020-30 Report

EU total consumption should stabilize at 260 million t by 2030, with a higher food use. As for trade, EU exports are due to strengthen with EU and world prices converging as well as proximity to importing markets such as the Mediterranean region and sub-Saharan Africa.

Regarding oil-seeds, total EU production is projected to increase thanks to sunflower and soy production growing. With a slight rise of oil-seed imports, crushing volumes should increase, with a sustained demand for oil-seed oil in the EU. Finally, consumption of vegetable oils is expected to decline, mostly due to decreasing palm oil imports.

EU protein crops are projected to grow significantly. Production will be driven by a large increase in area and yield improvements. The strong demand for innovative plant protein products and locally produced protein sources should result in a 30% consumption rise.

Furthermore, the EU sugar area is projected to stabilize over the next decade. EU production should grow to 16.2 million tonnes by 2030. Increasing sugar exports in processed products should limit consumption decline, while competitive prices should allow the EU to become self-sufficient and potentially a net exporter of sugar.

The EU agricultural outlook [report](#) for 2020-30 contains all relevant market data, accompanied by an explanation of assumptions, and a description of the macroeconomic environment. The projections and scenarios described in the report were discussed at the annual EU agricultural conference, which was scheduled online on 16-17 December 2020.

## Canadian Farmers Oppose Govt Move to Hike Carbon Taxes

**The Canadian government wants to provide longer-term certainty to its climate action plan by imposing higher penalties on farm polluters.**

Farmers in Canada are outraged over a decision to hike carbon taxes as part of the government's plan to tackle the climate crisis.

In order to achieve net zero emissions in 2050, Canadian Prime Minister (PM) Justin Trudeau's government has decided to increase the carbon price by \$15 per year starting in 2023, raising it to \$170 per tonne in 2030.

Farmers complain that the increase in taxes will make their produce globally uncompetitive. In the original plan announced in 2016, Trudeau's Liberal Party government had imposed a carbon tax of \$20 per tonne, raising it to \$50 in 2022.

However, now the government wants to provide longer-term certainty to its [climate action](#) plan by imposing higher penalties on farm polluters. "As we continue to address the impacts of Covid-19 and ensure our strong economic recovery, we must also

continue to fight climate change for the good of Canadians, our economy, and our planet,” Trudeau [said](#) in a statement.



**Canadian Prime Minister (PM) Justin Trudeau. Photo: Liberal Party of Canada**

But Canada's agriculture industry is perturbed. The Western Canadian Wheat Growers Association [says](#) it is shocked that the federal government is hiking the carbon tax during the middle of a pandemic and with no regard to the impact on the bottom line of grain farmers.

“The federal government has put a carbon tax on everything that is shipped to our farms, but those costs cannot be passed on to the end consumer. We sell our grain at world commodity prices, regardless of our input costs,” said Gunter Jochum, President of the Association.

The introduction of the carbon tax is expected to hurt farmers' income by tens of thousands of dollars for each farm. As the regulations for the new Clean Fuel Standards are being unveiled, the cost of fuel will continue to rise.

This increased cost on greenhouse gas emissions will only take more money out of farmers' pockets. During the 2019 harvest, farmers were charged carbon tax on the fuel needed to dry their grain. At times this cost was as high as 40% of the total bill.

The Association says that the federal government wants to fight climate change, but refuses to acknowledge that grain farmers are actually net zero emitters. In fact, grain farming is a carbon sink.

## **What Is Climate Change?**

**Climate Change refers to the change in the distribution of weather patterns over a period of time – usually measured over decades to thousands of years. Climate Change is caused by natural factors as well as human activities.**

**Natural factors such as variations in solar radiation received by Earth, plate tectonics, and volcanic eruptions contribute to the change in global weather conditions. The human activities that cause Climate Change are referred to as ‘global warming’. In modern environment science, the term ‘global warming’ is interchangeably used with Climate Change.**

**The main cause of global warming or the human-led Climate Change is environmental pollution which contaminates the atmosphere with pollutants such as chemicals and energies. Pollution, therefore, has become a major factor that is causing ‘global warming’ or Climate Change.**

**As compared to the perils of environmental pollution that affect human health, the Climate Change brings mass destruction with floods, droughts, hurricanes, tornadoes, volcanic eruptions, earthquakes, and tsunamis.**

**Climate Change, which is an emerging subject in the global debate on the environment, has assumed greater significance after the 2016 Paris Agreement on Climate Change or Paris Climate Agreement.**

**It is an agreement within the United Nations Framework Convention on Climate Change (UNFCCC) that aims to deal with greenhouse gas emissions mitigation and overall environment protection, starting in the year 2020.**

“Grain farmers have been using sustainable farming technology for decades yet have been given no recognition for our carbon sequestering. This tax increase will only hurt farmers’ income and raise the price of groceries for all Canadians,” said Stephen Vandervalk, Alberta VP of the Association.

The Western Canadian Wheat Growers Association is a voluntary farmer-run advocacy organization dedicated to developing public policy solutions that strengthen the profitability and sustainability of farming, and the agricultural industry as a whole.

## Agriculture Facts and Figures

**According** to the Food and Agriculture Organization (FAO) of the United Nations, plants make up 80% of the food we eat and produce 98% of the oxygen we breathe.

**The annual** value of trade in agricultural products has grown almost three-fold over the past decade to reach US\$ 1.7 trillion. The growth has largely happened in the emerging economies and developing countries. [Read More](#)

**World's** 500 million smallholder farmers who contribute 80 percent of our food are amongst the poorest and most malnourished groups. Therefore, improving the performance of the food system is critical if we are to sustainably feed nearly 10 billion people by 2050 while raising farmer incomes, protecting them from climate change, and helping them thrive. [Read More](#)

## Supreme Court Allows Farmers to Hold Protests in Delhi

**As the Supreme Court has allowed farmers to continue their protests in or around Delhi, the farmers have decided to intensify their demonstrations.**

The Supreme Court of India said on December 17 that the farmers who have been protesting around New Delhi have the right to [protest](#) and they cannot be asked to end their agitation. The Supreme Court took this stance after hearing a bunch of petitions which claimed that the protesters are blocking the roads and therefore should be removed with court's intervention.

Chief Justice [SA Bobde](#) said that it is a fundamental right to protest against a law introduced by the government but the protesters should not damage anyone's life or property.

The court also [said](#) it will refer the matter to a vacation bench and suggested that the government should not take any action to implement the laws until the court takes a

final decision on the issue. Attorney General KK Venugopal, who was representing the government, said he will get back to the court on the issue after discussion.



Farmers protesting in India. Photo: AIKSCC

Chief Justice Bobde added that protests can continue without violence and the police will not do anything to stop the protests.

Hundreds of thousands of Indian farmers have been [protesting](#) on the outskirts of Delhi since November 27 against the new farm laws introduced by the government of Prime Minister (PM) Narendra Modi. While farmers expect the Modi government to repeal the contentious laws, the government has refused to accept farmers' demands.

According to estimates, nearly 300,000 protesters – mainly from the Punjab state – have been camping on all sides of Delhi. As the protests are expected to continue for a long period of time, the farmers (some with their families) have built makeshift homes on the roadsides of the city.

**Modi says that the Parliament of India has given a legal form to the agricultural reforms after a lot of deliberation. However, protesters argue that Modi is autocratically using his party's majority in Parliament to impose anti-people laws.**

Farmers fear that these laws - which are being imposed under the garb of agricultural reforms by the government - will deprive them of their farming rights and they will lose



their lands which will be grabbed by Modi's [capitalist](#) friends. They expect the government to withdraw these laws.

Earlier, in November, the Modi government – through [Delhi Police](#) - had banned farmers' entry into Delhi under the pretext that they will spread coronavirus in the city. Farmers, however, argue that [coronavirus](#) is just an excuse of the Modi government to derail street protests against the government's autocratic decisions.

## **SUPPRESSION OF DISSENT**

A year ago, with a coronavirus excuse, the Modi government had used Delhi Police to forcibly remove the [Shaheen Bagh protesters](#) who were not willing to end their agitation.

Thousands of protesters – mainly women – had been protesting in Shaheen Bagh against the Citizenship Amendment Act ([CAA](#)), National Register of Citizens (NRC), and National Population Register (NPR) announced by the Modi government.

Protesters said that the discriminatory citizenship laws [announced](#) by the Modi government are more dangerous for people than coronavirus. But the government used police force to drive away the protesters from the protest site.

After removing the protesters, the Modi government used draconian laws including sedition and Unlawful Activities (Prevention) Act or [UAPA](#) against some of the protesters who were leading the protests at the Shaheen Bagh site.

A number of protesters including students, social activists, and women were [arrested](#) by the police and sent to prison. As the Modi government used force to end the Shaheen Bagh protest, it is expected that the government will use the same tyrannical scheme against the farmers' protests and farm leaders.

Similarly, the people of Kashmir are not being allowed to freely express their views. Currently, Kashmir is facing extreme human rights [violations](#) being committed by the Indian security forces, as the Modi government has abrogated Article 370 which gave special privileges to the people of Jammu & Kashmir (J&K).

Expecting backlash from the Kashmiris, the Modi government keeps imposing restrictions in [Kashmir](#) and millions of people (most of them are Muslims) have been almost locked in their homes since August 4, 2019 - a day before revoking Article 370.

## **SMEAR CAMPAIGN OF THE GOVERNMENT**

Some mischievous government ministers, rogue members of Modi's party BJP, lapdog media [anchors](#), and blind supporters of Modi government have started defaming the peaceful farm protesters by calling them anti-nationals.

In response, the Editors Guild of India (EGI) said in a [statement](#) that it is concerned about the news coverage of the farmers' protests in the national capital New Delhi.

The EGI observed that certain sections of the media have been labeling the protesting farmers as "Khalistanis", "anti-nationals", and using other such terms to delegitimize the protests without any evidence or proof.

Now there is a possibility that the Modi government may deploy some hooligans to secretly spread violence in farmers' protests. Then the government may use force to scuttle the protest under the pretext of controlling the violence.

It has happened before in February 2020 during the Delhi [pogrom](#) in which more than 50 people (mostly Muslims) lost their lives. The government is also hinting without any substantiation that the protesters may have [links](#) with terrorists to discredit the protesters so that force could be used against them.

Meanwhile, in order to create an impression that the government is willing to hold discussion with farmers, on December 17 Modi [tweeted](#) a vague letter asking the farmers to read it.

Instead of addressing their concerns, the letter again accused the farmers that they are being misled. Modi and his colleagues have been making unfounded [claims](#) that the opposition [parties](#) are misleading the farmers, while there is no effective opposition political party in India. Modi is virtually running a one-party (BJP) state.

The farm leaders [maintain](#) that the government should first repeal the contentious laws before holding any discussion because they have already held half a dozen meetings with government ministers without any meaningful outcome.

As the Supreme Court has allowed farmers to continue their protests in or around Delhi, the farmers have decided to intensify their demonstrations.

## How Indian Farmers Fail to Adopt Scientific Farming Techniques

**India's crumbling crop marketing infrastructure and low farm production levels are also increasing hunger levels in the country.**



Instead of accepting the principles of a free-market system, most farmers in India are dependent on government dole in the form of the minimum support price ([MSP](#)) – a price guaranteed by the government to buy some of the crops. (Photo: World Bank)

As farmers are mostly illiterate, they use archaic farming techniques to work at significantly low productivity levels, which do not give sufficient crop yield. So, they want unjustified government protection.

According to the most recent [data](#) available, the average yield per hectare for rice in India in the year 2017 was just 3.85 tonnes as compared to 9.82 tonnes in Australia. The wheat production level is worse. The average yield of wheat per hectare was only 2.8 tonnes which is far less than 8.9 tonnes in Netherlands. The farm output is equally bad for other crops.

India's crumbling crop marketing infrastructure and low farm production levels are also increasing hunger levels in the country. This is [reflected](#) in the Global Hunger Index 2020 where India staggers with a poor rank of 94 among 107 countries and falls in the 'serious' hunger category.

The Indian farmers failed to adopt scientific farming techniques and since they use excessive synthetic fertilisers and pesticides, their crops are virtually poisonous which

cannot be exported in other countries. While environmental hazards are increasing in India, soon [climate change](#) will also prove to be extremely disastrous for the Indian agriculture sector.

Although organic farming which uses clean and green production methods is an option to earn significantly higher prices for farm products in the market, the farmers never tried to evolve. Moreover, because of their illiteracy, farmers could not establish technology-based supply chain management (SCM) and e-commerce systems to run farming as lucrative business enterprises.

The World Bank has [observed](#) that the current agricultural practices in India are neither economically nor environmentally sustainable and India's yields for many agricultural commodities are low. The World Bank adds that poorly maintained irrigation systems and almost universal lack of good extension services are among the factors responsible for the downturn in the Indian agriculture market.

## USDA-NASA Agreement to Improve Agricultural Research

**The agreement will leverage USDA's connections with the agricultural community and the global marketplace.**

The U.S. Department of Agriculture (USDA) and NASA have signed a memorandum of



understanding aimed at strengthening their longstanding partnership on space-based assets benefitting life on Earth. The agreement brings together NASA's experience with technology development and space-borne Earth science measurements and USDA's

scientific experience and knowledge of agricultural production, resource conservation, food security and safety, and forests and working lands. *(Photo: NASA)*

USDA and NASA will explore research gaps of importance to the agricultural community that could be addressed through innovative Earth observation systems and

technologies developed over the next decade. The collaboration also will address recommendations made in the 2017 National Academies' Earth Science Decadal Survey.

“As we’ve seen over the past 100 years, increasing innovation in agriculture is limitless,” said U.S. Secretary of Agriculture Sonny Perdue. “This partnership between USDA and NASA will bring together the best research, science, and technology we have to offer to help produce more food to feed the growing world. We are continuing an already great collaborative effort to utilize space-based technologies across sectors and into agriculture.”

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“When we combine research on the International Space Station with the amazing capabilities that Earth observation provides, I believe that NASA, in partnership with USDA, could transform farming and bolster agricultural production in ways we can’t even imagine today,” said NASA Administrator Jim Bridenstine. “Microgravity research can unlock secrets in a wide variety of fields, and I’m particularly excited about our agency’s potential impact on next-generation agricultural techniques.”

The agreement - announced on December 17 - also will leverage USDA’s connections with the agricultural community and the global marketplace. The partnership outlined in the agreement will benefit a variety of Earth and space-based goals, including activities in support of NASA’s Artemis [program](#), which will land the first woman and the next man on the Moon and establish sustainable exploration with commercial and international partners.

Plant-related research on the International Space Station, and other space or ground platforms, may lead to creative new ways to improve American and global agriculture,

protect the environment, and contribute to better human health. In addition, the agencies collaborate on education and communication activities to inspire youth in America to pursue careers in STEM and agriculture through the National Science and Technology Council’s Committee on STEM Education.

## How Digital Technologies Improve Food System Outcomes

While digital technologies have significant potential, they also pose several risks that need to be addressed.



Digital technologies have significant potential to improve efficiency, equity, and environmental sustainability in the food system. A range of digital technologies are already leading to: better informed and engaged consumers and producers, smarter farms, and improved public services.

According to a World Bank [report](#), adoption of digital technologies varies significantly across countries, with lower current adoption rates in low-income countries. Increasing adoption will require addressing supply-side factors, such as rural network coverage and availability of digital applications, and demand-side factors, including skills and knowledge, trust, affordability, and complementary investments.

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While digital technologies have significant potential, they also pose several risks that need to be addressed including: an overconcentration of service provider market power; lack of data privacy; exclusion; and cybersecurity breaches.

These risks cut across all segments of the economy, including the food system. In addition, digital technologies should not be viewed as a panacea. Other investments are needed to address the multiple constraints farmers face and to realize the potential benefits of digital technologies.

## Rural Resistance: Protests by Farmers

Raman Media Network (RMN) Company – which is working in diversified content creation, management, and distribution businesses on a global scale – has launched “Rural Resistance: Protests by Farmers” editorial section.

This [section](#) under the RMN news service has been created to cover the agricultural reforms and ongoing farmers’ protests in India. It will carry news, views, and related developments and invites farmers as well as farming experts to share their views which will be published on the site.

You can [click here](#) to visit the section.

## How Scientific Research Helps Combat Farm Challenges

**The goal of AR4D is to improve the resilience, livelihoods, and food security of small-scale farmers in rural communities.**



The contemporary agricultural sector faces many new challenges, from new crop diseases to the impacts of climate change. Yet these challenges can often be combated with new and improved technologies developed through scientific research, suggests International

Fund for Agricultural Development (IFAD). *(Photo: IFAD)*

In addition to addressing large-scale trends, this research can often solve problems encountered by small-scale agricultural producers – with tangible benefits. For instance, low production of crops, livestock and fish can be overcome by turning to newly developed varieties and breeds. Or better nutrition and food sufficiency can be attained by diversifying diets.

According to IFAD, in many developing countries, the connection between this research and agricultural development is weak and there is little investment in agriculture-focused research as the immediate impacts are easy to overlook.

However, IFAD hopes to change that. With additional funding from the European Union, IFAD provides grants to CGIAR [research](#) centres and national and regional institutions in the field of Agricultural Research for Development – AR4D.

The goal of AR4D is to improve the resilience, livelihoods, and food security of small-scale farmers in rural communities, particularly youth and women, through scientific research. IFAD's AR4D programme supports:

- Creating pro-poor technologies
- Facilitating knowledge exchange and documenting research
- Establishing partnerships between research-centric and non-research-centric development institutions
- Improving country-level links between research institutions and food security programmes
- Generating evidence that demonstrates the effectiveness of new approaches for meeting future food and nutrition security needs and fostering resilience, with the goal of guiding policy decisions.

The International Fund for Agricultural Development (IFAD) is a specialized agency of the United Nations.

## Meet the Editor



The editor of *FACT* news magazine Rakesh Raman is a national award-winning [journalist](#) and founder of the humanitarian organization RMN Foundation. Besides working at senior editorial positions with leading media companies, he was writing an exclusive edit-page column regularly for The Financial Express (a daily business newspaper of The Indian Express Group).

Nowadays, for the past more than 10 years, he has been running his own global news services on multiple news sites. He also runs various environment protection, education



awareness, and anti-corruption campaigns, and publishes research reports on different subjects.

He runs an exclusive information [service](#) on elections and politics in the U.S. Recently, he has also launched “Rural Resistance: Protests by Farmers” editorial [section](#) to cover the agricultural reforms and ongoing farmers’ protests in India.

He runs a community-driven anti-corruption social [service](#) “Clean House” to help the suffering residents of Delhi raise their voice against the growing corruption and injustice in housing societies where millions of people live. He has also [formed](#) an environment protection group called Green Group in Delhi.

He creates and distributes a number of digital [publications](#) on different subjects. He is publishing “Covid Health Bulletin” (now, *The Outbreak*) digital [magazine](#) that covers global coronavirus news and related issues.

He is also [publishing](#) *The Unrest* news magazine that covers economic and political upheavals in the world and the *Clean Climate* environment news [magazine](#) as well as *The Integrity Bulletin* that [covers](#) global corruption news and related issues.

He had set up and managed a free school for deserving children for 5 years during 2015-2019 to impart modern education to poor children at the J.J. Colony of Dwarka, Sector 3, New Delhi. Now, after the coronavirus containment, he is again [planning](#) to start such schools for poor and disadvantaged children.

He has been facing increasing threats including death threats for his editorial and anti-corruption work. Recently, the National Human Rights Commission (NHRC) of India issued a [notice](#) to the Commissioner of Delhi Police to protect him and his rights as a journalist. However, the threats to him are increasing.

He had also been associated with the United Nations (UN) through the United Nations Industrial Development Organization (UNIDO) as a digital media expert to help businesses use technology for brand marketing and business development.

Click [here](#) to see his work.

## About The FACT News Magazine

The *FACT* news magazine - produced by RMN Foundation - is being circulated among the top UN agencies, global agricultural organizations, farm unions, political parties, civil society organizations, lawmakers, social activists, politicians, and others in India and abroad.

As the founder of RMN Foundation, I am managing this project independently without any financial or other support. RMN Foundation is looking for sponsors and collaborators across the world who can join hands with it to carry out major campaigns and projects to engage with different stakeholders in the agriculture sector.

### *Contact*



Rakesh Raman  
Founder

[RMN Foundation](#)

463, DPS Apts., Plot No. 16, Sector 4, Dwarka, Phase I  
New Delhi 110 078, INDIA

Call: 9810319059

[Contact by email](#)